



National Adaptation Plans in focus: Lessons from Myanmar



The Republic of the Union of Myanmar

covers an area of approximately 676,600 km²,¹ with a population of over 53 million.² This vast country comprises the central lowlands of the Ayeyarwady, Chindwin and Sittaung River valleys, highlands in the north, east and west, and the coastal belt in the south and southwest of the country. It can be divided into three main agroecological zones; Central Dry, Coastal and Hilly.

Myanmar has a tropical climate with three seasons; a cool winter from November to February, a hot summer in March and April, and rains from May to October, dominated by the southwest monsoon. Lowest mean annual rainfall is observed in the central dry zone, while highest is in the southern and western coastal regions, with the eastern and northern hilly regions in between.

Agriculture contributes to around 23 percent of GDP (2013-2014) and employs about 61 percent of the labour force.³ Almost half (48.2 percent) of the country's land mass is under forest cover.⁴

Myanmar is a Least Developed Country (LDC), ranked at 148 out of 188 countries globally in terms of its Human Development Index (2018).⁵ Myanmar has achieved significant and rapid growth in recent years, following a series of political and economic reforms, which was preceded by a period of long isolation. However, regional and social inequalities persist.

We acknowledge that climate change is not within the capacities of any one single actor, and in this respect we must strengthen coordination and cooperation across ministries, cities, the civil society and the private sector.

H.E. U Ohn Win, Union Minister, Ministry of Natural Resources and Environmental Conservation, Republic of the Union of Myanmar

Climate change risks

Myanmar is extremely vulnerable to the impacts of climate change, due to its exposure and sensitivity to projected weather and climate patterns. Between 1997–2016, 43 extreme weather events have occurred, resulting in an annual average death toll of 7,097.75 inhabitants (equalling 14.55 deaths per 100,000 inhabitants), and an annual average loss per unit GDP of 0.70 percent.⁶

This makes Myanmar the third most affected country globally to extreme weather events (Global Climate Risk Index, 2017). Mean annual temperatures across Myanmar are projected to increase by 0.8°C–1.5°C by 2040. Extremes are expected to intensify, and the annual number of hot days to increase.

Total rainfall amount is projected to increase in the wet season. This could see increased wet season flooding in certain regions.⁷

These hazards are expected to increasingly affect highly climate-sensitive sectors in Myanmar, notably agriculture, natural resources, energy, industry and transport, as well as disaster risk management.

The majority of Myanmar's population resides on its coastline and central dry zone area, exposing people, assets and the economy to gradual impacts of sea level rise and temperature increases, as well as to the disastrous effects of rapid-onset extreme events, such as storm surges, cyclones and flooding.



Empowered lives.
Resilient nations.

Groundwork for supporting the NAPs



Policy, planning and budgeting

The National Adaptation Programme of Action (NAPA) was adopted in 2012. The NAPA process provided an overview of the main impacts of climate variability on socio-economic sectors and communities in Myanmar, based on vulnerability assessments, expert opinion and traditional knowledge. The NAPA identified 32 Priority Adaptation Projects across eight key sectors, which were further prioritised to select four priority areas for adaptation action.

Myanmar's Intended Nationally Determined Contribution (INDC), submitted in 2015, includes an adaptation component which reiterates the priority adaptation needs listed in the NAPA. The INDC recognises the importance of formulating a National Adaptation Plan (NAP) to 'plan, cost, and guide actions to meet adaptation objectives and priorities'. Myanmar ratified the Paris Agreement in September 2017 and is currently working on its Nationally Determined Contribution (NDC).

Steps have been taken to mainstream climate change into national policies. The 2016 Climate Smart Agriculture Strategy focuses on adapting crop varieties and corresponding farming practices. Climate change is recognized as an important cross-cutting theme for sustainability in the recently adopted Myanmar Sustainable Development Plan (MSDP).

In 2015-2018 Myanmar formulated the Myanmar Climate Change Policy (MCCP) and Myanmar Climate Change Strategy and Master Plan (MCCSMP) 2018-2030, under the guidance of the Environmental Conservation Department (ECD) of the Ministry of Natural Resources and Environmental Conservation (MoNREC). The MCCP and MCCSMP 2018-2030 identify 6 key social and economic development sectors that contribute to current and planned economic and social development in Myanmar. Detailed Sectoral Master Plans guide adaptation and mitigation investment in these sectors and provide entry points to enable Myanmar to be a climate-resilient, low-carbon society that is prosperous and sustainable.

Preparing for adaptation planning

The Department of Meteorology and Hydrology is responsible for climate observations in the country. Preliminary climate change scenarios up to 2100 were carried out as part of Myanmar's Initial National Communication (INC) to the UNFCCC (2012). A vulnerability and adaptation assessment indicated that flood/storm surge and drought present the most substantial hazards and that vulnerability is highest in States and Regions with highest population density: the Ayeyarwady and Yangon Regions; but emphasised the need for more climate modelling studies to improve its projections.

The Second National Communication (SNC), due for release in 2019, will further guide adaptation planning through updated climate change projections.

Capacity-building is a key need for Myanmar's adaptation planning. A Needs Assessment and Strategic Actions for building capacities to address climate change was developed by the Myanmar Climate Change Alliance (MCCA) programme and used to inform capacity-building interventions.

To date, Myanmar has not carried out a climate public expenditure and investment review (CPEIR) to assess the portion of its budget spent on climate-related activities, but the government undertook a prioritisation exercise to identify and cost the most urgent sectoral activities under the MCCSMP and propose their inclusion into the Union budget for the fiscal year 2018-2019.

Implementation of adaptation actions

Several adaptation projects have been formulated over the last few years to mainstream climate change adaptation into Myanmar's national development agenda, following economic and political reforms:

- [Myanmar Climate Change Alliance \(MCCA\)](#) programme (2013-2018): funded by the EU Global Climate Change Alliance funds, implemented by UN-Habitat and UN Environment under ECD's guidance.
- [Addressing Climate Change Risks on Water Resources and Food Security in the Dry Zone of Myanmar](#) (2015-2019) funded by the Adaptation Fund (AF).
- [NAPA implementation project I: FishAdapt-](#) Strengthening the Adaptive Capacity and Resilience of Fisheries and Aquaculture-dependent Livelihoods in Myanmar, funded by the Least Developed Countries Fund (LDCF), 2016 onwards.
- [NAPA implementation project II:](#) 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, funded by the LDCF, from 2018 onwards.
- [NAPA implementation project III:](#) Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in the Asia-Pacific Region, funded by the LDCF, from 2018 onwards.

Priority sectors for action under the MCCSMP 2018–2030

1. Climate-smart agriculture, fisheries and livestock for food security
2. Sustainable management of natural resources for healthy ecosystems
3. Resilient and low-carbon energy, transport and industrial systems for sustainable growth
4. Resilient, inclusive and sustainable cities and towns where people can live and thrive
5. Climate risk management for people's health and wellbeing
6. Education, science and technology for a resilient society

The process to formulate and implement NAPs in Myanmar



Institutional arrangements

The ECD of MoNREC is the lead government department for climate change. A dedicated Climate Change Division was created within the ECD in 2017. The National Environmental Conservation and Climate Change Central Committee (NECCCC) was created in June 2016 as the highest-level platform for environmental and climate change issues. The NECCCC is chaired by the Vice-President and contains six Working Committees that are chaired by the Permanent Secretaries of various Ministries.

A Technical Working Group (TWG) was originally set up to advise the formulation of the MCCSMP, but has become a successful multi-stakeholder coordination platform composed of technical experts and representatives from ministries, private sector and civil society representatives. The TWG is due to become a permanent interdisciplinary platform for exchange under the new Climate Change Division, including for advising the NAP process.

NAP support

The NAP process to date has been supported by a range of partners, including UN Environment, the Global Environment Facility (GEF), UN-Habitat, the European Union (EU), bilateral donors, the World Wildlife Fund (WWF) and the International Institute for Environment and Development (IIED).

Successes

Myanmar recognises the urgency of addressing climate change and has successfully developed the MCCSMP and Climate Change Policy as policy instruments to start mainstreaming climate change into its national planning. The TWG originally set up to support the drafting of the MCCSMP and Myanmar Climate Change Policy (MCCP) has become institutionalised as a consultative body with an improved understanding of climate change and its impacts.

April 2015

Formulation of MCCSMP was launched under the MCCA programme. The bulk of the consultations at national/sub-national level continued until July 2016.

May 2016

National Environmental Conservation Central Committee was expanded to include climate change and became the National Environmental Conservation and Climate Change Central Committee (NECCCC).

March 2017

Consultation workshop for the Green Climate Fund (GCF) NAP Readiness proposal was held in Nay Pyi Taw.

July 2017

NAP Preparatory and Readiness proposal was submitted to the GCF by the ECD with support from UN Environment.

July 2018

Myanmar Sustainable Development Plan (MSDP) approved: Action on climate change is mainstreamed across this document and directly incorporated under its 5th goal on natural resources and the environment for national posterity.

September 2015

Myanmar's NAP process initiated through a stocktaking exercise conducted in Nay Pyi Taw to assess gaps and needs through meetings and two workshops. Roadmap and indicative timeline of activities under the NAP process was compiled.

December 2016

Consultations for the MCCP were launched in Nay Pyi Taw, building on intense consultation work undertaken for MCCSMP development.

June 2017

Final edited drafts of MCCP and MCCSMP were disseminated at the national World Environment Day 2017 event in Nay Pyi Taw.

October 2017

A prioritisation exercise was undertaken by 75 experts from states and regions, and the TWG, to identify priority activities from MCCSMP Sectoral Master Plan to be included in the Union budget for the fiscal year 2018-19.

October 2018

MCCP and MCCSMP cleared by the President's Office and State Councillor's Office, and submitted to the Sub-Cabinet of Government of Myanmar for approval.

The process to formulate and implement NAPs

The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) established the National Adaptation Plan (NAP) process in 2010, to enhance country-led planning and preparedness for climate change adaptation (CCA) in the medium and long-term. The objectives of the NAP are to reduce vulnerability to the impacts of climate change and to integrate adaptation into all levels of development planning. The NAP process is multi-sectoral, involving Ministries of Environment as well as Planning and Finance, in addition to other key Ministries. By bringing greater institutional integration and coordination to adaptation planning, NAPs can enhance ongoing national development planning processes, safeguard development gains, and build resilience.



Challenges

Myanmar has taken important steps to mainstream adaptation into its national development planning. However, the country still faces challenges in fully scaling up adaptation across all sectors due to insufficient integration into policy and legal frameworks. Existing technical capacity to mainstream adaptation is limited amongst policymakers and community members, and there is limited knowledge on projected climate impacts and adaptation measures available to address these. Methodologies for carrying out vulnerability assessments have been piloted in certain townships with the support of MCCA, yet these have not been conducted throughout the country. Adaptation is not integrated into the national budget nor does the country have a funding mechanism for addressing adaptation.

Opportunities

The current MSDP and upcoming adoption of the MCCSMP and MCCC will provide a strong policy impetus for integrating adaptation into planning and policy frameworks across all sectors. The creation of the Climate Change Division and the future expansion of ECD at both national and regional level provides an important opportunity to strengthen capacities for adaptation on a central and regional level. The GCF NAP Readiness proposal will build further on activities undertaken to date. Some instances of private sector involvement and engagement in the NAP process are already evident.

Key documents

- [Initial National Communication \(2012\)](#)
- [National Adaptation Programme of Action \(2012\)](#)
- [Intended Nationally Determined Contribution \(2015\)](#)
- [Myanmar Climate Change Strategy 2018-2030 \(2018\)](#)
- [Myanmar Climate Change Master Plan 2018-2030 \(2018\)](#)
- [Myanmar Climate Change Policy \(2018\)](#)
- [Assessing Climate Risk in Myanmar \(2017\)](#)
- [Myanmar Sustainable Development Plan \(2018\)](#)

Notes

- (1) Republic of the Union of Myanmar (2014). Ministry of Labour, Immigration and Population, Department of Population - Census Atlas Myanmar. http://www.dop.gov.mm/sites/dop.gov.mm/files/publication_docs/myanmarcensusatlas.pdf
- (2) Republic of the Union of Myanmar (2018). Ministry of Labour, Immigration and Population, Department of Population - Census data. <http://www.dop.gov.mm/en>
- (3) Government of the Republic of the Union of Myanmar, Department of Agricultural Planning (2014). 2014 Myanmar Agriculture in Brief. http://themimu.info/sites/themimu.info/files/assessment_file_attachments/Myanmar_Agriculture_in_Brief_-_GoM_2014.pdf
- (4) Republic of the Union of Myanmar (2015). National Biodiversity Strategy and Action Plan 2015-2020. <https://www.cbd.int/doc/world/mm/mm-nbsap-v2-en.pdf>
- (5) UNDP (2018). Human Development Report - Myanmar. <http://hdr.undp.org/en/countries/profiles/MMR>
- (6)(12) Germanwatch (2018). Global Risk Index 2018. <https://germanwatch.org/de/14638>
- (7) WWF (2017). Assessing Climate Risk in Myanmar: Summary for Policy Makers and Planners. http://www.wwf.org.mm/en/news_room/publications/?295290/AssessingClimateRiskinMyanmar-Summary
- (8) The GEF (2018). Projects - Myanmar. https://www.thegef.org/projects/?field_country:114&field_p_trustfundname:159
- (9) Government of Myanmar (2012) National Adaptation Programme of Action (NAPA). <https://unfccc.int/resource/docs/napa/napa01.pdf> (assessed 16 Nov 2018)
- (10) Myanmar Climate Change Alliance (2018) Presentation to the MCCA 5th Programme Steering Committee meeting: Achievements and Progress, 14 Mar 2018
- (11) United Nations, World Health Organization, US Center for Disease Control and Prevention (2008) Union of Myanmar Post Nargis Joint Assessment.

3

NAPA projects⁸

32

adaptation projects in 8 sectors identified in NAPA⁹

over 3,500

consulted on MCCSMP and Climate Change Policy¹⁰

US\$4bn

damage estimated from Cyclone Nargis in 2008¹¹

7,097

average annual deaths from extreme events 1997-2016¹²

About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP) was launched in June 2013, financed by the Global Environment Facility (GEF) Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The NAP-GSP, together with partners, are assisting developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium- and long-term national planning and financing. The NAP-GSP provides technical expertise and guidance on country NAP processes, and provides opportunities for knowledge exchange on NAPs.

NAP-GSP
NATIONAL ADAPTATION PLAN GLOBAL SUPPORT PROGRAMME

Email:

Rohini.Kohli@undp.org

Mozaharul.Alam@unep.org

For media enquiries / dissemination:

Esther.Lake@un.org

Website:

<http://globalsupportprogramme.org/nap-gsp>