

Water Resources Management and Climate Change in Myanmar

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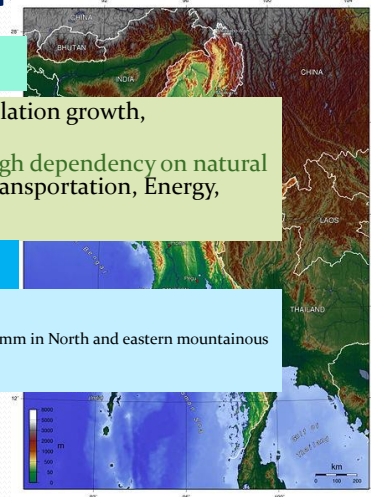
Background information

Vulnerable Situation to the Climate Change

- Natural: Geographic location, long coastal line, population growth, deforestation,
- Anthropogenic: population growth, deforestation, high dependency on natural resources, GHG emission from waste, Agriculture, Transportation, Energy, Industry and Mining

Source of Water Resource

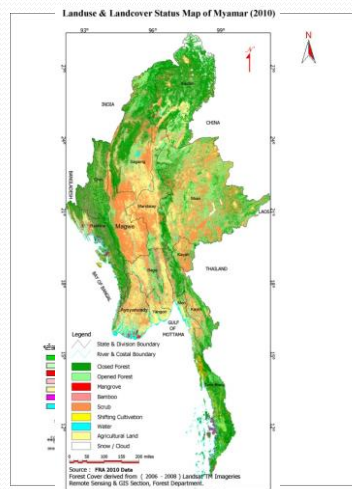
- Forest
- Snow cap mountain in the northern most
- Rain Water (5000 mm in South and west, 2000 -3000 mm in Delta, 1250 -3000 mm in North and eastern mountainous areas, and 750 mm in central MM)
- Ground Water
- Four Major Catchment Areas/
Basins and Rivers in coastal zones



Background information

Water Resource Storage

- Forest



Source: Data	CO ₂ Emission	CO Emission	CH ₄ Emission	N ₂ O Emission	NO _x Emission	CO ₂ Equivalent Total Emission	CO ₂ Equivalent Total Emission
Energy	1,458.48	-	1.82	0.28	-	1,460.47	1,460.47
Transport	17,211.09	-	7,403.03	10,964.03	-	35,578.15	35,578.15
Buildings	148.50	-	-	-	-	148.50	148.50
Industry	148.50	-	-	-	-	148.50	148.50
Agriculture	0.81	663.58	0.756	0.022	12,899.48	13,563.67	13,563.67
Land Use	0.01	507.23	0.276	0.022	12,211.15	12,718.61	12,718.61
Waste	33,626.31	2,225.37	144.85	4.26	24.06	35,820.85	35,820.85
Water	-	-	-	-	-	-	-
TOTAL	48,845.15	2,226.18	1,248.62	12,926.04	14,382	74,379.05	74,379.05

Institutional Strengthening for Water Management

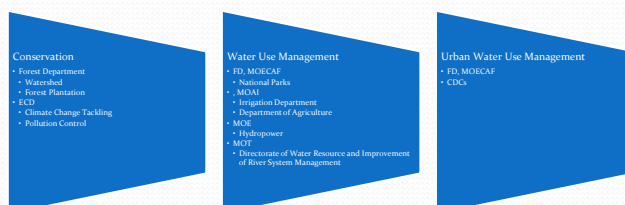
National Water Resource Committee

- Formed with 23 members from 13 line ministries, 3 city development committees, regional or state Minister, president office advisor, water expert team on 25 July 2013.
- Chaired by Vice President (2)

Use of Water in Different Sectors

		Surface Water	Groundwater	Total
1.	Domestic	1.15 (3%)	2.55 (68%)	3.7 (8%)
2.	Industrial	1.17 (3%)	0.33 (9%)	1.5 (3%)
3.	Irrigation	41.97(94%)	0.85 (23%)	42.82(89%)
	Total	44.29	3.73	48.02

Justification of Water Resources Management



Environmental Governance

Institutional Strengthening

- Environmental Conservation Committee – ECC (reformed in 10 March 2014)
 - 5 working committee
 - 1. Policy, Law, Rules, Regulations and Quality Standard WC (13 members)
 - 2. Industrial Projects, Urban and Rural WC (19 members)
 - 3. Natural Resource and Cultural Heritage Conservation WC (13 members)
 - 4. Climate Change Adaptation and Mitigation WC (16 members)
 - 5. Environmental Education and Awareness WC (15 members)
- MOECAP (2011)
- Myanmar Climate Change Alliance-MCCA (2013)

Policy and legislation

- Constitution (2008)
- Environmental Policy (1994)
- Myanmar Agenda 21 (1997) *The items adopted for implementation of environmental conservation works related to water are:*
 - Integrated management of land resources,*
 - Sustainable fresh water resources management,*
 - Sustainable management of coastal, marine and island ecosystem.*
- National Sustainable Development Strategy –NSDS (2009)
- Environmental Conservation Law (2012)
- Environmental Conservation Rules (2014)
- Procedures for Environmental Impact Assessment (Drafted)
- Sectoral Laws and Policies

Climate Change Initiatives

National Level

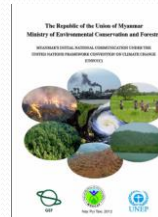
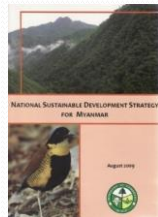
- NECC
 - CC Adaptation and Mitigation Working Committee
- Myanmar Climate Change Alliance - MCCA

International Cooperation

UNFCCC
 Kyoto protocol
 Montreal Protocol
 Myanmar Agenda 21(1997)
 INC (2012)
 NAPA (2012)
 NSDS (2009)

Regional Cooperation

- ASEAN Working Group on Climate Change – AWGCC
 - ASEAN Joint Statement on Climate Change
 - US-ASEAN Joint Statement on Climate Change



Thank You So Much for Your Kind
 Attention



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