#### Eighth Regional 3R Forum in Asia and the Pacific

"Achieving Clean Water, Clean Land and Clean Air through 3R and Resource Efficiency- A 21<sup>st</sup> Century Vision for Asia-pacific Communities" Indore, Madhya Pradesh, India, 9-12 April 2018

# **Country Report**

(Draft)

### <Kiribati>

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This country report was prepared by the Government of Kiribati as an input for the Eighth Regional 3R Forum in Asia and the Pacific. The views expressed herein do not necessarily reflect the views of the United Nations.

# Country 3R Progress Report

Name of the Country:KIRIBATI

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Other Ministries, Organizations, Agencies contributing to Country Report: Ministry of Environment, Lands and Agriculture Development

Timeline of Submission:20 February 2018(Email:3R@uncrd.or.jp)

#### <u>Progress and achievements towards implementation of the Ha Noi 3R Declaration</u> <u>-Sustainable 3R Goals for Asia and the Pacific (2013-2023)-</u>

With the objective of demonstrating renewed interests and commitments of Asia-Pacific countries towards realizing a resource efficient society, the Fourth Regional 3R Forum in Asia-Pacific in 2013 adopted the good-will and legally non-binding "*Ha Noi 3R Declaration – Sustainable 3R Goals for Asia and the Pacific 2013-23.*" The objective of the Country Reporting is to share among international community with various initiatives launched and efforts made (such as new policy instruments, legislations, regulations, institutional arrangements, investments or financing, technological innovation or intervention, partnership mechanisms, such as PPPs, etc.) by the member countries of the Forum in addressing each of the underlined goals of the Ha Noi 3R Declaration. This would help the member countries to share various best practices in 3R and resource efficiency areas across the region. In addition, it would also help bi-lateral and multi-lateral development agencies, donors, development banks in assessing the sustainable needs and challenges of those countries to better plan their existing as well as future capacity building programmes and technical assistance in the areas of 3Rs and sustainable waste management.

With the cooperation of other related ministries, organization and agencies, we request you to kindly fill in the below table as much as possible with relevant data/information. If additional spaces are required, separate sheets could be attached.

Thank you very much for your kind cooperation.

United Nations Centre for Regional Development (UNCRD) Email: 3R@uncrd.or.jp

#### I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

**Goal 1** Significant reduction in the quantity of municipal solid waste generated, by instituting policies, programmes, and projects at national and local levels, encouraging both producers and consumers to reduce the waste through greening production, greening lifestyle, and sustainable consumption.

Q-1 What specific 3R policies, programmes and projects, are implemented to reduce the quantity of municipal solid waste?

Kiribati has an existing recycling system that recovers aluminium cans, PET bottles and lead-acid batteries using container deposit legislation. These items, apart from scrap metals, are the highest value and easiest recovered recyclable elements from the waste stream. These items are processed through the Kiribati Materials Recovery Facility (MRF) at Betio Wharf. Part of the MRF holds scrap vehicles and other metal wastes, and this area could be better utilised if EOL vehicles were bought into the system. EOL vehicles and large whitegoods represent the only remaining substantial part of the waste stream with sufficient value to make export viable at current shipping prices. The existing recycling system operates under the CDL model and can be characterised as an Extended Producer Responsibility (EPR) system.

The Special Fund (Waste Materials Recovery) Act 2004 allows for deposits to be levied on any item at import, for the purpose of paying refunds when the levied item is delivered for recycling. The Act itself does not specify the items, materials, deposits or refunds, it simply sets up a separate government account called a Special Fund, known as the Waste Materials Recovery Fund, into which such deposits are paid; monies paid into the Waste Material Recovery Fund are then available for payment of refunds for recovery of the materials.

Regulations have been promulgated under Section 5 of the Act which provide for general terms regarding how money is refunded, but the actual detail is in the Regulations themselves, and specifically the deposits are enumerated in the Deposits Order under 4 (1) of the Act, in the Schedule provided at Clause 4 of the Order. The refunds are specified in a Schedule under Part III Clause 10 of the Regulations. This legal structure of the deposit and refund arrangements means that to add an additional item to the deposit & refund system merely requires changes to these two schedules, one change in the Order under 4 (1), and the other in the Regulations. Neither of these changes would require passage through Parliament, merely agreement at Cabinet level, and then the statutory public consultation and gazetting periods

Additionally there are also ongoing national and regional projects that have specific focus on improving solid waste management. These includes the NZ funded Urban development program and the EU funded regional pacific hazardous waste management project (PACWASTE) coordinated by the secretariat of the pacific regional environment program(SPREP).

Kiribati has also a draft national waste management strategy developed in 2008 but it has not been endorsed. The strategy uses the 3Rs concept as guiding principle.

Q-2 What is the level of participation of households in "source" segregation of municipal waste streams? (Please check the appropriate box)

 $\Box$  Very High (> 90%)

- □ High (>70%)
- □ Average (50-~70%)
- $\Box$  Low or not satisfactory (< 50%)
- $\Box$  Does not exist

#### I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

**Goal 1** Significant **reduction** in the quantity of **municipal solid waste** generated, by instituting policies, programmes, and projects at national and local levels, encouraging both producers and consumers to reduce the waste through greening production, greening lifestyle, and sustainable consumption.

## Q-3 Total annual government expenditure per capita (US\$ per capita) in municipal solid waste management in 2014-2015

Estimate annual government expenditure for 2014 = AUD\$172,127.00 total population for TUC+BTC (2015 census) = 56,000 expenditure per capita (US\$ per capita) in municipal solid waste management in 2014 = AUD\$3.07( or USD\$3.00/capita)

#### Challenges (policy/institutional/technological/financial) faced in implementation:

One of the challenges when it comes to implementation is the lack of sustainable financing with limited national budget dedicated for solid waste management. Appropriate technologies in terms of recycling are limited and the distant location of Kiribati which make shipping of recyclable waste items costly.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

The draft waste management strategy as aforementioned needs to be reviewed to consider other emerging waste issues at the national level. This includes asbestos, health care wastes, ewaste to name a few.

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

Finalization and implementation of the draft waste management strategy at the national level.

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)
Goal 2Full-scale utilization of the organic component of municipal waste, including food waste, as a valuable resource, thereby achieving multiple benefits such as the reduction of waste flows to final disposal sites, reduction of GHG emission, improvement in resource efficiency, energy recovery, and employment creation.Q-1 Does the central government have policies or support to utilize or reduce the organic waste such as composting, energy recovery and improving efficiency in food processing? Yes
<b>Q-2</b> What is happening to country's organic waste? (Please check the appropriate box)
mostly landfilled
□ mostly incinerated
□ both landfilled and incinerated
mostly open dumped or open burned
<b>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</b> Funding constraints with limited national capacity and non-availability of proper waste management technologies at national level
Examples of pilot projects, master plans and/or policies developed or under development –
include websites where relevant
Phase 2 of the NZ funded project as mentioned earlier has pilot projects on community cleanup
activities including solid waste management awareness programs.
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) Ongoing implementation of the Kiribati integrated environment policy including finalization of the draft national waste management strategy
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all

#### I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

Goal 3 Achieve significant increase in recycling rate of recyclables (e.g., plastic, paper, metal, etc.), by introducing policies and measures, and by setting up financial mechanisms and institutional frameworks involving relevant stakeholders (e.g., producers, consumers, recycling industry, users of recycled materials, etc.) and development of modern recycling industry.

*Q-1 What is the recycling rate of various recyclables?* (Please check the appropriate cell & add more waste streams as relevant for the country)

Rate	Very High	High	Average	Poor	Recycling	Definition
	(>90%)	(>70%)	(50-~60%)		does not	
Туре	× ,	× ,	,		exist	rate*
Paper					✓	
Plastic					✓	
Metal					✓	
Construction					✓	
waste						
e-waste					$\checkmark$	
Aluminium	$\checkmark$				$\checkmark$	
cans						
Car lead-acid	$\checkmark$					
batteries						
PET bottlles	✓					
others						

\*Note: Please specify in the cell which of the following definitions(ie., 1 or 2 or 3) is followed for recycling rate Definition 1: (collected recyclable waste)/(estimated generation of waste)

Definition 2: (volume of utilized recyclable waste)/(volume of raw material)

Definition 3: (volume of utilized recyclable waste)/(volume of collected waste for recycling)

Q-2 What specific policies are introduced at local and national level for prevention or reduction of waste streams – paper, plastic, metal, construction waste, e-waste? No existing policies on these waste streams that have been introduced

#### Q-3 What is the rate of resource recovery from various waste streams?

Rate	Very High	High	Average	Poor	Recycling
Туре	(>90%)	(>70%)	(50-~60%)	(<50%)	does not exist
Paper					$\checkmark$
Plastic					$\checkmark$
Metal					$\checkmark$
Construction					$\checkmark$
waste					
Beverage cans	~				
Lead acid	$\checkmark$				
batteries					
PET bottles	$\checkmark$				
e-waste					$\checkmark$

(Please check the appropriate cell & add more waste streams as relevant for the country)

#### Q-4 What is the level of existence of resource recovery facilities/infrastructures in cities?

			•		•	
	Level	Every Major	Few Major	Does not	Supportive	No supportive
		City	Cities only	exist	policy or	policy or
Туре					programmes	programmes
					exists	
Paper				$\checkmark$		$\checkmark$

#### Voluntary Progress/Achievements/Initiatives in Implementing Ha Noi 3R Declaration (2013~2023)

Country Name: KIRIBATI

Plastic					$\checkmark$			$\checkmark$	
Metal					✓			✓	
Constructio	on				$\checkmark$			$\checkmark$	
waste					,			,	
e-waste					$\checkmark$			$\checkmark$	
3R Goals i	n Urban	/Industrial A	reas (3Rs	in municir	al solid waste	)			
					cling rate				
					s and meas				
n	nechani	isms and	institution	al frame	works invo	lving rele	vant sta	keholders	(e.g.
-			•	-	lustry, users	of recyc	led mate	erials, etc.	) and
		ment of mo							
					' financial) f				
					ancing, limi				ack o
ational ca	pacity a	and absenc	e of proper	r solid wa	ste manage	nent techn	ologies a	t national	level
					0		0		

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Phase 2 of the NZ funded project as mentioned earlier has pilot projects on community cleanup activities including solid waste management awareness programs

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

Finalization and implementation of the draft waste management strategy at the national level

 $\Box$  Partially

 $\Box$  Not at all

I. 3R Goals	s in Urban/Industrial Areas (3Rs in municipal solid waste)	
Goal 4	Build <b>sustainable cities /green cities</b> by encouraging " <b>zero waste</b> " throupolicies, strategies, institutional mechanisms, and multi - stakeholder pa (giving specific importance to private sector involvement) with a prima <b>waste minimization</b>	artnerships
	t specific waste management policies and programmes are introduced to e	encourage
In addition	ector participation in municipal waste management? on to the draft waste management strategy there are also ongoing cleanup annually where the private sector is actively involved including church comm	
business s	t are the major waste management areas that have strong involvement of p sector? (Please check appropriate boxes and add other areas if not listed belo	
$\Box$ waste co		
	ce recovery	
🗆 waste re		
	to energy, composting, etc.	
	ojects in waste sector	
Funding columited go	es (policy/ institutional/ technological/ financial) faced in implementation: constraints in terms of sustainable financing for solid waste collection and overnment budget with lack of national capacity and absence of proper se nent technologies at national level	
	s of pilot projects, master plans and/or policies developed or under developed we were relevant	lopment –
There are being dev	e no specific pilot projects related to Zero Waste. There is a stakeholder's particular of the NZ funded urban development program to oversentation at national level	
Important	t policies/programmes/projects/master plans the government plans to	undertake
Review of	ext five years (2016~2021) f the Kiribati integrated environment policy(KIEP) and its implementation. waste and chemical management as key thematic area requiring national ar	
Is this God	<i>pal relevant for your country</i> ?	t at all

Goal 5	Encourage the <b>private sector</b> , including small-and medium-sized enterprise
Gual S	(SMEs) to implement measures to increase resource efficiency and productivity
	creation of decent work and to improve environmentally-friendly practices through
	applying environmental standards, clean technologies, and cleaner production.
	at are the major clean technology related policies aiming to increase energy an efficiency of SMEs?
There are	e no major clean technology related policies aiming to increase energy and resourc
efficiency	y of SMEs in Kiribati
capacity	at are the capacity building programmes currently in place to build the technicd of SMEs in 3R areas?
<i>capacity</i> none	
capacity none Challeng	of SMEs in 3R areas?
capacity none Challeng Not appl:	of SMEs in 3R areas?
capacity none Challeng Not appli Example	of SMEs in 3R areas? ges (policy/ institutional/ technological/ financial) faced in implementation: icable
capacity none Challeng Not appli Example include v	of SMEs in 3R areas? ges (policy/institutional/technological/financial) faced in implementation: icable s of pilot projects, master plans and/or policies developed or under development
capacity none Challeng Not appli Example include v	of SMEs in 3R areas? ges (policy/institutional/technological/financial) faced in implementation: icable s of pilot projects, master plans and/or policies developed or under development
capacity none Challeng Not appli Example include v None Importar	of SMEs in 3R areas? ges (policy/institutional/technological/financial) faced in implementation: icable is of pilot projects, master plans and/or policies developed or under development vebsites where relevant
capacity none Challeng Not appli Example include v None Importar	of SMEs in 3R areas? ges (policy/ institutional/ technological/ financial) faced in implementation: icable s of pilot projects, master plans and/or policies developed or under development vebsites where relevant nt policies/programmes/projects/master plans the government plans to undertak

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)
<b>Goal 6</b> Promote the <b>greening of the value chain</b> by encouraging industries and associated suppliers and vendors in socially responsible and inclusive ways.
Q-1 What percent of companies and industries have introduced green accounting and
voluntary environmental performance evaluation (Ref: ISO 14000)?
$\Box \text{ Very High } (>90\%)$
$\Box \text{ High } (>70\%)$
$\Box \text{ Average } (50-70\%)$
$\Box$ Low or not satisfactory (< 50%)
□ None
Q-2 What percent of companies and industries have introduced social accounting (Ref: SA 8000) in consultation with their workers?
$\Box$ Very High (> 90%)
□ High (>70%)
□ Average (50-~70%)
$\Box$ Low or not satisfactory (< 50%)
□ None
Q 3 Does government have a programme for promoting greening of the value chain? What specific policies, programmes and incentives are introduced to promote greening of value chain?
Challenges (policy/institutional/technological/financial) faced in implementation:
none
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
Important policies/programmes/projects/master plans the government plans to undertake
within next five years (2016~2021)
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all

I. 3R Goals in	Urban/Industrial Areas (3Rs in Industrial waste)
	Promote <b>industrial symbiosis</b> (i.e., recycling of waste from one industry as a resource for another), by providing relevant incentives and support.
industrial po	our government have policies and programmes promoting industrial symbiosis in arks or zones? What specific policies, programmes and incentives are introduced industrial symbiosis?
none	
~	many eco-industrial parks or zones or the like, which is supported by the , are there in the country?
none	
Challenges ( none	(policy/ institutional/ technological/ financial) faced in implementation:
	f pilot projects, master plans and/or policies developed or under development – sites where relevant
none	
	policies/programmes/projects/master plans the government plans to undertake five years (2016~2021)
none	
Is this Goal	<i>relevant for your country</i> ?  Highly  Partially  Not at all

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)
<b>Goal 8</b> Build <b>local capacity</b> of both current and future practitioners, to enable the private sector (including SMEs) to obtain the necessary knowledge and technical skills to foster green industry and create decent, productive work.
Q-1 How many dedicated training facilities or centers are there to cater the needs of SMEs and practitioners in the areas of cleaner production, resource efficiency and environment-friendly technologies, etc.?
none
Q-2 Please provide an indicative figure on annual government (US \$) expenditure on building technical capacity of SMEs and practitioners in the areas of cleaner production, resource efficiency and environment-friendly technologies, etc.?
No information available on budget, however Kiribati has passed its regulation on Ozone depleting substances (ODS) under the Montreal protocol
Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Not known at this stage
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>
none
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Not known at this stage
<i>Is this Goal relevant for your country</i> ?  ☐ Highly  ☐ Partially  ☐ Not at all

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)
<b>Goal 9</b> Develop proper <b>classification and inventory of hazardous waste</b> as a prerequisite towards sound management of such waste.
Q-1 Is there a systematic classification of hazardous waste? If so, please attach.
$\Box$ Yes $\Box$ No
<i>Q-2 What specific rules and regulations are introduced to separate, store, treat, transportation and disposal of hazardous waste?</i> There are no specifc rules/regulations on chemicals management(storage, transport, separation etc) apar from in-country chemical management related trainings conducted as part of regional waste/chemical management programs
<b>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</b> Key national challenges include policy/ institutional/ technological and financial
Examples of pilot projects, master plans and/or policies developed or under development - include websites where relevant SAICM implementation plan
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) SAICM implementation plan, Kiribati integrated environment policy and draft waster management plan
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all

	ls in Rural Areas
Goal 10	<b>Reduce losses in the overall food supply chain</b> (production, post harvesting and storage, processing and packaging, distribution), leading to reduction of waste while increasing the quantity and improving the quality of products reaching consumers.
~	t specific policies, rules and regulations, including awareness programmes, are
	<i>d to minimize food or crop waste?</i> ant: Kiribati does not have large scale export on food processed/manufactured locally
1101101010	and infinitial does not have hige scale export on rood processed manufactured rocary
	ere any continuing education services or awareness programmes for the farmers or ral marketing associations on reduction of crop wastes for increased food security?
Not releva	ant due to small scale agricultural farming
~	at is the average wastage of crops or agricultural produce between farms to
	rs, if there is a study in your country?
•	ligh (> 20~ 30%)
$\Box$ High (	
$\Box$ Mediu	m (5~10%)
□ Low (<	< 5%)
□ Neglig	ible (<1%)
Challeng	es (policy/ institutional/ technological/ financial) faced in implementation:
Challeng No policie	
No policie Examples	
No policie Examples	s of pilot projects, master plans and/or policies developed or under development –
No policie Examples include w None Importan	s of pilot projects, master plans and/or policies developed or under development –
No policie Examples include w None Importan	s of pilot projects, master plans and/or policies developed or under development – pebsites where relevant t policies/programmes/projects/master plans the government plans to undertake

Goal 11	Promote full scale use of agricultural biomass waste and livestock waste throug
	reuse and/or recycle measures as appropriate, to achieve a number of co - benefit
	including GHG emission reduction, energy security, sustainable livelihoods in rura
0.1.11	areas and poverty reduction, among others.
-	much amount of $-(a)$ agricultural biomass waste and (b) livestock waste are grossl
generate	d per annum?
No data o	or survey being done on agricultural biomass waste and livestock waste.
	y are most of the agricultural biomass wastes utilized or treated? (Please check all the boxes)
** *	ondary raw material input (for paper, bioplastic, furniture, etc.)
U	/electricity generation
□ <mark>comp</mark>	osts/fertilizers
	r left unutilized or open dumped
□ mostly	open burned
$\Box mostly$ $Q-3 Wha$ of agricu	open burned t specific policies, guidelines, and technologies are introduced for efficient utilization
□ mostly Q-3 Wha of agricu scale eco	open burned t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful
$\square mostly$ $Q-3 Wha$ of agricules scale economics none	open burned t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful
$\square mostly$ $Q-3 Wha$ of agricules scale economics none	y open burned t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful nomic benefits? Relevant websites could be shared for additional information.
☐ mostly Q-3 Wha of agricu scale eco none Challeng none Example	y open burned t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful nomic benefits? Relevant websites could be shared for additional information.
□ mostly Q-3 Wha of agricu scale eco none Challeng <u>none</u> Example include w	t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful nomic benefits? Relevant websites could be shared for additional information. es (policy/ institutional/ technological/ financial) faced in implementation: s of pilot projects, master plans and/or policies developed or under development yebsites where relevant
☐ mostly Q-3 Wha of agricu scale eco none Challeng none Example include w none Importan	t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful nomic benefits? Relevant websites could be shared for additional information. es (policy/ institutional/ technological/ financial) faced in implementation: s of pilot projects, master plans and/or policies developed or under development yebsites where relevant
☐ mostly Q-3 Wha of agricu scale eco none Challeng none Example include w none Importan	t specific policies, guidelines, and technologies are introduced for efficient utilization ltural biomass waste and livestock waste as a secondary material inputs towards ful nomic benefits? Relevant websites could be shared for additional information. res (policy/ institutional/ technological/ financial) faced in implementation: s of pilot projects, master plans and/or policies developed or under development vebsites where relevant

III. 3R Goals	for New and Emerging Wastes
	Strengthen regional, national, and local efforts to address the issue of <b>waste, in particular plastics</b> in the marine and coastal environment.
~	pecific policies and regulations are in place to address the issue of plastic wastes
	nd marine environment?
	grated environment policy
Environmen Council bye	tt Act/ regulations
· · · · · ·	emical management policy
Tutional Ch	ennear management poney
	<b>extent issue of plastic waste is considered in integrated coastal zone management</b> Please check the appropriate box)
□ Very muc	ch 🗆 Somehow 🗆 Not at all
programme	provide a list of centre of excellences or dedicated scientific and research s established to address the impacts of micro-plastic participles (<5 mm) on coastal species? If yes, please provide relevant websites.
Challenges	(policy/ institutional/ technological/ financial) faced in implementation:
none	
	f pilot projects, master plans and/or policies developed or under development – sites where relevant
	policies/programmes/projects/master plans the government plans to undertake five years (2016~2021)
none	
Is this Goal	<i>relevant for your country</i> ?  Highly  Partially  Not at all

#### III. 3R Goals for New and Emerging Wastes

**Goal 13** Ensure **environmentally-sound management of e-waste** at all stages, including collection, storage, transportation, recovery, recycling, treatment, and disposal with appropriate consideration for working conditions, including **health and safety aspects** of those involved.

**Q-1** How do people usually recycle their e-waste (waste electrical and electronic equipment)? (Please check the appropriate box in order of priority by filling in numbers like 1, 2, 3, 4,...etc., for example 1 => Highest priority)

Check if applicable	Number in priority order	
	3	Take to recycling center / resource recovery facilities
	4	Take to landfill
	2	Take to the retailer
	5	Take to local charity for re-use
	6	Take to second-hand shop for re-use
	1	Ship back to the manufacturer
	1	Ship back to the manufacturer
	1	Recycle in another country
	7	Do not know how people dispose

Q-2 What specific policies and regulations are in place to ensure health and safety aspects of those involved in e-waste management (handling/sorting/resource recovery/recycling)?

Occupational, health and safety(OHS) Act

#### Q-3 How much amount of e-waste is generated and recycled per year?

Type of e-waste	Estimated total volume	% of collected by	% of volume recycled
	generated	permitted recycler	in collected
	(ton/year)		
Television			
Computer			
Mobile phone			
Refrigerators			
Washing machines			
Air conditioners			
Others			

Challenges (policy/institutional/technological/financial) faced in implementation:

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

*Is this Goal relevant for your country?* Highly

 $\Box$  Partially

III. 3R Goals for New and Emerging Wastes		
<b>Goal 14</b> Effective enforcement of established mechanisms for preventing illegal and inappropriate export and import of waste, including transit trade, especially of hazardous waste and e-waste.		
Q-1 What specific policies and regulations are introduced to prevent illegal import and export		
of e-waste?		
none		
Q-2 Do you have required number of well-trained custom or other officials (for airport.		
sea-port, land border control, etc.) to track illegal export and import of e-waste?		
$\Box$ Yes $\Box$ No		
Challenges (policy/institutional/technological/financial) faced in implementation:		
Challenges (policy/ institutional/ technological/ financial) Jacea in implementation: Challenges includes: policy/ institutional/ technological/ financial		
Chanenges includes, policy institutional technological infancial		
Examples of pilot projects, master plans and/or policies developed or under development –		
include websites where relevant		
e-waste pilot project under EU funded PACWASTE regional project coordinated through SPREP		
Important policies/programmes/projects/master plans the government plans to undertake		
within next five years (2016~2021)		
Finalizing the waste management strategy		
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all		
<b>1 Is this Oburreterating for your country:</b> $\Box$ Inging $\Box$ I attainy $\Box$ Not at all		

III. 3R Goals for Ne	w and Emerging Wastes			
encou fulfill	essive implementation of " <b>extended producer responsibility</b> ( <b>EPR</b> )" b raging producers, importers, and retailers and other relevant stakeholders t their responsibilities for collecting, recycling, and disposal of new an ing waste streams, in particular e-waste.			
Q-1 What specific Extended Product Responsibility (EPR) policies are enacted or introduced?				
(If there is none,	(If there is none, then skip $Q$ -2 below)			
none				
	le a list of products and product groups targeted by EPR nationally?			
none				
Challenges (polic	y/ institutional/ technological/ financial) faced in implementation:			
	) is new in Kiribati but keen to explore for adoption. t projects, master plans and/or policies developed or under development -			
include websites				
none				
Important polici within next five y	es/programmes/projects/master plans the government plans to undertak ears (2016~2021)			
none				
Is this Goal relev	ant for your country? <mark>□ Highly</mark> □ Partially  □ Not at all			

<b>O-1</b> Wha	t specific policies and regulations are in place for healthcare waste management?
	are waste management plan is in place and is focused on medical waste only
Q-2 Wha	nt is the total annual government expenditure towards healthcare waste management
(US\$ per	·year)?
	estimate of over 120,000 per year (covering 80 bins(@ $$4$ /bin so $$15,360$ /yr plus for cleaning contractor = $$75,360$ /yr (not including incineration costs, staffing and
In total it	is estimated to be over \$AUD120,000/year
	the agencies or authorities responsible for healthcare waste management. of Health and Medical Services & Municipal councils
Q-4 Wha	t is the common practice for disposal of healthcare wastes?
(Please c	heck the appropriate box and add if any other practice followed)
🗆 open d	lumping (untreated)
-	burning (untreated)
	ry landfilling (untreated)
	ry landfilling (treated)
	ost small scale incineration (do not meet air emission standards)
	y controlled air incineration (dedicated/modern medical waste incinerators)
	methods (please specify names: )
Challeng	ges (policy/ institutional/ technological/ financial) faced in implementation: echnological issues and institutional issues
0	
Mainly to	rs of pilot projects, master plans and/or policies developed or under development - vebsites where relevant
Mainly to Example include v	vebsites where relevant
Mainly to Example include v none Importar	
Mainly to Example include v none Importar	vebsites where relevant nt policies/programmes/projects/master plans the government plans to undertake

**Goal 17** Improve **resource efficiency and resource productivity** by greening jobs nation - wide in all economic and development sectors.

Q-1 What specific policies and guidelines are introduced for product standard (towards quality/durability, environment/eco-friendliness, labour standard)?

None. As a small atoll nation, Kiribati does not have manufacturing companies or industries. We simply import goods from overseas-neighboring countries like fiji, NZ and Australia

Q-2 What specific energy efficiency schemes are introduced for production, manufacturing and service sector?

none

Q-3 What specific policies are introduced to create green jobs in product and waste sector?

none

Challenges (policy/institutional/technological/financial) faced in implementation: None

*Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant* 

none

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

none

 $\Box$  Partially

 $\Box$  Not at all

IV. 3R Goals for Cross-cutting Issues			
<b>Goal 18</b> Maximize co-benefits from waste management technologies for local air, water, oceans, and soil pollution and global climate change.			
Q-1 Please share how climate mitigation is addressed in waste management policies and programmes for co-benefits?			
none			
Challenges (policy/institutional/technological/financial) faced in implementation:			
none			
Examples of pilot projects, master plans and/or policies developed or under development –			
include websites where relevant			
none			
Important policies/programmes/projects/master plans the government plans to undertake			
within next five years (2016~2021)			
none			
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all			

# Goal 19 Enhance national and local knowledge base and research network on the 3Rs and resource efficiency, through facilitating effective and dynamic linkages among all stakeholders, including governments, municipalities, the private sector, and scientific communities.

Q-1 What specific policies are introduced to encourage triangular cooperation between government, scientific & research institutions and private/business sector in 3R areas? none

Q-2 Please share the number and list of dedicated scientific institution, or coordinating centers in the areas of 3Rs (e.g., waste minimization technologies, eco-products, cleaner production, recycling technologies, industrial symbiosis, resource efficiency, etc.)? none

Challenges (policy/institutional/technological/financial) faced in implementation: none

*Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant* none

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) none

*Is this Goal relevant for your country*? ☐ Highly <mark>☐ Partially</mark> ☐ Not at all

IV. 3R Goals for Cross-cutting Issues					
Goal 20	Strengthen multi-stakeholder partnerships among governments, civil society, and the private sector in raising public awareness and advancing the 3Rs, sustainable consumption and production, and resource efficiency, leading to the behavioural change of the citizens and change in production patterns.				
	Q-1 Does central government have official dialogue with multi-stakeholders in the process to				
•	formulate 3R-related policies and regulations? Which stakeholders are involved in the				are involved in the
	(Please <u>check all</u> applica	ble)	🗖 In duratuit	1 Association	
	□ NGOs □ Industrial Association □ Local Government □ □ Academic Institution				
	s, please add/specify (	)			
	, please add/specify (	)			
Q-2 What	is the level of NGOs' in	ivolvement i	n 3R, sustair	nable productio	on and consumption,
resource e	fficiency related promo	tional activit	ies? (Please c	check the appro	priate box)
$\Box$ Very h	nigh <mark>🗆 Moder</mark>	ate	$\Box$ Low		Almost Negligible
~	t is the level of citizen and consumption and high	resource effi		se check the ap	
Challenge	s (policy/ institutional/ t	echnologica	l/ financial)	faced in implen	nentation:
none	- (F ),		" J / J		
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant none					
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)					
none					
Is this Go	al relevant for your cour	<i>try</i> ? 🛛 Hi	<mark>ghly</mark> [	] Partially	□ Not at all

	als for Cross-cutting Issues
Goal 21	<b>Integrate the 3Rs</b> in formal education at primary, secondary, and tertiary levels at well as non-formal education such as community learning and development, in accordance with Education for Sustainable Development.
-	vide a list of formal programmes that addresses areas of 3R and resource efficiency as he academic curriculum?
	as begun through primary school curriculum where best waste management practices have incorporated as part of school curriculum.
	ase provide an overview of the Government policies and programmes to promote ity learning and development (non-formal education) on 3R and sustainable waste nent.
Not exis	ting at this stage
	use provide a list of academic and research institutions offering PhD programmes in sof 3Rs and resource efficiency?
none	
have in	use provide a list of management institutions (offering BBA / MBA courses) which tegrated resource efficiency and life cycle assessment (LCA) as part of their um or course development?
None in	Kiribati but available in the region through USP
	Kiribati but available in the region through USP ges (policy/institutional/technological/financial) faced in implementation:
Challeng none Example	
Challens none Example include	ges (policy/ institutional/ technological/ financial) faced in implementation: es of pilot projects, master plans and/or policies developed or under development -
Challen none Example include none Importa	ges (policy/ institutional/ technological/ financial) faced in implementation: es of pilot projects, master plans and/or policies developed or under development -
Challen none Example include none Importa	ges (policy/ institutional/ technological/ financial) faced in implementation: as of pilot projects, master plans and/or policies developed or under development - websites where relevant ant policies/programmes/projects/master plans the government plans to undertake

**Goal 22** Integrate the 3R concept in relevant policies and programmes, of key ministries and agencies such as Ministry of Environment, Ministry of Agriculture, Forestry and Fisheries, Ministry of Industry, Ministry of Trade and Commerce, Ministry of Energy, Ministry of Water Resources, Ministry of Transport, Ministry of Health, Ministry of Construction, Ministry of Finance, Ministry of Labour, Ministry of Land and Urban Development, Ministry of Education, and other relevant ministries towards transitioning to a resource-efficient and zero waste society.

Q-1 Please list the name of the Ministries and major Government Agencies which are promoting 3R and resource efficiency as part of their policy, planning and developmental activities at local and national level.

Not known at this stage

Q-2 What type of coordination mechanism are there among ministries and agencies for a resource efficient economic development?

□ Official regular coordination meeting among ministries and agencies

- □ Official ad-hoc coordination meeting among ministries and agencies
- □ Informal meeting among ministries and agencies
- □ Other coordination mechanisms (please add/specify)

Challenges (policy/institutional/technological/financial) faced in implementation:

none

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant Not known at this stage

Not known at this stage

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) Not known at this stage

*Is this Goal relevant for your country*? Highly Partially Not at all

IV. 3R Goals for Cross-cutting Issues				
Goal 23	Promote green and socially responsible procurement at all levels, thereby creating			
	and expanding 3R industries and markets for environmentally-friendly goods and			
	products.			
O-1 Wha	t specific policies are introduced to promote green and social responsible			

introaucea to promote green ana sociai procurement?

none

Q-2 Please provide details of eco-labelling schemes of your country.

Not available

Q-3 Please provide a list of criteria for eco-labeled products and services in your country.

none

Q-4 Please provide the list of Ministries and major Government Agencies which have adopted green procurement policy.

None

Q-5 What % of municipalities have adopted the green procurement policy?

none

Challenges (policy/institutional/technological/financial) faced in implementation: Not known at this stage

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Not known at this stage

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) Not known at this stage

*Is this Goal relevant for your country?* **□** Highly  $\Box$  Partially  $\Box$  Not at all

IV. 3R Goal	s for Cross-cutting Issues						
Goal 24	Phase out harmful subsidi materials and water) and implementing the 3Rs and eff	energy, and	channel the freed f	funds in support of			
unsustaine of such p implement	Q-1 Are there any government subsidy programmes that directly or indirectly favour unsustainable use of resources (raw materials, water, and energy)? If so, please provide a list of such programmes along with the responsible Ministry or Agency administering and implementing it. Not known at this stage						
0	s (policy/institutional/techno n at this stage	ological/ financ	ial) faced in implem	entation:			
include we	of pilot projects, master pla ebsites where relevant in at this stage	ns and/or poli	cies developed or u	nder development –			
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) Not known at this stage							
Is this God	al relevant for your country <mark>?</mark>	□ Highly	□ Partially	□ Not at all			

Voluntary Progress/Achievements/Initiatives in Implementing Ha Noi 3R Declaration (2013~2023)

IV. 3R Goa	als for Cross-cutting Issues
Goal 25	<b>Protect public health and ecosystems, including freshwater and mari</b> <b>resources by eliminating illegal</b> activities of open dumping, including dumping the oceans, and controlling open burning in both urban and rural areas.
Q-1 Is wa	aste management a public health priority in your country?
yes	
Q-2 What	t are the rules and regulations to prevent open dumping and open burning of waste
Environm	nent Act 2007 and regulation 2009, public health ordinance, council bye-laws
	k the five most important rivers in terms of water quality (BOD values) passi major cities and urban areas?
No rivers	in Kiribati only wetlands but unfortunately we do not have water quality stardards
Q-4 What water bod	t are the specific laws, rules and regulations in place to prevent littering in river a lies?
No regula	ations or laws specific to rivers except for groundwater resources.
Q-5 What	t are the specific laws, rules and regulations in place to prevent marine littering?
Environm	nent Act 2007 and maritime Act 2017
0	es (policy/ institutional/ technological/ financial) faced in implementation: nent of existing acts as aforementioned in terms of institutional/ technological/finance
Examples	s of pilot projects, master plans and/or policies developed or under development vebsites where relevant
within ne:	at policies/programmes/projects/master plans the government plans to undertainer the sext five years (2016~2021) Prision 2020, banning of plastic from importation including levy on imported vehicles.
Is this Go	oal relevant for your country?  ☐ Highly  ☐ Partially  ☐ Not at all

IV. 3R Go	als for Cross-cutting Issues
Goal 26	Facilitate the international circulation of re-usable and recyclable resources as well as remanufactured products as mutually agreed by countries and in accordance with international and national laws, especially the Basel Convention, which contributes to the reduction of negative environmental impacts and the effective management of resources.
Q-1 Wha	t are major recycling industries in your country?
none	
Q-2 Plea	se specify the regulation on transboundary movement of hazardous waste.
party to t	at currently using provisions under waigani and basel conventions since Kiribati is a hese agreements.
	azardous waste, please list it up.
none	
Q-4 Does	s your government restrict import of remanufactured goods?
no	
it as seco	s your government regard remanufactured goods as secondhand goods, and regulate ndhand goods? with no control
0	<i>tes (policy/ institutional/ technological/ financial) faced in implementation:</i> ion of second hand products. Eg. Tv sets, used tyres, reconditioned cars
-	s of pilot projects, master plans and/or policies developed or under development – vebsites where relevant
-	nt policies/programmes/projects/master plans the government plans to undertake ext five years (2016~2021)
	imported vehicles to cover shipments and cleanup costs, banning of plastic bags from ion

IV. 3R Goals for Cross-cutting	g Issues						
<b>Goal 27</b> Promote data collection, compilation and sharing, public announcement and application of statistics on wastes and the 3Rs, to understand the state of waste management and resource efficiency.							
Q-1 Please give an overview on availability of various data and information on material flow							
and waste management b			appropriate	boxes. (Plea	ise respond on b	ooth	
"Data Availability" and M Data Type	Data Availability		Monitoring Base		]		
	Good	Very limited	No data exist	Good	Not good		
Waste generation	$\checkmark$			1			
Material flow		1			1	1	
Cyclical use		1			1	1	
Amount of final disposal	1			1		1	
Disposal to land	1			1			
Direct disposal to water		1					
Import of waste			1		1		
Export of waste		1					
Total landfilled waste	1						
Import of recyclables			1			1	
Export of recyclables	1			1		1	
Hazardous waste generation (solid, liquid, sludge, etc.)		1			1		
e-waste generation							

(Please add any other date type relevant to your country)

Q-2 What are the current and planned government policies and programmes to strengthen data and information availability in waste sector?

We have ongoing projects related to data and information on waste management. These projects are CB2 and Strengthening legal systems, institutions and data collection infrastructure in Kiribati

Challenges (policy/institutional/technological/financial) faced in implementation:

Yet to be known once the projects as aforementioned have completed etc

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Environment Management and Information system to be established as part of the CB2 project and Strengthening legal systems, institutions and data collection infrastructure in Kiribati.

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

Environment Management and Information system to be established

*Is this Goal relevant for your country*? Highly Partially Not at all

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Voluntary Progress/Achievements/Initiatives in Implementing Ha Noi 3R Declaration (2013~2023) Country Name: KIRIBATI

IV. 3R Goals for Cross-cutting Issues				
Goal 28	Promote heat recovery (waste-to-energy), in case wastes recyclable and proper and sustainable management is secured.	are not re-usable or		
	t are the government policies and programmes, includ nergy programmes?	ding incentives, for		
Not applic	able			
Challenge Not applic	rs (policy/institutional/technological/financial) faced in implemable	mentation:		
-	of pilot projects, master plans and/or policies developed or a ebsites where relevant able	under development –		
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) Not applicable				
Is this Go	al relevant for your country?  □ Highly  □ Partially	□ Not at all		

IV. 3R Goals for Cross-cutting Issues					
Goal 29Promote overall regional cooperation and multi-stakeholder partnerships based on different levels of linkages such as government-to-government, municipality-to-municipality, industry-to-industry, (research) institute-to-institute, and NGO-to-NGO. Encourage technology transfer and technical and financial supports for 3Rs from developed countries to less developed countries.Q-1 Please provide a list of on-going bilateral/multi-lateral technical cooperation in 3R areas?					
Q-2 What actions are being taken to promote inter-municipal or regional cooperation in areas of waste exchanges, resource recovery, recycling, waste-to-energy and trade of recyclables?					
Challenges (policy/institutional/technological/financial) faced in implementation:					
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant					
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)					
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all					

IV. 3R Goals for Cross-cutting I	ssues		
• •	ention to issues and channels of the second c	•	eveloping countries
<i>Q-1 Please describe any pa</i> <i>States) countries in 3R area</i>		ion with SIDS (Smal	l Island Developing
Q-2 Please list 3R related pl and sustainable tourism. (T	•		isaster management
Challenges (policy/ instituti	onal/ technological/ finan	cial) faced in implem	eentation:
Examples of pilot projects, include websites where rele		icies developed or u	nder development –
Important policies/program within next five years (2016	1 0 1	ns the government	plans to undertake
Is this Goal relevant for you	<i>r country</i> ?  □ Highly	□ Partially	□ Not at all

IV. 3R Goals for Cross-cutting Issues						
Goal 31	Promote 3R + "Return" concept which stands for Reduce, Reuse, Recycle and "Return" where recycling is difficult due to the absence of available recycling industries and limited scale of markets in SIDS, especially in the Pacific Region.					
~	Q-1 What specific policies, programme, including pilot projects, are implemented to promote 3R+ "Return" concept? (This is to be reported by SIDS countries only)					
Challenges	s (policy/ institutional/ technological/ financial) faced in implementation:					
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant						
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)						
Is this Goa	al relevant for your country?  ☐ Highly  ☐ Partially  ☐ Not at all					

**Goal 32** Complete elimination of illegal engagement of children in the **informal waste sector** and gradually **improve** the working conditions and livelihood security, including **mandatory provision of health insurance**, for all workers.

Q-1 What is the approximate market size (in US\$) of the informal waste sector?

There has been no study or reports undertaken to determine the market size of the informal waste sector.

Q-2 Number of annual labor inspections in waste sector?

none

Q-3 Is health insurance a mandatory to all informal workers in waste sector by law?

No its not mandatory by law.

Q-4 What specific policies and enforcement mechanisms are in place to prevent illegal engagement of children in waste sector?

Family Peace Act 2015(?),

Q-5 Number of landfill sites accessible to register waste pickers?

We have 3 landfills operated by 2 municipalities with paid waste collectors.

Q-6 Average life span of informal waste workers?

We do not have informal waste workers. We have paid workers for waste collection

Q-7 Any government vaccination programmes for informal waste workers?

Yes but unknown if there is any specific vaccination to waste workers

Q-8 Any public awareness programmes for informal waste workers on health and safety measures?

Yes to waste collectors

Challenges (policy/institutional/technological/financial) faced in implementation:

Not known

*Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant* 

none

Important policies/programs/projects/master plans the government plans to undertake within next five years (2016~2021) Enforcement of the Occupational, health and safety (OHS) Act

IV. 3R Goals for Cross-cutting Issues					
Goal 32	Complete elimination of ille sector and gradually impre- including mandatory provisi	ove the working	conditions and li	velihood security,	
<i>Is this Goal relevant for your country</i> ?  Highly  Partially  Not at all					

Goal 33 Promote 3Rs taking into account gender considerations.

Q-1 Please give a brief assessment on how the national, provincial and municipal governments incorporate gender considerations in waste reduction, reuse and recycle.

The importance of Gender balance is recognized by government but no evidence that this is being incorporated in existing plans related to 3R

Challenges (policy/institutional/technological/financial) faced in implementation:

Not known at this stage due to lack of information

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

none

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) None that is specific to 3R

*Is this Goal relevant for your country*? Highly Partially Not at all

Q- Please provide a brief comprehensive summary of important 3R and resource efficiency policies /programmes/ projects/ master plans of your country.

#### "Waste Minimization, an option for Kiribati"

Why is waste minimization important for Kiribati to address chemical and waste related problems?

Unfortunately, Kiribati does not have the luxury of cheap landfill and the appropriate technologies and infrastructure available to address chemical and waste problems due to the following main reasons;

- Limited space or land for landfills
- Vulnerability to storm surges and sea level rise
- No soil to cover or seal the wastes

• Proximity of groundwater resources hence vulnerable for contamination from pigsty wastes, oil/chemical spills including heavy metals etc

• Marine (reef and lagoon) ecosystems that are sensitive to any extra nutrients or contamination

• Limited financial resources

• Isolation/distant location which makes exportation of recyclable waste items too costly/expensive

- Dependence on imported goods to meet public demands
- Lack of national capacity in chemical and waste management
- Increase of population
- Poor enforcement of existing legislations

All these combine to make landfilling and waste management extremely difficult.

Disposal by incineration instead has some major disadvantages. The air pollution risks are usually not as high (as they are on continents), thanks to the large expanses of surrounding ocean. Yet the high costs and challenging technological safety demands of incineration tend to make it an inappropriate disposal solution. Improvements in gasification systems and energy recovery could alter this balance over the next few decades. However, the prospects of turning the mountains of plastic residues into an energy source are likely to remain a fantasy in the foreseeable future.

Waste issues are causing problems because of a combination of factors:

- Disposal is extremely expensive
- Imported goods have significant packaging residues
- There are minimal recycling or re-manufacturing opportunities, and
- Economic bases are usually very narrow and inadequate due to our remoteness

This is exacerbated mainly by rapid population increase on South Tarawa (urban centers) with the associated erosion of traditional governance, strained infrastructure and services, and development of squatter settlements outside of land tenure-based taxation. This powerful, negative mix has no easy, cheap or quick solutions. But some simple policy tools can be used to reduce this problem. With good planning, those policy tools can assist with developing jobs and economic solutions and this information paper can be used as guidance to identify the best choices.

The absence of easy disposal options has some profound implications for waste management. Waste minimization is always a more environmentally desirable option over disposal; but on atolls and small islands like Kiribati, it is truly essential. Accordingly, this guideline explores the many ways by which Kiribati can reduce waste and make use of the inherent resources found in the waste streams.

This guide attempts to consolidate best-practice policy suggestions and real-life examples: these show what's possible and may assist with reducing the impacts of these growing problems. It is designed for government, community and private sector decision-makers and complements. While the primary audience is for atolls and low islands because of their particular vulnerability, much of this guide is equally applicable to any small island state elsewhere.

#### Communications

Almost all waste minimization initiatives require a sound communications programme. Whether it is consulting with business and the public about a new import charge, detailing a deposit and refund scheme, or trying to change behaviour – well targeted communications will be a large part of your success or failure. You need to determine who you are aiming at...businesses, women, who? SPREP has developed a guideline for developing a communications strategy and that will be available on the SPREP website.

The most important aspect of this is to ensure you have developed and budgeted for your communications at the beginning of the project. Too often the need to pay for communications is forgotten until the project is underway and funds have to be scraped together from other allocations. Communications is a vital and integral part of any good minimization strategy and needs to be included from the very beginning.

#### Voluntary Agreements

Regulation can provide a "level playing field" for business and a clear set of rules. Unfortunately, regulation can cost a lot of money to enforce. In Kiribati, enforcement and Voluntary agreements with the private sector can be very useful and productive, especially if backed with clear performance targets and a strong commitment by government to institute regulatory action if targets aren't met. Voluntary agreements can be more quickly instituted than legislation and remain more flexible.

Just as importantly, they can cost government less while gaining more support from the private sector: businesses often know better how to change a product, its use or its consequences. Because voluntary agreements are not law, they do not violate any trade agreements and so can be a flexible way of improving the impact of dangerous products. The private sector can often incorporate advertising at the same time to get a commercial return on the effort. By contrast, voluntary agreements with business tend to sit more easily with the consensus style of governance used in many Pacific cultures. Voluntary agreements still need formal documentation and the assent of all the major companies involved. For

instance, it may be decided that your country wishes to change from non-biodegradable plastic bags to

biodegradable shopping bags. A voluntary agreement with the importers may be sufficient to achieve this. The importers still make the same profit from the new bags and may just ask for enough time

to clear old stock and source new stock from overseas. The agreement could simply say that the government will check compliance within set timeframes and impose legislation if non-biodegradable bags are still being imported.

Voluntary agreements can also be used for developing programmes to reduce negative impact. For example, you may have a problem with disposable nappies (diapers) ending up in lagoons or being spread around by dogs. An agreement with the importers and retailers could be that they fund a public education programme to tell the users how to safely dispose of soiled nappies. If the programme is successful, the problem has been solved without any cost to the government. If the programme proves

unsuccessful, the government can then go to regulation.

Bans

The cheapest and easiest way to deal with an atoll's waste problem is to stop it before it arrives. This can be done through outright bans on material that is thought to be sufficiently damaging or difficult to deal with. Samoa has taken this course by banning nonbiodegradable lightweight plastic bags, and some

places in Tokelau have banned disposable nappies (diapers).

Bans need strong community consultation, as they are likely to cause some concerns from both the consumers and the businesses that sell the goods. PNG attempted to ban plastic bags but the local manufacturers successfully argued that it was unduly harsh on their businesses. The ban was overturned.

Choosing what can be banned without significant public or political backlash is very important. Disposable nappies are a case in point. Unless there is a simple and convenient alternative, mothers will be angry. Also, the water consumption of washing cotton nappies has a significant environmental impact or water-constrained atolls and small islands. In this instance, banning disposable nappies may not be in the best interests of the environment as a whole.

Bans need legislation, but a country's import regulation may already provide the legal power. In practice, bans are relatively easy and cheap to implement, as all countries have existing controls on imports with established infrastructure and personnel. You need to consult with Customs about their view on how best to implement. As the inspection and control is at the point of entry, there is usually no need to monitor shops unless a significant "black market" emerges.

Taxation

Governments around the world have used taxation as a valuable tool in reducing waste: taxation reduces demand by increasing prices. The Irish Government famously reduced lightweight HDPE plastic (checkout) bags by 90% in the first 6 months by applying a per bag levy equivalent to US20c. Not only did they reduce the number of bags and their associated negative costs of litter, public health and tourism discouragement they also raised significant sums for the government, which were used for environmental management.

Taxation has the advantage of allowing for differential taxes. For example, some bags are more problematic than others and can have a different tax. Taxes also can be gradually increased to reduce the economic impact on local importers or manufacturers. It can also be used to influence consumer choice by making one particular product or packaging less desirable. Some countries have tried to reduce the use of disposable nappies (diapers) by placing a levy on them to pay for their management. Analysis indicates that the product demand is very strong and very little drop in consumption has occurred. However, the government now has a source of funds to pay for educating the public on safe disposal.

#### Deposit and Refund Systems

Deposit and refund schemes have proved successful in many places in the Pacific for encouraging the return of materials by the public. They involve a small levy being paid on purchase; the money (minus the costs of the scheme's administration etc.) being refunded when the materials are returned to the designated place. Beer bottles are a familiar and successful example, but the same principle can be used for many items. Cars need to be returned before they can't roll anymore – otherwise they need cranes or other expensive heavy machinery to manipulate them. A simple deposit paid on entry to the country can be used to get them returned for a refund at a central point, where they can be separated into parts for export and recycling. Just as importantly, a percentage of the deposit can be retained to cover the costs of exporting the car bodies and for the disposal of the unrecyclable components.

Thus, a deposit / refund scheme can facilitate the consolidation of recyclables to a depot without any expansive collection costs, reduce waste disposal costs, influence consumption patterns, and provide funds to pay for the recycling or disposal of the item involved.

The system can also assist in economic development if run by the private sector and is best operated by someone experienced with the import and export system. It may be advisable to begin the scheme using the government and then put it out to tender when the system is running well. Alternatively, there may be an existing aluminium can recycler who would be an appropriate operator for other materials from the beginning.

You will have to decide how to handle future expansion into less and less valuable materials.

Aluminium cans generate more money than they cost, but almost all other materials require subsidies. A private sector operator will only wish to handle the most profitable materials whereas the most environmentally damaging ones need to be gathered also. Contracts need a fair and flexible mechanism to enable government to expand the materials yet pay a fair price to the operator. This can be handled through an "operator's cost plus agreed profit margin" clause, which will provide for new and possibly unforeseen materials. Your system must be financially sustainable or it will fail over the longer term. Deposits and refunds are a proven and very cost-effective way to minimize waste but they do have practical issues. A major issue that has emerged in some countries is ensuring the government doesn't use the deposits for other purposes. If they do, there is no money to pay the refunds and the public gets very angry. Thus, deposits need to go into a "safe" central account that is only used for either the refunds or paying the costs of the waste system. The money also needs to be moved quickly to the operator of the refund depot, otherwise a cashflow problem can disrupt the business.

Kiribati through its waste minimization and recycling program known as "Te Kaoki Maange" has been very successful and widely recognized in the region as a good waste management model for other Pacific island countries to adopt and learn from. This Recycling program is run by a private sector on a contract basis and has its own separate fund/account managed by the Ministry of Finance so it operates on its own with no government funding required. This is considered by ECD as an option that needs expansion to cover also other waste items such as end of life vehicles(car bodies), electrical wastes, empty bottles (soy/tomato sause) to name a few.