

UNFCCC-LEG Regional Training Workshop on NAPs

Development Planning and Climate Change in Myanmar

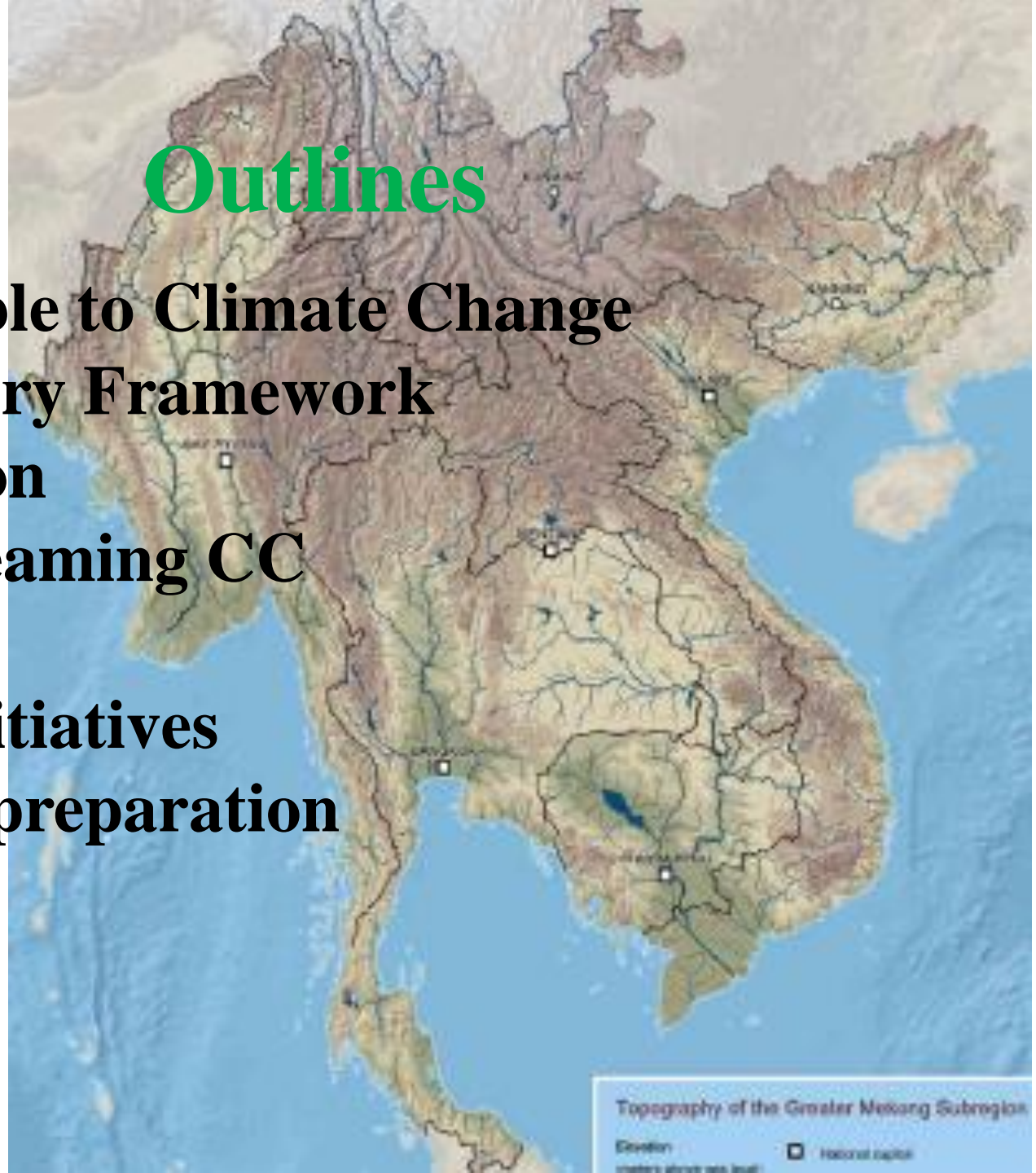
**Hla Maung Thein
Deputy Director General
ECD, MOECAF**

**May Khin Chaw
Deputy Director
DMH, MOT**

10-14th August, 2015, Inya Lake Hotel, Yangon Myanmar

Outlines

- **Vulnerable to Climate Change**
- **Regulatory Framework**
- **Institution**
- **Mainstreaming CC**
- **Projects**
- **NAPs Initiatives**
- **Further preparation**



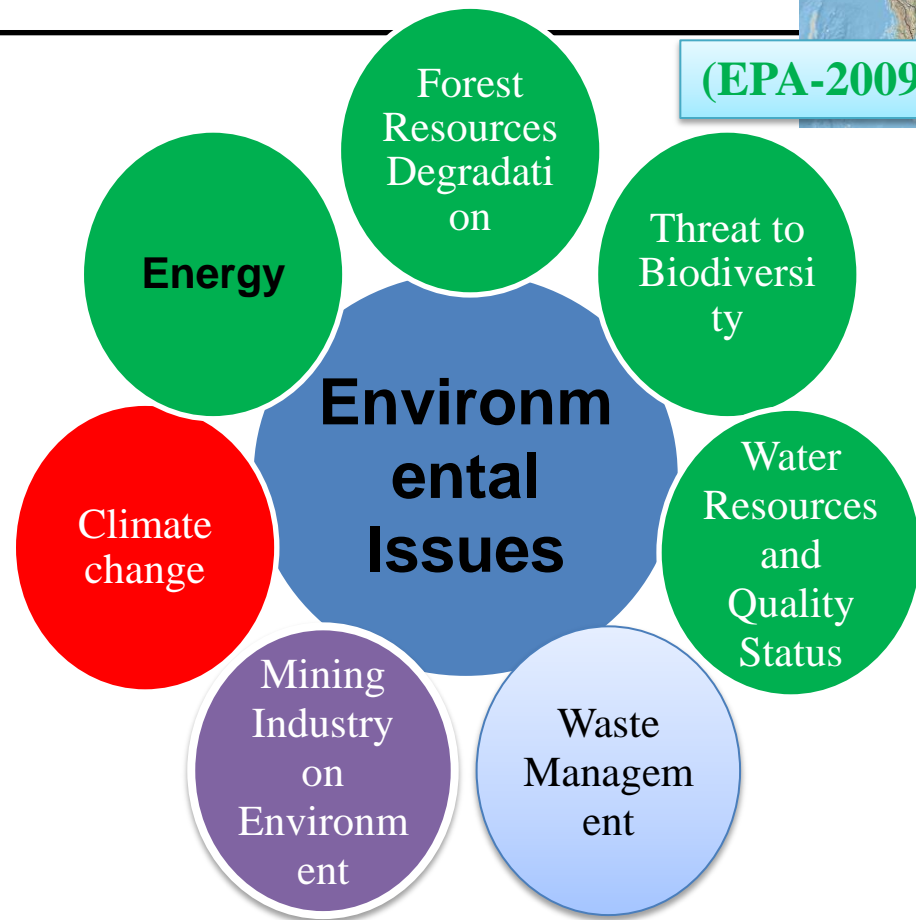
Climate Change Issues



(EPA-2009)

German Watch,
2015)

- Global Climate Risk **Index** for 2015
- Myanmar ranked **the 2nd** among countries most **affected by climate change** (1994-2013).
- Based on weather-related **disaster losses** from 1994-2013.



History of Natural Disasters

- 2006 Apr Cyclone Mala
- 2008 May Cyclone Nargis
- 2010 Oct Cyclone GIRI
- 2011 Mar Tarlay Strong Earthquake
- 2011 JJA Heavy Rain & Floods
- 2011 Oct Pakokku Flash Flood
- 2012 JJA Lower/NE Myanmar Floods
- 2012 Nov Shwebo Strong Earthquake
- 2013 JJA Heavy rain triggered secondary hazards.
- 2015 July Cyclone Komen, Heavy Rain & Floods

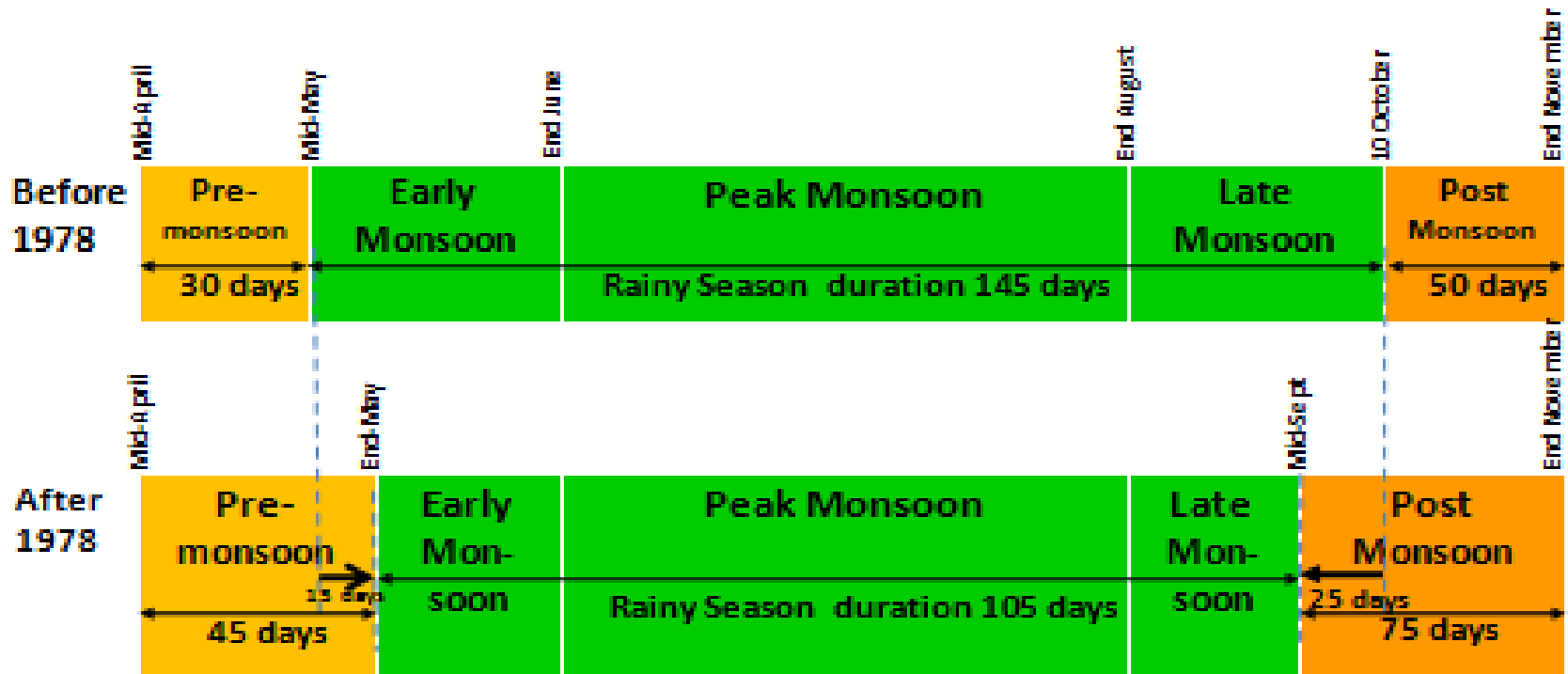


Observed Climate Variability & Change

CHANGES ON MONSOON

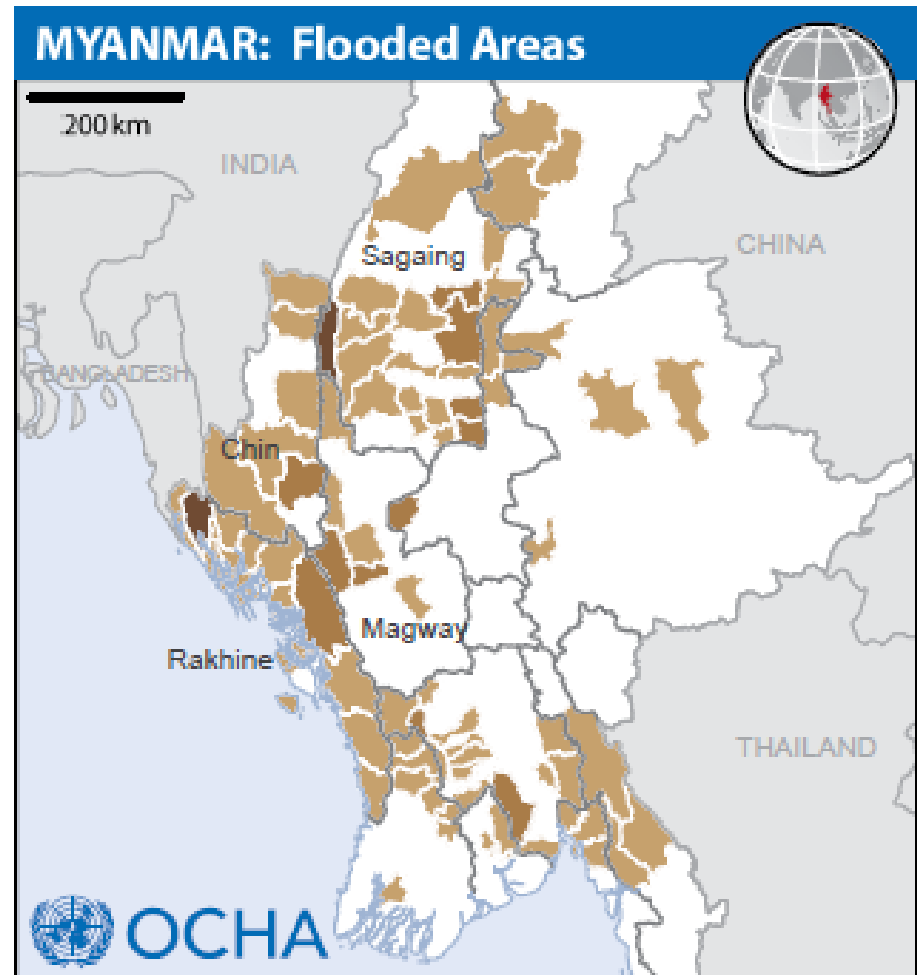
- Late onset and early withdraw are starting from 1982.
- The late onset and the early withdrawal of monsoon are responsible for the shorter duration of monsoon seasons. The shorter period is as short as 3-4 weeks
- Frequency of monsoon Storms are down to very low frequency.

Changes of SW Monsoon Season



29 July to 4th August, 2015 Flood

Massive flood & strong wind have affected 12 states and regions



Map Sources: RRD, OCHA, MIMU
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Map created on 5 Aug, 2015

Impacts

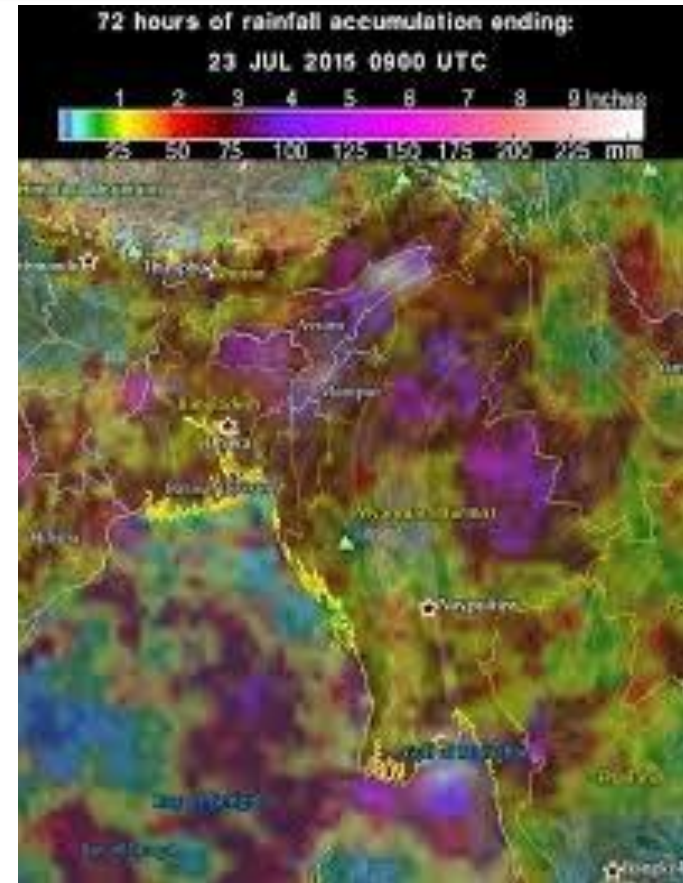


LANDSLIDE IN CHIN STATE



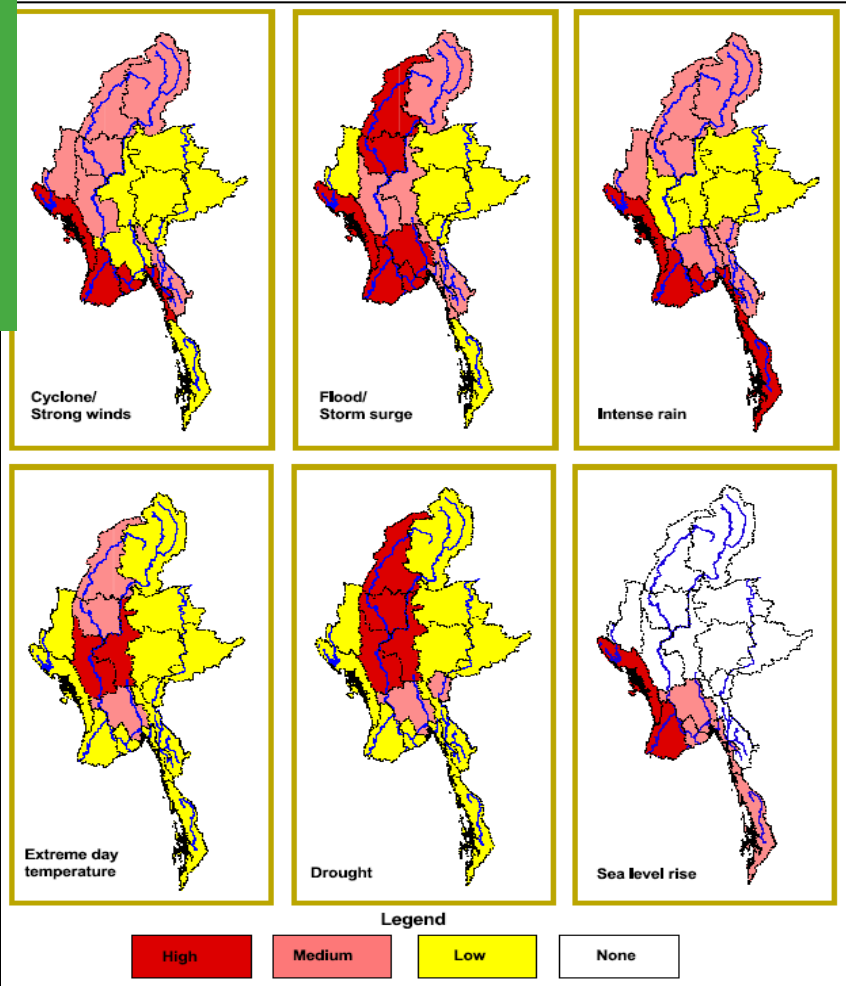
Falam, 29 July — Landslides and flooding have caused significant damage in hilly areas of Chin State following nearly a week of heavy rains, local officials said.

Because of coincidence with Extreme Rainfall and Cyclone KOMEN

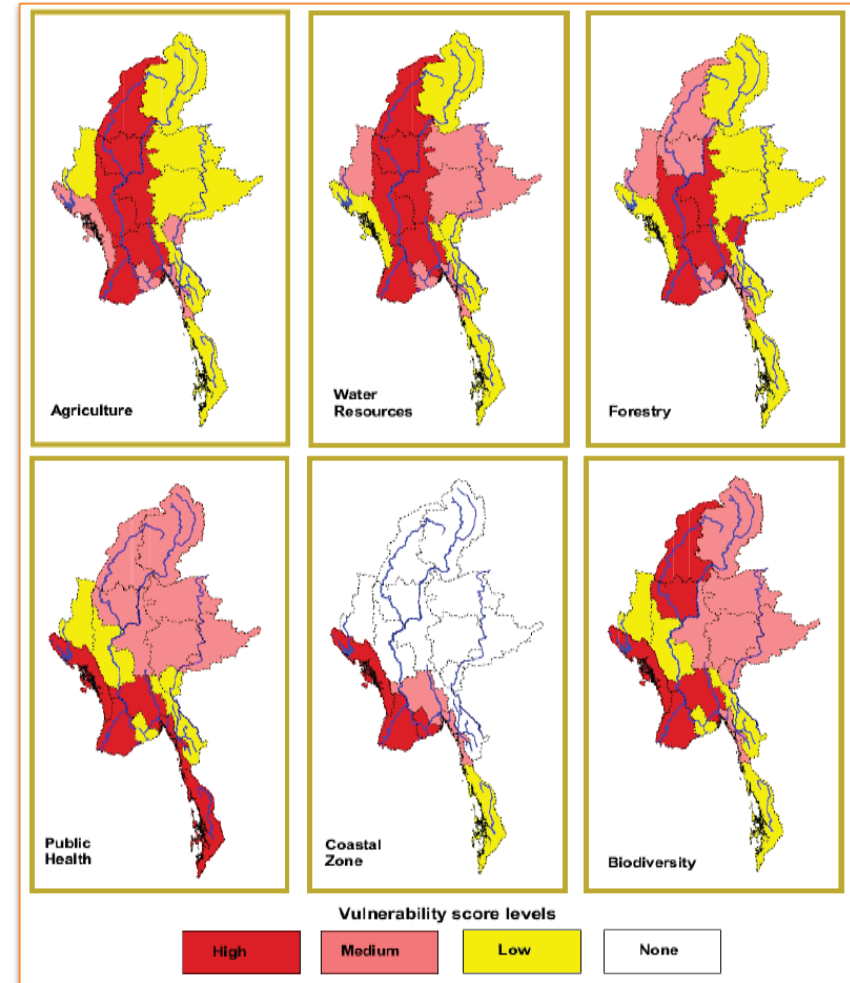


Myanmar's Vulnerability to Climate Change

Vulnerability of areas and Regions/States in intensity and severity of extreme weather events



Climate Change Vulnerability of the main socio-economic sectors due to extreme weather events



Climate Change in Myanmar

The observed climate variability and change in Myanmar over the last ~six decades:

- **Increase in temperatures** ($\sim 0.08^{\circ}\text{C}$ per decade), notably in the northern and central regions
- **Increase in total rainfall, decreases** in certain areas (e.g. Bago Region);
- **Decrease** in the **duration** of the **south-west monsoon season** as a result of a late onset and early departure times
- **Increases** in the **occurrence** and **severity of extreme weather** events (e.g. cyclones, flood/storm surges, intense rains, and drought)



Highlights Climate hazard and impacts



Major climate hazards:

- Cyclones/ strong winds
- Flood/storm surge
- Intense rains
- Extreme high temperatures
- Drought



Some direct impacts:

- Loss of lives and livelihoods, damage to crops, ecosystems
- Storm surge flooding in coastal areas, river floods in deltas, Health
- Flash floods, soil erosion, crop damage
- Heat waves, reduced water availability, Health
- Decrease in agricultural yields, crop failure, decreased river flows

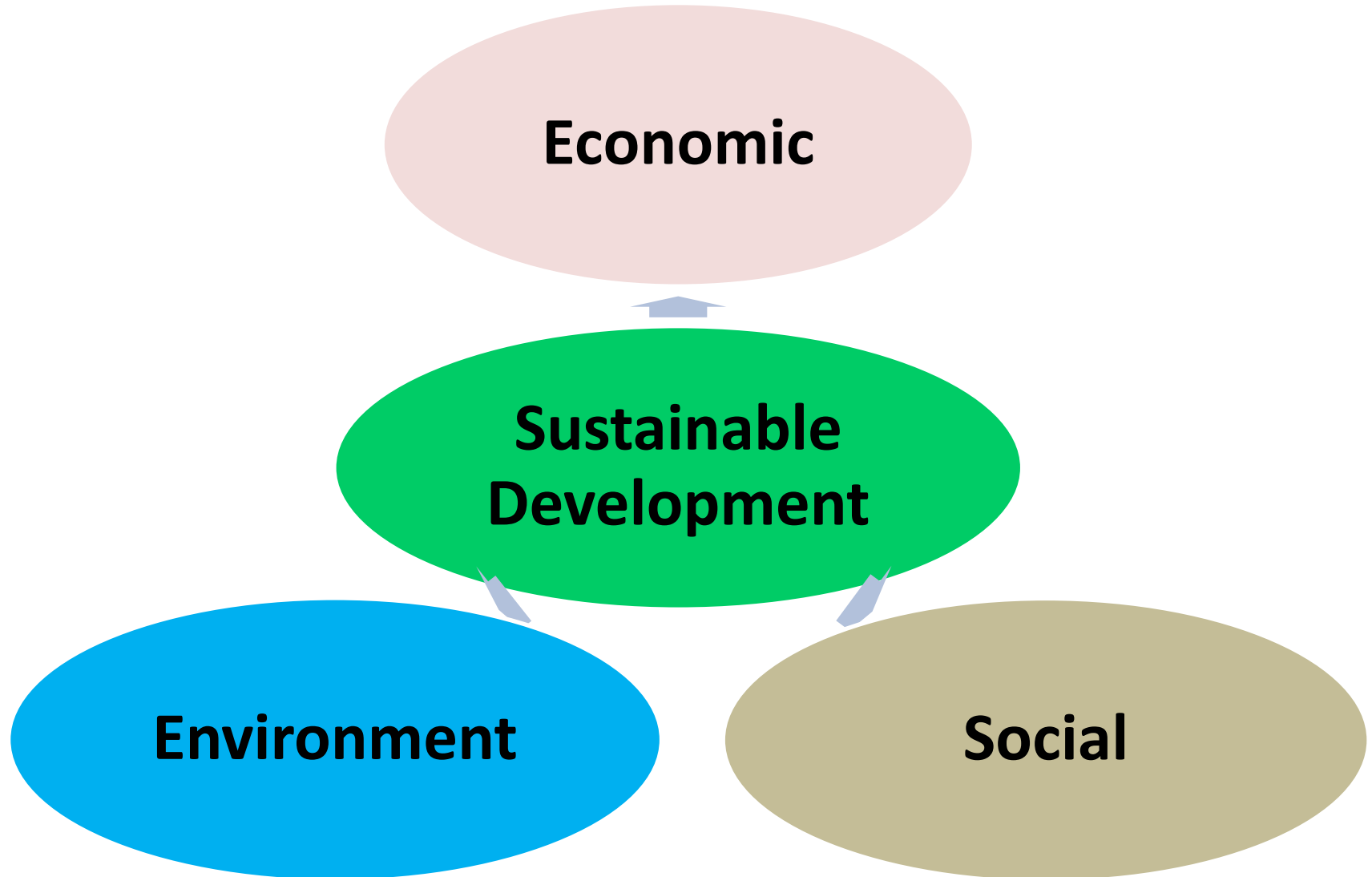
Sectors for Climate Change adaptation

National Adaptation Plan of Action (NAPA)

- Priorities sectors for climate adaptation
 - Agriculture
 - Early warning
 - Forest
 - Public health
 - Water resources
 - Coastal Zone
 - Energy and Industry
 - Biodiversity



Development & Environment



National Comprehensive Development Plan (NCDP-2015)

Strategic Goal- Toward Modern
Developing Country to achieve SD

Strengthening Gov.
Institution

Better
Economic
Environment

Enhancing
Economic
cooperation in
domestic and
overseas

Promote
potential
economic
sectors

Enabling
domestic
Business

HDR and
poverty
reduction

Env.
Safeguards

Policy guidelines : Environmental Sustainability

- **To lay down new policy for economic development in parallel with environmental conservation**
- To review and amend laws and enact new **laws on environmental conservation**

Relevant Regulatory Framework

- Constitution (2008)
- Environmental Policy (1994)
- Myanmar Agenda 21 (1997)
- National Sustainable Development Strategy –NSDS (2009)
- NAPA (2012)
- Environmental Conservation Law (2012)
- Environmental Conservation Rules (2014)
- Environmental Quality Guidelines (2015)
- Relevant Sectoral Laws and Rules

Important Normative Instruments (2015-16)

- Intended National Determined Contribution INDC
- Second National Communication
- Climate Change Strategy and Action Plan
- Climate Change Policy
- NAPA
- Green Economy Policy / Strategy
- Environmental Policy
- NCDP
- ICZM, IWRM
- Other instruments (EIAs, MAP-DRR, Community Disaster Resilience Framework, IWRM etc.)

**Initiatives to mainstream
Climate Change into National
and Sectoral Development
Planning:**



Basic Steps: Integrating Climate Change into DP

- Climate change affects *all major economic sectors*. Building resilience to climate change must be mainstreamed across economic development sectors.



Climate trend and
Scenarios: Vulnerability
: temperature,
precipitation, sea level
rise

Determine priority
sectors

Integration of CC
adaptation into
Development planning

National Environmental Policy and Strategic framework and Master Plan

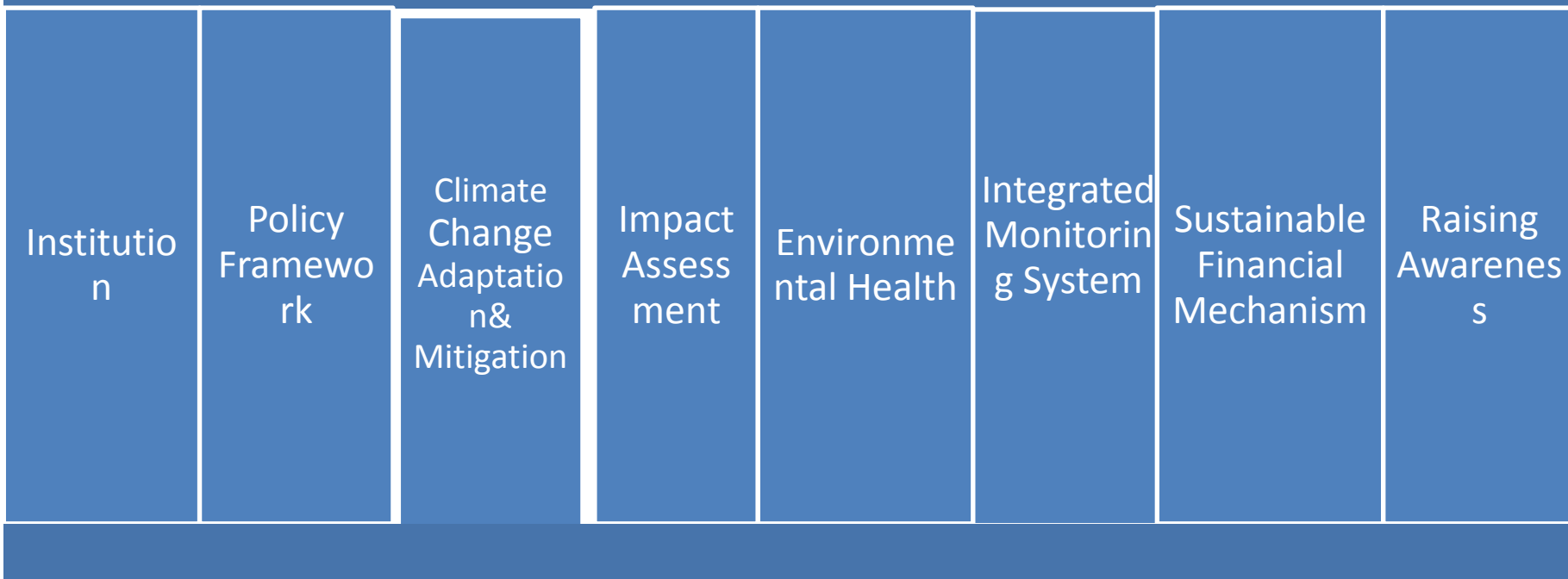
National Climate Change Policy

Action Plan for National Climate Change Adaptation and Mitigation

Forests	Biodiversity	Water	Environmental Quality	Land	Marine	Agriculture	Industrial, Transport	Tourism	Culture	Extractive Industries	Urban/Infrastructure	Energy
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Climate change in development

Environmental Sustainability toward Sustainable Economic Development



Institutions for Environmental Safeguards

Environmental Conservation Committee

Policy, Law and Standards
Working Committee

Climate Change Mitigation
and Adaptation Working
Committee

Land use and Culture
/Heritage Working Committee

Urban and Industries Working
Committee

Environmental Education
Working Committee

Regions/States
Environmental
Supervision
Committee



Institutional arrangement for Climate change

Myanmar Climate Change Alliance MCCA

Project Steering Committee

Technical Working Group

Sectoral Working Groups



Regions/States
Environmental
Supervision
Committee

Relevant Institutions for Environmental Safeguards

Natural Resources and Environment Committee in Parliament

- Overview and Guidance on Environment and Natural Resources management

Water Resources Committee

- National Water Policy

National Disaster Risk Reduction Committee

- National Climate Change Policy

Landuse Scrutinized Committee

- Landuse Policy

DNA

- Clean Development

National Climate Change Policy Strategy and Plan

Goals:

Vision

Strategic Objectives

Action Plan



THE Dr. Thet Thet Zin, Deputy Minister of Environmental Conservation and Forestry (MoECAF) opening the workshop.
The MoECAF leads the MCCA Programme

Strategies and Action Plans

***Guiding Principles
and alignment
with existing
processes/
normative
instruments***



Strategies and Action Plans

Overall Goals

“ to contribute to the long-term national development plan of Myanmar, recognizing that building resilience of vulnerable people to climate change and broadly adopting low-carbon development is a pre-condition.”

Strategies and Action Plans

Vision

Myanmar demonstrates/achieves climate resilient, low-carbon, resource efficient and inclusive development to contribute to sustainable development. (2030)

Strategies and Action Plans

Mission:

Strategies objectives

- Building **climate resilience of vulnerable communities**, areas and sectors by integrating climate change into national, sectoral and regional planning;
- Enhancing **low-carbon and resource-efficient** and inclusive development by establishing policy instruments and promoting **access to finance and technology**;
- Enhancing implementation sectoral capacities (technical and institutional);
- Building **multi-stakeholders partnerships** at national level and with global partners;
- Increasing capacities for **research, data analysis** and innovation for climate resilience.

Strategies and Action Plans

Cross-cutting areas

Define specific actions on cross-cutting issues that can be undertaken to contribute to the Strategy objectives

- Bridging DRR and CCA
- Involving the Private sector
- Promoting Gender equality
- Poverty reduction and social protection
- Contribute to Rural Development
- Promote Biodiversity and environmental protection

Geographic specificities

Define specific attention to be given on physio-geographic areas

- Coastal areas
- Delta areas
- Dry areas
- Mountainous regions

Action Plans

Sectors

Implications of the sector on CC; impact on the sector; main actors; needs for improvement; priorities; strategic objectives for the end of the strategy duration; refer to action plan)

- Water
- Mining
- Forestry
- Public Health
- Energy
- Transport and infrastructure
- Urban development and Construction
- Industrial and commercial development
- Etc.

NAPA implementation:

On going Projects funded by ADF, GEF 5

Project title	GEF agency	GEF (US\$-M)
Addressing Climate Change Risks on Water Resources and Food Security in the Dry Zone of Myanmar	UNDP	7.9
Sustainable cropland and forest management in priority agro-ecosystems of Myanmar	FAO	5.5
Improvement of Industrial Energy Efficiency in Myanmar	UNIDO	3.1
Strengthening Sustainability of Protected Areas in Myanmar	UNDP	6.71
Adapting Community Forestry landscapes and associated community livelihoods to a changing climate, in particular an increase in the frequency and intensity of extreme weather events	UNDP	5.6
Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Myanmar	FAO	6.0

Proposed Projects for GEF-6

Project title	GEF agency	GEF (US\$-Million)
Reef to Reef: Integrated Protected Area and Seascape Management in Mninharyi	GEF-UNDP	5.9
Mitigation-Focused Rural Productivity and Ecosystem Services Enhanced in Central Dry Zone Forest Reserves	GEF-ADB	5.22
My Coast: Ecosystem-Based Conservation of Myanmar's Southern Coastal Zone	GEF-FAO	5.0
The Restoration Initiative (TRI): Fostering innovation and integration in Support of the Bonn	GEF-IUCN	3.02
Leapfrogging the National Market to High Efficiency Lighting and Appliances	GEF-UNEP	2.5

Proposed adaptation projects

Project title	GEF agency	GEF (US\$-Million)
Fire Adapt: Climate-Smart Fire Management of Rural Landscapes of Myanmar	FAO	5.2
" Reducing Climate Vulnerability of Coastal Communities of Myanmar through an Ecosystem-based approach"	UNDP	7.

On-going GEF enabling projects

Project title	GEF agency	GEF (US\$-Million)
NBSAP update and 5 th National CBD report	UNEP	.2 million
2 nd National Communication under UNFCCC	UNEP	.5 million
Intended Nationally Determined Contribution	UNEP	.2 million

NAP process initiatives

With the Financial assistance by UNEP and Technical assistance by SEI for **Stock taking inception workshop for NAP** will be held on 21st September

- To identify current information on Climate change Impacts, **Risk, Vulnerability & Adaptation** as well as Gaps and Barriers
- **Roadmap** for preparing the development of NAP process

Further preparation for Development of NAP & its full implementation

- Political support
- Strengthening Capacity building
- Promoting Coordination across sectors
- Mainstreaming NAP into National Development Planning
- Enhancing advance Technology
- Sustaining Financial support

Thank you



Inle Lake in Myanmar dried up due to sever drought

