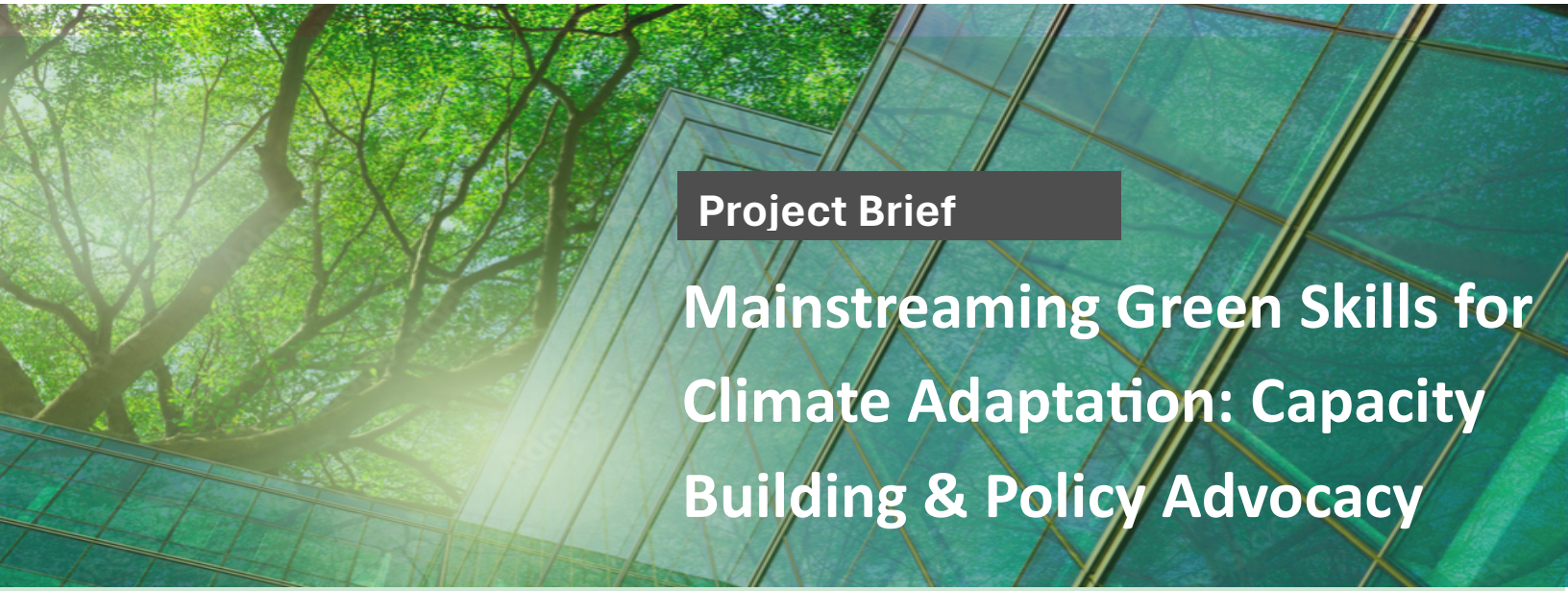

Project Brief

Mainstreaming Green Skills for Climate Adaptation: Capacity Building & Policy Advocacy

Goal

Enhanced climate and disaster resilience in the building sector of Khyber Pakhtunkhwa through mainstreaming green construction skills, community engagement, & advocacy.

Project Partners
GIZ Pakistan, Creative Engineering Management Services (CEMS)

Targeted Districts
Peshawar & Charsadda

Targeted Provincial Line Departments
Elementary and Secondary Education Department, Social Welfare, KP Land use & Building Control Authority, PDMA, Planning and Development, C&W Department KP, TEVTA KP

Implementation Period
December 2025 - July 2026

Target Direct beneficiaries
1000 including professionals, skilled and unskilled workers, community members, and government stakeholders

Context & Rationale

Pakistan is highly climate-vulnerable, facing frequent floods, heatwaves, and extreme weather events.[1] Khyber Pakhtunkhwa (KP)[2] is particularly exposed, with recurring floods, urban flooding, and heatwaves damaging public and private infrastructure. Buildings, especially schools, basic health units (BHUs), and community spaces, are increasingly affected, reducing their ability to function as safe shelters. Women, as primary users and caregivers, are disproportionately impacted by poor infrastructure and climate shocks.[3]

Buildings offer untapped potential for climate adaptation, including reducing heat stress, managing floodwater, and ensuring continuity of essential services. Building codes such as the Energy Conservation Building Code (ECBC) 2023 and Green Building Code of Pakistan (GBCP-2023) provide frameworks for climate-resilient building construction, but implementation is limited by lack of technical capacity, practical experience, and shortage of green skills among construction workforce.

Strengthening the adaptive capacity of Pakistan's building sector therefore requires targeted green construction skills development, hands-on demonstration, and embedding climate resilience into planning, regulation, and construction practices.

[1] Waseem and Rana, "Floods in Pakistan"
[2] Bibi, Khan, and Bibi, "Climate Change in Khyber Pakhtunkhwa"
[3] Gul, Khalil, and Hidayat, "Impact of 2022 Flood on Girls' Education"

Project Approach

To address the challenges above, the project follows a three-component approach:

A. Knowledge Creation	B. Capacity Building & Awareness	C. Advocacy
Develop standardized training modules on insulation, window glazing and passive ventilation, shading structures, landscaping, rain gardens, green roofs, and flood-resilient design. Modules align with climate-resilient construction, passive cooling, flood risk reduction, and nature-based solutions, and are adapted to different literacy and skill levels.	A three-tier training model targets engineers, architects, skilled and semi-skilled workers, and community members, with a focus on women. Two schools in Peshawar and Charsadda—a primary school for girls and a secondary school for persons with disabilities—will serve as demonstration sites for hands-on training and awareness sessions.	Engage provincial government stakeholders, develop case studies and policy briefs, propose amendments to KP Land use and Building Control Authority's (KP LUBCA) building byelaws, and hand over validated green skills curricula to TEVTA/NAVTTC for formal integration

Objectives

Develop knowledge products and standardized green skills curricula on climate-resilient and nature-based construction practices.

Strengthen the technical and practical capacities of engineers & architects, across the public and private sectors, along with skilled and semi-skilled workers, through tiered training, hands-on learning, and on-site demonstrations of climate-resilient and green construction practices.

Build community buy-in, ownership, and acceptance of climate-resilient construction practices and nature-based solutions by engaging students, women, and local communities through targeted awareness sessions and school-based demonstration activities.

Support policy integration and institutionalization of climate-resilient and nature-based construction practices in building byelaws and frameworks.

Expected Outcomes & Outputs:

The project is expected to reach 1000 beneficiaries, including professionals, skilled and unskilled workers, community members, and government stakeholders, through awareness sessions, workshops and trainings on climate-resilient building infrastructure.

Outcome A.1 Technical knowledge products and competency-based training curricula for climate-resilient infrastructure across seven training modules are developed, validated, and ready for institutional uptake and capacity building.

Outcomes	**Outcome B.1** Improved technical, practical, and ownership capacities of 420 stakeholders (architects, engineers, skilled and semi-skilled workers, and community members) through a structured three-tier green skills training program on climate-resilient infrastructure.
	Outcome B.2 Strengthened participation of 40 women in climate change education and skills development related to climate resilience and climate-resilient infrastructure.
	Outcome B.3 Increased awareness among 400 community members and strengthened community buy-in for climate-resilient infrastructure.
	Outcome C.1 Increased understanding and utilization of project-generated data and evidence by 145 government officials from relevant departments in Khyber Pakhtunkhwa and Pakistan to inform gender- and disability-inclusive climate-resilient infrastructure policies and plans.

Outputs	Training needs assessed and curricula developed for seven training modules.	Structured training delivered to engineers, architects, officials, and construction workers. Workshops delivered on rain gardens as a nature-based solution for women.	Awareness raised among students, communities, and local authorities on climate-resilient infrastructure.	Government officials engaged through meetings and policy dialogues. Curricula, technical evidence, and draft bylaw amendments submitted to relevant authorities.

Sustainability & Scalability

The project ensures sustainability through institutionalization, capacity building, and policy engagement. Curricula will be submitted to TVETA/NAVTTC for formal integration, ensuring ongoing education of engineers and artisans. Draft amendments to KP LUBCA building bye-laws, along with policy recommendations and case studies, will sustain demand for trained professionals and encourage the development of climate-resilient public infrastructure.

Trained local professionals and artisans can serve as trainers and resource experts, creating a permanent pool of expertise and reducing reliance on external support. Low-cost, adaptable solutions, such as insulation and rain gardens provide financially viable models for replication. The project's curriculum, case studies, and policy lessons are transferable, supporting replication of climate-resilient building practices across KP, Punjab, and Pakistan.

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