



Climate Change Programming in Myanmar- MCCA

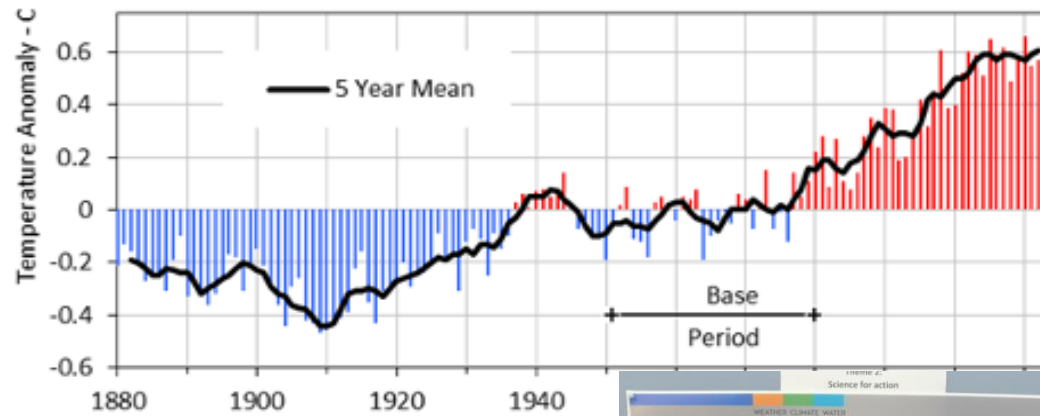
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Global Warming & Climate Projection

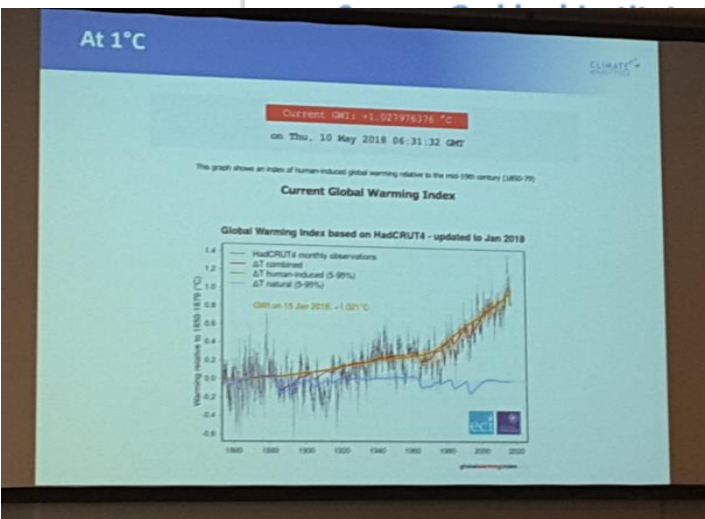
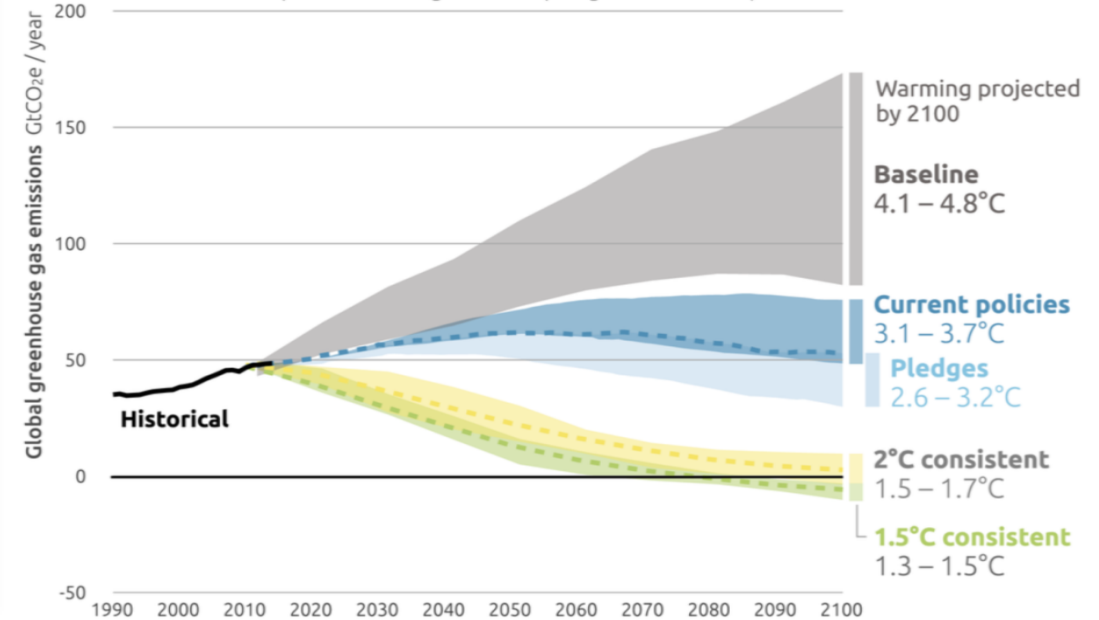
Global Temperature, 1880 - 2014

Land - Ocean Index: 1951-1980 Base



2100 WARMING PROJECTIONS

Emissions and expected warming based on pledges and current policies



Climate Change Projections in Myanmar

Temperature increase

	Model baseline* (1980 to 2006)	Precipitation range 2011-2040	Precipitation range 2041-2070
Annual	2000 mm	+1% to +11%	+6% to +23%
Hot Season	300 mm	-11% to +12%	-7% to +19%
Wet Season	1700 mm	+2% to +12%	+6% to +27%
Cool Season	100 mm	-23% to +11%	-12% to +11%

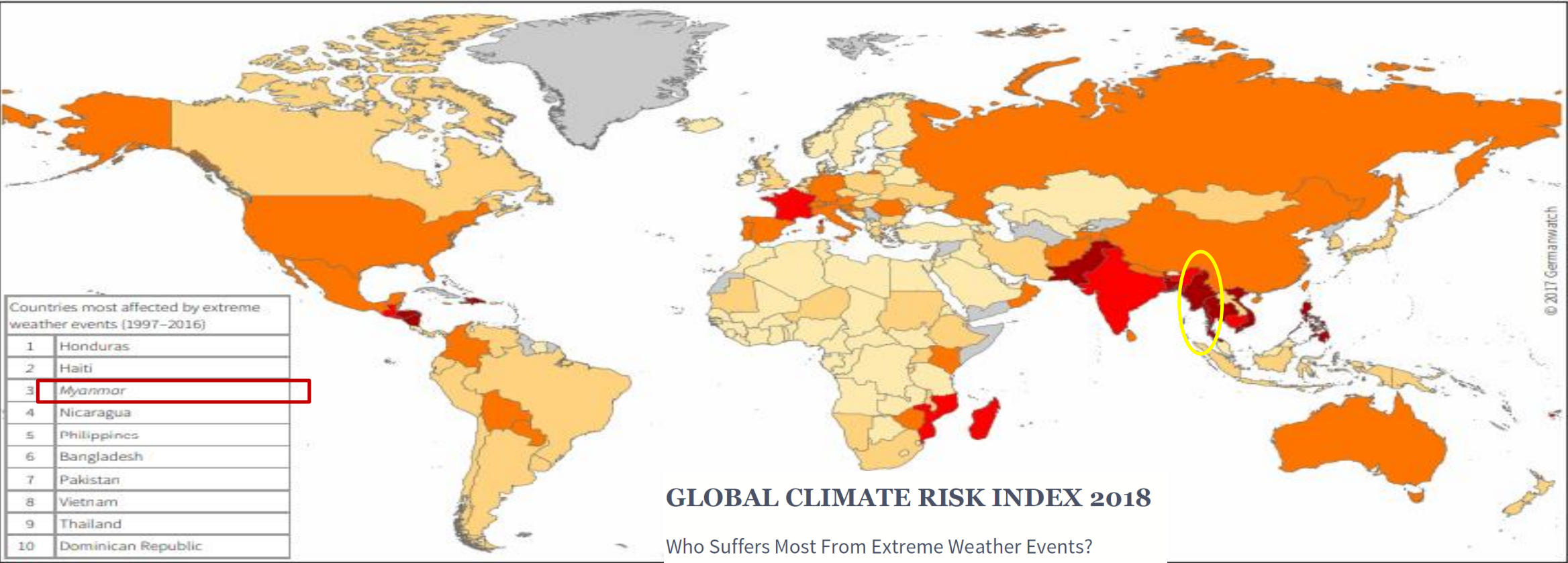
Heavy rain

	Model baseline* (1980 to 2006)	Warming by 2011-2040	Warming by 2041-2070
Annual	23.6 °C	0.7-1.1°C	1.3-2.7°C
Hot Season	25.1°C	0.8-1.2°C	1.4-2.9°C
Wet Season	25.1°C	0.6-1.1°C	1.1-2.4°C
Cool Season	20.5°C	0.7-1.2°C	1.3-2.8°C

Sea level rises

Timeslice	Middle range of future sea level rise
2020s	5 cm to 13 cm
2050s	20 cm to 41cm
2080s	37 cm to 83 cm

Risk of Climate Change



GLOBAL CLIMATE RISK INDEX 2018

Who Suffers Most From Extreme Weather Events?
Weather-related Loss Events in 2016 and 1997 to 2016

Italics: Countries where more than 90% of the losses/deaths occurred in one year/event

Climate Risk Index: Ranking 1997–2016 1–10 11–20 21–50 51–100 >100 No Data

Figure 1: World Map of the Global Climate Risk Index for 1997–2016

Source: Germanwatch and Munich Re NatCatSERVICE

Myanmar is highly vulnerable to climate change. In the past 20 years (1997–2016), it has been exposed to 43 extreme weather events resulting in a death toll of 7,097 (annual average) inhabitants and an annual average of 0.69 per cent loss per unit in GDP – making it the third-most affected country to extreme weather events (Climate Risk Index 2018, German Watch)

Extreme Weather Events in Myanmar (2019)



Myanmar's Regional and Global Commitment to address Climate Change Risk

- “The 2030 Agenda for Sustainable Development recognizes and reaffirms the urgent need to reduce the risk of disasters.”

Sendai Framework for Disaster Risk Reduction 2015-2030

7 GLOBAL TARGETS	Reduce	Increase
	Mortality/ global population 2020-2030 Average << 2005-2015 Average	Countries with national & local DRR strategies 2020 Value >> 2015 Value
	Affected people/ global population 2020-2030 Average << 2005-2015 Average	International cooperation to developing countries 2030 Value >> 2015 Value
	Economic loss/ global GDP 2030 Ratio << 2015 Ratio	Availability and access to multi-hazard early warning systems & disaster risk information and assessments 2030 Values >> 2015 Values
	Damage to critical infrastructure & disruption of basic services 2030 Values << 2015 Values	

SUSTAINABLE DEVELOPMENT GOALS



- There are also several SDGs and targets that can contribute to reducing disaster risk and building resilience, even where disaster risk reduction is not explicit.





Myanmar Climate Change Alliance (MCCA: 2013-2018)

- **Mainstream climate change into the Myanmar policy development and reform agenda**

Overall Objective

Three Expected Results

- **ER1:** Government, civil society and the private sector are more aware of the implications of climate change.
- **ER 2:** Government has the capacity and support needed to integrate climate change considerations in policies, strategies, plans and operations.
- **ER 3:** Lessons drawn on climate change from Sub-national and local level activities.

- Funding from EU under GCCA
- Oversight – Steering Committee headed by MoNREC
- Myanmar Climate Change Alliance Unit – housed at ECD
- Technical Working Group and 6 Sectoral Working Group
- Local Government (regional and township)
- UN-Habitat and UN Environment

Implementation Arrangement

Key Achievements under ER 1

New Climate Projections & Dissemination to Policy Makers

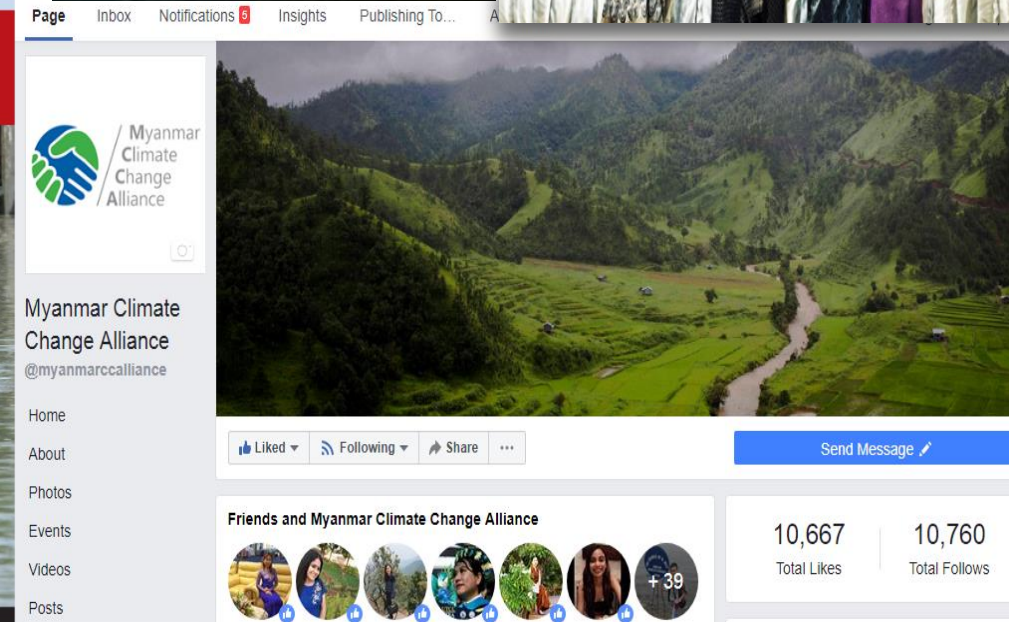
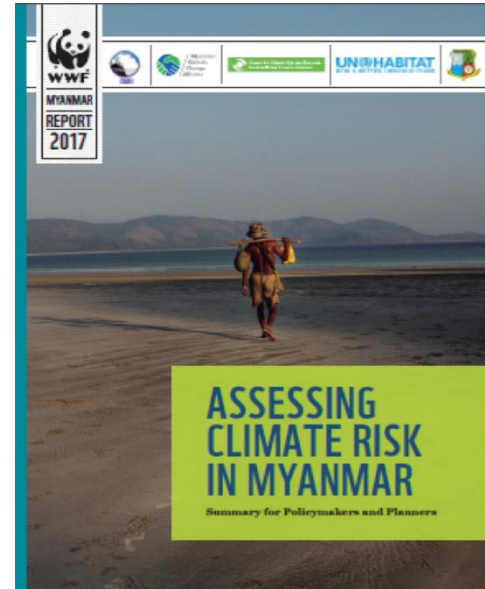
Social Media (Facebook: 10,750 followers) and Website

High Level Advocacy on CC Agenda (6 policy Briefs on Key Sectors)

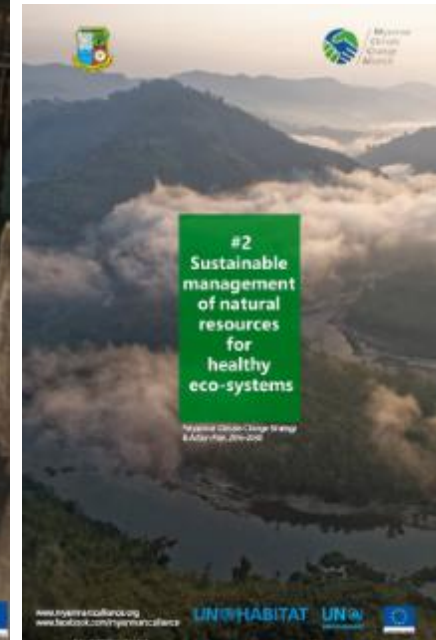
Training and Mentoring of 100+ Journalists on Climate Change

Video Documentary on Climate Change: Screening & Broadcasting

60+ Articles on Climate Change, 20+ Media Coverage, TV Debate etc.



Key Achievements under ER 1



Key Achievements under ER 2

Support on Global Climate Diplomacy

- Co-drafted INDC
- Support on COP21-23
- Preparatory workshop for Myanmar Delegation on upcoming COP 24

Institutional Strengthening Support

- Establishment of National coordination mechanism on Climate Change
- National level Technical Working Group
- 6 Sectoral Technical Working Group

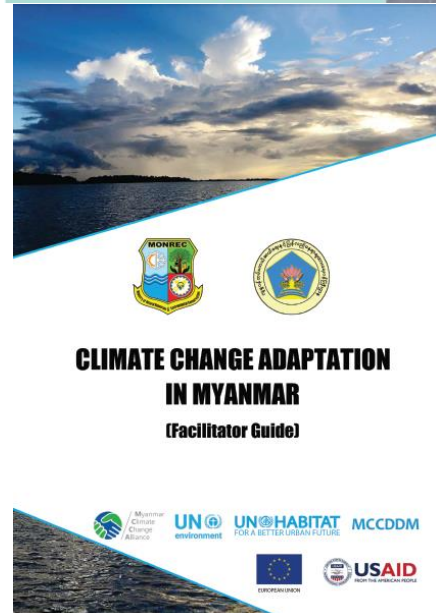
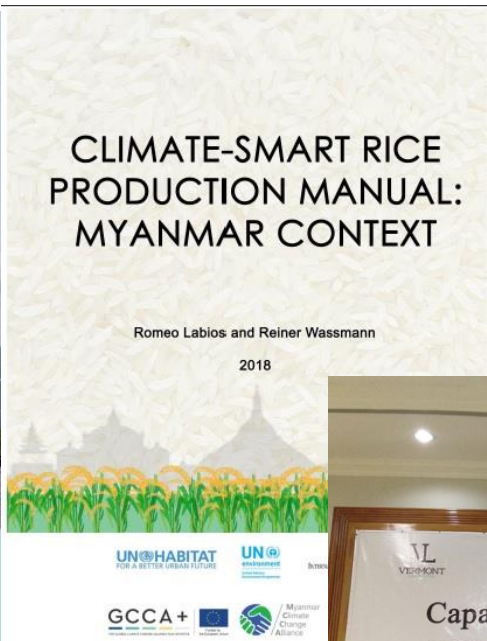
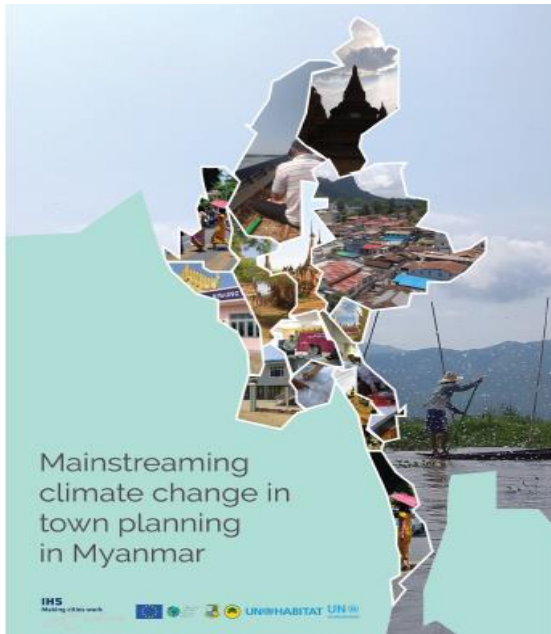
Policy and Strategy

- Myanmar Climate Change Policy
- Myanmar Climate Change Strategy
- Myanmar Climate Change Master Plan (2018-2030) along with 6 sectoral plans

Capacity Building Support to Key Relevant Ministries

- Integration of Climate Change into Annual Budgeting Process with MoPF
- Support to MoC on climate resilient design and climate risk informed urban planning
- Support to ECD on integration of CC in EIA process
- Support to MoALI on Climate Smart Rice Production
- Support to MoE on integration of CC in University Curricula
- Support to MSWRR in developing training course on CCA and DRR and rolling out in DMTC Hinthada

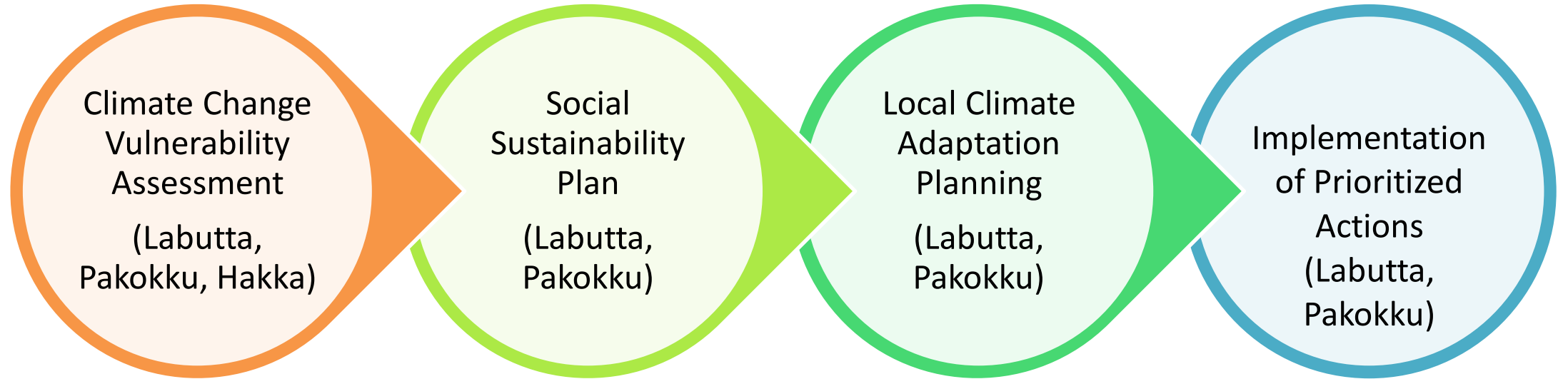
Key Achievements under ER 2



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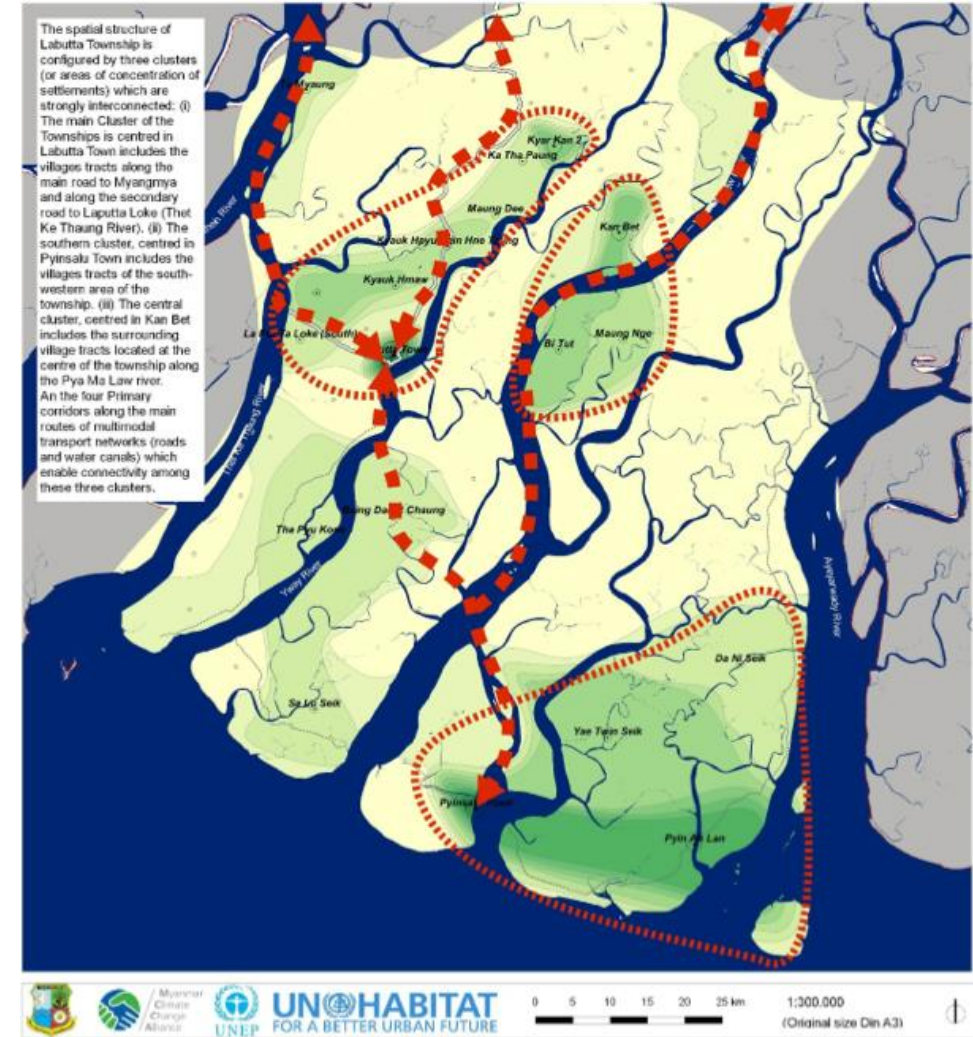
Key Achievements Under ER 3



Future Scenario



- a) Expected impacts / short-long term effects
- b) Scenarios for 2050
- ✓ **Scenario A:** Business as Usual ,
- ✓ **Scenario B:** Resilience is built to maintain current living standards
- ✓ **Scenario C:** Resilience is built that enables economic and social development, despite changes in climate



Climate Change Vulnerability Assessment Of Labutta & Pakokku Township



Implementation of Adaptive Measure in Labutta

Ecosystem

- Mangrove replantation (Thin Gan Lay Village)
- Awareness raising

Socioeconomic

- Vocational training
- Alternative livelihood skill development training for women group

Infrastructure

- Multi-purposed Shelter Construction (Oo Yin Kone Village)
- Overhead Water Tank near Shelter (Oo Yin Kone Village)
- Doubled-Toilet Construction near Shelter (Oo Yin Kone Village)
- Household Level Water Harvesting Tank
- Pond Fencing
- Improving Construction Techniques



Implementation of Adaptive Measure in Pakokku

Ecosystem

- Raising awareness on climate change

Socioeconomic

- Vocational training (Carpenter Training to build disaster and climate resilient houses for 30 participants)
- Alternative livelihood skill development training for women group

Infrastructure

- Multi-purposed Shelter Construction
- Improved Water Capture and Storage
- Sustainable Urban Drainage
- Improving construction techniques



Myanmar Climate Change Policy

Vision

A climate-resilient, low-carbon society that is sustainable, prosperous and inclusive, for the wellbeing of present and future generations

Purpose

Take and Promote climate change action on adaptation and mitigation

Integrate adaptation and mitigation considerations national priorities and all levels and sectors

Take decisions to create and maximize opportunities for sustainable, low-carbon, climate-resilient development

Guiding Principles

Sustainable development	Precaution	Prevention	Environmental integrity	Shared responsibility and cooperation	Inclusiveness	Good governance	Climate justice and equity	Gender equality and women's empowerment
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Policy recommendations

Food and water security	Healthy ecosystem	Low-carbon and resilient growth	Resilient urban and rural settlement	Human wellbeing	Knowledge, awareness and research
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Measures for implementation

Laws, regulations, strategies, action plans and policies	Institutions	Finance, budgets and investment	Capacity building	Research and technology	Partnerships	Transparency and accountability	Monitoring, evaluation, reporting and learning
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Myanmar Climate Change Policy, Strategy and Master Plan

Goal: By 2030, Myanmar has achieved climate-resilience and pursued a low-carbon growth pathway to support inclusive and sustainable development.

STRATEGIC OBJECTIVES

Increase adaptive capacity and resilience of communities and sectors

Maximise opportunities for low carbon development in potential sectors

FOCUS AREAS (KEY ENTRY POINTS)

Climate smart agri, fisheries and livestock for food security

Sustainable management of NR for healthy ecosystem

Resilient and low-carbon energy, transport and industry

Resilient, inclusive and sustainable cities and towns

Climate risk management for health and wellbeing

Education, science and technology

STRATEGIC PRIORITIES (FOR EACH FOCUS AREAS)

Policy

Climate smart initiatives into policies and plans

Institution

Operational arrangement, coordination mechanism

Finance

Climate finance, climate smart investment

Capacity and technology

Climate-smart responses

Awareness

Capacity for climate-smart decision making

Partnership

Multi-stakeholder partnership

Strategic Focus Sector

To achieve following outcome in 6 focused sectors

Climate-resilient productivity and climate-smart responses in the **agriculture, fisheries and livestock sectors** to support food security and livelihood strategies while also promoting resource-efficient and low-carbon practices.

Natural resource management that enhances the resilience of biodiversity and ecosystem services that support social and economic development and deliver carbon sequestration.

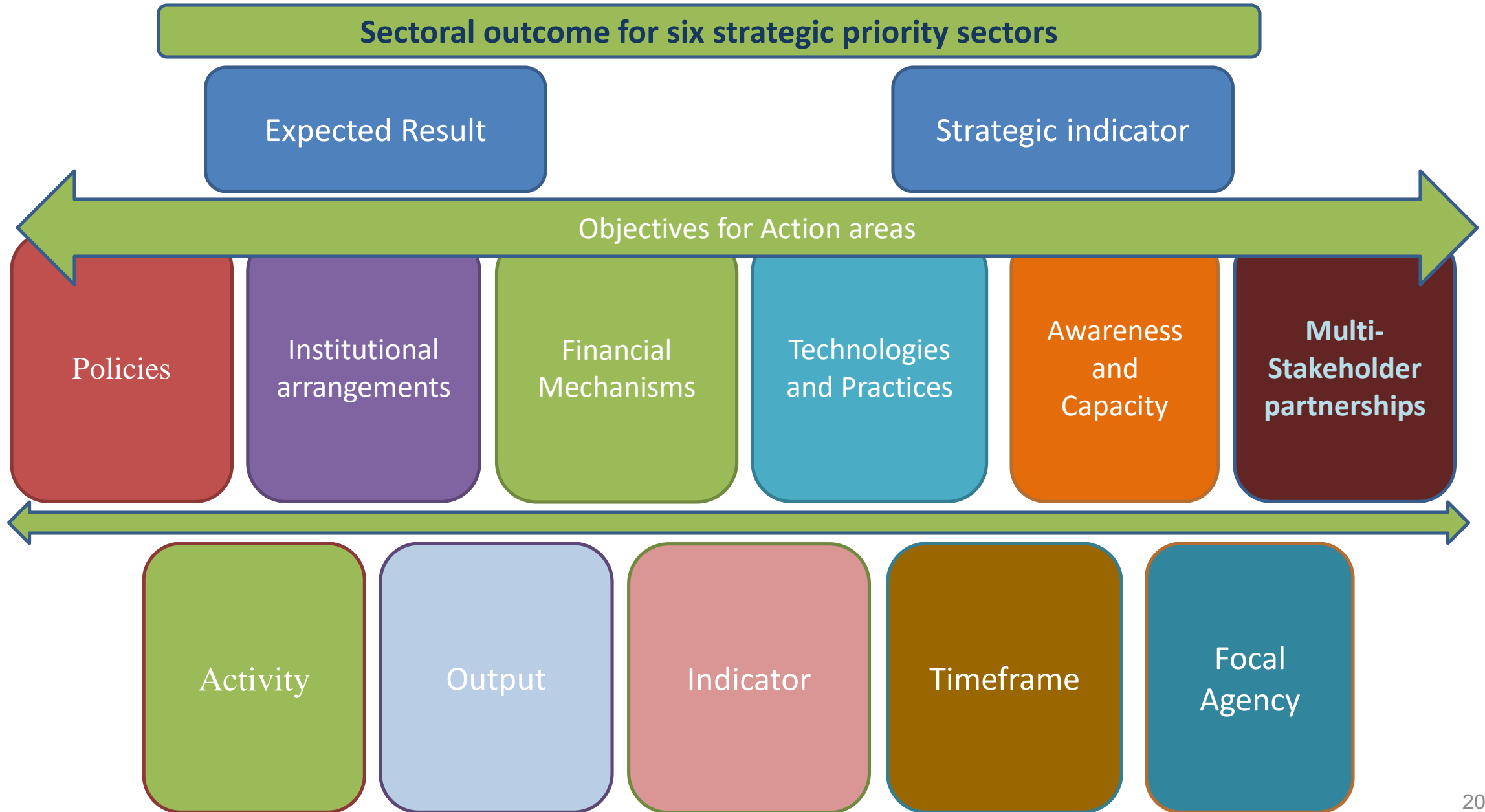
Climate-resilient and low-carbon **energy, transport and industrial systems** that support inclusive and sustainable development and economic growth.

All township and city dwellers, including the most vulnerable, are safe from increased risks of rapid- and slow-onset natural disasters and live in sustainable, inclusive, **low-carbon, climate-resilient towns**.

Communities and economic sectors are able to respond to and recover from **climate-induced disasters, risks and health impacts** and build a healthy society.

Strengthened **education, awareness and technological systems** that foster a climate-responsive society and human capital to design and implement climate-resilient and low-carbon development solutions for inclusive and sustainable development.

Master Plan Framework for mainstreaming



Supporting pillars of the Myanmar Climate Change Strategy and Action Plan

Policy framework

- Policy frameworks: CC Policy (MCCA); National Urban Policy Framework National Environmental Policy & Strategic Framework
- Green Economy Policy Framework (WWF)

Multi-stakeholder institutional mechanism

- National Adaptation Plan: institutionalization and enhancing coordination mechanisms for long-term adaptation planning (supported by GCF readiness)
- TWG to be consulted continuously

Climate finance mechanism

- Environmental Management Fund under development and can have windows for climate change action (e.g. adaptation, supported by NAP)
- Myanmar accessing LDCF, AF, funding
- Domestic resources for climate change action: prioritization of activities

Capacity-strengthening framework

- Capacity-building streams under MCCA
- Several GEF (incl LDCF) and AF projects delivering specific capacity-building interventions and frameworks; upcoming GCF proposals
- NDA capacity-building under GCF readiness (UN Environment)

Monitoring evaluation and learning framework

- Second National Communication – emissions baseline development
- GCF readiness: National Adaptation Plan – Monitoring & Reporting framework for adaptation

Sector 6: Education, science and technology for a resilient society

Strengthened **education, awareness and technological systems** that foster a climate-responsive society and human capital to design and implement climate-resilient and low-carbon development solutions for inclusive and sustainable development.

Action Area:

1. Ensure that legal, policy and normative instruments in education, science and technology integrate climate change.
2. Build climate change-responsive institutional and educational processes.
3. Increase human resource capacities on climate research and knowledge management and build climate change awareness in communities, government, private sectors and CSOs.
4. Build financial capacities for strengthening climate information services, using multiple sources
5. Increase access to climate information services, research and technological innovations.
6. Promote multi-stakeholder partnerships at international, national and sub-national levels for climate change education, science and technology.

MCCA collaboration with LUCCC



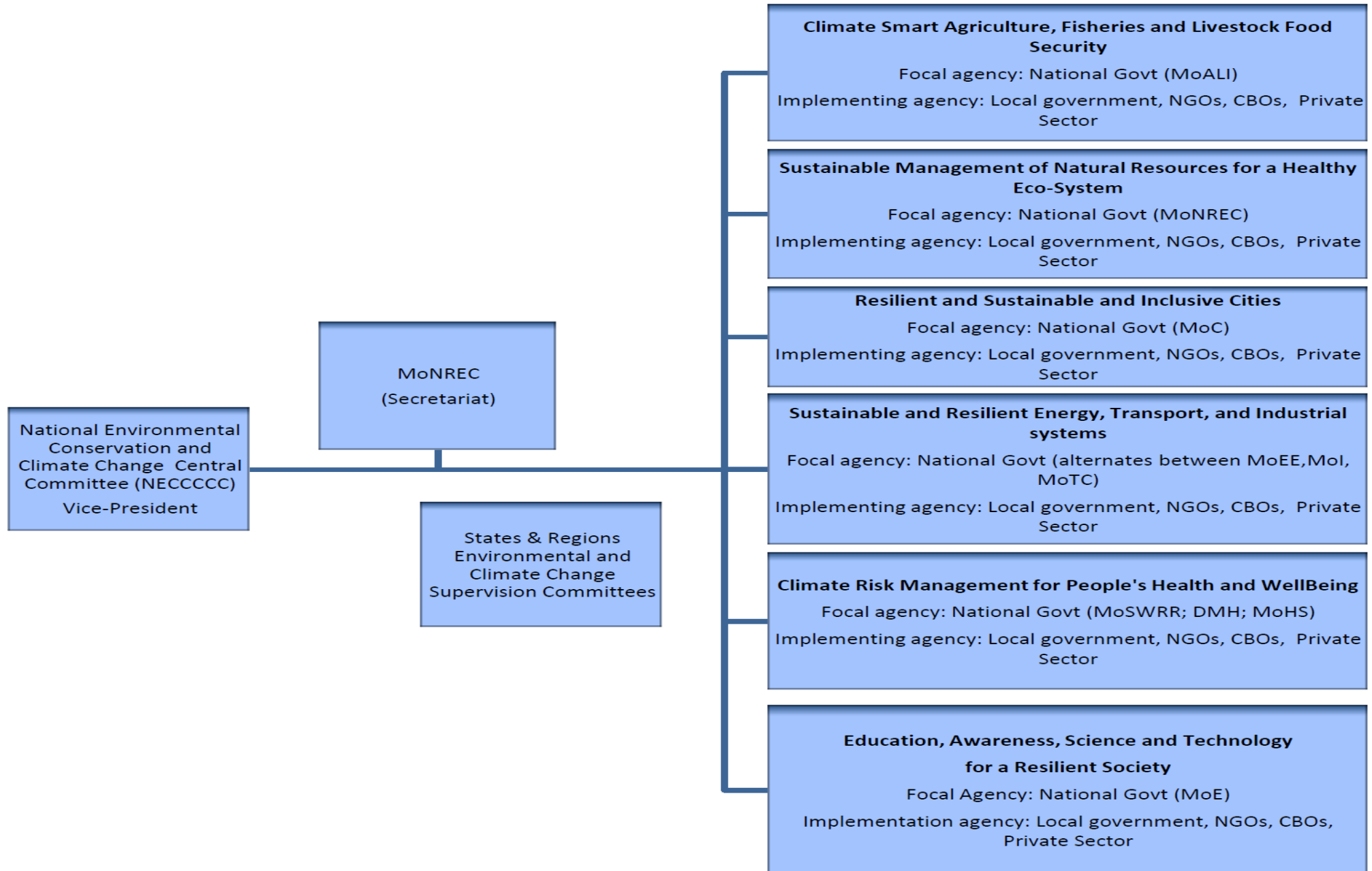
- Least Developed Countries Universities Consortium on Climate Change (LUCCC) was established in 2017
- 10 members: Bangladesh, Bhutan, Nepal, Ethiopia, Sudan, Tanzania, Uganda, Gambia, Senegal, Mozambique

Objective:

- To foster a South-South collaborative network for enhancing research capacity and expertise in climate change.
- To network and enhance the capacity of Southern universities to develop common research projects and implement teaching and training programs in different climate change topics.
- To work with the most vulnerable countries and for the most vulnerable communities.
- To foster two-way collaborative learning and capacity-building.
- To enable LDC universities and research institutes to serve as repositories of knowledge and suppliers of capacity.



Inter-linkage of coordination body and implementing agencies





Presenter contacts



www.myanmarccalliance.org



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