

***Introduction of Water Quality Monitoring Standards
in Lancang-Mekong Countries - Myanmar***

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Environmental Regulations

- **National Environment Policy (1994)**
- **Myanmar Agenda 21 (1997)**
- **National Sustainable Development Strategy –NSDS (2009)**
- **Environmental Conservation Law (2012)**
- **Environmental Conservation Rules (2014)**
- **Environmental Impact Assessment Procedure (2015)**
- **National Environmental Quality (Emission) Guidelines (2015)**

Myanmar National Water Policy

- Myanmar National Water Policy was adopted in August, 2015.
- It is aiming to take cognizance of the existing situation, to propose a framework for creation of a system of laws and institutions and for a plan of a action with a unified national perspective including the Myanmar National Water Framework Directive.
- Other relevant laws and regulations from other relevant ministries

Departments and Organizations which are related with Water Sector

No.	Department	Ministry / Organization	Duties and Functions
1.	Environmental Conservation Department	Ministry of Natural Resources and Environmental Conservation	Formulation National EQS including Water Quality Standards
2.	Forest Department	Ministry of Natural Resources and Environmental Conservation	Reforestation and Conservation of Forest including Watershed Areas
3.	Irrigation Department	Ministry of Agriculture, Livestock and Irrigation	Provision of Irrigation Water to Farmland
4.	Water Resources Utilization Department	Ministry of Agriculture, Livestock and Irrigation	Irrigation and Rural Water Supply
5.	Directorate of Water Resources and Improvement of River System	Ministry of Transport and Communication	River Training and Navigation
6.	DISI	Ministry of Industry	Industrial Water Use and Discharge
7.	Department of Metrology and Hydrology	Ministry of Transport and Communication	Water Assessment of Major Rivers
8.	Department of Urban and Housing Development	Ministry of Construction	Domestic Water Supply
9.	Department of Public Health	Ministry of Health and Sports	Environmental Health, Water Quality Assessment and Control
10.	Department of Development Affairs	Ministry of Border Areas Development Affairs	Rural Water Supply and Sanitation
11.	Department of Research and Innovation	Ministry of Education	Formulation National Standards
12.	Water and Sanitation Department	City Development Committees (Yangon, Mandalay, Nay Pyi Taw)	Water Supply and Sanitation at City Areas

Objectives of Environmental Conservation Law

1. to implement the Myanmar National Environment Policy
2. to lay down the basic principles and give guidance for systematic integration of the matters of environmental conservation in the sustainable development process
3. to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations
4. to reclaim ecosystems as may be possible which are starting to degenerate and disappear
5. to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially
6. to implement for promoting public awareness and cooperation in educational programmes for dissemination of environmental perception
7. to promote international, regional and bilateral cooperation in the matters of environmental conservation
8. to cooperate with Government departments, Government organizations, international organizations, non-government organizations and individuals in the matters of environmental conservation

Definition of Environmental Quality Standard

Article 2. (c) of ECL

(c) **Environmental Quality Standard** means the parameters of general quality for enhancement and conservation of environmental quality for environmental situations;

Duties and Powers relating to the Environmental Conservation of the Ministry

Article 7. of ECL

The duties and powers relating to the environmental conservation of the Ministry are as follows:

- (d) prescribing **environmental quality standards** including standards on emissions, effluents, solid wastes, production procedures, processes and products for conservation and enhancement of environmental quality;

Environmental Quality Standards

Article 10. of ECL

The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:

- (a) suitable **surface water quality standards** for the usage in rivers, streams, canals, springs, marshes, swamps, lakes, reservoirs and other inland water sources of the public;
- (b) water quality standards for coastal and estuarine areas;**
- (c) underground water quality standards;**
- (d) atmospheric quality standards;
- (e) noise and vibration standards;
- (f) emission standards;**
- (g) effluent standards;**
- (h) solid waste standards;
- (i) other environmental quality standards stipulated by the Union Government

Environmental Quality Standards (Contd.)

Article 11.

The Ministry may, with the approval of the Union Government and the Committee, **insert, modify and stipulate the environmental quality standards for the interests of the public in accord with the scientific and technological advances or requirement of work according to time and area.**

Article 12.

If any environmental quality standard stipulated by any Government department, Government organization under **any existing law is more than the quality standard stipulated by the Ministry, it shall remain in force; however if it is less than such standard, only the standard stipulated by the Ministry shall be in force.**

Regulations for Water Pollution Control and Enforcement

National Environmental Quality (Emission) Guidelines (December, 2015)



Current Situation – Formulating the National Environmental Quality Standards

National Environmental Quality (Emission) Guidelines (2015)

Objective

These national Environmental Quality (Emission) Guidelines (hereafter referred to as Guidelines) provide the basis for regulation and control of noise and vibration, air emissions, and liquid discharges from various sources in order to prevent pollution for purposes of protection of human and ecosystem health.

General Guidelines

- ❖ Air Emissions,
- ❖ Wastewater
- ❖ Noise Levels
- ❖ Odor

Industrial-Specific Guidelines

- ❖ Energy Sector Development
- ❖ Agriculture, Livestock and Forestry Development
- ❖ Manufacturing
- ❖ Waste Management
- ❖ Water Supply
- ❖ Infrastructure and Service Development
- ❖ Mining

Reference

Environmental, health and safety guidelines 2007. International Finance Corporation (IFC), World Bank Group

National Environmental Quality Standards

Proposed National Environmental Quality Standards

1. Surface Water Quality Standards
2. Emission Standards
3. Ground Water Quality Standards
4. Soil Quality Standards
5. Noise and Vibration

Cooperating Ministries regarding National Environmental Quality Standards Formulation

Focal Ministries

- Ministry of Natural Resources and Environmental Conservation (According to Environmental Conservation Law)
- Ministry of Education (According to Standardization Law)

Cooperating Ministries / Organizations

- Ministry of Industry
- Ministry of Education
- Ministry of Construction
- Ministry of Health and Sports
- Ministry of Electric Power and Energy
- Ministry of Transport and Communication
- Ministry of Agriculture, Livestock and Irrigation
- City Development Committees

Challenges for Water Quality Monitoring Standards

- ❖ Institutional Mechanism and Capacity
- ❖ Human Resources
- ❖ Technology
- ❖ Framework and Guidance (Inspection guidance/manual) for Monitoring
- ❖ Research and Development
- ❖ Database System
- ❖ Comprehensive Monitoring system
- ❖ Monitoring Facilities, Laboratory and Technicians

Areas which will be strengthened for Water Quality Monitoring Standards

Comprehensive & Integrated Monitoring System

Technology Promotion

Law Enforcement

Baseline Assessment

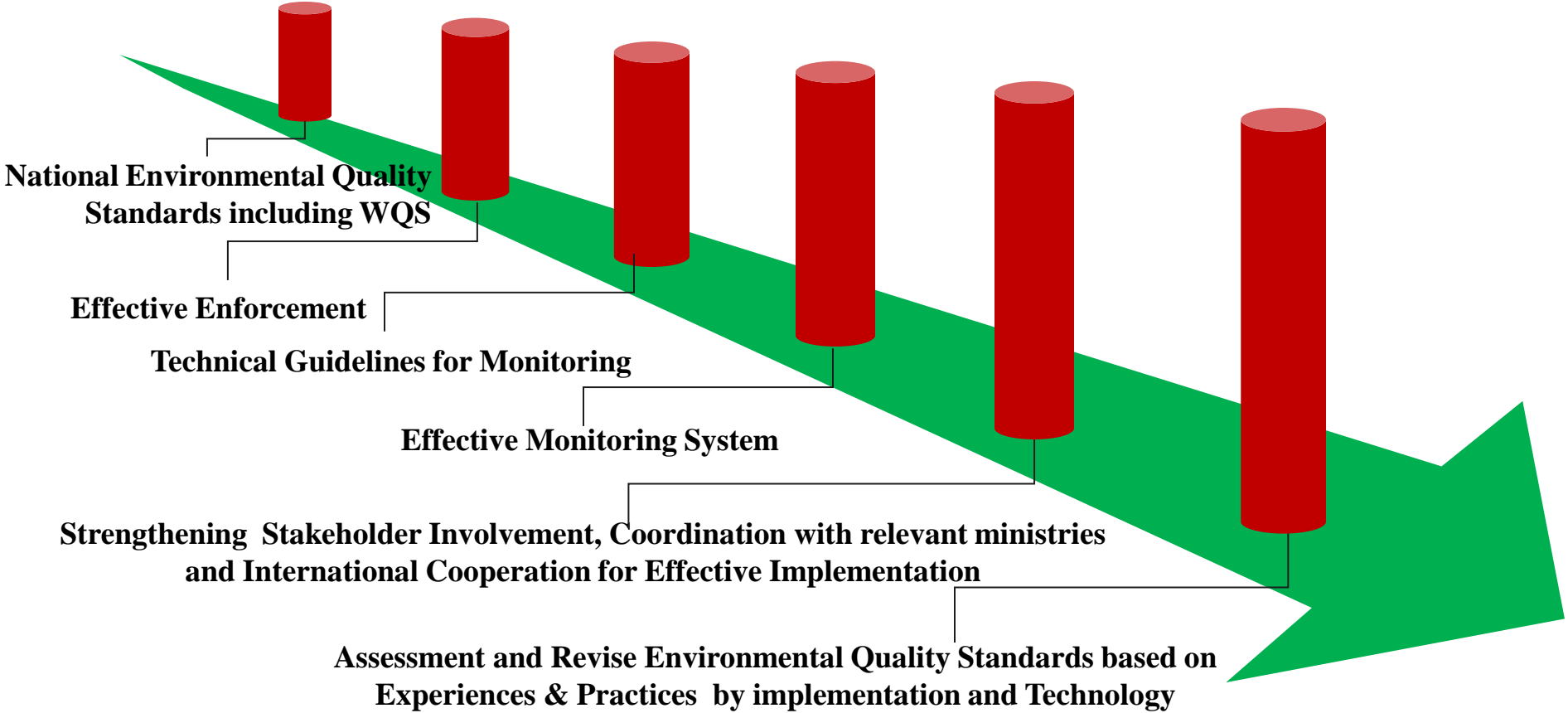
Installation the Waste Water Treatment System at the industries and the industrial zones

Promote Public Participation and Awareness

Strengthen Institutional Capacity and Coordination Mechanism

Promote Regional Level and International Cooperation

Way Forward for Water Environmental Management



Actions which will be implemented for strengthening Comprehensive Water Quality Management

- Promote institutional and management mechanisms for water quality management
- **Develop water quality standards / criteria / guidelines**
- Develop water treatment facilities

Developing water quality standards / criteria / guidelines

Activities

- Conduct surveys, profiling and studies of each water bodies and watersheds
- Identify and establish databases on important water bodies
- Formulate the plans for management, rehabilitation, protection and conservation of water bodies
- Coordinate with the relevant ministries, organizations and stakeholder in the implementation and monitoring of the plans
- Review and analyze the results of monitoring and also revise the plans periodically
- Formulation the water quality standards
- Implement effective monitoring of compliance with water quality standards
- Undertake research and development on water pollution control

Conclusion

- Myanmar has to take into account the international best practices and experiences to formulate not only the environmental regulations but also water quality monitoring standards.
- In order to prevent pollution for purposes of protection on the environment and human health, water quality standards / criteria / guidelines will be formulated.

Thank You For Your Kind Attention !

***“Let’s Think Globally and Act Locally
for the protection of Environment and Human Health”***