

FROM VULNERABILITY TO RESILIENCE: PAKISTAN'S CLIMATE ROADMAP

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(Views expressed in the brief are those of the author, and do not represent those of ISSI)



On July 26, 2023, the Ministry of Climate Change unveiled the National Adaptation Plan (NAP), a significant initiative aimed at addressing and preparing for the impacts of climate change in the country.¹ The document delves into climate change, examining its historical context, future projections, and its far-reaching effects on sectors like agriculture, human health, forestry, and infrastructure.

Key Highlights of NAP

Pakistan, like many other vulnerable countries, understands the necessity of adopting proactive steps to address climate change and protect its environment, economy, and population.

- *Relief, Rehabilitation, and Reconstruction*

Relief work starts after the disaster has already occurred and may require coordinated efforts. Rehabilitation and reconstruction activities will be initiated simultaneously with the relief work where the situation allows NDMA and PDMA to undertake relief and rehabilitation work involving the relevant organizations at the federal and provincial levels.

- *Sectoral Impacts and Adaptation Need*

NAP aims to address issues in various sectors such as water, agriculture, forestry, coastal areas, biodiversity, and other vulnerable ecosystems. Pakistan is working on a plan that seeks to conserve

¹ Zain ul abideen Siddiqui, Pakistan's first- ever climate change plan unveiled, July 26, 2023, The Express Tribune, <https://tribune.com.pk/story/2427999/pakistans-first-ever-climate-change-plan-unveiled>

energy, improve energy efficiency, and optimize fuel mix to support global efforts for a reduction in GHG emissions, but the more immediate and pressing task is to prepare for adaptation to climate change.

- *NAP Governance and Coordination*

In the last two decades, the subject of climate change has undergone several governances and institutional developments in Pakistan and has culminated at the appropriate institutional landscape at national and sub-national levels.

- *Implementation Strategy*

The key objectives of the implementation strategy are efficient implementation of planned actions of adaptation on a realistic timeframe and ensuring the participation of all stakeholders from the Government, private sector, academia, civil society organizations, and local communities to achieve the maximum level of cooperation. The NAP identifies adaptation actions at three levels.

- *Resource Mobilization*

The success of achieving the goals of the plan depends heavily on devising an effective mechanism for resource mobilization. It should be a proactive program for acquiring resources necessary for the implementation of the plan. NAP also proposes the establishment of a National Adaptation Fund to access international funding organizations like the Asian Development Bank, World Bank, and UN Green Climate Fund.

Implementation Challenges to NAP

- *Unplanned Urbanization*

In Pakistan, unplanned and unmanaged urbanization has resulted in urban slums, environmental degradation, poverty, and inequality.² The main cause of unplanned urbanization is immigration, both from within and outside the country.

- *Budgeting Issues*

Climate change is a serious issue to be addressed but very little budget is allocated for it. In 2023-24 only Rs 4050 million budget was allocated to the Ministry of Climate Change which is inadequate to address the myriad of climate-related issues faced by the country.³

² Nausheen H.Anwer, Cities, Climate Change and Pakistan extended urbanization, DAWN, September 20, 2017, <https://www.dawn.com/news/1358905>

- *Lack of Awareness*

In Pakistan, there exists a noticeable lack of awareness regarding climate change. This deficiency can be attributed to insufficient emphasis on education, media campaigns, community workshops, partnerships, government efforts, traditional wisdom, grassroots movements, engagement of influential figures, regional language resources, and the highlighting of local climate impacts.

- *Deforestation*

Deforestation contributes greatly to climate change by releasing stored carbon dioxide when trees are chopped down or burned.⁴ This decline in carbon-absorbing trees exacerbates global warming and disturbs ecosystems, threatening biodiversity and weather patterns in Pakistan.

- *Fossil fuels*

Pakistan's energy mix consists mainly of fossil fuels like coal, oil, and natural gas, which emit gasses, primarily carbon dioxide (CO₂)⁵. The emission of these gasses trap heat, leading to rise in temperature of the country and causing severe weather, rising sea levels.

Regional Adaptation Plans

Climate change is a serious issue in South Asia and various regional countries have formulated their own adaptation plan to deal with the issue. Pakistan can learn some lessons from these policies in efficient implementation of NAP.

- *Bangladesh*

The government of Bangladesh prepared and adopted in 2008 the Bangladesh Climate Change Strategy and Action Plan (BCCSAP)⁶. It aims for a suitable path to climate resilient development, reducing climate risk and vulnerabilities through effective adaptation strategies. BCCSAP mainly

³ Environmentalists welcome over Rs 4b allocation for Climate Change Division, Daily Times , <https://dailytimes.com.pk/1101843/environmentalists-welcome-over-rs-4b-allocation-for-climate-change-division/>

⁴ Annika Dean, Deforestation and Climate Change, Climate Council, August 21,2019, <https://www.climatecouncil.org.au/deforestation/>

⁵ Fossil fuel and Climate Change; The facts, ClientEarth, February 18, 2022, <https://www.clientearth.org/latest/latest-updates/stories/fossil-fuels-and-climate-change-the-facts/#:~:text=What%20is%20the%20link%20between,temperature%20has%20%20increase%20%20by%201C.>

⁶ Government of Bangladesh, October 29, 2022, <https://doe.portal.gov.bd/sites/default/files/files/doe.portal.gov.bd/npfblock/2022-11-02-08-08-ade27c3a48eeeedbf1394e5fa527edd2.pdf>

consists of climate risk and vulnerabilities, adaptation priorities for combating adversities of climate change, implementation strategies and adaptation monitoring and evaluation.

- *India*

In June 2008, the Indian Government published the National Action Plan on Climate Change (NAPCC)⁷, which encompasses both climate protection and adaptation. The plan defines eight priorities as National Missions: solar energy; energy efficiency; sustainable housing; water; preservation of the ecosystem in the Himalayas; reforestation; sustainable agriculture; and strategic knowledge management. Various government departments are currently working on detailed implementation plans for these eight sectors. Several adaptation-focused projects have been launched recently with international donor support or concessional loans. These projects are focused on policy formulation and integration, water, and agriculture, with a smaller number focused on coastal zones, forestry, land, and nature.

- *China*

On May 10, 2022, the Chinese government published its National Adaptation Strategy 2035. By the year 2035⁸. China aims for its climate change monitoring and early warning capabilities to reach an advanced level internationally, for its risk management and prevention systems to mature, and for the risk of major climate disasters to be effectively prevented and controlled.

The Strategy has three main characteristics:

- A stronger emphasis on monitoring, early warning, risk management and disaster prevention systems.
- Clarify adaptation priorities in key areas like water resources, agriculture and food security, health, etc.
- Construct a multi-level regional approach for adaptation; and focus more on building departmental coordination, financial support, scientific and technological support, capacity-building, international cooperation, and other measures.

⁷ Government of India, accessed on September 2, 2023,

<https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf>

⁸ National Climate Change Adaptation Strategy 2035, Center for Security and Emerging Technology, August 29, 2023, <https://cset.georgetown.edu/publication/national-climate-change-adaptation-strategy-2035/#:~:text=This%20new%20strategy%20aims%20to,and%20waterways%2C%20and%20other%20measures.>

Recommendations

- The government's major focus should be on eradicating illegal development along riverbanks and water canals. Unauthorized buildings pose major environmental dangers, hinder natural water flow, and contribute to flooding. Taking action to remove these encroachments is critical for protecting both the ecosystem and the communities that live near these water bodies.
- Promoting climate-smart agriculture techniques is critical in the face of rising extreme weather events. These measures boost farming system resilience, ensuring food security even in the face of climate-related difficulties. Pakistan can better protect its food supply and agricultural livelihoods from the effects of climate change by employing sustainable and adaptive measures.
- International engagement with neighboring countries on climate projects is critical for addressing global environmental concerns. Pakistan can gain knowledge and resources to produce effective climate change mitigation and adaptation measures by working with the international community.
- Engaging local communities in climate planning and adaptation is critical for addressing their specific needs and concerns. By integrating people in decision-making processes, Pakistan can develop more effective and inclusive measures to protect vulnerable groups and enhance community resilience in the face of climate change.
- Implementing large-scale reforestation and afforestation operations, such as the Miyawaki method⁹, is critical for increasing forest cover and capturing extra CO₂ from the environment. These initiatives are crucial in reducing climate change, increasing biodiversity, and protecting ecosystems, as well as promoting sustainable land use practices.
- Investing in renewable energy sources such as solar and wind power is a critical step toward diversifying the energy mix and reducing reliance on fossil fuels¹⁰. These clean and sustainable alternatives not only cut greenhouse gas emissions but also support energy security and job creation in the developing green energy sector, eventually creating a more sustainable future.

⁹ Miyawaki Jungle, accessed on September 6, 2023, <https://urban-forests.com/miyawaki-method/>

¹⁰ Expanding Renewable Energy in Pakistan's Electricity Mix, November 10, 2020, <https://www.worldbank.org/en/news/feature/2020/11/09/a-renewable-energy-future-for-pakistans-power-system>

Conclusion

Addressing the critical challenges posed by climate change demands a comprehensive approach spanning national, international, and community levels. Enhancing climate-resilient agriculture, fostering global collaboration, engaging local communities, and initiating large-scale reforestation initiatives are all vital steps in mitigating the impacts of climate change. To secure a sustainable future, it is imperative to channel resources into renewable energy sources and enforce robust mitigation strategies. Pakistan can play a pivotal role in combatting climate change and nurturing a more sustainable and environmentally conscious world for generations to come by implementing these strategies.