Eighth Regional 3R Forum in Asia and the Pacific
"Achieving Clean Water, Clean Land and Clean Air through 3R and Resource Efficiency- A 21 ${ }^{\text {st }}$
Century Vision for Asia-pacific Communities"
Indore, Madhya Pradesh, India, 9-12 April 2018

## Country Report

(Draft)

## < Republic of the Union of Myanmar>

[^0]
## Country 3R

 Progress ReportName of the Country: Myaanmar<br>Name, Designation and Organization Respondent: Mr. Min Maw, Director, Pollution Control Division, Environmental Conservation Department, Ministry of Natural Resources and Environmental Conservation<br>Other Ministries, Organizations, Agencies contributing to Country Report:

Timeline of Submission: 31 January 2018 (Email: 3R @ uncrd.or.jp)

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

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?
A-1 There are no specific 3R policies. We are preparing the National Waste Management Strategy and Action Plan (final draft).

Q-2 What is the level of participation of households in "source" segregation of municipal waste streams? (Please check the appropriate box)
$\square$ Very High (> 90\%)High (>70\%)
$\checkmark$ Average (50-~70\%)Low or not satisfactory (<50\%)Does not exist
Q-3 Total annual government expenditure per capita (US\$ per capita) in municipal solid waste management in 2014-2015

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

- policy/ institutional/ technological/ financial

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

- Waste Management Strategy and Action Plan for Mandalay City is now already launched. Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
- Solid Waste Management Action Plan for Cities and Industrial Zones will implement next five years.
Is this Goal relevant for your country? $\checkmark$ Highly $\quad \square$ Partially $\quad \square$ Not at all
I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

> | Goal 2 | $\begin{array}{l}\text { Full-scale utilization of the organic component of municipal waste, including food } \\ \text { waste, as a valuable resource, thereby achieving multiple benefits such as the reduction } \\ \text { of waste flows to final disposal sites, reduction of GHG emission, improvement in } \\ \text { resource efficiency, energy recovery, and employment creation. }\end{array}$ |
| :--- | :--- |
| $\begin{array}{l}\text { Q-1 Does the central government have policies or support to utilize or reduce the organic waste } \\ \text { such as composting, energy recovery and improving efficiency in food processing? } \\ \text { A-1 - No }\end{array}$ |  |

Q-2 What is happening to country's organic waste? (Please check the appropriate box)mostly landfilledmostly incineratedboth landfilled and incinerated $\checkmark$ mostly open dumped or open burned

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

- policy/ institutional/ technological/ financial

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

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Important policies/programmes/projects/master plans the government plans to undertake within
next five years (2016~2021)
- Solid Waste Management Action Plan for Cities and Industrial Zones will implement next five
years.
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Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ 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)

- We have no specific data for the recycling rate of various recyclables. Actually , Informal sector are recycling the waste (paper, plastic, metal, etc).

| Rate |  |  |  |  |  |  |  | Very High <br> $(>90 \%)$ | High <br> $(>70 \%)$ | Average <br> $(50-\sim 60 \%)$ | Poor <br> $(<50 \%)$ | Recycling <br> does not <br> exist | Definition of <br> recycling <br> rate* |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Paper |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plastic |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Metal |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction <br> waste |  |  |  |  |  |  |  |  |  |  |  |  |  |
| e-waste |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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?

- We have no specific policies.

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

- We have no specific data for that.

| Type Rate | Very High <br> $(>90 \%)$ | High <br> $(>70 \%)$ | Average <br> $(50-\sim 60 \%)$ | Poor <br> $(<50 \%)$ | Recycling <br> does not exist |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Paper |  |  |  |  |  |
| Plastic |  |  |  |  |  |
| Metal |  |  |  |  |  |
| Construction <br> waste |  |  |  |  |  |
| e-waste |  |  |  |  |  |

(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?

- We have no specific data for that.

| Level | Every Major <br> City | Few Major <br> Cities only | Does not <br> exist | Supportive <br> policy or <br> programmes <br> exists | No supportive <br> policy or <br> programmes |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Paper |  |  |  |  |  |
| Plastic |  |  |  |  |  |


| Metal |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Construction <br> waste |  |  |  |  |  |
| e-waste |  |  |  |  |  |

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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)

- Solid Waste Management Action Plan for Cities and Industrial Zones will implement next five years.

Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all

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

Goal 4 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?

- National Waste Management Strategy and Action Plan and City level Waste Management Strategy and Action Plan will introduce to encourage private sector participation in municipal waste management.

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)
$\checkmark$ waste collection
$\square$ resource recovery
$\square$ waste recycling
$\square$ waste to energy, composting, etc.
$\square$ PPP projects in waste sector
Challenges (policy/ institutional/ technological/ financial) faced in implementation:

- policy/ institutional/ technological/ financial

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)

- Solid Waste Management Action Plan for Cities and Industrial Zones will implement next five years.

Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)

| Goal 5 | Encourage the private sector, including small-and medium-sized enterprises (SMEs) <br> to implement measures to increase resource efficiency and productivity, creation of <br> decent work and to improve environmentally-friendly practices through applying <br> environmental standards, clean technologies, and cleaner production. |
| :--- | :--- |
| Q-1 What are the major clean technology related policies aiming to increase energy and resource <br> efficiency of SMEs? |  |
| $-\quad$ No specific policies. |  |
| Q-2 What are the capacity building programmes currently in place to build the technical capacity |  |
| of SMEs in 3R areas? |  |

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)?Very High (> 90\%)High (>70\%)Average (50-~70\%)
$\checkmark$ 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?

- We are preparing the Green Economy Policy and Framework.

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

- policy/ institutional/ technological/ financial

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 $\quad \checkmark$ Partially 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?

- We have no specific policies.

Q-2 How many eco-industrial parks or zones or the like, which is supported by the government, are there in the country?

- No


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

- policy/ institutional/ technological/ financial

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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)

Goal 8 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.?

- Six JCM Projects are implementing

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:

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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)

- CDM and JCM will be implementing
Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)

Goal 9 Develop proper classification and inventory of hazardous waste as a prerequisite towards sound management of such waste.
Q-1 Is there a systematic classification of hazardous waste? If so, please attach.YesNo

- As a party of Basel Convention, now we are drafting the classification of the hazardous waste.
Q-2 What specific rules and regulations are introduced to separate, store, treat, transportation and disposal of hazardous waste?
- We have no specific rules and regulations.

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
policy/ institutional/ technological/ financial
Examples of pilot projects, master plans and/orpolicies developed or under development-include websites where relevant

- Hazardous Waste Management Project

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

- Hazardous Waste Management Master Plan

Is this Goal relevant for your country? $\checkmark$ Highly $\quad \square$ Partially $\quad \square$ Not at all
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 increasing the quantity and improving the quality of products reaching consumers.
Q-1 What specific policies, rules and regulations, including awareness programmes, are introduced to minimize food or crop waste?

Q-2 Is there any continuing education services or awareness programmes for the farmers or agricultural marketing associations on reduction of crop wastes for increased food security?

Q-3 What is the average wastage of crops or agricultural produce between farms to consumers, if there is a study in your country?
$\square$ Very High (> 20~30\%)
$\square$ High (10~20\%)
$\square$ Medium (5~10\%)
$\square$ Low (<5\%)
$\square$ Negligible (<1\%)
Challenges (policy/ institutional/ technological/ financial) faced in implementation:

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \square$ Partially $\quad \checkmark$ Not at all

## II. 3R Goals in Rural Areas

Goal 11 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.
Q-1 How much amount of - (a) agricultural biomass waste and (b) livestock waste are grossly generated per annum?

Q-2 How are most of the agricultural biomass wastes utilized or treated? (Please check all appropriate boxes)as secondary raw material input (for paper, bioplastic, furniture, etc.)biogas/electricity generation
$\square$ composts/fertilizers$\square$ mostly left unutilized or open dumped$\square$ mostly open burned
Q-3 What specific policies, guidelines, and technologies are introduced for efficient utilization of agricultural biomass waste and livestock waste as a secondary material inputs towards full scale economic benefits? Relevant websites could be shared for additional information.

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \square$ Partially $\quad \checkmark$ Not at all

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

Goal 12 Strengthen regional, national, and local efforts to address the issue of waste, in particular plastics in the marine and coastal environment.
Q-1 What specific policies and regulations are in place to address the issue of plastic wastes in coastal and marine environment?

Q-2 What extent issue of plastic waste is considered in integrated coastal zone management (ICZM)? (Please check the appropriate box)Very muchSomehowNot at all

Q-3 Please provide a list of centre of excellences or dedicated scientific and research programmes established to address the impacts of micro-plastic participles ( $<5 \mathrm{~mm}$ ) on coastal and marine species? If yes, please provide relevant websites.

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \square$ Partially $\quad \checkmark$ 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 $1,2,3,4, \ldots$.etc., for example 1 => Highest priority)

| Check if <br> applicable | Number in <br> priority order |  |
| :--- | :--- | :--- |
|  |  | Take to recycling center / resource recovery facilities |
|  |  | Take to landfill |
|  |  | Take to the retailer |
|  |  | Take to local charity for re-use |
|  |  | Take to second-hand shop for re-use |
|  |  | 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)?

- We have no specific Policies and Regulations.

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

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

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \square$ Partially $\quad \checkmark$ Not at all

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

Goal 14 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?

- We have no specific policies and regulations.

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?Yes $\quad \checkmark$ No

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

- policy/ institutional/ technological/ financial

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

- Hazardous Waste Management Project

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

- Hazardous Waste Management Master Plan

Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
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)

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

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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?HighlyPartially $\checkmark$ Not at all

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

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?

- We have no specific Policies and Regulations.

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)
$\checkmark$ open burning (untreated)
$\square$ ordinary landfilling (untreated)
$\square$ sanitary landfilling (treated)
$\square$ Low cost small scale incineration (do not meet air emission standards)
$\square$ Highly controlled air incineration (dedicated/modern medical waste incinerators)
$\square$ Other methods (please specify names: )
Challenges (policy/institutional/ technological/ financial) faced in implementation:

- policy/ institutional/ technological/ financial

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

- Ministry of Health and Sport are preparing Health Care Waste Management.

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 $\quad \checkmark$ Partially Not at all

## 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:

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ 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:

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals for Cross-cutting Issues

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?

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:

- policy/ institutional/ technological/ financial

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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ 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 $3 R$-related policies and regulations? Which stakeholders are involved in the dialogue?(Please check all applicable)
$\checkmark$ NGOs $\checkmark$ Industrial Association
$\checkmark$ Local Government $\square$ Academic Institution
$\square$ Others, please add/specify ( )
Q-2 What is the level of NGOs' involvement in 3R, sustainable production and consumption, resource efficiency related promotional activities? (Please check the appropriate box)Very high
$\checkmark$ ModerateAlmost Negligible

Q-3 What is the level of citizens' awareness on beneficial aspects of $3 R$, sustainable production and consumption and resource efficiency. (Please check the appropriate box)
Very high
$\square$ Moderate
$\checkmark$ LowAlmost Negligible

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals 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.
Q-1 Provide a list offormalprogrammes that addresses areas of 3R and resource efficiency as part of the academic curriculum?

Q-2 Please provide an overview of the Government policies and programmes to promote community learning and development (non-formal education) on $3 R$ and sustainable waste management.

Q-3 Please provide a list of academic and research institutions offering PhD programmes in the areas of 3Rs and resource efficiency?

Q-4 Please provide a list of management institutions (offering BBA / MBA courses) which have integrated resource efficiency and life cycle assessment (LCA) as part of their curriculum or course development?

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, masterplans 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all

## IV. 3R Goals for Cross-cutting Issues

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.

- Ministry of Natural Resources and Environmental Conservation, City Development Committees, State and Region Government

Q-2 What type of coordination mechanism are there among ministries and agencies for a resource efficient economic development?
$\checkmark$ Official regular coordination meeting among ministries and agencies
$\square$ Official ad-hoc coordination meeting among ministries and agencies
$\square$ Informal meeting among ministries and agencies
$\square$ Other coordination mechanisms (please add/specify)
Challenges (policy/ institutional/ technological/ financial) faced in implementation:

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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)

- National Waste Management Strategy and Action Plan, City Level Waste Management Strategy and Action Plan
Is this Goal relevant for your country? $\checkmark$ Highly $\quad \square$ Partially $\quad \square$ 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 3 R industries and markets for environmentally-friendly goods and products.
Q-1 What specific policies are introduced to promote green and social responsible procurement?

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

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

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

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

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals for Cross-cutting Issues

| Goal 24 | Phase out harmful subsidies that favour unsustainable use of resources (raw <br> materials and water) and energy, and channel the freed funds in support of <br> implementing the 3Rs and efforts to improve resource/energy efficiency. |
| :--- | :--- |
| Q-1 Are there any government subsidy programmes that directly or indirectly favour <br> unsustainable use of resources (raw materials, water, and energy)? If so, please provide a list of <br> such programmes along with the responsible Ministry or Agency administering and <br> implementing it. |  |

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals for Cross-cutting Issues

Goal 25 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 waste management a public health priority in your country?

Q-2 What are the rules and regulations to prevent open dumping and open burning of waste?

Q-3 Rank the five most important rivers in terms of water quality (BOD values) passing through major cities and urban areas?

Q-4 What are the specific laws, rules and regulations in place to prevent littering in river and water bodies?

- Environmental Conservation Law and Rule

Q-5 What are the specific laws, rules and regulations in place to prevent marine littering?

- Environmental Conservation Law and Rule

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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals 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 What are major recycling industries in your country?

- Plastic and Metal recycling industries

Q-2 Please specify the regulation on transboundary movement of hazardous waste.

- Now, we are drafting the export and import procedure of Hazardous Waste .

Q-3 If your government has restriction on import of non-hazardous waste or quality control of non-hazardous waste, please list it up.

Q-4 Does your government restrict import of remanufactured goods?

- Yes

Q-5 Does your government regard remanufactured goods as secondhand goods, and regulate it as secondhand goods?

## Challenges (policy/ institutional/ technological/ financial) faced in implementation: <br> - policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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)

- Hazardous Waste Management Master Plan

Is this Goal relevant for your country? $\checkmark$ Highly $\quad \square$ Partially $\quad \square$ Not at all

## 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 ) the appropriate boxes. (Please respond on both "Data Availability" and Monitoring Base")

| Data Type | Data Availability |  |  | Monitoring Base |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Good | Very <br> limited | No data <br> exist | Good | Not good |
| Waste generation |  | $\checkmark$ |  |  |  |
| Material flow |  |  | $\checkmark$ |  |  |
| Cyclical use |  |  | $\checkmark$ |  |  |
| Amount of final disposal |  | $\checkmark$ |  |  |  |
| Disposal to land |  | $\checkmark$ |  |  |  |
| Direct disposal to water |  |  | $\checkmark$ |  |  |
| Import of waste |  |  | $\checkmark$ |  |  |
| Export of waste |  | $\checkmark$ | $\checkmark$ |  |  |
| Total landfilled waste |  | $\checkmark$ |  |  |  |
| Import of recyclables |  | $\checkmark$ |  |  |  |
| Export of recyclables |  | $\checkmark$ |  |  |  |
| Hazardous waste generation <br> (solid, liquid, sludge, etc.) |  | $\checkmark$ |  |  |  |
| e-waste generation |  |  | $\checkmark$ |  |  |

(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?

- National Waste Management Strategy and Action Plan, City Level Waste Management Strategy and Action Plan


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

- policy/ institutional/ technological/ financial

Examples of pilot projects, master plans and/orpolicies 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)

- National Waste Management Strategy and Action Plan, City Level Waste Management Strategy and Action Plan

Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals for Cross-cutting Issues

| Goal 28 | Promote heat recovery (waste-to-energy), in case wastes are not re-usable or recyclable <br> and proper and sustainable management is secured. |
| :--- | :--- |
| Q-1 What are the governmentpolicies and programmes, including incentives, for waste-to-energy <br> programmes? |  |
| Challenges (policy/ institutional/ technological/ financial) faced in implementation: <br> $-\quad$ policy/ institutional/ technological/ financial |  |
| Examples of pilot projects, master plans and/orpolicies developed or under development-include <br> websites where relevant |  |
| Important policies/programmes/projects/master plans the government plans to undertake within <br> next five years (2016~2021) |  |
| Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all |  |

IV. 3R Goals for Cross-cutting Issues

Goal 29 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?

- Waste to Energy Plant is now implementing by JCM Project at Yangon.

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

- policy/ institutional/ technological/ financial

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

- National Waste Management Strategy and Action Plan, City Level Waste Management Strategy and Action Plan

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

- National Waste Management Strategy and Action Plan, City Level Waste Management Strategy and Action Plan

Is this Goal relevant for your country? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all
IV. 3R Goals for Cross-cutting Issues

Goal 30 Pay special attention to issues and challenges faced by developing countries including SIDS in achieving sustainable development.
Q-1 Please describe any past and on-going cooperation with SIDS (Small Island Developing States) countries in $3 R$ areas.

Q-2 Please list 3R related projects linked to climate change, biodiversity, disaster management and sustainable tourism. (This is to be reported by SIDS countries only)

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

Examples of pilot projects, master plans and/orpolicies 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? $\square$ Highly $\square$ Partially $\quad \checkmark$ Not at all
IV. 3R Goals for Cross-cutting Issues

| Goal 31 | Promote 3R + "Return" concept which stands for Reduce, Reuse, Recycle and "Return" <br> where recycling is difficult due to the absence of available recycling industries and <br> 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+ <br> "Return" concept? (This isto be reported by SIDS countries only) |  |
| Challenges (policy/ institutional/ technological/ financial) faced in implementation: |  |
| Examples of pilot projects, masterplans and/orpolicies developed or under development-include <br> websites where relevant |  |
| Important policies/programmes/projects/master plans the government planst to undertake within <br> next five years (2016~2021) |  |
| Is this Goal relevant for your country? $\square$ Highly $\quad \square$ Partially $\quad \checkmark$ Not at all |  |

IV. 3R Goals 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 Number of annual labor inspections in waste sector?

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

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

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

Q-6 Average life span of informal waste workers?

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

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

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

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

| IV. 3R Goals for Cross-cutting Issues |  |
| :--- | :--- |
| Goal 32 | Complete elimination of illegal engagement of children in the informal waste sector <br> and gradually improve the working conditions and livelihood security, including <br> mandatory provision of health insurance, for all workers. |
| Important policies/programs/projects/master plans the government plans to undertake within <br> next five years (2016~2021) |  |
| Is this Goal relevant for your country? $\square$ Highly $\quad \square$ Partially $\quad \checkmark$ 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/orpolicies 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? $\square$ Highly $\quad \checkmark$ Partially $\quad \square$ Not at all

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

- We are now preparing the National Waste Management Strategy and Action Plan (final draft).
- Vision of National Waste Management Strategy and Action Plan is Sustainable Green, Clean and Healthy Environment towards a Brighter Future for Myanmar.
- Mission of the National Waste Management Strategy and Action Plan is To develop and implement the holistic and integrated waste management strategy based on principles of inclusiveness, zero waste, zero emission and circular economy to achieve a greener, cleaner and healthier environment in Myanmar.
- Setting Goals of National Waste Management Strategy and Action Plan -
(A) Extending sound waste management practices for all types of waste to eliminate uncontrolled treatment, disposal and open burning
(B) Promote waste minimisation, reuse, recycling and recovery to establish a resource circular society
(C) Ensure sound budgeting for securing sustainable sources of revenue for waste sector
(D) Awareness raising, advocacy and capacity building
(E) Compliance, monitoring, enforcement and recognition


[^0]:    This country report was prepared by the Government of Republic of the Union of Myanmar 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.

