



The National Adaptation Plan (NAP) Formulation Journey of Bangladesh

Context

Bangladesh is considered one of the most climate vulnerable countries particularly due to its geographical location. According to the Global Climate Risk Index by German watch (2021), Bangladesh ranked 7th among the top 10 most effected countries (2000-2019) in terms of Long-Term Climate Risk Index (CRI). Increased impacts of recurrent climate-induced disasters would reverse the social and economic growth and marginalize the poor communities across the country. The World Bank (2010) estimated that the cost of adaptation could amount to USD 8.2 billion because of recurring tropical cyclones, storm surges, and inland flooding by 2050 alone. Bangladesh has made commendable progress in addressing climate vulnerabilities through the formulation of policies and action plans such as National Adaptation Program of Action in 2005 (NAP), Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2009, Bangladesh Perspective Plan (2021-2041), Bangladesh Delta Plan (BDP 2100) with a focus to address immediate climate change adaptation priorities.

United Nations Development Program (UNDP), with the support of the Green Climate Fund (GCF) and in partnership with the Ministry of Environment, Forest and Climate Change and Economic Relations Division as National Designated Authority (NDA), has developed National Adaptation Plan (NAP) which will address short, medium, and long-term adaptation options through identifying country specific adaptation needs and implementing subsequent strategies and interventions.

Background of the NAP Formulation Process

COP16 in 2010 emphasized the enhanced action on adaptation through the Cancun framework by establishing the NAP process, which will facilitate effective adaptation planning and integration of Climate Change Adaptation (CCA) in the national development process. The framework prioritized medium to long-term adaptation through strategic and programmatic approaches over ad-hoc short-term initiatives for making people, places, ecosystems, and economies more resilient to the impacts of climate change. Conference of the Parties (COP17) in 2011 in Durban adopted a Green Climate Fund of US\$100 billion per year to adapt to climate impacts by vulnerable countries. COP18 in Doha in 2012 highlighted the need for developing NAPs in Least Developed Countries (LDCs) and developing countries. The LDCs Expert Group (LEG) prepared a technical guideline for NAP formulation in 2012 (LEG 2012a).

In 2015, the Ministry of Environment and Forest published the roadmap for developing NAP in Bangladesh. The Paris Agreement (COP21) committed to advancing NAPs under the parties' enhanced climate action in the same year. Clause 9(b) of Article 7 of the Paris Agreement ratified the formulation and advancement of National Adaptation Plans (NAPs) for member countries. Subsequently, the government of Bangladesh conducted the Stocktaking for National Adaptation Planning (SNAP) process in 2017, and identified priority areas for adaptation in its Third National Communication (MoEFCC, 2018b) submitted to United Nations Framework Convention on Climate Change (UNFCCC), which paved the pathway for initiating the formulation and advancement of the NAP process in Bangladesh. NAP will devise strategies that communicate adaptation status and best practices globally, recognizing the stress of COP26 (2021) for all countries to produce an 'Adaptation Communication' which will also include monitoring and evaluating the progress towards the set adaptation goals.

The NAP project augmented with a three-year lifespan starting from 12 February 2018 to 11 February 2021. On 26 October 2019, the inception workshop had been conducted with number of participants from government officials from relevant ministries and departments, NGOs, CSOs, academics and development partners. Due to the COVID-19 pandemic and two subsequent nationwide lockdowns in 2020 and 2021, the project implementation processes have been delayed, hence, the project extended up to 8 December 2022. The project undertook a series of mandatory processes and steps as guided by the GCF readiness project requirements to formulate NAP.



(Photo credit: Zhanitu Chakma)

Vision and Goals of NAP

National Adaptation Plan of Bangladesh formulated with a vision "Building a climate resilient nation through effective adaptation strategies for fostering a robust society, ecosystem and stimulating sustainable economic growth"

The following six goals have been set aiming to achieve the above vision.

Goal 1
Ensure protection against climate change variability and induced natural disasters

Goal 2
Develop climate-resilient agriculture for food, nutrition, and livelihood security

Goal 3
Develop climate smart cities for improved urban environment and well-being

Goal 4
Promotion of nature-based solutions for conservation of forestry, biodiversity and well-being of communities

Goal 5
Impart good governance through integration of adaptation into the planning process

Goal 6
Ensure transformative capacity building and innovation for Climate Change Adaptation

Guiding Principles and Steps for National Adaptation Plan Formulation

Formulation and advancement of NAP are adhering to a set of eight principles that ensure both distributive and procedural climate justice and recognition among diverse cultures and perspectives (IPCC AR6 WGII, 2022) which are as follows:

- i. The prioritized sectors are all cross-cutting, require a multi-disciplinary approach and are thus complementary.
- ii. The process is country-driven, participatory, gender-responsive and inclusive.
- iii. The process is transparent and incorporates both top-down and bottom up approaches.
- iv. Promote both vertical and horizontal integration between national and sub-national tiers.
- v. Maintain synergy with national economic and development plans such as BDP 2100, MCPP 2030 etc. as well as international environment agreements and SDGs.
- vi. National Adaptation Plan is built on local evidence of adaptation success and failure, indigenous practices, nature-based solution and the latest scientific knowledge & information.
- vii. Investment in adaptation from the private sector as key actors in linking NAP to the economic development process is encouraged.
- viii. The financial integrity through monitoring, evaluation, and reviewing is to be maintained.

Six steps have been followed for compiling and communicating NAP, initiating from setting priority sector boundaries through to devising a system of interest, which are as follows:



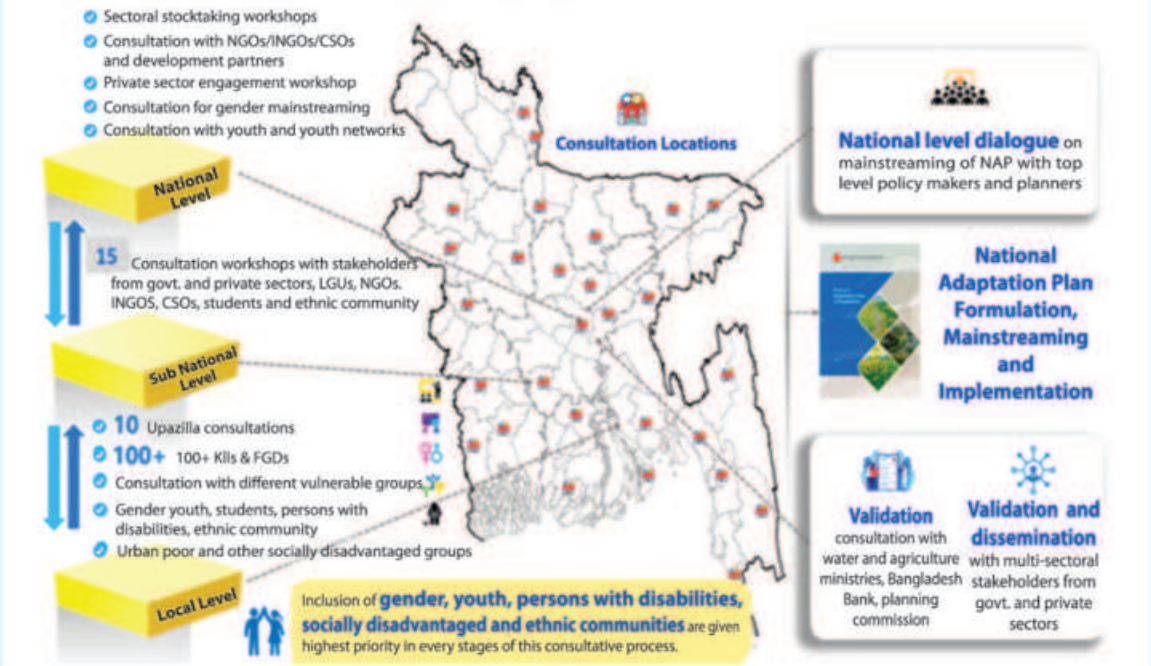
Policy Alignment and Consultation Process

The government developed SDG Action Plan in 2017 to transform national development pathways aligned with the global development agenda achieving 17 global goals by 2030. Bangladesh has made remarkable progress in achieving 17 SDGs. The national strategies under the 6 national goals of Bangladesh Delta Plan 2100 (BDP 2100) are complementing this process aiming at becoming a climate resilient and prosperous delta. Climate resilient development of the country through NAP would further accelerate the journey towards BDP 2100 and SDGs. The NAP also considered National Adaptation Program of Action (NAP) 2005 and updated NAP of 2009, Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009 and Mujib Climate Prosperity Plan 2030 etc.

National Adaptation Plan recognized the need for developing a structured regulatory framework or legislative binding is mandatory to ensure effective integration of climate change aspects into the development process for transparency and policy compliance. The NAP emphasized developing the National Climate Change Act to ensure integration of climate change aspects into sectoral and local policies, undertake measures to ensure mitigation, adaptation, reduce loss and damage, capacity building, research activity and develop a framework to materialize institutional arrangement.

The stocktaking process involved rigorous consultations of stakeholders ranging from public and private sectors, research institutions, Non-Government Organizations, Community Based Organizations, Civil Society Organizations, financial institutions, indigenous and marginalized group, women and youth to identify adaptation priority, needs, and devise short, medium, and long-term.

Consultative Process for NAP Formulation



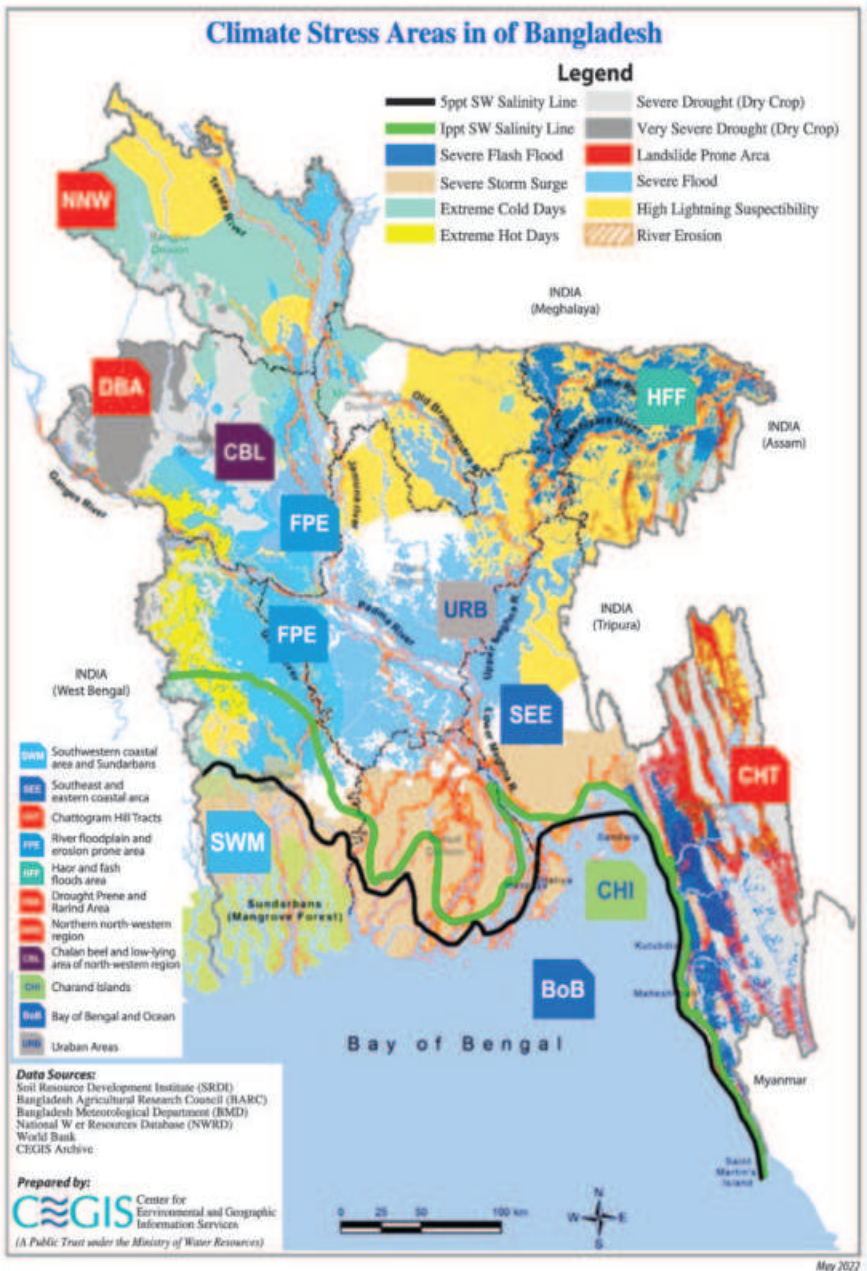
long-term adaptation actions and strategies for 2030, 2041, and 2050 respectively. More than 25 stakeholder consultations and 100 Key Informant Interviews (KIIs) and Focused Group Discussions (FGDs) were conducted across the country at the local, district, and national levels.

Risk and Vulnerabilities Identification

System dynamics analysis was performed, for multiple composite future scenarios to identify adaptation entry points through assessing climate change risk and vulnerabilities. The new Shared Socio-economic Pathway (SSP) scenarios of SSP1-2.6 (2030) and SSP5-8.5 (2030, 2050)

scenarios have been considered (IPCC, AR6) for NAP formulation process. Based on the latest climate change projections under two scenarios (i.e., SSP1-2.6 (2030), SSP5-8.5 (2030, 2050) considered in Bangladesh context, extensive consultations and field surveys were identified 23 adaptation strategies and six targeted goals which will address the adaptation needs for short (2030), medium (2041), and long-term (2050).

Eleven climate stress areas which were identified based on the multi-hazard risk map of Bangladesh highlighted 14 identified hazards across the country. These hazards include excessive rainfall, excessive heat, cold spell, frequent river floods, early and frequent flash flood, severe drought/water scarcity, frequent lightning, frequent landslide, salinity increase, frequent cyclone, storm surges and sea-level rise.



Adaptation Strategies and Interventions

Adaptation strategies and options were identified and prioritized for addressing adaptation needs and reducing risk and vulnerabilities. The prioritized adaptation options and measures have been transformed into programs to make the entry point towards implementation. During the NAP formulation process, 23 adaptation strategies and 113 identified interventions have been appraised and prioritized in the 11 climate stress areas through conducting a multi-criteria analysis (MCA) following the Least Developed Countries Expert Group guideline by United Nations Framework Convention on Climate Change. The eight criteria were as follows:

- i) Time of action based on the emergence of adaptation projects by the 2030s, 2041s, or beyond, ii) Cost of adaptation, iii) Benefit of adaptation, iv) The reduction potential of climate change risk or effectiveness, v) Robustness or flexibility of adaptation, vi) Participatory and inclusiveness potential, vii) Environmental friendliness and viii) Co-benefits socially and environmentally.



Interventions are prioritized based on preferences of stakeholders and communities aligning with national development targets and through MCA using weighted aggregation techniques

These 113 interventions have been categorized under 8 priority sector areas namely: Water Resources; Disaster, Social Safety and Security; Agriculture; Fisheries, Aquaculture and Livestock; Urban Cities; Ecosystem, Wetlands and Biodiversity; Policy and Institution; and Capacity development, research and innovations.



Implementation Strategies of NAP

The NAP process envisions to set-up a strong institutional arrangement and effective coordination mechanism with horizontal and vertical linkages through stocktaking of institutional capacity, barriers, and gaps, assessing the need for implementation and coordination, considering existing institutional arrangement and governance, devising proper resource mobilization strategies and finally developing effective result-based monitoring and evaluation (M&E) framework.

Institutional Arrangement and Coordination

A multi-level institutional structure, based on the existing institutional framework to materialize effective implementation of NAP. The existing National Environment Council (NEC), headed by the Honorable Prime Minister of Bangladesh, is recommended to be renamed as National Council on Environment and Climate Change (NCECC) and include responsibilities to oversee the progress of the strategy and policy levels as well as outcome of the implementation of NAP and Nationally Determined Contribution (NDCs) under the umbrella of the National Environment Policy. The existing Inter-ministerial Steering Committee on Climate Change (ISCC) headed by Minister, Ministry of Environment Forest and Climate Change recommended to steering implementation of NAP and conducting an inter-ministerial meeting regularly while keeping the agenda of monitoring implementation of NAP as a high priority.

The Inter-ministerial Steering Committee on Climate Change recommended forming the National Technical Advisory Committee on Climate Change (NTACC) for NAP headed by the Senior Secretary, Ministry of Environment Forest and Climate Change to inform and update the implementation of NAP to the Inter-ministerial Steering Committee on Climate Change and address gaps and challenges to ensure smooth implementation of NAP. The National Technical Advisory Committee on Climate Change is recommended to be supported by two working group which includes 1) Technical Working Group on NAP implementation and 2) Technical Working Group on NDC implementation.

National Technical Advisory Committee on Climate Change recommended being engaged as the national focal point equivalent to Additional Secretaries from different ministries and top tier representatives from private sectors, NGOs, CSOs etc. The core objective of the said committee is to ensure and facilitate effective participation and integration of inputs by the NAP actors and endorse the adaptation plans and budget for implementation. The committee will play an important role to ensure coordination, communication and engagement within the Ministry of Planning, Economic Relations Division of Ministry of Finance, and other sectoral ministries.

The existing District Committee, chaired by Deputy Commissioner in each district, recommended to stock take guide, supervising and administering climate change adaptation related initiatives mandated by the legislation. The said committee will play a pivotal role in planning and implementation of local, regional, and sectoral implementation of Climate Change Adaptation (CCA) within community and value chain actors. NAP recommended including representatives from private sectors, CSOs, NGOs, disadvantaged and indigenous people, women and youth groups etc. in the district committee to ensure a holistic inclusive locally led adaptation approach.

Financial Strategy

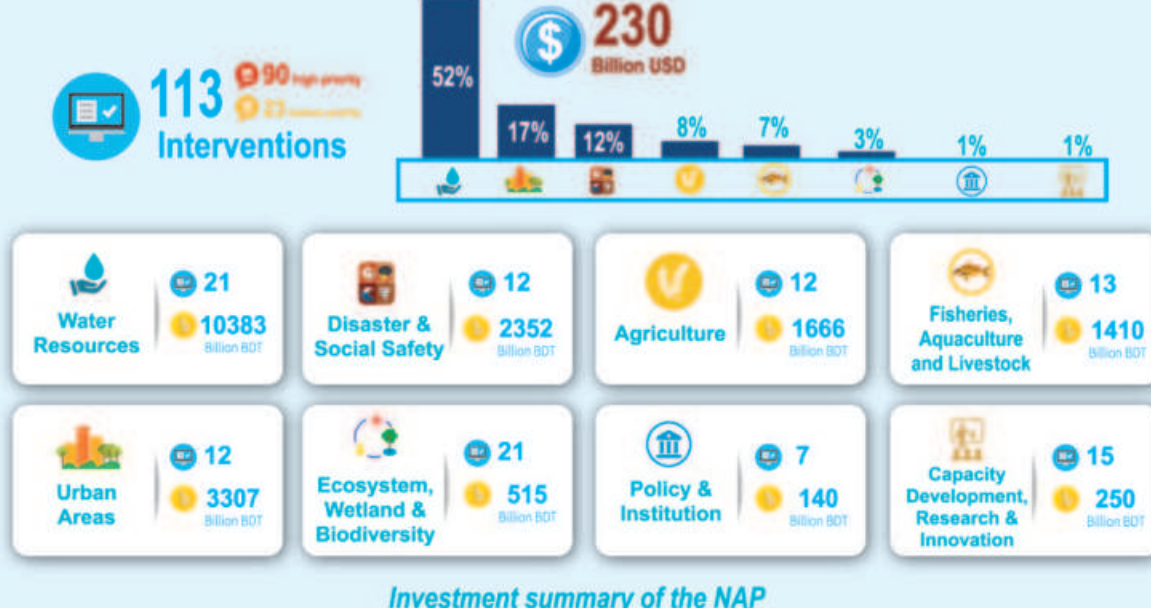
NAP planned to adopt a climate inclusive Public Financial Management (PFM) system by formulating Climate Fiscal Framework to gain access, allocate, prioritize and utilize climate funds efficiently and transparently from the public, private and international sources. Mobilization of funds from domestic sources were emphasized in NAP through exploring innovative financing instruments such as scaling up insurance as risk management or risk transfer tool, green/climate bond strengthening capital market and proper utilization of green loans, blended climate finance based on Public-Private Partnership (PPP), where public finances can catalyze.

Also, intensified efforts were planned to be undertaken to gain access to low interest loans for adaptation measures, making Ecosystem based Adaptation (EBA) funding available through the instrument of Payment for Ecosystem Services (PES), NAP acknowledged the need for mobilizing domestic funds such as establishing local government fund for climate risk management, gaining access to non-government source such as Climate Bridge Fund, Green Climate Fund and financing through expanded green banking or updating Corporate Social Responsibility (CSR) policy of Bangladesh. All of these would help to strengthen the capacity of local government, community and materialize scaling up of locally led adaptation.

NAP also recognized the urgency of reviewing and updating the existing lending policy for funding projects which would enhance adaptive capacity and green growth. Also, the insurance policy was recommended to be reformed to address differentiated impacts on various vulnerable groups because of climate change. The Bangladesh Climate Change Trust (BCCCT) was recommended to be updated to gain access, coordinate and mobilize funds from international sources in collaboration with the Economic Relations Division under Ministry of Finance. This would help to formulate strategies and build capacities among the public and private sectors to tackle barriers, including the international standards of fiduciary management, to transform the governance of climate financing.

An investment plan has been designed on 113 identified interventions on 8 sectors with highlighting duration, level of priority and potential engagement of private sectors. It has been observed that a total of 3.59 billion BDT (equivalent to 40.4 billion USD) investment will be required for making Agriculture, Fisheries, Aquaculture and Livestock, and Ecosystems, Wetlands and Biodiversity sectors and a total 404 billion BDT (equivalent to 4.6 billion USD) will be required for creating enabling environment with required policy reforms, mainstreaming, research and innovations, capacity development and knowledge management.

The estimated fund needed to implement the identified 113 interventions of NAP would require a total of 20,037 (Billion BDT) for the period of 27 years up to 2050.



Investment summary of the NAP

Bangladesh would need approximately 5,250 billion BDT (equivalent to 60.3 billion USD) by 2030 to meet the immediate development thrust for sustainable development goals stimulating climate resilient development. NAP proposes to mobilize and utilize effectively around 72.5% of the total investment cost (20,037 Billion BDT) of climate change adaptation by 2040 to become developed country by 2041. This huge investment burden will require accelerated efforts for harnessing climate funds from both domestic and external sources. Various innovative financing windows will need to be explored to meet the demand from domestic sources at a double rate than present along with Annual Development Plan (ADP) and Bangladesh Climate Change Trust Fund (BCCCT).

Private Sector Engagement

NAP emphasized exploring avenues to engage and encourage private sectors investment to promote private sector-led adaptation as private sector is one of the most important drivers of economic growth in Bangladesh. Several private sector-led adaptation options were identified in some of the key sectors, particularly agriculture, water and disaster management, which would eventually reduce climate risks and vulnerability and contribute to economic growth and socio-economic development. Some of the identified private sector-led adaptation includes the promotion of drinking water and sanitation in partnership with other NGOs and government institutions; engagement in the improvement of climate resilient agricultural crop varieties; investment in the improvement of cold storage facilities and climate-resilient urban drainage system; building of cyclone shelters; climate-resilient livestock and poultry etc. The NAP also proposed to introduce risk transfer tools like index-based insurance, VAT or tax exemption, subsidy policy etc. to encourage private sectors to provide financial services for adaptation options.

Gender, Youth and Social Inclusion

The National Adaptation Plan recognized that disproportionate impacts of climate change which is undermining the adaptive capacity and intensity vulnerability of the vulnerable groups, particularly women, youth and socially disadvantaged groups (i.e. marginal groups, indigenous people, people with special needs etc.). Hence, National Adaptation Plan advocated for establishing gender-responsive and socially inclusive adaptation processing through ensuring access to equitable resources; enhancing capacity and promoting engagement of the said group in climate-resilient alternative income generating activities; ensuring youth-responsive climate actions; mainstreaming climate change Gender Action Plan (ccGAP) and proposed Youth-led Adaptation Plan in sector policies and plans; ensuring participation of gender, youth, and socially disadvantaged people in the decision making process for policy, planning and prioritizing needs for local level adaptation.

National Adaptation Plan of Bangladesh recommended to develop Youth-led Adaptation Plan (YLAP), Chattogram Hill Tracts Climate Action Plan (CHT-CAP) and update climate Gender Action Plan (ccGAP). Also, capacity development training workshops for gender and youth focal points and representatives of different ministries, departments, government organizations, non-government organizations, civil society and private sector, gender experts, women's organizations, and representatives of marginalized groups are recommended to continue regularly.

Enhancing Transformative Capacity, Knowledge Management and Technology Transfer

The National Adaptation Plan recognized that transformative capacity development and transfer of technology are integral to the formulation and advancement process of NAP. Hence, a dedicated Transformative Capacity Building Action Plan for Climate Change Adaptation was recommended to assess the needs for capacity building at the individual, community, and institutional levels. This kind of transformation goes beyond conducting traditional training rather its aims to change mindsets, behaviors, and attitudes. A knowledge and information hub has been created by the name of 'Climate Change Information and Knowledge Management (CCIKM)' to publish climate change related reports and relevant information, the National Climate Status Report, in collaboration and coordination with relevant national institutes and knowledge and data generation agencies, to disseminate and convey information/message to relevant stakeholders. A separate and complementary Knowledge Management Plan for Climate Change Adaptation to support capacity building and technology transfer, for patronizing, creating opportunities, and providing technical assistance within the country by connecting all research academia, training, and knowledge institutes from the public and private sectors, promoting research, innovations, and technology transfer. The plan also proposed to establish a Climate Change Research and Innovation Fund (CCRIIF) to provide support for intensive research on climate change related issues and generate up to date knowledge and information on climate risk, vulnerabilities, adaptation and mitigation.



(Photo credit: Zhanitu Chakma)

Monitoring & Evaluation of NAP

National Adaptation Plan suggested developing national Monitoring and Evaluation (M&E), aligned with the existing national level M&E, based on the combination of a simplistic monitoring system and a comprehensive monitoring approach. This approach would facilitate to identification and assess achievements. The comprehensive approach comprises of result-based framework to monitor and evaluate the effectiveness of the adaptation efforts implemented against the targets. National Adaptation Plan M&E is comprised of a three-tier system to monitor, evaluate, and report the progress of the adaptation. The first tier is for the strategy and policy, the second tier is for the planning level and third tier is for the program or project level. The first and second tier will keep track of the progress made against strategic actions and the third tier will track specific programs or projects. National Adaptation Plan proposed a result-based framework M&E system based on SMART (Specific, Measurable, Achievable, Relevant, and Time bound) indicators, keeping consistent with existing national priority and SDGs indicators.

The Technical Working Group on National Adaptation Plan implementation under the Ministry of Environment, Forest and Climate Change will assume the sole responsibility of the M&E system to compile and submit, the first and second tier of M&E reports in coordination with Implementation Monitoring and Evaluation Division (IMED) and General Economics Division (GED). The planning level M&E report will be based on the project level third tier M&E report prepared by IMED. Also, a dynamic web-based M&E system will be developed to support the data collection, monitor, update and generate reports.

Revision and Updating of National Adaptation Plan

The National Adaptation Plan (NAP) proposed to review and update the National Adaptation Plan following three stages.

- A regular review and major revision or update will be conducted at the end of each five-year.
- In each year, lessons learned from the previous five years will be incorporated.
- The process of revision will start one year prior to conducting 5 years planning cycle so that the process of revision finishes prior to the planning cycle of the Government.

While reviewing, revising and updating process of National Adaptation Plan the following issues to be considered but not limited to i.e. new findings on climate change, it's risks and vulnerabilities in Bangladesh; position of the country to reduce anticipated risks and enhance resilience; progress and obstacles in achieving goals and strategy; recommendations for future steps and measures; harnessing climate financing and readiness programs; capacity development, knowledge management and technology transfer; indication for detailed communication and visibility strategies; major decisions and agreements of climate negotiations under the United Nations Framework Convention on Climate Change and Conference of the Parties (COP); necessary policy, institutions, and regulatory support.

Way Forward

The Government of Bangladesh has emerged as a global leader and demonstrated a high-level political commitment by developing climate action and several major relevant policy documents such as Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009, National Adaptation Program of Action (NAP) 2005, climate change and Gender Action Plan (ccGAP) 2013, Bangladesh Delta Plan 2100, Mujib Climate Prosperity Plan 2030 etc. However, these policies and action plans address immediate adaptation needs. The National Adaptation Plan aims to identify short (2030), medium (2040), and long-term (2050) adaptation strategies which will help to effectively combat the impacts of climate change by identifying technical, institutional, and financial needs to integrate climate change adaptation into national planning and financing.

Following completing the National Adaptation Plan process, it is imperative to develop a comprehensive roadmap for the implementation of NAP to determine the next course of action. Also, a separate National Adaptation Plan for agriculture, water and other sectoral NAP needs to be developed given emphasis the increasing impacts of climate change. The National Adaptation Plan of Bangladesh provided a detailed analysis of future climate risks, vulnerabilities, impacts and proposed prioritized interventions. Hence, mobilization of the domestic and international funds can now be effectively materialized. The Government of Bangladesh along with development partners, INGOs, NGOs and Private sectors should work together to explore and mobilize international funds to materialize such efforts.



(Photo credit: Zhanitu Chakma)

The write up published by Project Management Unit (PMU), Formulation and Advancement of the National Adaptation Plan Process in Bangladesh