

National Water Resources Management in Myanmar

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MYANMAR



Location: South East Asia Peninsula
Between 10°N to 28°N (latitude)
92.5°E to 101.5°E (longitude)

Border: Bangladesh, India, China, Laos,
Thailand, Bay of Bengal, Andaman Sea

Land Area: 676,553 km²

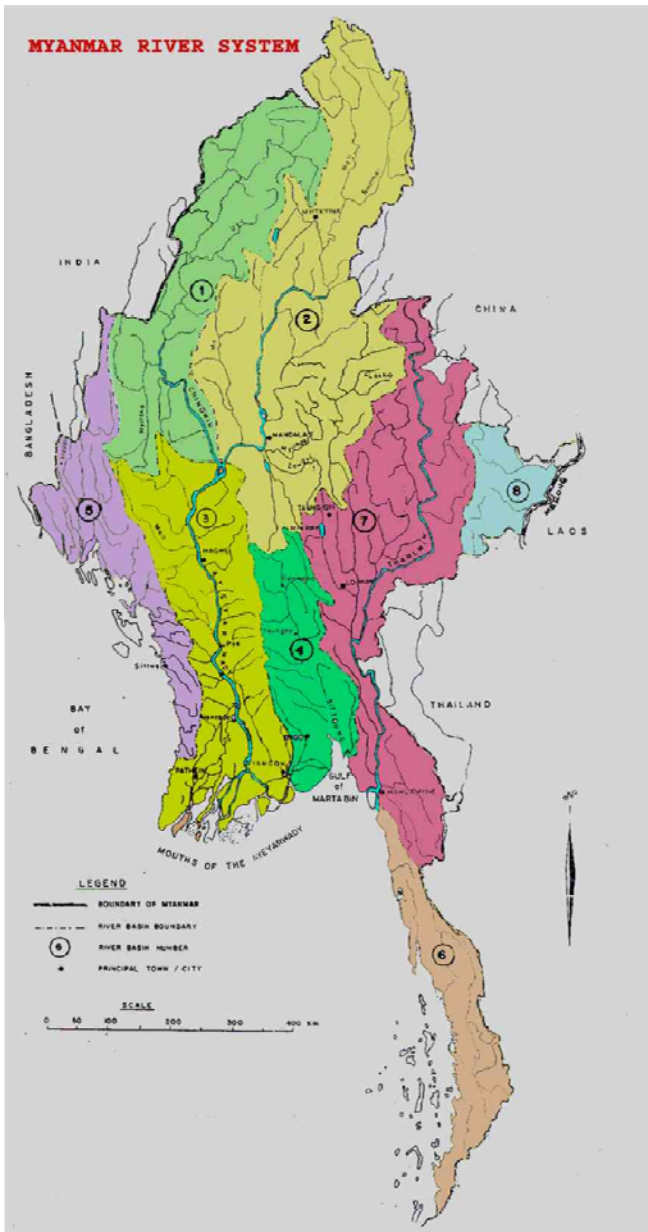
Topography: Flat land, river valleys, hills,
plateau and mountains

Climate: Tropical

Rainfall: Less than 900 mm in Central
Myanmar

Temperature: Above 40°C during hot season
in
Central Myanmar

Population: about 53 million, over 70% is in
rural area



Water Potential in Myanmar

Major River System

1. Ayeeyarwaddy River
2. Chindwin River
3. Sittaung River
4. Thanlwin River

Water Resources Potential

River Basin No.	Name of the River Basin	Drainage Area (10 ³ km ²)	Avg. Annual Surface Water (km ³)	Ground Water (km ³)
I	Chindwin	115.30	141.293	57.578
II	Upper Ayeyarwady	193.30	227.920	92.599
III	Lower Ayeyarwady	95.60	85.800	153.249
IV	Sittoung	48.10	81.148	28.402
V	Rakhine State	58.30	139.245	41.774
VI	Taninthari Division	40.60	130.927	39.278
VII	Thanlwin	158.00	257.918	74.779
VIII	Mekong	28.60	17.634	7.054
	Total	737.80	1081.885	494.713

Background

- Myanmar has high potential for social economic development owing to its abundant water resources.
- Water is used in many different sector such as agriculture, hydropower, Industry, fishery, people and livelihoods, irrigation, livestock.
- Several agencies and departments under different ministries are involved independently in water sector.
- Those agencies implement their main duties according to their segregated and sometimes even conflicting mandates.
- They are parts and parcels of the IWRM framework, however, without visible coordination.

Background

- Several agencies under the different ministries engage in water use sector:
 - 10 water related Ministries
 - 3 major City Development Committees: Yangon, Mandalay and Nay Pyi Taw
 - a number of private sector entities active in agricultural, domestic and industrial water uses
 - Those agencies implement their main duties according to their segregated and sometimes even conflicting mandates.
 - They are parts and parcels of the IWRM framework, however, without visible coordination.
 - Poor cooperation and coordination among line ministries
 - No leading agency.

Existing Institutional Structure

Objectives and Functions of selective agencies

Sr.	Agency	Ministry	Functions
1	Department of Meteorology and Hydrology (DMH)	Ministry of transport	Water assessment of major rivers, Data collection and analyzing
2	Irrigation Department (ID)	Ministry of Agriculture and Irrigation	Provision of Irrigation water to farmland
3	Department of Hydroelectric power (DHP)	Ministry of Electric Power	Hydropower Generation
4	Factories	Ministry of Industry	Industrial use, water treatment
5	Department of Health	Ministry of Health	Environmental Health, Water Quality Assessment and Control, monitoring water quality

Existing Institutional Structure

Objectives and Functions of selective agencies

Sr.	Agency	Ministry	Functions
6	City Development committee	Yangon/ Mandalay/ Napyitaw City Development Committee	City water supply and sanitation, Water conservation and protection works
7	Department of Development Affairs (DDA)	Ministry of Progress of Border Areas and National Races and Development Affairs	Domestic and rural water supply and sanitation
8	Water Resources Utilization Department (WRUD)	Ministry of Agriculture and Irrigation	Pump Irrigation and Rural water supply
9	DWIR	Ministry of Transport	River training and Navigation
10	Forest Department	Ministry of Environmental conservation and Forestry	Reforestation and Conservation of Forest, afforestation and watershed management

Existing Institutional Structure

Objectives and Functions of selective agencies

Sr.	Agency	Ministry	Functions
11	Myanmar Fishery Enterprise	Ministry of Livestock Breeding and Fisheries	Fishery works, monitoring and controlling water body
12	Department of Human Settlement and Housing Development	Ministry of Construction	Domestic Water Supply
13	Myanmar Engineering Society		Water resources management related activities, especially consultation
14	Technology University	Ministry of Science and Technology	Training and Research
15	Department of Environmental conservation	Ministry of Environmental conservation and Forestry	Environmental conservation and management
16	The township	-	Organizing the water needs, Conservancy needs

Existing Laws and Policies

Policy for:

- (1) Agricultural Sector
- (2) Irrigation development and efficient utilization of nation's water resources
- (3) Watershed conservation
- (4) National Environment policy
- (5) Environmental health
- (6) Water resources management

Holistic national water resources policy doesn't exist

Existing Laws and Policies

- The first law on water pollution, the penal code was enacted in 1860
- Most of existing laws and legislations were enacted before the year 2000
- Conservation of Water Resources and River Law was enacted in October 2006 and Environmental Conservation Law was enacted in March 2012
- No specific Water Law – Myanmar water professionals are drafting at present

Journey To IWRM

The Republic of the Union of Myanmar is putting great efforts to formulate IWRM in collaboration with Government Organizations, Non-Government Organizations, Private Sectors and International Organizations for the effective conservation of water resources in Myanmar.

Journey To IWRM

- National Water Resources Committee (NWRC) was formed on 25th July 2013 and reformed on 3rd Dec 2013 by the Presidential Office.
- NWRC consist of 28 members and Vice President is chairman.
- Expert Group was also formed by the Ministry of Transport in order to suggest and provide TA to the NWRC. It comprises 28 members.

Journey To IWRM

- Ministry of Transport, in name of NWRC has signed MoU with Ministry of Infrastructure and Environment, The Netherland in the development of IWRM in Myanmar in May 2013.
- Experts from Netherland have done strategic study in Myanmar between 7 and 31 Jan 2014.
- Based on the findings, they prepared the draft of National Water Policy of Myanmar, Myanmar Water Framework Directive, IWRM System and National Water Law and distributed to the NWRC and EG members in order to have comments and suggestions.

Journey To IWRM

- Expert Group of NWRC are conducting public consultation across the country relating to National Water Law.
- Meeting between Expert Group of NWRC and Dutch High Level Experts was held on 23th Aug 2014 at DWIR office in Yangon, Myanmar.

Statement of declaration

- Statement of declaration from the meeting are the three key messages and to implement six selected projects.
- Three key messages : 1) Optimizing what you have 2) Taking a broad view in the analysis of the problems 3) Focus on education, capacity building and training.
- The six projects: 1) Integrated Meiktila Lake area development 2) Bagan multi-purpose pilot river beautification 3) Pan Hlaing control sluice cum navigation lock 4) Feasibility study Mandalay-Bagan navigability improvement 5) Sittaung-Bago canal integrated water system analysis 6) Capacity building.

- In the draft of NWPM, MWFD, IWRM system and NWL, there are many activities including Institutional and legal Framework, River basin management planning and funding, Water data management.
- We are very willing to coordinate and cooperate in the field of IWRM not only the Netherland government and but also with Mekong Basin countries.

Thank You for Your Attention.