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

- 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.

German Watch, 2015)

(EPA-2009)
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
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.

![Diagram showing changes in monsoon season](image-url)
29 July to 4th August, 2015 Flood

Massive flood & strong wind have affected 12 states and regions.
Impacts
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

Legend

- **High**
- **Medium**
- **Low**
- **None**

Vulnerability score levels

- **High**
- **Medium**
- **Low**
- **None**
Climate Change in Myanmar

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

- **Increase in temperatures** (~0.08°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)
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

Sustainable Development

Economic

Environment

Social
National Comprehensive Development Plan (NCDP-2015)

Strategic Goal - Toward Modern Developing Country to achieve SD

Strengthening Gov. Institutions
Better Economic Environment
Enhancing Economic cooperation in domestic and oversea
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)
- NAPA (2012)
- Environmental Conservation Law (2012)
- Environmental Conservation Rules (2014)
- 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 Frame work, 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.
National Environmental Policy and Strategic framework and Master Plan

National Climate Change Policy

Action Plan for National Climate Change Adaptation and Mitigation

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

### Environmental Sustainability toward Sustainable Economic Development

<table>
<thead>
<tr>
<th>Institution</th>
<th>Policy Framework</th>
<th>Climate Change Adaptation &amp; Mitigation</th>
<th>Impact Assessment</th>
<th>Environmental Health</th>
<th>Integrated Monitoring System</th>
<th>Sustainable Financial Mechanism</th>
<th>Raising Awareness</th>
</tr>
</thead>
</table>
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

- Overview and Guidance on Environment and Natural Resources management
- National Water Policy
- National Climate Change Policy
- Landuse Policy
- Clean Development
National Climate Change Policy
Strategy and Plan

Goals:

Vision

Strategic Objectives

Action Plan

HE 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

- National Climate Change Policy, Strategy & AP
- NCDP
- NAPA
- INC
- INDC
- MAPDRR
- Green Economy Strategy
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 physisio-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

<table>
<thead>
<tr>
<th>Project title</th>
<th>GEF agency</th>
<th>GEF (US$-M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressing Climate Change Risks on Water Resources and Food Security in the Dry Zone of Myanmar</td>
<td>UNDP</td>
<td>7.9</td>
</tr>
<tr>
<td>Sustainable cropland and forest management in priority agro-ecosystems of Myanmar</td>
<td>FAO</td>
<td>5.5</td>
</tr>
<tr>
<td>Improvement of Industrial Energy Efficiency in Myanmar</td>
<td>UNIDO</td>
<td>3.1</td>
</tr>
<tr>
<td>Strengthening Sustainability of Protected Areas in Myanmar</td>
<td>UNDP</td>
<td>6.71</td>
</tr>
<tr>
<td>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</td>
<td>UNDP</td>
<td>5.6</td>
</tr>
<tr>
<td>Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Myanmar</td>
<td>FAO</td>
<td>6.0</td>
</tr>
</tbody>
</table>
## Proposed Projects for GEF-6

<table>
<thead>
<tr>
<th>Project title</th>
<th>GEF agency</th>
<th>GEF (US$-Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride to Reef: Integrated Protected Area and Seascape Management in Tanintharyi</td>
<td>GEF-UNDP</td>
<td>5.9</td>
</tr>
<tr>
<td>Mitigation-Focused Rural Productivity and Ecosystem Services Enhanced in Central Dry Zone Forest Reserves</td>
<td>GEF-ADB</td>
<td>5.22</td>
</tr>
<tr>
<td>My Coast: Ecosystem-Based Conservation of Myanmar’s Southern Coastal Zone</td>
<td>GEF-FAO</td>
<td>5.0</td>
</tr>
<tr>
<td>The Restoration Initiative (TRI): Fostering innovation and integration in Support of the Bonn</td>
<td>GEF-IUCN</td>
<td>3.02</td>
</tr>
<tr>
<td>Leapfrogging the National Market to High Efficiency Lighting and Appliances</td>
<td>GEF-UNEP</td>
<td>2.5</td>
</tr>
</tbody>
</table>
## Proposed adaptation projects

<table>
<thead>
<tr>
<th>Project title</th>
<th>GEF agency</th>
<th>GEF (US$-Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire Adapt: Climate-Smart Fire Management of Rural Landscapes of Myanmar</strong></td>
<td>FAO</td>
<td>5.2</td>
</tr>
<tr>
<td>&quot; Reducing Climate Vulnerability of Coastal Communities of Myanmar through an Ecosystem-based approach&quot;</td>
<td>UNDP</td>
<td>7.</td>
</tr>
</tbody>
</table>
## On-going GEF enabling projects

<table>
<thead>
<tr>
<th>Project title</th>
<th>GEF agency</th>
<th>GEF (US$-Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBSAP update and 5(^{th}) National CBD report</td>
<td>UNEP</td>
<td>.2 million</td>
</tr>
<tr>
<td>2(^{nd}) National Communication under UNFCCC</td>
<td>UNEP</td>
<td>.5 million</td>
</tr>
<tr>
<td>Intended Nationally Determined Contribution</td>
<td>UNEP</td>
<td>.2 million</td>
</tr>
</tbody>
</table>
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 21\textsuperscript{st} 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 advanced Technology
• Sustaining Financial support
Thank you