Eighth Regional 3R Forum in Asia and the Pacific

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

Country Report

(Draft)

< Republic of Korea>

This country report was prepared by the Government of Republic Korea 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:

Name, Designation and Organization Respondent:

Other Ministries, Organizations, Agencies contributing to Country Report:

Timeline of Submission: 21 March 2018 (Email: 3R@uncrd.or.jp)

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

With the objective of demonstrating renewed interest and commitment 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 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.

Secretariat of the Regional 3R Forum in Asia and the Pacific United Nations Centre for Regional Development (UNCRD)

Email: 3R@uncrd.or.jp

Country Name
Republic of Korea

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?

In Korea, 'Volume-based waste fee system', a unique nation-wide "Pay as You Throw" system, plays, through differentiated charging system, an important role to encourage for households to reduce every discharge of waste.

In addition, another waste reduction policy addresses cutting down the use of disposable containers and packaging materials. The government has been carrying out policies to prevent the use of disposable products since 1994 by law. However, the policy instrument has been transformed to boost voluntary involvement of the stakeholders. Likewise, eco-friendly packaging is being encouraged via voluntary agreements and provision of incentives.

The products that have adopted the Design for Environment(DfE) are certified with an eco-labelling and are promoted preferentially to be bought by public entities etc. as a means of waste prevention at source.

Q-2 What is t	he level (of participation	of househo	lds in	"source"	segregation	of	municipal
waste streams?	Please	check the approp	priate box)					

\boxtimes Very High (> 90%)
☐ High (>70%)

☐ Average (50-~70%)

 \square Low or not satisfactory (< 50%)

 \square Does not exist

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

It is difficult to specify the budget limited to MSW management sector because the budget for MSW reduction out of total annual government expenditure is directly or indirectly linked with all other relevant budgets. For reference, the total annual government expenditure for waste management amounts to about \$ 340 billion(or \$ 300 million).

^{*}According to "Waste Management Law" in Korea, wastes consist of household, commercial (including controlled waste) and medical wastes. The municipal solid waste as this questionnaire mentioned is similar to the "household wastes" which means any wastes other than commercial wastes.

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)
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.
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)
Korea now intends to implement waste prevention policies, not only in MSW management sector, but also from the perspective of inclusive waste management. In particular, by the enactment of The framework act on Resource Recirculation, Korea is about to introduce the Management System of Resource Recirculation Performances that encourages businesses to voluntarily recirculate resources and to reduce waste generation, and the landfill/incineration levy that is imposed when recyclables go to landfills or incineration facilities.
* The framework act on Resource Recirculation is enacted 19 May 2016 and enfored on 1 January 2018.
Is this Goal relevant for your country? ☐ Highly ☐ Partially ☐ Not at all

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

Full-scale utilization of the organic component of municipal waste, including waste, as a valuable resource, thereby achieving multiple benefits such reduction of waste flows to final disposal sites, reduction of GHG en 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 component of municipal waste, including waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of municipal waste, including the control of the organic component of the organ	as the assion, n.				
waste such as composting, energy recovery and improving efficiency in food processing	_				
In line with aforementioned MSW, the 'Volume-based waste fee system' has been introduced in food waste sector as a principle of 'Pay as You Thro addition, through the establishment of new recycling facilities of food waste, is seeking ways to further minimize final disposal of food waste and to max recycling as compost or recovering energy as biogas.	us also w'. In Korea				
Q-2 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					
As of 2013, the total generation of food waste in Korea is 12,663 tons per day, consists of 12,139 tons per day to recycling facilities, 140 tons per day to landfills and 30 per day to incineration sites. Landfilling is merely 4.1% of the total generation of such was	34 tons				
Challenges (policy/ institutional/ technological/ financial) faced in implementation:					
Examples of pilot projects, master plans and/or policies developed or under developed include websites where relevant					
Important policies/programmes/projects/master plans the government plans to und within next five years (2016~2021)	lertake				
Is this Goal relevant for your country? \square Highly \square Partially \square Not at	all				

Country Name Republic of Korea

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%)	(<50%)	does not	of recycling
Type					exist	rate*
Paper	O					3
Plastic	O					3
Metal	O					3
Construction	O					4
waste						
e-waste	О					3
others						

^{*}Note: Please specify in the cell which of the following definitions(ie., 1 or 2 or 3) is followed for recycling rate

Definition 4: (volume of utilized recyclable waste)/(estimated generation of waste)

(Source: Statistics on the status of municipal waste generation and treatment in 2014)

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?

For paper, plastic and metal, Volume-based fee system, separate discharge by households and industries, separate collection by municipalities are relevant.

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

Rate	Very High	High	Average	Poor	Recycling	does
Type	(>90%)	(>70%)	(50-~60%)	(<50%)	not exist	
Paper		0				
Plastic			О			
Metal				0		
Construction waste				О		
e-waste			0			

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

Definition: (Volume of Incinerated waste)/(estimated generation of waste - volume of collected waste for recycling)

(Source : Statistics on the status of municipal waste generation and treatment in 2014)

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

Level	Every	Few Major	Does not	Supportive policy	No supportive
	Major	Cities only	exist	or programmes	policy or
Type	City			exists	programmes
Paper	О				
Plastic	0				
Metal	0				
Construction waste	0				
e-waste	0				

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)

^{*} According to the statistics, most e-waste(more than 90% of total generation) is separately collected at source and few goes to incinerators or landfills.

I. 3R Goals	s in Urban/Industrial Areas (3Rs ir	n municipal solid v	waste)	
Goal 3	Achieve significant increase metal, etc.), by introducing mechanisms and institutional producers, consumers, recyclevelopment of modern recycles.	policies and r ll frameworks ling industry, t	neasures, and by set involving relevant s	ting up financial takeholders (e.g.,
Challeng	es (policy/ institutional/ techno	logical/ financi	al) faced in implemen	ntation:
_	s of pilot projects, master plan vebsites where relevant	ns and/or polic	ies developed or und	er development –
-	t policies/programmes/project xt five years (2016~2021)	s/master plans	the government pla	uns to undertake
Is this Go	oal relevant for your country?	⊠Highly	☐ Partially	☐ Not at all

1. 5K Goals III Groat/Industrial Areas (5Ks III indincipal solid waste)
Build sustainable cities /green cities by encouraging "zero waste" through sound policies, strategies, institutional mechanisms, and multi - stakeholder partnerships (giving specific importance to private sector involvement) with a primary goal of waste minimization
Q-1 What specific waste management policies and programmes are introduced to encourage
private sector participation in municipal waste management?
Since 1996, Korea has been implementing the 'industrial waste reduction system', by which businesses with large-quantity generation of waste(more than 1,000 tons for municipal waste and 300 tons for controlled waste, annually) voluntarily set goals for waste reduction, report the result to the government annually and manage the goals continuously.
Q-2 What are the major waste management areas that have strong involvement of private and business sector? (Please check appropriate boxes and add other areas if not listed below) □ waste collection
□ resource recovery
□ waste recycling
☐ waste to energy, composting, etc.
☐ PPP projects in waste sector
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)
As mentioned above in line with the Goal 1, The framework act on Resource Recirculation is
enacted 19 May 2016 and will be enfored on 1 January 2018. In that, Korea is about to introduce
the landfill/incineration levy that is imposed when recyclables go to landfills or incineration
facilities.
racinues.
<i>Is this Goal relevant for your country?</i> □Highly □ Partially □ Not at all

I. 3R Goals	in Urban/Industrial A	reas (3Rs in Inc	dustrial waste)			
Goal 5	Encourage the private sector , including small-and medium-sized enterprises (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.					
resource e	are the major classificiency of SMEs: are the capacity f SMEs in 3R area	building prog				
Challenge	s (policy/ institutio	nal/ technolog	ical/ financio	al) faced in	implementation	:
_	of pilot projects, i ebsites where releve	_	and/or polici	es develope	d or under dev	elopment –
-	policies/program t five years (2016~		aster plans	the govern	ment plans to	undertake
Is this God	al relevant for your	country?	Highly	☐ Partially	\Box N	ot at all

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)
Goal 6 Promote the greening of the value chain 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)?
\square Very High (> 90%)
□ High (>70%)
□ Average (50-~70%)
☐ 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?
□ Very High (> 90%)
☐ High (>70%)
☐ Average (50-~70%)
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:
Chauenges (poucy/ 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> \square Highly \boxtimes Partially \square Not at all

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)
Goal 7 Promote industrial symbiosis (i.e., recycling of waste from one industry as a resource for another), by providing relevant incentives and support.
Q-1 Does your government have policies and programmes promoting industrial symbiosis in industrial parks or zones? What specific policies, programmes and incentives are introduced to promote industrial symbiosis?
Q-2 How many eco-industrial parks or zones or the like, which is supported by the government, are there in the country?
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 ☐ Partially ☐ Not at all

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)
Build local capacity 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.?
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.?
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

I. 3R Goals in	Urban/Industrial Areas	(3Rs in Industrial wa	ste)	
t	owards sound manage	ement of such waste	2.	waste as a prerequisite
Q-1 Is there	a systematic classific	ation of hazardous	waste? If so, pleas	e attach.
\boxtimes Yes	□ No			
_	pecific rules and regu l of hazardous waste?		ced to separate, sto	re, treat, transportation
surrounding waste(much	environments or ca	n do harm to hu s hazard waste) ar	man health are cat	that can contaminate regorized as controlled ing to related laws and
In addit	tion, Korea revised th	ne Waste Managem	ent Law this year t	to tighten up the safety
management	t standards of waste t	reatment in order	to prevent fire accid	dents etc. in the overall
processes of	collection, movemen	nt and treatment of	waste. E.g. the rev	vised law stipulates that
the corrosiv	e waste such as dust	t, sludge etc. must	be neutralized as	a way of intermediate
treatment be	fore landfilling and th	e inflammable was	te must be controlle	ed as specified by safety
management	t standards.			
The law a	also requires large-qua	antity generators an	d waste disposers to	be equipped with the
safety facilit	y for contingency plan	ns, preventive chem	nicals and safety man	nuals in every
workplace.				-
1				
Challenges	(policy/ institutional/	technological/ fina	ncial) faced in imp	lementation:
	f pilot projects, mast sites where relevant	er plans and/or po	olicies developed or	r under development –
	oolicies/programmes/j five years (2016~202)		ans the governmen	nt plans to undertake
Is this Goal	relevant for your cou	<i>ntry?</i> ⊠ Highly	☐ Partially	☐ Not at all
·		•		

Is this Goal relevant for your country? ☐ Highly

Country Name
Republic of Korea

II. 3R Goals	in Rural Areas
Goal 10	Reduce losses in the overall food supply chain (production, post harvesting and
	storage, processing and packaging, distribution), leading to reduction of waste while
0.1 1171	increasing the quantity and improving the quality of products reaching consumers.
	specific policies, rules and regulations, including awareness programmes, are to minimize food or crop waste?
'Volume E required to	entioned above in line with the Goal 2, the main policy on food waste reduction is Based Waste Fee System'. And large-quantity generators such as big restaurants are submit their plans on food waste reduction. In addition, to raise the citizens' of food waste reduction, nation-wide events such as a UCC contest are being held.
infrastructı in collaboı	or the crop waste(more specifically, agricultural waste), Korea has established are to collect and recycle waste agricultural plastic films and agrochemical containers ration with municipalities. The oversight of the overall system has been entrusted to Environment Corporation since 1980.
	re any continuing education services or awareness programmes for the farmers or all marketing associations on reduction of crop wastes for increased food security?
	t is the average wastage of crops or agricultural produce between farms to s, if there is a study in your country?
□ Very Hi	gh (> 20~ 30%)
☐ High (1	0~20%)
☐ Medium	n (5~10%)
□ Low (<	5%)
□ Negligil	ble (<1%)
Challenge	s (policy/ institutional/ technological/ financial) faced in implementation:
_	of pilot projects, master plans and/or policies developed or under development – ebsites where relevant
-	policies/programmes/projects/master plans the government plans to undertake t five years (2016~2021)

□ Partially

☐ Not at all

II. 3K Goals	in Rural Areas
	Promote full scale use of agricultural biomass waste and livestock waste through reuse and/or recycle measures as appropriate, to achieve a number of co - benefits including GHG emission reduction, energy security, sustainable livelihoods in rural areas and poverty reduction, among others. **nuch amount of - (a) agricultural biomass waste and (b) livestock waste are grossly per annum?
appropriate □ as secon □ biogas/e □ compos □ mostly l □ mostly c Q-3 What	are most of the agricultural biomass wastes utilized or treated? (Please check all e boxes) Indary raw material input (for paper, bioplastic, furniture, etc.) Electricity generation Its/fertilizers Ieft unutilized or open dumped Imperior open burned Ispecific policies, guidelines, and technologies are introduced for efficient utilization transfer of the state o
	omic benefits? Relevant websites could be shared for additional information. s (policy/ institutional/ technological/ financial) faced in implementation:
-	of pilot projects, master plans and/or policies developed or under development – ebsites where relevant
_	policies/programmes/projects/master plans the government plans to undertake at five years (2016~2021)
Is this God	al relevant for your country?

III. 3R Goals for Ne	w and Emerging Wastes			
	gthen regional, nationa cular plastics in the ma			ssue of waste, in
~ .	c policies and regulati arine environment?	ions are in plac	e to address the issu	e of plastic wastes
~	issue of plastic waste check the appropriate		n integrated coastal z	zone management
☐ Very much	☐ Somehow	\square Not at all		
programmes este	vide a list of centre ablished to address the ne species? If yes, plea	ne impacts of i	micro-plastic particij	
Challenges (polic	cy/ institutional/ techno	ological/ financi	al) faced in implemen	ntation:
Examples of pilo include websites	ot projects, master pla where relevant	ns and/or polic	ies developed or und	ler development –
	es/programmes/project ears (2016~2021)	ts/master plans	the government pla	ans to undertake
Is this Goal relev	ant for your country?	□ Highly	☐ Partially	☐ Not at all

Country Name Republic of Korea

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	Number in	
applicable	priority order	
0		Take to recycling center / resource recovery facilities
		Take to landfill
0		Take to the retailer
0		Take to local charity for re-use
0		Take to second-hand shop for re-use
0		Ship back to the manufacturer
		Ship back to the manufacturer
		Recycle in another country
		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)?

To control hazardous characteristics of e-waste, Korea is taking the lifecycle approach from the production to the end-of-life phase of such products. The use of hazardous substances in the products is restricted in accordance with ROHS and only the products that meet this standard can accordingly be manufactured and sold.

And to prevent illegal dumping and negligence of e-waste at the collection stage, as of 2014, the government persons themselves visit the households that apply for the collection service of e-waste, and collect them free of charge. For the households that do not utilize the free collection service, the producers do offer the collection service when buying a new one or households themselves can separately discharge them. All of these collection options consist of proper collection system of e-waste.

At the recycling stage, the EPR system has been introduced for 27 items such as TV, washing machine, air conditioner, PC, etc. to promote recycling of such items. A recycling target ratio is set by items and producers who fail to comply with the target must pay the recycling fee commensurate with the unmet portion of the target.

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

Type of e-waste	Estimated total volume generated (ton/year)	% of collected by permitted recycler	% of volume recycled in collected	
Television	63,918		55%	
Computer	41,762		19%	
Mobile phone	3,202		21%	
Refrigerators	223,430		34%	
Washing machines	99,061		32%	
Air conditioners	139,262		1%	
Others				

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

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 appropriate consideration for working conditions, including health and aspects of those involved.	l with
Examples of pilot projects, master plans and/or policies developed or under developm include websites where relevant	ent –
Important policies/programmes/projects/master plans the government plans to unde within next five years (2016~2021)	ertake
Is this Goal relevant for your country? ⊠ Highly □ Partially □ Not at a	all
III. 3R Goals for New and Emerging Wastes	
Goal 14 Effective enforcement of established mechanisms for preventing illegal inappropriate export and import of waste, including transit trade, especial hazardous waste and e-waste.	
Q-1 What specific policies and regulations are introduced to prevent illegal import and e of e-waste?	xport
Since Korea is a party to the Basel Convention, it only permits the importation exportation of waste that can be disposed of properly to control transboundary moveme hazardous waste in accordance with the Convention. Particularly to combat illegal trafficollaboration with Korea Customs Service, the physical inspection of export goods is concern to verify if they are the items that have been appropriately permitted by MoE and real information on import/export goods is shared through a computer network.	nts of fic, in lucted
Q-2 Do you have required number of well-trained custom or other officials (for ai sea-port, land border control, etc.) to track illegal export and import of e-waste? ⊠ Yes □ No	rport.
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	ent –
Important policies/programmes/projects/master plans the government plans to under within next five years (2016~2021)	ertake
Is this Goal relevant for your country? \boxtimes Highly \square Partially \square Not at a	all

Country Name Republic of Korea

III. 3R Goals for New and Emerging Wastes

Goal 15

Progressive implementation of "extended producer responsibility (EPR)" by encouraging producers, importers, and retailers and other relevant stakeholders to fulfill their responsibilities for collecting, recycling, and disposal of new and emerging waste streams, in particular e-waste.

Q-1 What specific Extended Product Responsibility (EPR) policies are enacted or introduced? (If there is none, then skip Q-2 below)

Since the Korean Extended Producer Responsibility (EPR) System was introduced in 2003 the target items have expanded. As of 2013, the items covered by the scheme include ten electronic products defined by Article 8 of the presidential decree of the "Act on Resource Recirculation of Electrical and Electronic Waste and End of Life Vehicles", as well as tires, lubricant, batteries, and fluorescent lamps, Styrofoam float, and packaging materials defined by Article 18 of the presidential decree of the "Act on the Promotion of Saving and Recycling of Resources". A mandatory recycling ratio for each EPR product category is announced every year by the Ministry of Environment.



Q-2 Please provide a list of products and product groups targeted by EPR nationally?

Packages(metal can, glass bottle, carton pack, PET bottle, synthetic resin packaging material) that are used to pack food and beverages, agricultural products, marine products, livestock products, cleansers, medicines and cosmetics, etc.

- Battery, Tire, Lubricant, Fluorescent lamp, Styrofoam float Television, Refrigerator, Washing machine, Air conditioner, Computer, Audio, Mobile phone, Copier, Fax machine, Printer, Vending machine and so on (totally 27 items)

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> \boxtimes Highly \square Partially \square Not

Country Name Republic of Korea

III. 3	3R (Goals	for	New	and	Emerging	Wastes
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Goal 16 Promote the 3R concept in health-care waste management.

Q-1 What specific policies and regulations are in place for healthcare waste management?

Definition: 5. The term "medical refuse" means the wastes specifically enumerated by Presidential Decree among the wastes discharged from public health and medical institutions, veterinary clinics, testing and inspection institutions and other similar institutions, which may cause harm to human bodies by infection or otherwise and need to be specially controlled for public health and environmental conservation such as parts and extracts of human bodies and carcasses of laboratory animals

Medical refuse shall be treated using medical refuse-only containers that are inspected by such institutions or organizations as designated by the Minister of Environment in accordance with the inspection standards established and publicized by the Minister of Environment. This principle is under the "safety disposal".

- Q-2 What is the total annual government expenditure towards healthcare waste management (US\$ per year)?
- Q-3 List the agencies or authorities responsible for healthcare waste management.

Q-4 What is the common practice for disposal of healthcare wastes?
(Please check the appropriate box and add if any other practice followed)
□ open dumping (untreated)
□ open burning (untreated)
□ ordinary landfilling (untreated)
□ sanitary landfilling (treated)
☐ Low cost small scale incineration (do not meet air emission standards)
☐ Highly controlled air incineration (dedicated/modern medical waste incinerators)
☐ Other methods (please specify names:)
Challenges (policy/institutional/technological/financial) faced in implementations

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 $(2016\sim2021)$

Is this	Goal relevant	for your country	?⊠ Highly	☐ Partially	\square Not at all
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IV. 3R Goals for Cross-cutting Issues
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)?
Q-2 What specific energy efficiency schemes are introduced for production, manufacturing and service sector?
Q-3 What specific policies are introduced to create green jobs in product and waste sector?
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 Issues
Goal 18 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?
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> \square Highly \square Partially \square Not at all

IV. 3R Goals for Cross–cutting Issues
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?
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.)?
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 ☐ Partially ☐ Not at all

IV. 3R Goals	s for Cross-cutt	ing Issues			
Goal 20	private sector consumption	or in raising pu	ablic awarenes a, and resource	s and advancing efficiency, lead	tts, civil society, and the g the 3Rs, sustainable ling to the behavioural
Q-1 Does	central gover	nment have offic	cial dialogue w	ith multi-stakeho	olders in the process to
•	-		gulations? Wh	ich stakeholders	s are involved in the
_	Please check	all applicable)			
\square NGOs				strial Association	n
□ Local (Government		□ Aca	demic Institution	l
☐ Others	, please add/s _l	pecify ()		
				stainable produc ase check the app	ction and consumption, propriate box)
□ Very h	igh	\square Moderate	☐ Lov	7	☐ Almost Negligible
~	and consum	•		Please check the	ets of 3R, sustainable appropriate box) Almost Negligible
Challenge	s (policy/ inst	itutional/ techno	logical/ financ	ial) faced in impl	lementation:
-	of pilot proje bsites where		is and/or polic	ies developed or	r under development –
-	policies/prog t five years (2		s/master plans	the governmen	nt plans to undertake
Is this God	al relevant for	your country?	☐ Highly	☐ Partially	□ Not at all

IV. 3R Goal	s for Cross-cutting Issues
Goal 21	Integrate the 3Rs in formal education at primary, secondary, and tertiary levels as well as non-formal education such as community learning and development, in accordance with Education for Sustainable Development.
~	de a list of formal programmes that addresses areas of 3R and resource efficiency as a academic curriculum?
	te provide an overview of the Government policies and programmes to promote by learning and development (non-formal education) on 3R and sustainable waste ent.
	e provide a list of academic and research institutions offering PhD programmes in of 3Rs and resource efficiency?
have inte	e provide a list of management institutions (offering BBA / MBA courses) which grated resource efficiency and life cycle assessment (LCA) as part of their n or course development?
Challenge	s (policy/ institutional/ technological/ financial) faced in implementation:
_	of pilot projects, master plans and/or policies developed or under development – ebsites where relevant
_	policies/programmes/projects/master plans the government plans to undertake at five years (2016~2021)
Is this God	al relevant for your country?

IV. 3K Goal	s for Cross-cutting issues			
Goal 22	Integrate the 3R concept is and agencies such as Ministry Fisheries, Ministry of Indu Energy, Ministry of Water Ministry of Construction, Mand Urban Development, towards transitioning to a res	ry of Environmer astry, Ministry of Resources, Mini inistry of Finance Ministry of Edu	nt, Ministry of Agri of Trade and Con istry of Transport, e, Ministry of Labo acation, and other	iculture, Forestry and nmerce, Ministry of Ministry of Health, our, Ministry of Land r relevant ministries
~ promoting	e list the name of the Min 3R and resource efficiency at local and national level.	•	<u> </u>	•
resource e ☐ Officia ☐ Officia ☐ Inform	type of coordination mechanisticient economic developmental regular coordination meeting all ad-hoc coordination meeting all meeting among ministries a coordination mechanisms (please	nt? g among ministri g among ministri and agencies	es and agencies	and agencies for a
Challenge	s (policy/ institutional/ techno	ological/ financi	al) faced in implen	nentation:
-	of pilot projects, master pla ebsites where relevant	ns and/or polici	es developed or u	nder development –
_	policies/programmes/project et five years (2016~2021)	ts/master plans	the government	plans to undertake
Is this God	al relevant for your country?	☐ Highly	☐ Partially	☐ Not at all

IV. 3R Goals f	for Cross-cutting Issues
a	Promote green and socially responsible procurement at all levels, thereby creating and expanding 3R industries and markets for environmentally-friendly goods and products.
Q-1 What procurement	specific policies are introduced to promote green and social responsible t?
Q-2 Please p	provide details of eco-labelling schemes of your country.
Q-3 Please p	provide a list of criteria for eco-labeled products and services in your country.
_	provide the list of Ministries and major Government Agencies which have adopted rement policy.
Q-5 What %	of municipalities have adopted the green procurement policy?
Challenges (policy/ institutional/ technological/ financial) faced in implementation:
	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)
Is this Goal	relevant for your country? Highly Partially Not at all

IV. 3R Goal	s for Cross-cutting Issues			
Goal 24	Phase out harmful subsidimaterials and water) and implementing the 3Rs and eff	energy, and ch	nannel the freed	funds in support of
unsustain	there any government subs able use of resources (raw ma rogrammes along with the ing it.	terials, water, ar	nd energy)? If so,	please provide a list
Challenge	s (policy/ institutional/ techno	logical/ financia	l) faced in implem	entation:
-	of pilot projects, master plan bsites where relevant	ns and/or policie	es developed or u	nder development –
-	policies/programmes/project t five years (2016~2021)	s/master plans	the government	plans to undertake
Is this God	ıl relevant for your country?	☐ Highly	☐ Partially	☐ Not at all

IV. 3R Goals	for Cross-cutting Issues
	Protect public health and ecosystems, including freshwater and marine resources by eliminating illegal activities of open dumping, including dumping in the oceans, and controlling open burning in both urban and rural areas.
Q-1 Is wast	e management a public health priority in your country?
Q-2 What a	re the rules and regulations to prevent open dumping and open burning of waste?
	the five most important rivers in terms of water quality (BOD values) passing tipor cities and urban areas?
Q-4 What a water bodie	are the specific laws, rules and regulations in place to prevent littering in river and s?
Q-5 What a	re the specific laws, rules and regulations in place to prevent marine littering?
Challenges	(policy/ institutional/ technological/ financial) faced in implementation:
-	of pilot projects, master plans and/or policies developed or under development – osites where relevant
-	policies/programmes/projects/master plans the government plans to undertake five years (2016~2021)
Is this Goal	relevant for your country? ☐ Highly ☐ Partially ☐ Not at all

Is this Goal relevant for your country?

Country Name	
Republic of Korea	

IV. 3R Goals fo	r Cross-cutting Issues
as in to	recilitate the international circulation of re-usable and recyclable resources as well a remanufactured products as mutually agreed by countries and in accordance with ternational and national laws, especially the Basel Convention, which contributes the reduction of negative environmental impacts and the effective management of sources.
Q-1 What are	major recycling industries in your country?
Q-2 Please sp	ecify the regulation on transboundary movement of hazardous waste.
Under t	he Basel Convention, we adopted the ACT ON THE CONTROL OF
TRANSBOU	NDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL
in 1994.	
	government has restriction on import of non-hazardous waste or quality control dous waste, please list it up.
Also if s	omeone wants to im/export non-hazardous wastes, he has to declare information
which is simi	lar to hazardous wastes—disposal place, import place and so onto the competent
authority. It is	s under Waste Management Law.
Q-4 Does you	r government restrict import of remanufactured goods?
Not yet d	o we have restriction because remanufactured goods are not considered wastes.
Q-5 Does you it as secondho	ar government regard remanufactured goods as secondhand goods, and regulate and goods?
Challenges (p	policy/ institutional/ technological/ financial) faced in implementation:
	pilot projects, master plans and/or policies developed or under development – ites where relevant
	plicies/programmes/projects/master plans the government plans to undertake ve years (2016~2021)

☐ Highly

☐ Partially

 \square Not at all

Country Name	
Republic of Korea	

IV. 3R Goals for Cross-cutting Issues

Goal 27 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 by checking (X or \(\sigma \)) the appropriate boxes. (Please respond on both "Data Availability" and Monitoring Base")

Data Type	Data Avai	ilability		Monitoring Base		
	Good	Very limited	No data exist	Good	Not good	
Waste generation	0			О		
Material flow						
Cyclical use						
Amount of final disposal	О			О		
Disposal to land	0			0		
Direct disposal to water						
Import of waste						
Export of waste						
Total landfilled waste	О			О		
Import of recyclables						
Export of recyclables						
Hazardous waste generation (solid, liquid, sludge, etc.)	0			0		
e-waste generation	0			О		

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

Is this Goal relevant for your country? \square Highly

(The data types with good data availability can be obtained from nationally approved statistics such as statistics on municipal waste generation and treatment, statistics on the controlled(hazardous) waste generation and treatment, etc.)

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

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)				

☐ Partially

□ Not at all

IV. 3R Goals f	or Cross-cu	itting Issues						
		eat recovery and proper and					not re-usable	or
Q-1 What	are the	government	policies	and pro	grammes,	including	incentives,	for
waste-to-ene	rgy progr	ammes?						
Challenges (policy/ in	stitutional/ tecl	hnologica	l/ financi	al) faced in	implement	tation:	
	- •			•	. •	-		
Examples of include webs		ojects, master p e relevant	plans and	l/or polici	es develop	ed or unde	r developmei	nt –
Important p	olicies/pr	ogrammes/proj	jects/masi	ter plans	the gover	nment plai	ns to undert	take
within next j	five years	$(2016\sim2021)$		-	-	-		
Is this Goal	relevant f	or your countr	y? □ Hi	ighly	☐ Partia	lly	□ Not at all	

IV. 3R Goals for Cross-cutting Issues
Promote 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 Goal	s for Cross-cutting Issues			
Goal 30	Pay special attention to i including SIDS in achieving		•	developing countries
States) con	e describe any past and on-g intries in 3R areas.			
and sustai	e list 3R related projects linke nable tourism. (This is <u>to be</u>	reported by SIDS	countries only)	-
Challenge	s (policy/ institutional/ techn	ological/ financio	ıl) faced in impl	ementation:
_	of pilot projects, master pla bsites where relevant	ins and/or polici	es developed or	under development –
-	policies/programmes/projec t five years (2016~2021)	ts/master plans	the governmen	t plans to undertake
Is this God	al relevant for your country?	\square Highly	\square Partially	☐ Not at all

IV. 3R Goal	s for Cross-cutting Issues			
Goal 31	Promote 3R + "Return" co "Return" where recycling i industries and limited scale of	s difficult due	to the absence of a	vailable recycling
~	specific policies, programme arn" concept? (This is <u>to be re</u>			nented to promote
Challenge	s (policy/ institutional/ techno	ological/ financio	al) faced in implemen	ntation:
-	of pilot projects, master plan Obsites where relevant	ns and/or polici	es developed or und	ler development –
-	policies/programmes/project et five years (2016~2021)	ts/master plans	the government pla	ans to undertake
Is this God	al relevant for your country?	☐ Highly	☐ Partially	□ Not at all

IV. 3R Goa	is for Cross-cutting Issues
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?
Q-2 Numb	ber of annual labor inspections in waste sector?
Q-3 Is hed	ulth insurance a mandatory to all informal workers in waste sector by law?
O-4 Wha	t specific policies and enforcement mechanisms are in place to prevent illegal
	ent of children in waste sector?
Q-5 Numb	ber of landfill sites accessible to register waste pickers?
Q-6 Avera	ge life span of informal waste workers?
Q-7 Any g	overnment vaccination programmes for informal waste workers?
Q-8 Any	public awareness programmes for informal waste workers on health and safety
measures	?
Challenge	es (policy/ institutional/ technological/ financial) faced in implementation:
· ·	
E1	
-	of pilot projects, master plans and/or policies developed or under development – ebsites where relevant
_	
-	t policies/programs/projects/master plans the government plans to undertake within pears (2016~2021)
neni jive y	Cuis (2010 2021)
Is this Go	al relevant for your country? Highly Partially Not at all

IV. 3R Goals for Cross-cutting Issues
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.
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