ASEAN-China Environmental Cooperation Forum 2019

Eco-friendly City Construction and Sustainable Management of Marine Ecosystem Workshop on Promoting Regional Green Growth: Best Practices of

Government Policies, Strategy and Master Plans for Waste Management

U Hein Latt
Assistant Director

Pollution Control Division

Environmental Conservation Department

Ministry of Natural Resources and environmental Conservation, Myanmar

Content

- Review on the Challenges & Gaps
- Policy Guideline, Main Institution for Environmental Management
- Efforts In Term of Policy and Legislation
- Waste Management Strategy and Master Plan
- Implementation priorities and mechanisms

Overview on the Waste Management

Review on Major Challenges & Gaps in Waste Management



Waste Generation and Composition



Policies, Regulations and Institutional Arrangements



Public Participation (Education, awareness campaign & awareness raising)



Economic Aspects



Technological Aspects



Monitoring

Proper treatment Facilities, Landfill space, Cost, 3Rs, Basic data and Information

National and local levels Policy, Enforcement, Planning, know-how and capacity, coordination

Awareness to promote 3Rs, Awareness on health risks of the informal sector, Participation and Coordination among stakeholders

Revenue in the collection of waste, the total waste management expenditures, not strictly penalties, Public and Private Partnership

suitable technologies, resources including finance and expertise to invest for new technologies research and practical application

Compliance, Technology, Standard, Coordination,

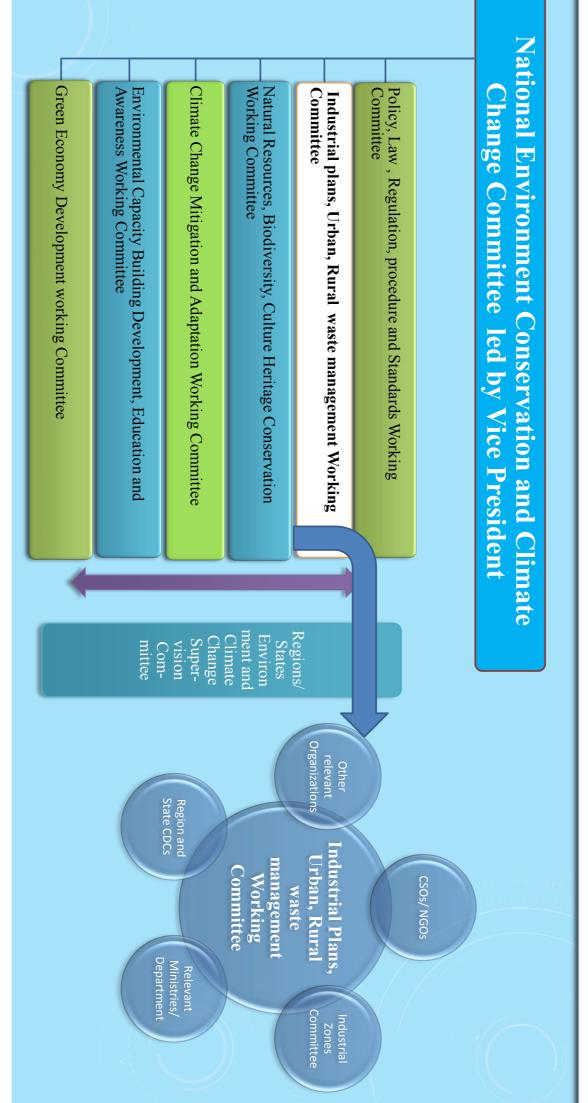
Institution of coordination mechanism at different levels

Policy guidelines: Environmental Conservation

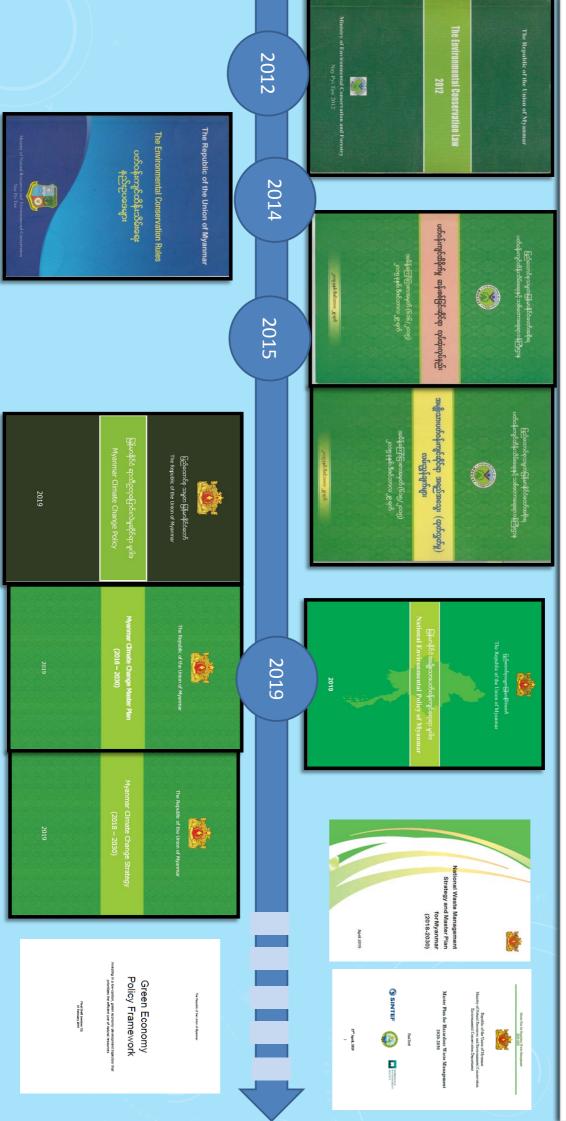
At World Environment Day, 5th of June 2018, in Nay Pyi Taw, President U Win Myint the country . He stated that technology and conditions as part of efforts to ensure systematic waste management in stressed the need to revise the enacted laws, rules and regulations in line with updated

and regional, and city and township levels." building, awareness and training, and conduct regular monitoring at the national, state reduce, reuse and recycle, seek regular funding for waste management, capacity take measures to enhance dumping services, ensure an environmentally sound "In accordance with National Waste Management strategy and Master plan, we have to management system for hazardous and industrial waste, utilize the 3R actions of

Institutions for Waste Management



Efforts In Term of Policy and Legislation



National Environmental Policy

Vision

A clean environment, with healthy and functioning ecosystems, ensuring inclusive development and wellbeing for all people in Myanmar

Mission

mainstreaming environmental considerations into all policies, laws, regulations, plans, strategies, programmes and projects in Myanmar To establish national environmental policy principles for guiding environmental protection and sustainable development and for

National Environmental Policy Principles

Clean Environment and healthy, functioning ecosystems

> Sustainable economic and social development

environmental protection and management Mainstreaming

Sustainable Development Goals

Strategic Framework for the National Environmental Policy

Environmental Master National

Environmental Master Sub-national Plan/s

> Thematic Areas Master Plan/s

Environmental Master Sector-based Plan/s

Principle No 13

Plan/s

Pollution and waste is to be avoided and minimised at the source

Myanmar Climate Change Policy, Strategy and Master Plan

Goal: By 2030, Myanmar has achieved climate-resilience and pursued a low-carbon growth pathway to support inclusive and sustainable development.

STRATEGIC OBJECTIVES

Increase adaptive capacity and resilience of communities and sectors

Maximise opportunities for low carbon development in potential sectors

FOCUS AREAS (KEY ENTRY POINTS)

Climate smart agri, fisheries and livestock for food security

Sustainable management of NR for healthy ecosystem

Resilient and lowcarbon energy, transport and industry

Resilient,
inclusive and
sustainable cities
and towns

Climate risk management for health and wellbeing

Education, science and technology

STRATEGIC PRIORITIES (FOR EACH FOCUS AREAS)

Policy

Climate smart initiatives into policies and plans

Institution

Operational arrangement, coordination mechanism

Finance

Climate finance, climate smart investment

Capacity and technology Climate-smart

Awareness
Capacity for
climate-smart
decision making

responses

Partnership Multi-

stakeholder partnership

Investing in a low-carbon, green economy development trajectory that prioritizes the efficient use of natural resources (MSDP)

The Four Principles guiding investments in Myanmaı

- Sustainability
- Efficiency
- ω Inclusivity
- Resiliency

The Four policy objectives of the Green Economy Policy Framework

- 1. Stimulating green investments
- 2. Managing brown investments
- 3. Ensuring Sustainable Financing
- 4. Developing human capital

Priorities for Green Economy investments in Myanmar – supporting sustainable development

PRIORITY 1: Sustainable and productive agriculture and livestock

PRIORITY 2: Clean air and clean and sufficient water

PRIORITY 3: Clean and accessible energy

PRIORITY 5: Sustainable urban and rural development and buildings PRIORITY 4: Healthy forests and biodiversity

PRIORITY 6: Sustainable fisheries

PRIORITY 7: Sustainable consumption and production

PRIORITY 8: Sustainable waste managemen

PRIORITY 10: Lower impact from extractives **PRIORITY 9:** Sustainable transport infrastructure and services

PRIORITY 11: Sustainable tourism

Investments support these cross-cutting themes:

1. Climate change mitigation and adaptation 2. Improved human health Rural development 4. Education, research and technology

Job creation

Means of implementation

Establishing a Green Economy Investment Facility

Green finance development

Tax incentives

Strengthening institutions – capacity and coordination

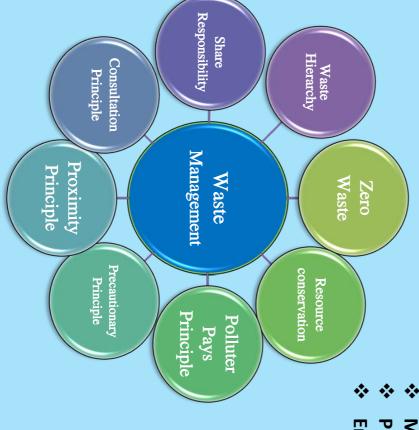
Supporting the implementation and financing of the MSDP, NEP, MCCSMP, MWMS

National Waste Management Strategy and Master Plan Final Draft

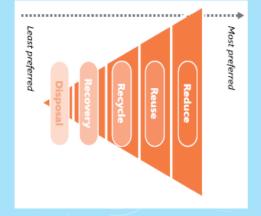


Table of Contents

- 1. INTRODUCTION TO THE STRATEGY
- 2. STRATEGY DEVELOPMENT THE PROCESS
- 3. WASTE MANAGEMENT- WHERE ARE WE NOW
- 4. HOW TO MOVE FORWARD
- 5. SETTING NATIONAL GOALS, OBJECTIVES AND TARGETS
- 6. IMPLEMENTATION PRIORITIES AND MECHANISMS



- Municipal Solid Waste
- Industrial waste
- **Medical waste**
- Plastic waste
- **Emerging and other special waste**



Waste Management
Hierarchy

Guiding Principles

National Waste Management Strategy and Master Plan (2018-2030) Final Dráft

Vision: Sustainable, Green, Clean and Healthy Environment towards a Brighter Future for Myanmar

Mission To develop and implement the holistic/integrated waste management strategy based on healthier environment principles of inclusiveness, zero waste and circular economy to achieve a greener, cleaner and

Objectives and open burning as uncontrolled disposa collection service to a first step towards environmentally all citizens and management sound waste sound waste eliminate : Extending other hazardous environmentally Extending sustainable and management or industrial and wastes sound resource circular (reduce, reuse prevent waste recycling) and Substantively through 3Rs establish a thereby society mechanisms sustainable financing : Ensure Advocacy and **Awareness** Raising, Capacity Building Goal E Enforcement Monitoring, Compliance, Recognition Goal F: and

2030 Targets: Short term (2018-2020)/ Mid term (2020-2025) / Long term (2025-2030)

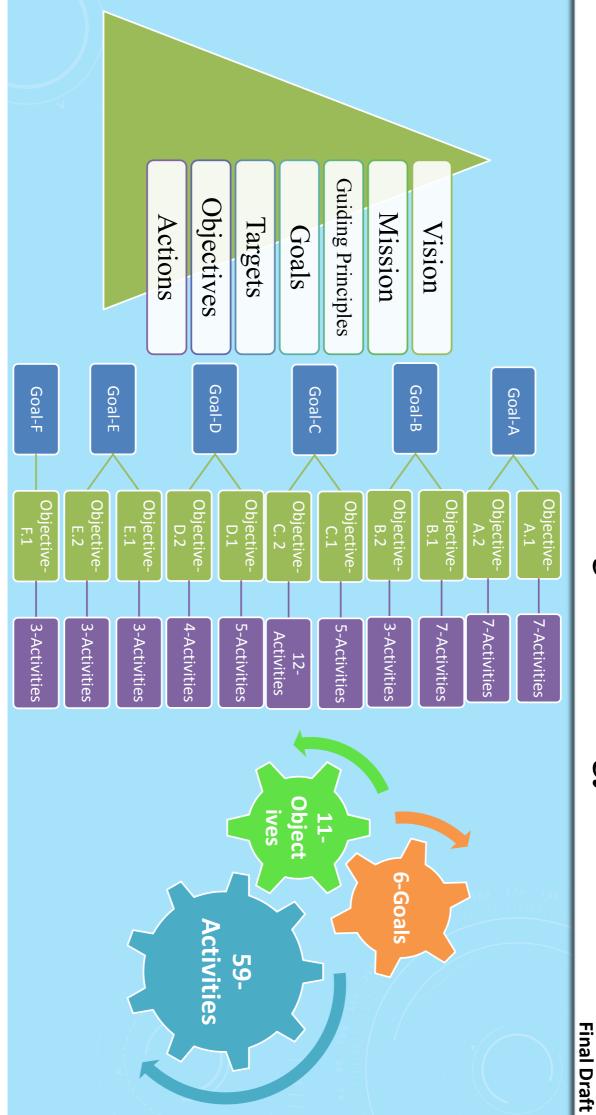
- A.1: Expand access to municipal waste management service in order to ensure a minimum level of services for all citizens, irrespective of income levels
- A.2: Safe treatment and disposal of waste in permitted/ officially approved landfill sites to protect uncontrolled dumping and open burning
 - C. 1: Promote waste reduction upstream through introduction of sustainable production (in the design, fabrication and manufacturing of products) and consumption (traditional repair and reuse)
- C.2: Promote reduce, reuse, recycle and recovery of waste materials before final disposal
- E. 1: Mainstream environmental education and sustainable waste management in school curricula and programmes at all levels
- E.2: Mobilise the support of all stakeholders by increasing awareness and participation in sustainable waste management practices

11 objectives of the National Waste Management Strategy and Master Plan

- B.1: Establishing sound legal and regulated structure addressing industrial and hazardous waste
- B.2. Effective monitoring and incentive mechanisms

- D.1. Enhanced financing options for waste management
- D.2 : Sustainably financed waste management at the CDCs and TDCs
 - F: Institutionalise mechanisms for monitoring, enforcement and recognition

Structure of the National Waste Management Strategy and Master Plan



Myanmar Hazardous Waste Master Plan (2018-2030)

Final Draft

Vision: A clean environment, with healthy and functioning ecosystems, ensuring inclusive development and wellbeing for all people in Myanmar (From NEP)

Mission: Improved Management of Hazardous Waste in Myanmar

GUIDING PRINCIPLES

Waste Management Hierarchy

Environmentally Sound Hazardous Waste Management

> Resource Conservation

> Polluter Pays
> Principle

Precautionary Principle

Proximity Principle

Principle of Selfsufficiency and Least Trans-boundary Movement

STRATEGIC OBJECTIVES

Formulate Hazardous
Waste regulations
and strengthen
compliance,
monitoring and
enforcement

Raise
awareness and
build capacities
on Hazardous
Waste
Management

Gather
information on
Hazardous Waste
Generation from
various sectors in
Myanmar

Propose Prioritise
system for cost recovery and implement 'Polluters Pay Principle' Principle' Principle' Principle' Principle Principle

Implement
environmentally
sound Hazardous
Waste segregation
collection and
transportation

Implement
y environmentally
us sound
on, Hazardous
Waste treatment
and disposal

PILLARS OF IMPLEMENTATION

Political Endorsement

Institutional Responsibilities

Hazardous Waste Regulations

Control, Monitoring and Enforcement

Infrastructure and Support Services

Cost Recovery and Finances

PLASTIC WASTE MANAGEMENT ACTION PLAN (0 DRAFT)

Objective

To reduce and prevent plastic pollution for better ecosystem and health of human beings:

Improved plastic waste management system;

To develop plastic laws, rules and regulation, directives related to plastic that are applicable with Myanmar contexts;

Implementing Agencies and Line Ministries Concerned to Collaborate with:

Environmental Conservation Department

Township Municipal Committees

Ministry of Industry

Ministry of Electricity and Energy

Department of Water Resources and Improvement of River Systems

International Non-Governmental Organizations, Civil Society, and Public

Expected Outcomes

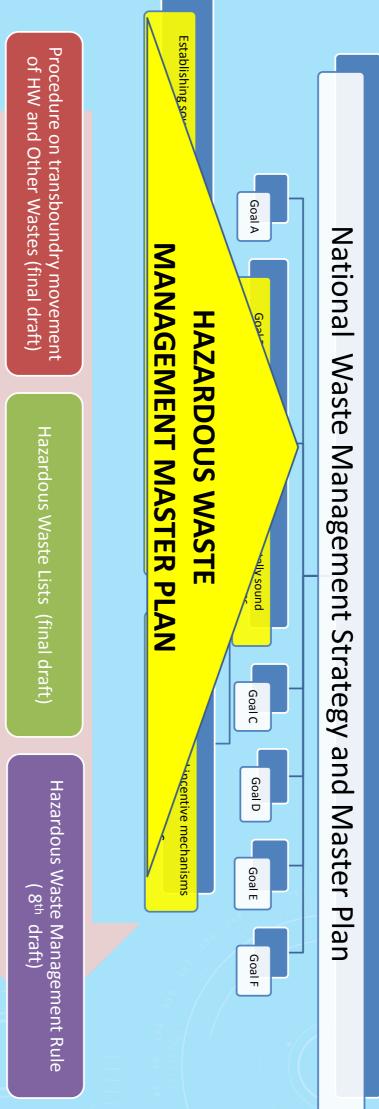
Improved plastic waste management system

Enaction of Plastic waste management laws, Rules and Regulations and Provisions

Development of Circular Economy

(Emergence of) clean environment

Overview on the Waste Management



Waste Management Law & Plastic waste Action Plan (0 Draft)

OVER VIEW ON WASTE MANAGEMENT & ENVIRONMENTAL EFFORT

Households (Environmental Sound Waste Stream Management) **Approach** Industrial plans, Urban, Rural waste management Working Committee National Environmental Conservation and Climate Change Central Committee Green Economy Industry Framework Policy Special Myanmar Sustainable Development Plan Municipal National Environmental Policy & Strategy waste Reduce development Urban Management Strategy and Master Plan & HW Master Plan National Waste Industria Mining Reuse Health Transport Recycle Climate Change Strategy Myanmar Policy & **Plastics** Waste Agriculture Sustainable Waste Management Hazardous waste Energy

10 REQUALITIES

2





-W

5 general Segment

G CLEAN WATER



13 CLIMATE







Implementation priorities and mechanisms for NWMS&MP, HW MP

Adoption & Mainstreaming

Mobilizing Resources

Legislation and regulation

Responsibilities and partnership

Monitoring and performance assessment

Choice of technology

Awareness raising and public education

High level political endorsement and commitment, Public consultation

- Adequate funding, Human resources, Technology, Private sector investment, incentive for reducing waste generation, 3 Rs encourage
- Standard and tools, EPR practices legal basis, Guidelines for separation, treatment, diposal, issue licence, charge, inspection
- Inter-ministerial coordination and cooperation mechanism
- coordinating committee, National Govt, R and S Govt, Private sector, informal sector, public, NGOs, Academics, Educators, Intl Partners, CSO
- R & D, Transfer technologies
- Producers, shop owner, workers, consumers, eco-labeling, responsible waste behavior thru school

