10th Regional 3R and Circular Economy Forum in Asia and the Pacific (Series of Webinars)
"Advancing Circular Economy in Asia-Pacific towards the SDGs under COVID-19 Pandemic"

Country Report

(Draft)

<MYANMAR>

Country 3R Progress Report

Name of the Country: Myanmar

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Progress and achievements towards implementation of the Ha Noi 3R Declaration
-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 in Computer Typed only. If additional spaces are required, separate sheets could be attached.

Thank you very much for your kind cooperation.

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

Secretariat of the Regional 3R Forum in Asia and the Pacific

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?

Under the Cities Development Laws (Yangon City 2013, 2018, Mandalay City 2016),
Policy (To develop systematic waste disposal and collection system in order for the city to be free of repulsive dumpsites and conducting Community-based 3Rs Practices)
Programme (Regular collecting of municipal solid waste programme by city development committee)
1.Block collection
2.Communal depot collection
3.House to house collection
4.Street sweeping
4.Limited collection

Q-2 What is the level of participation of households in "source" segregation of municipal waste streams? (Please check the appropriate box)
☐ Very High (> 90%)
☐ High (>70%)
☒ 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

The budget could not be differentiated for municipal solid waste management.

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Population growth and generated waste increase
Urbanization and slum areas
Need financial assistance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.ycdc.gov.mm
www.myanmarwaterportal.com

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
National Waste Management, Strategy and Action Plan for Myanmar
(2017-2030)

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

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)	
Goal 2	Full-scale utilization of the organic component of municipal waste, including food waste, as a valuable resource, thereby achieving multiple benefits such as the reduction of waste flows to final disposal sites, reduction of GHG emission, improvement in resource efficiency, energy recovery, and employment creation.

Q-1 Does the central government have policies or support to utilize or reduce the organic waste such as composting, energy recovery and improving efficiency in food processing?
Yes. Waste to Energy, WTE Process

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

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

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
There are two new waste disposal plants for Yangon's waste to generate electricity and natural gas for vehicles with construction starting as early as November 2015. These projects are being implemented by Yangon City Development Committee.
www.jcm.go.jp/mm-jp

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Joint credit mechanism Projects for waste and energy sector
www.jcm.go.jp/mm-jp

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

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

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

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

Rate / Type	Very High (>90%)	High (>70%)	Average (50-~60%)	Poor (<50%)	Recycling does not exist	Definition of recycling rate*
Paper		✓				
Plastic		✓				
Metal		✓				
Construction 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?

Increase in recycling rate of recyclables

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

Rate / Type	Very High (>90%)	High (>70%)	Average (50-~60%)	Poor (<50%)	Recycling does not exist
Paper		✓			
Plastic		✓			
Metal		✓			
Construction 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?

Level / Type	Every Major City	Few Major Cities only	Does not exist	Supportive policy or programmes exists	No supportive policy or programmes
Paper	✓				
Plas ic		✓			
Metal		✓			
Construction 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:
Require financial mechanism and technological assistance/

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.ycdc.gov.mm

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
National Waste Management, Strategy and Action Plan for Myanmar
(2017-2030)

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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?
Policy (To develop systematic waste disposal and collection system in order for the city to be free of repulsive dumpsites and conducting Community-based 3Rs Practices)
Myanmar Sustainable Development Plan (MSDP) (2018-2-30)
Strategy 5.6: Manage cities, towns, historical and cultural centers efficiently and sustainably

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:
Specific Policy, finance and technology

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

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

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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) 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.

Q-1 What are the major clean technology related policies aiming to increase energy and resource efficiency of SMEs?
Energy Management System (ISO 50001) and Environmental Management System ISO 14001 are applied in factories and buildings in SMEs for Effective and efficient use of energy and natural resources.

Q-2 What are the capacity building programmes currently in place to build the technical capacity of SMEs in 3R areas?
Energy Management Training and Awareness Programmes
Steam System Optimization & Compressed Air System Optimization Training
Efficient Electrical Appliance Training
Resource Efficient and Cleaner Production (RECP) Training

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Low level of technology and lack of financial mechanism.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
1.Improvement of Industrial Energy Efficiency in Myanmar (IEE) Project
2. Resource Efficient and Cleaner Production (RECP) Project
National Energy Efficiency and Conservation Policy, Strategy & Roadmap (2016)

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Industrial Policy (2014)
National Energy Efficiency and Conservation Policy, Strategy & Roadmap (2016)
Myanmar Sustainable Development Plan –MSDP (2018-2030)
National Environmental Policy (2019)

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ Not 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)?

☐ 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?

Public awareness workshop programme

Capacity development programme for SMEs to introduce greening of value chain

Green Economy and Green Growth Programme

SME Law (2015) specified tax incentives for SMEs who implement environmental conservation activities and improve green economy

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

Technology and financial support

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

.Improvement of Industrial Energy Efficiency in Myanmar (IEE) Project

2. Resource Efficient and Cleaner Production (RECP) Project

National Energy Efficiency and Conservation Policy, Strategy & Roadmap (2016)

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

Industrial Policy (2014)

National Energy Efficiency and Conservation Policy, Strategy & Roadmap (2016)

Myanmar Sustainable Development Plan –MSDP (2018-2030)

National Environmental Policy (2019)

Is this Goal relevant for your country?   ☒ Highly   ☐ 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?
Yes.
Environmental Law (2012)
Yangon City Development Law(2018)
Chapter 23: Environmental Conservation and Cleansing
Prevention of Hazard from Chemical and Related Substances Law (2013)
Industrial Zone Law (2020)

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

Not yet

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

Technical and Financial Assistance & mechanism for green economy

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.ecd.gov.mm
www.mopfi.gov.mm

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Cities development law and regulations
Industrial Zone Law (2020)

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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.?
Energy Efficiency Training Centre Yangon
SME Incubation Centre Yangon
SME Incubation Centre Mandalay

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:

RECP technology and Financial Support are necessary.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
https://open.unido.org/projects/MM/projects/

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Resource Efficient and Cleaner Production Project (2016-2018)
Industrial Energy Efficiency Project (2015-2021)

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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.
☐ Yes   ☒ No

Q-2 What specific rules and regulations are introduced to separate, store, treat, transportation and disposal of hazardous waste?
Myanmar National Hazardous Waste Management Master Plan (2020-2030) Draft

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

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.ecd.gov.mm

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Myanmar National Hazardous Waste Management Master Plan (2020-2030) Draft

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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?
Awareness programme & training on Rice husk (crop wastes) to fuel (energy) for SMEs
No specific policy yet.

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?

There are some training under SMEs and Food Processing Associations.

Q-3 What is the average wastage of crops or agricultural produce between farms to consumers, if there is a study in your country?
☐ Very High (> 20~ 30%)
☐ High (10~20%)
☒ Medium (5~10%)
☐ Low (< 5%)
☐ Negligible (<1%)

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

Policy, technology and finance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.msmewebportal.gov.mm

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Awareness programme & training on Rice husk (crop wastes) to fuel (energy) for SMEs

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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?
- agricultural biomass waste 19.12 MCT/ annual, (b)Animal waste from 103 mil
heads of livestock

Q-2 How are most of the agricultural biomass wastes utilized or treated? (Please <u>check all appropriate boxes</u>)
☒ as secondary raw material input (for paper, bioplastic, furniture, etc.)
☒ biogas/electricity generation
☒ composts/fertilizers
☐ mostly left unutilized or open dumped
☐ 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.
Myanmar Energy Master Plan &
Renewable Energy Policy
<u>www.moee.gov.mm</u> (Ministry of Electricity and Energy, Myanmar)

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

Technology and Finance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
Department of Rural development (DRD)
Drdmyanmar. org

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

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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?
Master Plan of Solid Waste Management by Ministry of Natural Resource and Environmental Conservation for plastic wastes

Q-2 What extent issue of plastic waste is considered in integrated coastal zone management (ICZM)? (Please check the appropriate box)
☐ Very much   ☒ Somehow   ☐ Not 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 mm) on coastal and marine species? If yes, please provide relevant websites.

Not yet

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

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

www.ecd.gov.mm

Master Plan of Solid Waste Management by Ministry of Natural Resource and Environmental Conservation for plastic wastes

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

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

III. 3R Goals for New and Emerging Wastes	
Goal 13	Ensure **environmentally-sound management of e-waste** at all stages, including collection, storage, transportation, recovery, recycling, treatment, and disposal with appropriate consideration for working conditions, including **health and safety aspects** of those involved.

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

Check if applicable	Number in priority order	
		Take to recycling center / resource recovery facilities
✓	3	Take to landfill
✓	2	Take to the retailer
✓	2	Take to local charity for re-use
✓	2	Take to second-hand shop for re-use
		Ship back to the manufacturer
		Ship back to the manufacturer
		Recycle in another country
✓	4	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)?

Not yet.

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			
Computer			
Mobile phone			
Refrigerators			
Washing machines			
Air conditioners			
Others…			

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Specific policy, technology and finance

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

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?
Specific rules and regulations are under drafting and not issued yet. It will be issued in near future and prevent illegal import and export of e-waste and hazardous waste.
There is "Prevention of Hazard from Chemical and Related Substances Law" only.

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   ☒ No

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

Specific Policy

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

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)

Not yet.

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

-

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Specific Policy and Institutions

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

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?
Myanmar National Waste Management Strategy and Action Plan (2017-2030)
Cities development Law (Yangon and Mandalay)

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.
1.YCDC (Yangon City Development Committee)
2.MCDC (Mandalay City Development Committee)
3.NPT DC (Naypyitaw Development Committee)
4. Township Development Committees in remaining town

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 implementation:
Finance

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

www.ycdc.gov.mm

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Myanmar National Waste Management Strategy and Action Plan (2017-2030)
Cities development Laws (Yangon, Mandalay & Nay Pyi Taw)

Is this Goal relevant for your country? ☒ Highly ☐ 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)?
National Energy Efficiency and Conservation Policy, Strategy & Roadmap in Myanmar

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

Energy Efficiency and Conservation Law (drafted) is introduced for production, manufacturing and service sector.

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

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

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
Improvement of Industrial Energy Efficiency
Resource Efficient and Cleaner Production
Minimum Energy Performance Standard for electrical appliances
Leapfrogging Myanmar Market to high efficient electrical Appliance

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

Is this Goal relevant for your country?	☒ 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?
Climate Change Mitigation through energy efficiency programmes can reduce greenhouse gas emission and address air pollution as co-benefits.

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

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.industry.gov.mm
www.ecd.gov.mm

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
National Energy Efficiency Policy
Nationally determined Contribution (NDC)

Is this Goal relevant for your country?	☒ Highly	☐ Partially	☐ 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?
Nationally determined Contribution (NDC)
Myanmar Sustainable Development Plan (MSDP)
National Waste Management Strategy and Action Plan

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.)?
Ministry of Planning, Finance and Industry
Ministry of Natural Resources and Environmental Conservation
City Development Committees
Ministry of Agriculture, Livestock and Irrigation

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Policy, Institution and finance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.mopfi.gov.mm
www.ecd.gov.mm
www.ycdc.gov.mm
www.drd.org

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
As mentioned in Q1.

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

IV. 3R Goals for Cross-cutting Issues	
Goal 20	Strengthen multi-stakeholder partnerships among governments, civil society, and the private sector in raising public awareness and advancing the 3Rs, sustainable consumption and production, and resource efficiency, leading to the behavioural change of the citizens and change in production patterns.

Q-1 Does central government have official dialogue with multi-stakeholders in the process to formulate 3R-related policies and regulations? Which stakeholders are involved in the dialogue?(Please <u>check all</u> applicable)

☒ NGOs   ☒ Industrial Association

☒ Local Government   ☒ Academic Institution

☐ 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   ☒ Moderate   ☐ Low   ☐ Almost Negligible

Q-3 What is the level of citizens' awareness on beneficial aspects of 3R, sustainable production and consumption and resource efficiency. (Please check the appropriate box)

☐ Very high   ☐ Moderate   ☒ Low   ☐ Almost Negligible

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Policy, Technology and Finance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.mopfi.gov.mm
www.ecd.gov.mm
www.ycdc.gov.mm
www.drd.org

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Nationally determined Contribution (NDC)
Myanmar Sustainable Development Plan (MSDP)
National Waste Management Strategy and Action Plan
National Energy Efficiency and Conservation Policy, Strategy and Roadmap

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Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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 of formal programmes that addresses areas of 3R and resource efficiency as part of the academic curriculum?

There is no formal programmes 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 3R and sustainable waste management.

There are programme for non-formal education undertaken by some 3R activities in the area of waste management, energy efficiency, environmental conservation and so on.

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 and Institutional system

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)
Energy efficiency school programme

Is this Goal relevant for your country?   ☒ Highly   ☐ Partially   ☐ 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 Planning, Finance and Industry
Ministry of Natural Resources and Environmental Conservation
City Development Committees
Ministry of Agriculture, Livestock and Irrigation
Ministry of Electricity and Energy

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

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

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Coordination Policy and Finance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.mopfi.gov.mm
www.ecd.gov.mm
www.ycdc.gov.mm
www.drd.org

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)
Nationally determined Contribution (NDC)
Myanmar Sustainable Development Plan (MSDP)
National Waste Management Strategy and Action Plan
National Energy Efficiency and Conservation Policy, Strategy and Roadmap

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

IV. 3R Goals for Cross–cutting Issues

Goal 23	Promote **green and socially responsible procurement** at all levels, thereby creating and expanding 3R industries and markets for environmentally-friendly goods and products.

Q-1 What specific policies are introduced to promote green and social responsible procurement?
Green Procurement guideline for Government (draft)
Green Business for SMEs are encouraged.

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

Energy Performance Standard Label Programme for Room Air Conditioners is being started to implement.
Eco-Labeling schemes for MSMEs are initiated.

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.
Ministry of Planning Finance and Industry
Ministry of Natural Resources and Environmental Conservation

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

-

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

Specific Policy and finance

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 for Cross-cutting Issues	
Goal 24	**Phase out harmful subsidies that favour unsustainable use of resources (raw materials and water) and energy**, and channel the freed funds in support of implementing the 3Rs and efforts to improve resource/energy efficiency.

Q-1 Are there any government subsidy programmes that directly or indirectly favour unsustainable use of resources (raw materials, water, and energy)? If so, please provide a list of such programmes along with the responsible Ministry or Agency administering and implementing it.

-

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

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Examples of pilot projects, master plans and/or policies 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)

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Is this Goal relevant for your country? ☐ Highly   ☒ Partially   ☐ 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?
Yes.

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

Mandalay City Development Committee Law (2016)
Yangon City Development Committee Law (2018)
Nay Pyi Taw City Development Committee Law (2009)

Q-3 Rank the five most important rivers in terms of water quality (BOD values) passing through major cities and urban areas?
(1) The Thanlwin river
(2) The Chindwin river
(3) The Sittaung river
(4) The Ayeyarwaddy river
(5) The Yangon river

Q-4 What are the specific laws, rules and regulations in place to prevent littering in river and water bodies?
The Yangon Water-work Act (1885)
The Water Power Act (1927)
The Underground Water Act (1930)

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

-

Challenges (policy/ institutional/ technological/ financial) faced in implementation:
Specific Policy, technology and finance

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 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?
(1) Steel mill industries
(2) Plastic factories
(3) Paper and puff factories

Q-2 Please specify the regulation on transboundary movement of hazardous waste.
Prevention of Hazard from Chemical and Related Substances Law (2013)
Prevention of Hazard from Chemical and Related Substances Rules.(2016)

Q-3 If your government has restriction on import of non-hazardous waste or quality control of non-hazardous waste, please list it up.
-No data available.

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

No data available.

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:
-Specific Policy

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 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 limited	No data exist	Good	Not good
Waste generation		✓			✓
Material flow		✓			✓
Cyclical use		✓			✓
Amount of final disposal		✓			✓
Disposal to land		✓		✓	
Direct disposal to water		✓			✓
Import of waste	✓			✓	
Export of waste	✓			✓	
Total landfilled waste		✓			✓
Import of recyclables	✓			✓	
Export of recyclables	✓			✓	
Hazardous waste generation (solid, liquid, sludge, etc.)		✓			✓
e-waste generation		✓			✓

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

Q-2 What are the current and planned government policies and programmes to strengthen data and information availability in waste sector?
Plan to be improved in City Development Committees.

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

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 for Cross‑cutting Issues	
Goal 28	Promote heat recovery (waste-to-energy), in case wastes are not re-usable or recyclable and proper and sustainable management is secured.

Q-1 What are the government policies and programmes, including incentives, for waste-to-energy programmes?
Waste to Energy Projects under Joint-Credit Mechanism Projects between Myanmar and Japanese Governments

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

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
www.jcm.go.jp/mm-jp

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

Is this Goal relevant for your country? ☒ Highly ☐ Partially ☐ 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?

Bilateral Cooperation with GIZ, JICA, ADB, UNIDO in 3 R 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:

Technology and Finance

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant
1. Technical cooperation of clean air smaller cities with GIZ.
2. Development of waste water quality standard with ADB.
3. The project of monitoring the sampling points of Hlaing River of Yangon and Dothtawady river of Mandalay for pollution of water condition with JICA.
4. Resource Efficient and Cleaner Production (RECP) Project with UNIDO

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 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 3R areas.
-

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

-

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 for Cross−cutting Issues	
Goal 31	Promote 3R + "Return" concept which stands for Reduce, Reuse, Recycle and "Return" where recycling is difficult due to the absence of available recycling industries and limited scale of markets in SIDS, especially in the Pacific Region.

Q-1 What specific policies, programme, including pilot projects, are implemented to promote 3R+ "Return" concept? (This is <u>to be reported by SIDS countries only</u>)

-

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 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/or policies developed or under development – include websites where relevant
-

Important policies/programs/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 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.

No gender discrimination in 3R activities.

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

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

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

Myanmar Sustainable Development Plan (MSDP) (2018-2030)

National Energy Efficiency Policy, Strategy and Roadmap (2016-2030)

National Waste Management Strategy and Action Plan (2017- 2030)

National Hazardous Waste Management Master Plan (2020-2030) (Draft)

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

Country Name Myanmar