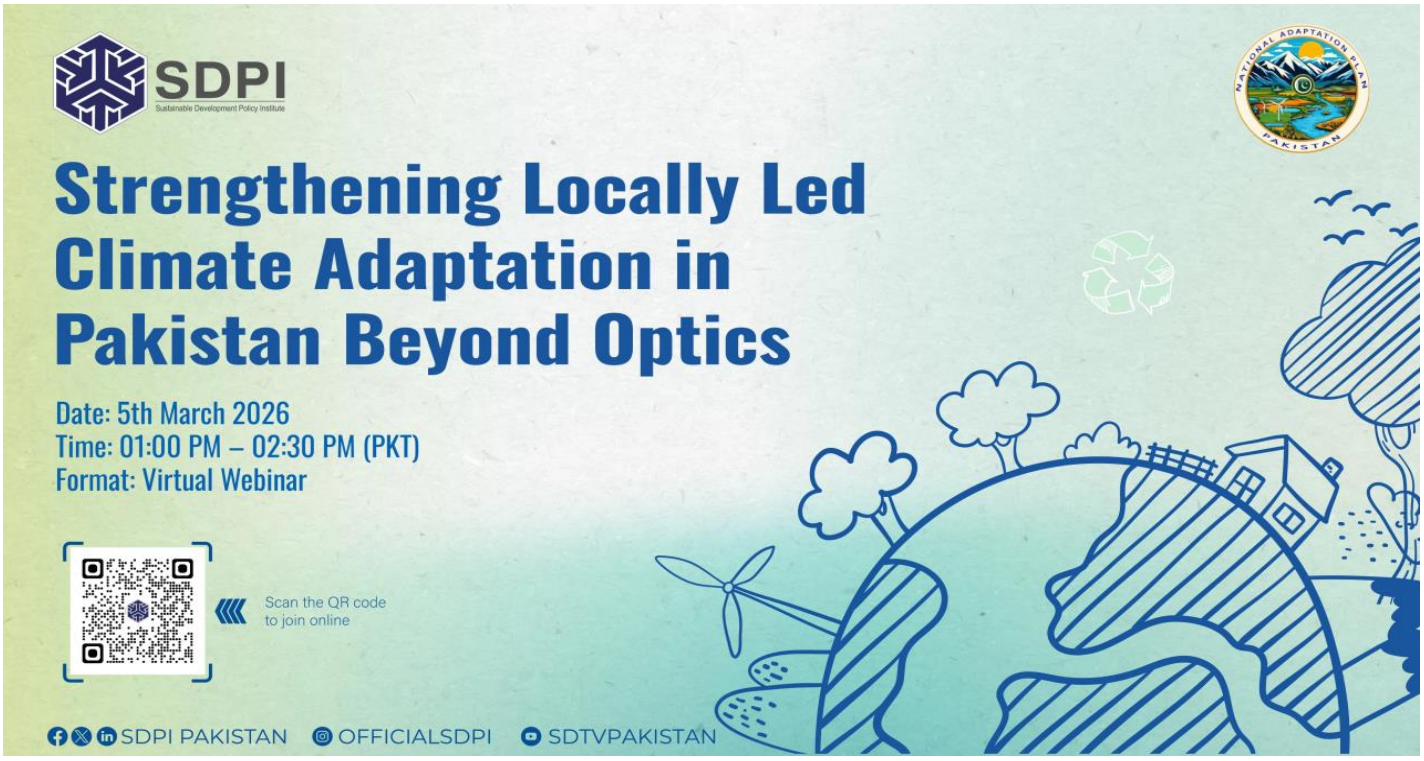
Webinar Report



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Executive Summary

Pakistan is highly vulnerable to climate change, experiencing an increasing frequency and intensity of extreme weather events, including floods, droughts, heatwaves, glacial melt, and sea-level rise. The 2022 monsoon floods exemplified this vulnerability, affecting over 33 million people, causing more than 1,700 fatalities, displacing millions, and inflicting economic losses in the tens of billions of dollars. These events disproportionately impact women, marginalized groups, and smallholder farmers due to existing socio-economic inequities and limited adaptive capacity. In addition to direct economic losses, climate shocks generate significant non-economic losses, including disruption of social cohesion, loss of cultural assets, and psychosocial stress, which further reduce community resilience and adaptive capacity.

Globally, Locally Led Adaptation (LLA) has emerged as a framework for enhancing climate resilience by decentralizing decision-making, planning, and resource allocation to local actors. LLA operationalizes principles of inclusive participation, integration of indigenous and local knowledge, consideration of non-economic losses, and transparent accountability. By embedding adaptation interventions within local priorities and capacities, LLA increases effectiveness, relevance, and sustainability of climate actions.

Within Pakistan, recognition of LLA is growing; however, implementation frequently remains consultative, with limited authority and resources devolved to communities. Centralized governance structures, constrained access to climate finance, and inadequate institutional capacity inhibit meaningful locally led adaptation. Integrating adaptation interventions with social protection mechanisms, gender-responsive approaches, and strategies to address non-economic losses is critical to enhancing local resilience. Discussions during the webinar emphasized these gaps, explored operational pathways for LLA, and highlighted the need for multi-stakeholder collaboration across governance levels to ensure community-driven, equitable, and context-specific adaptation outcomes.

In this context, SDPI, in collaboration with the National Adaptation Plan (NAP) team of Pakistan, organized a webinar titled **“Strengthening Locally Led Climate Adaptation in Pakistan: Beyond Optics”** on 5th March 2026 from 01:00 PM to 02:30 PM (PKT). The session convened representatives from government, UN agencies, civil society, development partners and the provincial representatives to critically assess the current state of locally led adaptation in Pakistan, review international and local experiences, and identify actionable strategies to move beyond tokenistic engagement toward robust, community-driven climate resilience initiatives.

Introduction and Background

Pakistan is one of the country's most vulnerable to climate change, facing recurrent floods, droughts, heatwaves, glacial melt, and sea-level rise. These events threaten livelihoods, food security, and critical infrastructure, disproportionately affecting women, marginalized groups, and smallholder farmers. Beyond economic losses, climate shocks also produce non-economic losses and damage (NELD), including psychological stress, climate anxiety, and social disruption

Pakistan is widely recognized as one of the country's most severely impacted by climate change, with multiple national and international assessments highlighting its extreme vulnerability to climate hazards. In the Climate Risk Index (CRI) 2025 published by German watch, Pakistan was ranked the most vulnerable country to extreme weather events in 2022, driven primarily by unprecedented monsoon-related floods that inundated one-third of the country, caused over 1,700 deaths, displaced millions, and inflicted economic losses estimated at around USD 30 billion. [1]These extreme events were amplified by record rainfall 243 % above average in August 2022 according to the Pakistan Meteorological Department and compounded by preceding heatwaves and Glacial Lake Outburst Floods (GLOFs) in the northern highlands.[2]

For instance, the 2022 floods affected over 33 million people, destroyed nearly 1.1 million homes, and caused economic damages exceeding USD 30 billion, highlighting the systemic vulnerability of communities across the country.[3] Women, marginalized groups, and smallholder farmers are disproportionately affected due to pre-existing socio-economic inequities and limited access to adaptive resources. More recently, the 2025 monsoon floods have again demonstrated how severe climate impacts can be. Nearly 7 million people were affected in 2025, more than 1,000 lives were lost, and over 4 million people were displaced during the floods. These are not just numbers; they represent lives disrupted, livelihoods lost, and communities pushed into vulnerability.

Despite a global increase in climate finance, access for local actors in Pakistan remains highly centralized. Studies indicate that less than 10% of adaptation funding reaches local implementing organizations, and only around 5% specifically targets marginalized communities.[4]This centralization limits local agencies, reinforces top-down planning approaches, and constrains the capacity of communities to design and implement context-specific adaptation interventions that reflect local priorities and knowledge systems.

Locally Led Adaptation (LLA) has emerged as a transformative approach to address these gaps. LLA emphasizes the transfer of decision-making authority, planning, and financial resources to local actors, enabling communities to identify, prioritize, and implement adaptation measures that are

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[1] Germanwatch. (2025). Global Climate Risk Index 2025
[2] AA. (2023). Pakistan ranked as most vulnerable country to climate change in 2022. Anadolu Agency. https://www.aa.com.tr/en/environment/pakistan-ranked-as-most-vulnerable-country-to-climate-change-in-2022/3480075
[3] UNDP Pakistan. (2022). Post-Flood Recovery Report 2022. https://www.pk.undp.org/content/pakistan/en/home/library.htm
[4] IFRC (2015).

contextually relevant, culturally appropriate, and sustainable.[5]. The approach encourages decentralized governance, inclusive participation of women, youth, and marginalized groups, integration of indigenous knowledge, consideration of non-economic losses, and transparent accountability mechanisms to ensure equitable allocation of resources and benefits.

In Pakistan, awareness of LLA is growing, but implementation often remains largely consultative, and optics driven. Many programs labeled as "locally led" fail to confer meaningful authority or resources to local communities, limiting their effectiveness in building resilience. Bridging this gap requires systematic governance reforms, improved access to decentralized climate finance, and integration of social protection mechanisms. Linking local adaptation projects with existing social protection programs, such as cash transfers or livelihood support schemes, can enhance communities' capacity to absorb shocks and reduce vulnerabilities to climate-induced losses.

Objectives of Webinar

***Figure 1**: Objectives of Webinar*

Insights from Sessions

Ms. Nelam Pari, Research Associate at the Sustainable Development Policy Institute (SDPI), moderated the webinar. She commenced the session by welcoming the participants and acknowledging the presence of representatives from government institutions, international organizations, academia, civil society, development partners and the provincial representatives. In her modertaion, she briefly outlined the objectives of the webinar, highlighting the importance of critically examining the current state of locally led adaptation (LLA) in Pakistan, identifying gaps between policy commitments and on-ground implementation, and exploring pathways to strengthen community-driven climate resilience. She emphasized that the discussion aimed to facilitate

[5] Coger, T., Dinshaw, A., Tye, S., et al. (2021). Locally Led Adaptation: From Principles to Practice. Global Commission on Adaptation. https://doi.org/10.1080/13549839.2021.1884669

knowledge exchange among stakeholders and generate actionable insights to operationalize locally led adaptation beyond symbolic or consultative approaches.

Figure 2. *Ms. Nelam Pari, Resrach Associate, SDPI moderated the webinar*

I. Ms. Zainab Naeem, Lead, Ecological Sustainability and Circular Economy, SDPI

Ms. Zainab Naeem welcomed all partners and stakeholders for their engagement and acknowledged their continued interest in advancing discussions on climate adaptation and resilience. She appreciated the collaborative efforts of different institutions and stakeholders aimed at strengthening adaptation responses and supporting vulnerable communities in addressing climate-related challenges. She highlighted that while the concept of adaptation is often presented as a terminology originating from the Global North, many adaptation practices already exist within local communities. These practices are deeply embedded in traditional knowledge systems, although they are not always formally recognized or documented within local languages or policy frameworks.

Ms. Naeem emphasized that communities across Pakistan have long been practicing locally led adaptation strategies to cope with climate variability. For example, farmers who lose agricultural land or crops due to floods or heatwaves often re-cultivate their land and restore their livelihoods, demonstrating both adaptation and resilience. Similarly, communities living near torrent or flood-prone areas temporarily relocate during extreme events and return afterwards to resume farming activities, reflecting traditional coping mechanisms. She also highlighted gender dimensions of adaptation, noting that women in arid regions such as Thar adjust their daily routines and water collection practices during extreme heat conditions to ensure household survival. Furthermore, she acknowledged the importance of national policy initiatives such as the National Adaptation Plan, which aims to consolidate adaptation efforts and strengthen climate resilience planning. She stressed the need for climate risk and vulnerability assessments to better understand how climate

hazards affect communities. Ms. Naeem pointed out that climate risks are not limited to floods alone but also include heatwaves, landslides, droughts, and other extreme events, which can significantly impact livelihoods and ecosystems. Therefore, adaptation planning should prioritize safeguarding vulnerable communities and integrating local knowledge with national and global frameworks.

She concluded by emphasizing the importance of recognizing and documenting local adaptation practices, as these solutions can not only strengthen community resilience locally but also provide valuable lessons that can inform global adaptation strategies.

***Figure 3**. Ms. Zainab Naeem, Lead, Ecological Sustainability and Circular Economy, SDPI, is delivering her Opening remarks and Context Setting*

II. Dr. Saad S. Khan, Additional Secretary, Ministry of Climate change and Environmental Coordination

Dr. Saad S. Khan emphasized that climate adaptation has become an urgent national priority for Pakistan, particularly given the vulnerabilities faced by developing countries where infrastructure capacity, literacy levels, and public awareness regarding climate-induced risks remain limited. He noted that although climate-induced changes are increasingly evident, responses are still not at the optimal level required to effectively address the scale of the challenge. He highlighted that a key barrier is the limited awareness and understanding of climate change impacts among communities and institutions, which often leads to fragmented responses and a tendency among stakeholders to shift responsibility rather than collectively addressing environmental challenges. In this context, he stressed the importance of strengthening awareness through mass media platforms, including television, social media, vlogs, seminars, and webinars, to help communities better understand how climate change directly affects their lives and livelihoods.

Dr. Khan acknowledged the significance of the National Adaptation Plan (NAP) as a key strategic framework guiding Pakistan's climate adaptation efforts. He noted that the country secured a readiness grant of approximately USD 2.9 million to support the development and implementation of the NAP. However, he observed that the NAP has not yet received sufficient visibility in national discourse, and greater efforts are required to strengthen awareness and ownership among stakeholders. He also pointed out that clarity in the positioning and communication of the NAP is important to avoid confusion with other national action plans and to ensure a distinct identity for climate adaptation initiatives.

He further noted that international procedural requirements and bureaucratic processes often present implementation challenges, particularly in large-scale climate initiatives. The NAP process, which spans the period from 2017 to 2027 and has undergone multiple extensions, is now approaching its final phase, with approximately fifteen months remaining for completion. In this context, he emphasized the need to accelerate implementation efforts, particularly the development and launch of District Adaptation Plans (DAPs) and highlighted the importance of including provinces such as Sindh and Balochistan to ensure broader representation and learning.

Concluding his remarks, Dr. Khan underscored the critical leadership role of the Ministry of Climate Change and Environmental Coordination as the national custodian of climate policy. He emphasized that the Ministry's stewardship is essential for ensuring coordination among federal and provincial stakeholders, strengthening policy coherence, and facilitating the scaling up of adaptation initiatives across districts and provinces in Pakistan.

***Figure 4**. Dr. Saad S. Khan, Additional Secretary, Ministry of Climate Change and Environmental Coordination Is delivering his Special Remarks*

III. Ms. Humaira Jahanzeb, Project Manager, National Adaptation Plan

Ms. Humaira Jahanzeb provided an overview of Pakistan's National Adaptation Plan (NAP) and explained how it translates locally led adaptation into institutional decision-making, financing, and monitoring mechanisms across national, provincial, and district levels. She mentioned that the National Adaptation Plan was formally approved by the federal cabinet in August 2023 and serves as Pakistan's overarching strategic framework for climate change adaptation. The NAP outlines 117 actionable measures across six priority sectors, designed to strengthen the country's ability to anticipate, absorb, and adapt to climate-related risks. If implemented effectively, the plan is expected to significantly enhance Pakistan's overall adaptive capacity and guide coordinated environmental and climate actions across sectors.

The development of the NAP followed procedures and technical guidance under the United Nations Framework Convention on Climate Change, ensuring alignment with global adaptation planning standards. A central component of the NAP process is the Climate Risk and Vulnerability Assessment (CRVA), which serves as the foundational analytical step. The CRVA helps identify climate hazards, exposure levels, and sectoral vulnerabilities, providing evidence base for prioritizing adaptation actions. Building on this national framework, Pakistan is now advancing a bottom-up approach through District Adaptation Plans (DAPs). These plans aim to localize the national adaptation agenda by identifying district-specific risks, priorities, and adaptation measures. The DAPs are being developed across multiple provinces and will also inform the future revision and review of the NAP, ensuring that national strategies remain responsive to local realities.

She emphasized that the DAP process follows a community-centered approach, recognizing that adaptation actions primarily occur at the local level. Therefore, meaningful engagement with local communities, government institutions, and sectoral stakeholders is essential for identifying realistic and effective adaptation measures.

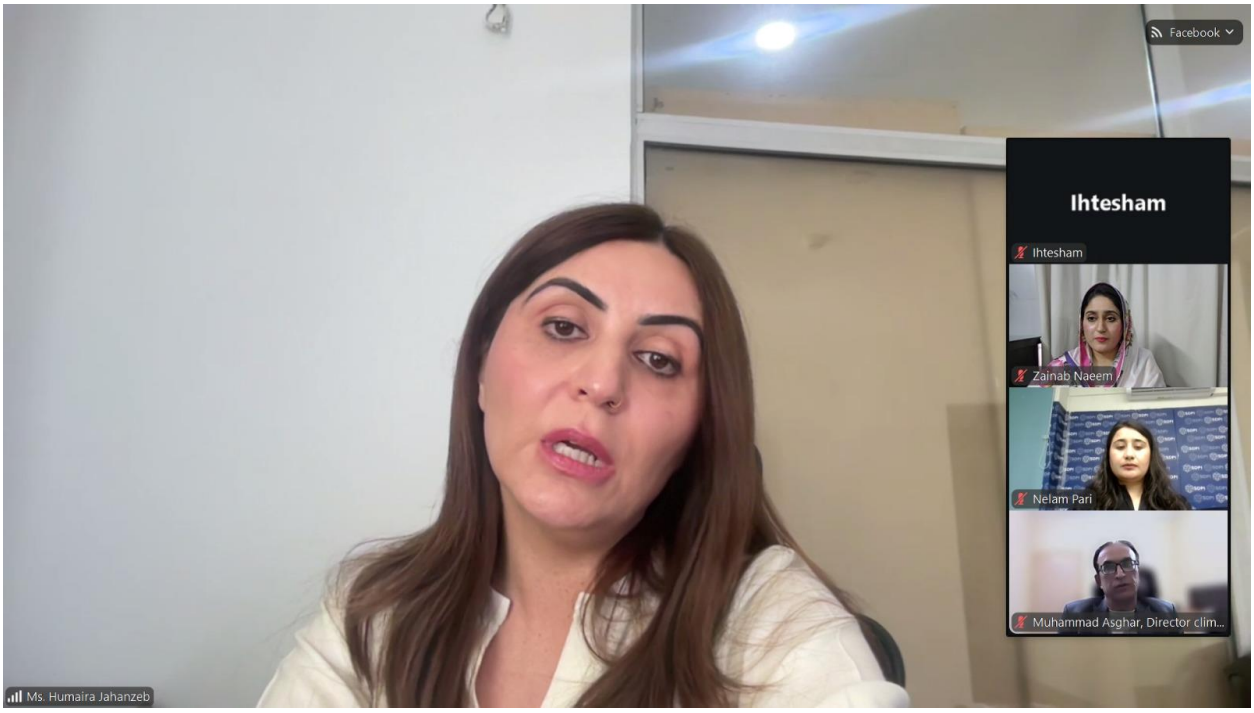

Figure 5. *Ms. Humaira Jahanzeb, Project Manager, National Adaptation Plan is delivering overview of National Adpataion Plan*

IV. Dr. Ehtisham Ul haq, Chief of Section (IDS), Planning and Development Department, KP

Dr. Ehtisham Ul Haq emphasized that District Adaptation Plans (DAPs) provide a critical framework for showcasing and strengthening environmental and climate adaptation initiatives, particularly within Khyber Pakhtunkhwa. He acknowledged and appreciated the collaborative efforts of the Sustainable Development Policy Institute (SDPI) and the Ministry of Climate Change and Environmental Coordination (MoCC) in supporting the preparation of these plans.

He noted that the development of DAPs for districts in Khyber Pakhtunkhwa represents a significant enhancement of existing planning frameworks. Several districts already have adaptation measures in place, and the newly developed DAPs serve as guiding policy documents, particularly due to the detailed costing of interventions, which provides a practical basis for prioritization and phased implementation over the next three years.

Dr. Haq highlighted that these DAPs, developed with technical support from SDPI, will serve as benchmark documents for district-level climate planning. He emphasized that the Planning and Development Department is committed to integrating the prioritized interventions identified in the DAPs into the province's development planning processes. Specifically, these interventions will be incorporated into the three-year Public Sector Development Program (PSDP) and Annual Development Programme (ADP) starting from July 2026, ensuring that implementation is aligned with district and provincial budget allocations. He concluded by reaffirming the province's commitment to the effective enforcement and operationalization of these plans to advance climate-resilient development across Khyber Pakhtunkhwa.

***Figure 6**. Dr. Ehtisham Ul Haq, Chief of Section (IDS), Planning and Development Department, Government of Khyber Pakhtunkhwa is delivering his talk.*

V. Mr. Shiraz Ali Shah, Head of the Resilience, Environment and Climate Change Unit (RECCU), UNDP Pakistan

Mr. Shiraz Ali Shah emphasized that climate adaptation is a critical requirement for all districts in every province, recognizing that adaptation needs are highly context-specific due to differences in topography, vulnerability profiles, and socio-economic conditions. He noted that district-level adaptation plans are essential, as a single uniform plan cannot comprehensively address the diverse risk landscapes within each district. Effective planning must begin at the community level, incorporating local knowledge and participatory assessments to ensure interventions are contextually relevant, sustainable, and socially inclusive. Gender considerations are imperative, as women are disproportionately exposed to climate risks, and adaptation strategies must address this differential vulnerability. Mr. Shah underscored the importance of technical and scientific capacity for evidence-based planning, knowledge generation, and information sharing at the national level, facilitating informed decision-making and institutional coordination. UNDP is operationalizing these principles through small grants programs under the Global Environment Facility, which supports locally led adaptation, resource recovery, and multi-stakeholder engagement. These initiatives focus on flood recovery, reconstruction of housing, rehabilitation of local infrastructure, and enhancing community resilience against future climate shocks. By integrating local environmental co-benefits with livelihood enhancement, these programs function as incubators for scaling adaptation, linking pilot interventions with national-level climate policies, mobilizing climate finance, and fostering institutional partnerships to advance adaptive capacities and mainstream climate-resilient development.

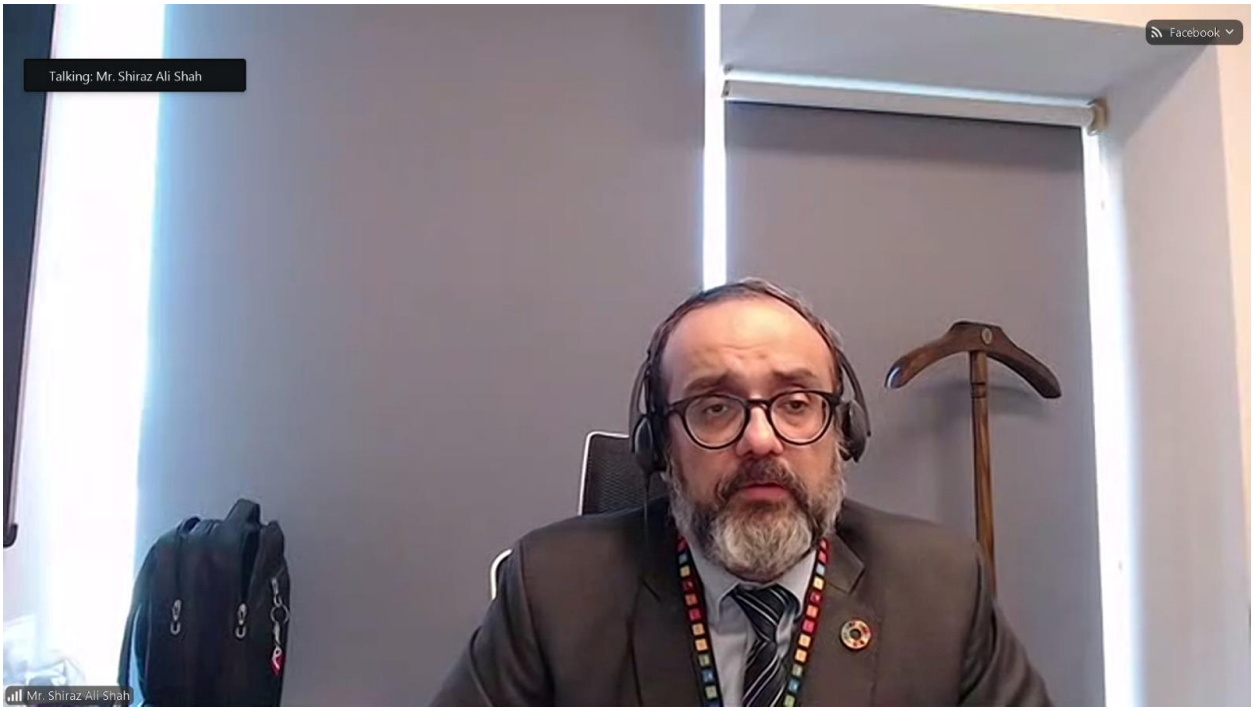

***Figure 7**. Mr. Shiraz Ali Shah, Head of the Resilience, Environment and Climate Change Unit (RECCU) at UNDP Pakistan is delivering his talk*

VI. Mr. Rizwan Ali Shah, Assistant Chief of Environmental & Coordination at the Punjab Planning & Development Board, Punjab

Mr. Rizwan Ali Shah highlighted that Punjab is one of the most vulnerable provinces to climate-induced hazards. He emphasized that the government is taking proactive steps to mainstream adaptation into provincial development and budgeting. For the fiscal year 2025-26, Punjab has allocated a record Rs 795 billion ($2.82 billion) for the "Climate Resilient Punjab" portfolio, which represents around 64 percent of the total development budget. He spoke about how this budget covers not just the Environment Department but multiple sectors to address climate change through mitigation, adaptation, and environmental protection. Key allocations include Rs 277 billion for adaptation, Rs 371 billion for mitigation, Rs 3 billion to establish a Climate Observatory, Rs 1.948 billion for the Environment Protection Force across 10 zones, Rs 750 million for controlling stubble burning and reducing smog, Rs 2.8 billion for afforestation along linear plantations, and Rs 50 million for installing 24 Air Quality Measurement Systems under the World Bank PCAP program. He highlighted that these initiatives are designed to enhance water-use efficiency, regulate groundwater extraction, build flood and urban resilience, and provide evidence-based climate data for planning.

Mr. Shah further discussed the need to institutionalize locally led adaptation at the district and Union Council levels. He noted that while provincial-level planning and budget allocations are important, downscaling adaptation strategies to local communities is essential to effectively address contextual vulnerabilities and close implementation gaps. He mentioned that initiatives like the

Climate Observatory will act as a knowledge hub, enabling modeling, climate projections, and better decision-making. By linking financial resources with technical and scientific capacity, these programs aim to build resilience at the grassroots level while also integrating adaptation into formal planning and appraisal systems across Punjab.

Figure 8. *Mr. Rizwan Ali Shah, Assistant Chief of Environmental & Coordination at the Punjab Planning & Development Board is delivering his talk*

VII. Mr. Riaz Ahmed Wagan, Chief Conservator of Forests, Riverine & Inland Forests, Sindh

Mr. Riaz Ahmed Wagan highlighted key initiatives undertaken by his institution to strengthen ecosystem restoration and climate adaptation. He explained that over the past 15 years, Sindh has shifted its approach toward ecosystem restoration, focusing on sustainable forest management and water harvesting. The department has reached approximately 18,000 hectares for forest restoration and plans to enhance these efforts through public-private partnerships. Specifically, mangrove restoration has been a major focus: starting from a baseline of 1,000 hectares, the mangrove area has now expanded to 80,000 hectares, representing about 40 percent of Sindh's mangrove forest, with plans to restore this to 80 percent over the next six years. These restoration efforts are designed to balance ecological sustainability with the needs of local communities who depend on these ecosystems and involve coordination with other departments while adapting globally recommended approaches to the local context.

Mr. Wagan also mentioned that similar approaches are being applied to riverine forests, such as projects in Mathari and Jamshoro, where 100 hectares of forest are being restored with active engagement of private sector partners. He emphasized that Sindh is actively addressing adaptation concerns at the district level, developing local adaptation plans to strengthen resilience. He noted

that unlike Sindh, some regions such as Balochistan have lagged behind in implementing such plans under the National Adaptation Plan (NAP), highlighting the province's proactive role in advancing district-level adaptation and ecosystem-based climate solutions.

Figure 9. *Mr. Riaz Ahmed Wagan, Chief Conservator of Forests for Riverine and Inland Forests in Sindh, is delivering his talk.*

VIII. Mr. Muhammad Asghar, Director of climate change, Environment Department, Balochistan

Muhammad Asghar, Director of Climate Change at the Environment Department, Balochistan, emphasized the province's evolving approach toward decentralization and community-driven adaptation. He highlighted that locally led adaptation (LLA) is most effective when it is planned, owned, and implemented by local communities, giving voice to those most vulnerable to climate impacts. In Balochistan, the traditional role of communities is shifting from passive beneficiaries to active agents of change, participating in decision-making and planning processes. He also pointed out that structural inequalities exist, which must be addressed to ensure equitable access to resources and participation. To operationalize LLA, the provincial government has allocated Rs 500 million, providing direct financial support to communities rather than channeling funds through conventional government project cycles. Communities submit concept notes for interventions related to biodiversity, ecosystem management, and locally relevant adaptation solutions, and they decide how funds are deployed based on local priorities.

Mr. Asghar further stressed the importance of institutional arrangements and delivery mechanisms that integrate local and indigenous knowledge into district-level planning. By incorporating locally generated insights, the province can develop informed adaptation strategies that are context-specific and actionable at the grassroots level. While district adaptation committees have been

established to review and facilitate community proposals, challenges remain in connecting provincial-level policy to local action due to gaps in delivery platforms and financial channels. The 2024 Balochistan Climate Change Policy supports these initiatives by prioritizing community-driven approaches, and strategies for strengthening integration include establishing community accounts, improving coordination between local and provincial bodies, and embedding local knowledge into planning and development programs. This approach seeks to institutionalize locally led adaptation, ensure equitable participation, and develop sustainable, context-specific resilience across vulnerable districts.

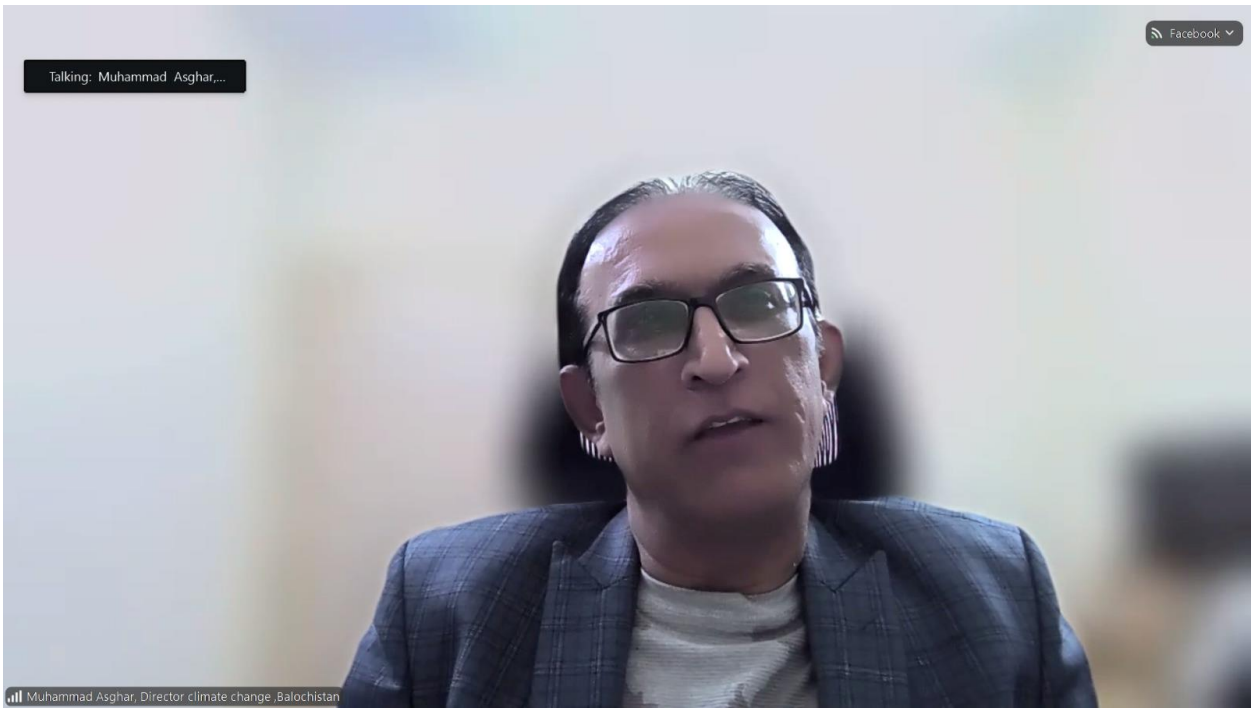

Figure 10. *Muhammad Asghar, Director of Climate Change at the Environment Department, Balochistan is delivering his talk.*

IX. Ms. Afia Salam, Environmental Journalist

Ms. Afia Salam highlighted several critical aspects of locally led adaptation (LLA) from a community perspective. She shared examples of the Disaster Action Plan (DAP) and noted the persistent gender gap in climate adaptation initiatives. She emphasized that Sindh should be actively included in such plans to ensure broader geographic representation. Genuine locally led adaptation goes beyond policy language and requires clarity, inclusivity, and actionable strategies that reflect the daily challenges communities face. Communication is key, as overly technical or lengthy explanations can confuse local stakeholders; adaptation messages need to be clear and accessible. Bottom-up approaches are essential, with communities actively implementing interventions rather than relying solely on top-down directives. Currently, environmental journalists and other actors often struggle with unfamiliar climate terminology, which underscores the need to translate technical language into locally relevant knowledge. Governance structures also require clarification, particularly regarding

what constitutes “local level,” whether Union Council, Tehsil, or district, with adaptation interventions ideally extending below the district level. While district development plans and templates, such as those provided by IUCN, exist, many high-level plans are imported and fail to address the specific needs of communities. Locally led adaptation is best understood as a pyramid, with local communities forming the base and governance at the apex, yet the voices of those at the base are frequently underrepresented. For adaptation planning to be meaningful, it must incorporate mechanisms for accountability, explicitly address gendered climate impacts, and empower communities, including marginalized groups, to participate actively in decision-making and implementation of interventions such as glacier protection, water management, and sustainable local resource practices.

Figure 11. *Ms. Afia Salam, an environmental journalist, is delivering her talk.*

X. Ms. Aisha Humera Ch., Secretary, Ministry of Climate Change and Environmental Coordination

Ms. Aisha Humera emphasized that climate adaptation strategies must directly address the challenges faced by communities experiencing the impacts of climate change. She highlighted that meaningful adaptation requires inclusive engagement of local communities, particularly farmers, women, youth, and vulnerable groups who face disruptions such as crop losses, interrupted education, and limited access to health services during climate events. A key hurdle remains the limited functionality of local governance, which affects the delivery of essential services and the integration of adaptation into daily government operations at the district level. While government institutions are striving to improve governance, Ms. Chaudhry stressed that policies addressing adaptation, nature-based solutions, human capital, disaster risk reduction, gender, and youth often

remain abstract until they are translated into tangible interventions that impact community resilience. She further emphasized the importance of convening all stakeholders including federal, provincial, and district authorities, as well as private sector and community representatives to critically assess past failures, identify gaps in scaling adaptation solutions, and jointly design actionable strategies. Leveraging local solutions, such as private sector innovations in improved seeds, soil testing, and climate-responsive agriculture, as well as startup-driven services, is essential. Ensuring these solutions reach communities requires agile coordination between government institutions, local governments, and partners at all levels. Grant funds and research incentives can play a critical role in testing, promoting, and scaling local innovations, while mechanisms for procurement and integration of these solutions at district and provincial levels can strengthen delivery. Ultimately, Ms. Chaudhry highlighted that adaptation is meaningful only when policies are translated into practical, community-level interventions that enhance resilience.

Chief Guest Ms. Aisha Moriani, Secretary of the Ministry of Climate Change, reinforced this perspective, calling for stronger institutional alignment and critical evaluation of where adaptation enforcement has fallen short to ensure that strategies result in tangible outcomes for communities.

Figure 12*. Chief Guest of webinar Ms. Aisha Humera Ch., Secretary, Ministry of Climate Change and Environmental Coordination is delivering her remarks.*

Policy Recommendations

Building on the insights shared by the speakers, it is evident that effective climate adaptation requires an integrated, multi-level approach that links national policies with district-level implementation, emphasizes community engagement, and leverages local knowledge and innovations. Policy frameworks should focus on enhancing the functionality and capacity of local governance institutions to ensure delivery of adaptation interventions, particularly for vulnerable

groups such as farmers, women, pregnant mothers, and youth. There is a critical need to move beyond conceptual discussions of adaptation, disaster risk reduction, human and natural capital, and gender inclusivity, toward operationalizing these concepts through practical interventions that strengthen community-level resilience. Strategies should prioritize assessment of past failures, identification of gaps in scaling adaptation solutions, and establishment of mechanisms to incentivize and integrate local and private sector innovations. Research, grant funding, and collaborative stakeholder platforms should be leveraged to systematically test, adapt, and scale context-specific solutions, ensuring that national policies translate into measurable impact at the grassroots. Institutional alignment across federal, provincial, and district levels, combined with continuous monitoring and evaluation, is crucial to sustain adaptive capacities and build resilient communities.

- **Strengthen Local Governance**: Build functional district-level governance mechanisms capable of integrating adaptation into routine service delivery and ensuring accountability for resilience outcomes.
- **Community-Centric Adaptation**: Incorporate perspectives of vulnerable groups, including farmers, women, pregnant mothers, and youth, in planning, decision-making, and implementation.
- **Stakeholder Coordination**: Establish multi-level platforms where federal, provincial, and district authorities, private sector actors, civil society, and communities jointly assess failures, identify gaps, and co-design solutions.
- **Operationalize Policy Concepts**: Translate adaptation, disaster risk reduction (DRR), nature-based solutions, human capital, gender, and youth inclusion from policy frameworks into tangible, measurable interventions.
- **Leverage Local and Private Sector Innovations**: Promote procurement and integration of locally developed solutions, including agricultural innovations, climate-responsive technologies, and startup-driven services.
- **Grant Funding and Research Incentives**: Allocate resources to research and pilot programs to test, refine, and scale local adaptation solutions.
- **Capacity Building**: Strengthen institutional agility at all levels to ensure timely adoption, coordination, and implementation of adaptation strategies.
- **Monitoring and Evaluation**: Establish mechanisms to evaluate the effectiveness of interventions, track adaptation outcomes, and iteratively improve policy and programmatic approaches.
- **Scaling Successful Solutions**: Identify best practices from local pilots and small-scale initiatives and embed them within provincial and national adaptation strategies for wider application.

- **Youth Engagement**: Actively involve youth in adaptation planning and implementation to foster innovative approaches and ensure sustainability of community resilience efforts.

Annexure 1. Ageda of Webinar

Strengthening Locally Led Climate Adaptation in Pakistan Beyond Optics

Date: 5th March 2026
Time: 01:00 PM – 02:30 PM (PKT)

Time	Session	Details
01:00 – 01:05 PM	Opening remarks and Context Setting	Ms. Zainab Naeem, Lead, Ecological Sustainability and Circular Economy, SDPI
01:05PM -1:15PM	Special Remarks	Dr. Saad S. Khan, Additional Secretary, Ministry of Climate change and Environmental Coordination
01:15 – 02:15PM	Panel Discussion	1. Ms. Humaira Jahanzeb, Project Manager, National Adaptation Plan 2. Dr. Ehtisham Ul haq, Chief of Section (IDS), Planning and Development Department, KP 3. Mr. Shiraz Ali Shah, Head of the Resilience, Environment and Climate Change Unit (RECCU), UNDP Pakistan 4. Ms. Nadia Shafiq, Sr. Chief Environment & CC, P&D Board, Punjab 5. Mr. Riaz Ahmed Wagan, Chief Conservator of Forests, Riverine & Inland Forests, Sindh 6. Mr. Muhammad Asghar, Director of climate change, Environment Department, Balochistan 7. Ms. Afia Salam, Environmental Journalist
02:15– 02:25 PM	Key Takeaways	Summary of actionable recommendations and pathways forward
02:25– 02:35 PM	Closing Remarks by **Chief Guest**	Ms. Aisha Humera Ch., Secretary, Ministry of Climate Change and Environmental Coordination

Pictorials of Webinar