Project Brief

Improving Climate Risk Governance in Pakistan Based on Comprehensive Climate Risk Assessments and the Development of Sectoral Guidelines

Project Duration: September 2024 - May 2026
Implementing Entity: United Nations University - Institute for Environment and Human Security (UNU-EHS)

Pakistan is highly vulnerable to climate change impacts, particularly in the Punjab and Khyber Pakhtunkhwa (KP) provinces, where agriculture, water resources, and infrastructure are already under strain. This vulnerability is exacerbated by insufficient climate risk data, a lack of sector-specific adaptation strategies, and challenges in local governance and capacity. These challenges require strong climate governance rooted in an enhanced understanding of climate risks and feasible adaptation strategies. This project, led by the United Nations University Institute for Environment and Human Security (UNU-EHS) in collaboration with the National Institute of Urban Infrastructure Planning (NIUIP), focuses on empowering local authorities and stakeholders with the tools, knowledge, and frameworks necessary to make informed, gender-sensitive decisions about climate adaptation.

The project aims to strengthen climate governance by:

- Conducting comprehensive climate risk assessments for Punjab and KP, focusing on flood and drought risks. Developing gender-sensitive, sector-specific climate risk guidelines to inform adaptation investments.
- Building local capacity through training on climate modeling tools, specifically CLIMADA, and facilitating knowledge transfer through a structured capacity-building program.
- Establishing a community of practice to foster ongoing collaboration and learning in climate risk management and adaptation.

The project will be implemented through five work packages (WPs):

Economics of Climate Adaptation (ECA) and CLIMADA

The overall objective of the project is to equip government partners with a comprehensive risk assessment to enhance climate governance in the KP and Punjab Province. To accomplish this, the ECA Framework is applied, which, together with the open-source modeling platform CLIMADA, enables a probabilistic outlook of the current and future climate risks and compares the available options for adaptation. This project aims to build upon the existing capabilities of CLIMADA to analyze different hazards (floods and droughts) and their impacts on different sectors, including sector-specific adaptation. options.

Outcomes – Climate Risk Sector Guidelines

The eight Sectoral Guidelines to be developed under this project aim to provide actionable and budget-sensitive recommendations for implementing targeted and sector- specific bundles of adaptation measures. These Guidelines, specifically designed for up to four priority sectors per province, are practical, adaptable frameworks that guide authorities and stakeholders, such as the regional provincial governments in KP and Punjab through feasible climate adaptation actions of different timelines and scope and across different funding levels. The Sector Guidelines are vital for guiding practical climate action, presenting clear and feasible adaptation pathways that align with regional provincial government budgets, capacities, and frameworks, such as the Planning Commission's Proformas of the Government of Pakistan. By providing sector-specific recommendations the guideline aims to be a foundational document for adaptation project proposals, helping national stakeholders articulate needs to funders. A guideline includes a comprehensive yet concise guide that outlines context, risk analysis, key adaptation measures, and actionable recommendations. A supplementary technical report detailing the methodologies (such as CLIMADA and ECA) used in the climate risk assessment and modeling processes, supporting the guidelines recommendations with technical depth.

The proposed sector selections align with each province's unique socioeconomic and ecological contexts, providing a targeted approach to climate adaptation and resilience planning, and are based on the defined priority sectors in the meeting of 27th February 2024 in the Working Group Meeting with P&D.

Sector and Asset Focus for Punjab:

Agriculture	Urban Resilience	(Water) Infrastructure	Health and Social Protection
• Wheat • Cotton • Rice • Sugarcane	• Buildings • Road Network • Communication	• Road Network • Canals/ Water diversion infrastructure • Economic Zones (SEZs) • Communication • Buildings	• People Affected • Impact (Education / Health / Food Security) • Social Protection / Benefits • Education Units • Health Units

Sector and Asset Focus for Khyber Pakhtunkhwa (KP):

Water Resources	Agriculture and Forestry	Physical Infrastructure	Health and Social Protection
• Canals/ Water diversion infrastructure • Hydropower (Energy Infrastructure) • Water Storage Reservoirs	• Wheat • Cotton • Rice • Sugarcane • Livestock / Rangeland • Forests	• Road Network • Economic Zones (SEZs) • Communication • Buildings	• People Affected • Impact (Education / Health / Food Security) • Social Protection / Benefits • Education Units • Health Units

Capacity Building

The project has a strong capacity-building component that aims to strengthen the long-term climate governance infrastructure in Pakistan by equipping local stakeholders with the necessary skills and knowledge to manage climate risks effectively. This will be achieved through project-long capacity development sessions and a comprehensive Training of Trainers (ToT) program on the CLIMADA modeling tool, enabling key experts to independently conduct future climate risk assessments. Additionally, a Community of Practice (CoP) will be established to facilitate ongoing knowledge exchange among stakeholders, ensuring continuous collaboration and the sharing of best practices.

Conclusion

This project will provide Punjab and KP with the tools and capacity to assess climate risks and develop actionable, gender-sensitive adaptation strategies. By enhancing local governance, integrating financing, and fostering adaptation, the project will contribute to building a more resilient and sustainable future for the Punjab and KP regions.