Event Report

Smart Development: Linking Health, Technology, and Climate Resilience in Balochistan

Date: 16th October 2025
Venue: Conference Room MVTP
Moderator: Ms. Fatima Dehgan
Reporter: Mr. Dawood Khan Nasir

1. Introduction

The session of the Roundtable Conference on *"Smart Development: Linking Health, Technology, and Climate Resilience in Balochistan"* was successfully held on 16th October 2025 under the auspices of the Centre for Research, Policy Development, Peace, and Strategic Studies (CRPPSS). The session brought together policymakers, academics, climate experts, and youth leaders to deliberate on strategic linkages between health, technology, and climate resilience in the context of Balochistan.

The session was moderated by Ms. Fatima Dehgan, and the reporting responsibilities were undertaken by Mr. Dawood Khan Nasir.

2. Opening Remarks

The roundtable conference was formally opened with welcome remarks by Mr. Dost Mohammad Barech, who chaired the session. He praised the efforts of CRPPSS in initiating and leading critical policy discussions on pressing socio-economic issues of the province. He emphasized the interconnectedness of health, technology, and climate resilience, noting their collective significance in shaping Balochistan's sustainable development trajectory.

3. Keynote Presentation

The official session was introduced by Mr. Atta Kakar, Director-in-Charge, CRPPSS. He presented the conceptual framework of "Smart Development" and discussed how linking the three variables health, technology, and climate resilience could serve as a cornerstone for Balochistan's inclusive development.

Mr. Kakar shared data and visual presentations highlighting:

- **Health Indicators:** Infant mortality rates, life expectancy, and overall mortality rates in Balochistan, emphasizing the urgent need for targeted interventions.

- **Technology Access:** Statistics on mobile phone penetration and digital connectivity, showcasing potential pathways for technology-driven development.

- **Climate Resilience:** Data on drought, renewable energy potential, and the region's vulnerability compared to other provinces, underlining the need for climate-smart policies.

His presentation emphasized the urgency of action and outlined potential solutions to address the three thematic areas in an integrated manner.

4. Roundtable Discussion

The roundtable discussion formally began with a 10-minute address by Dr. Dost Muhammad, who highlighted climate change as *"a greater threat than terrorism"*, underscoring its

borderless and existential nature. He noted that although Pakistan contributes minimally to global greenhouse gas emissions, it remains among the most climate-vulnerable countries in the world.

Dr. Dost Muhammad supported his argument with significant data points:

- In 2022, Pakistan's agriculture production was estimated at $29 billion, while the flood losses amounted to $30 billion, highlighting the severity of climate impacts.

- Wheat shortages due to the Russia–Ukraine war further aggravated food insecurity.

- Drought conditions in Balochistan have intensified unemployment and increased the risk of extremism in the region.

He also highlighted underutilized opportunities in olive cultivation in areas like Shirani and Khanozai, emphasizing that only 0.2% of the region's potential is currently tapped. Similarly, ecotourism sites such as Ziarat remain underdeveloped despite their vast potential. He pointed out that in 2022, Balochistan suffered the loss of 500,000 livestock, significantly impacting livelihoods.

A key thematic area of his speech was "Climate Diplomacy". He criticized the lack of attention towards climate negotiations, stating that while geopolitics and geoeconomics dominate national discourse, climate diplomacy remains overlooked. He proposed initiating climate cooperation with China, especially learning from its water management technologies and integrating similar models in Balochistan.

Dr. Dost Muhammad further noted that Quetta is transforming into a 'concrete garden', lacking sufficient climate resilience. This requires urgent urban planning and green infrastructure development.

5. Policy Recommendations

Following the discussion, Mr. Dost Mohammad outlined actionable recommendations focusing on both policy and local-level interventions:

1. **Water Resource Management:** Recycling of wastewater, especially from service stations.

2. **Green Initiatives:** Promotion of the *Green Pakistan Initiative* to combat deforestation and land degradation.

3. **Renewable Energy:** Expansion of solarization programs 28,000 tube wells have already been solarized with PKR 51 billion in expenditures.

4. **Preservation:** Protection of the Juniper Forests of Ziarat, one of the world's oldest.

5. **Urban Planning**: Diversifying Quetta's economy and integrating technology-driven models.

6. **Green Jobs and Skills**: Promoting sustainable employment through eco-friendly industries.

7. **Community Engagement**: Encouraging each user of technology to plant at least one tree.

8. **Religious and Educational Integration:** Engaging religious scholars and integrating climate awareness into school curricula.

9. **Agriculture Adaptation:** Promoting drought-resistant crops such as olive, almond, and pistachio.

10. **Climate Diplomacy:** Establishing regional cooperation frameworks with technologically advanced partners.

6. Conclusion

The session of the Roundtable Conference on *Smart Development: Linking Health, Technology, and Climate Resilience in Balochistan* concluded with a strong consensus on the need for integrated, multi-sectoral approaches to address the intertwined challenges of health disparities, technological gaps, and climate vulnerability in the province. The event served as a valuable platform for knowledge exchange, providing evidence-based insights and strategic policy recommendations for provincial and national stakeholders.

6. Intervention by Dr. Maki Kakar

The second speaker of the roundtable was Dr. Maki Kakkar, a seasoned expert in climate governance and sustainable development. He began his address by extending his sincere appreciation to the Centre for Research, Policy Development Peace, and Strategic Studies (CRPPSS) for organizing a timely and significant dialogue on smart development. He acknowledged the importance of the event's central theme linking health, technology, and climate resilience and emphasized its critical relevance for Balochistan.

Dr. Kakar drew attention to Pakistan's National Adaptation Plan, highlighting its potential to address climate-related challenges at a broader level. However, he noted that water scarcity, which is one of the most pressing issues in Balochistan, has been given minimal priority in both policy and practice. He criticized the limited technical capacity in climate-related government

offices, where most personnel lack specialized climate knowledge and expertise, resulting in weak planning and implementation.

6.1. Health Sector Challenges

Dr. Kakar then shifted focus to the health sector, particularly maternal and infant health indicators. He expressed concern over the high infant mortality rates and the non-functional state of many health offices in the province. Although the infrastructure exists, he noted that many institutions remain inactive or inefficient, creating a significant gap between available resources and service delivery. He identified this as an area that holds great potential for policy advocacy and systemic reform.

6.2. Concept of Smart Development

Defining *"Smart Development"*, Dr. Kakar stated that the concept originates from social sciences and should be understood in its true spirit, beyond being a buzzword. He explained that "SMART" can be interpreted as:

- **S** – Specific
- **M** – Measurable
- **A** – Achievable
- **R** – Realistic/Relevant
- **T** – Time-bound

He stressed that development planning must adhere to these principles to ensure tangible outcomes. Dr. Kakkar also briefly introduced theoretical perspectives referring to symmetry and seminary concepts (he used them in a conceptual context to explain problem framing; in the final draft, this will be refined further if needed) to underline that problems must be understood in their actual structure rather than through abstract narratives.

6.3. Reflections on MDGs and SDGs

Dr. Kakkar presented a critical reflection on Pakistan's progress toward Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs). He highlighted that:

- Pakistan ranks near the bottom in gender equality indicators, reflecting weak implementation of development agendas.
- The country's overall performance on SDGs remains far behind global targets, indicating systemic underdevelopment and policy gaps.

6.4. Governance, Policy, and Implementation Gaps

A major portion of Dr. Kakar's speech was dedicated to policy governance and implementation gaps. He noted that:

- Policies are often limited to discussions in conference halls and do not translate into tangible action.

- In the health sector, most policies are adopted from WHO frameworks without local contextualization.

- Implementation mechanisms are either weak or non-existent, leading to stagnation in progress.

- The education policy similarly lacks climate integration and digital monitoring tools.

- The Government of Balochistan does not maintain a centralized dashboard to track the implementation and evaluation of policies.

Dr. Kakkar strongly emphasized the importance of Monitoring and Evaluation (M&E) frameworks and digital dashboards as critical tools to ensure policy accountability. He reiterated that technology should be used to monitor and assess government initiatives, ensuring that policies move beyond paper to practical action.

6.5. Call for Policy Accountability

Dr. Kakar concluded his remarks by pointing out the misuse of policies for personal or political gain, rather than for public benefit. He stressed the urgent need to:

- Establish transparent and efficient policy monitoring systems.

- Integrate technological tools into governance processes.

- Promote policy accountability and ownership at the provincial level.

His intervention underlined that smart development is not possible without effective governance and policy implementation mechanisms.

7. Intervention by Dr. Anila Ali

The third speaker of the session was Dr. Anila Ali, Chairperson of the Environmental Department, who began her intervention by sharing recent data and global climate vulnerability rankings. She highlighted that Pakistan has moved from 1st to 7th position among the most climate-vulnerable countries a development that, while modest, reflects some progress at the national level. She emphasized that despite Pakistan's negligible contribution to global greenhouse gas emissions, the country remains severely affected by climate change.

Dr. Anila raised a critical question: *"Why is there such a stark disparity between two neighboring countries Pakistan and China?"* She explained that this disparity is primarily demographic and structural. Unlike China, Pakistan's population is scattered in isolated pockets across a vast geographical area, which complicates service delivery and climate resilience efforts. While Pakistan has successfully mobilized international funds on climate issues, she pointed out that the utilization of these funds remains restricted to conferences, buffets, and closed-room discussions, with minimal impact on ground realities.

7.1. Structural and Demographic Vulnerabilities

Dr. Anila identified population spread and disconnection as a core barrier to building resilient structures. She observed that in Balochistan, where health infrastructure and service delivery are already limited, the situation is worsening due to both demographic and administrative inefficiencies. Although the province receives significant allocations through the National Finance Commission (NFC), she noted that intra-provincial allocation and distribution of funds remain inadequate and poorly managed.

7.2. Technology and Awareness Gap

In discussing technology and awareness, Dr. Anila stressed that access remains a major issue in Balochistan. She argued that the province is highly vulnerable across all three thematic areas health, technology, and climate resilience and questioned whether people are even aware of environmental challenges. She answered emphatically: *"No."*

She elaborated that outside of university students and youth networks, most key stakeholders lack basic environmental awareness. She acknowledged that recent government efforts to organize youth-focused conferences and the integration of climate content into curricula at schools and universities are promising steps. She recommended expanding these efforts to include non-academic stakeholders, particularly local communities, farmers, and traditional leaders.

7.3. Deforestation and Policy Gaps

Dr. Anila drew particular attention to deforestation in Ziarat, identifying timber mafias and lack of access to gas and alternative energy as major drivers. She highlighted a sharp disconnect between policies and ground realities, arguing that effective policymaking must be research-informed and context-specific. She emphasized that understanding these gaps is crucial for formulating practical and actionable policy recommendations.

7.4. Recommendations and Way Forward

In concluding her remarks, Dr. Anila Ali proposed a set of structured recommendations aimed at strengthening Balochistan's climate resilience and institutional capacity:

1. Establish a Centralized Climate Research and Data Center to collect, manage, and analyze reliable data for evidence-based policymaking.

2. Strengthen collaboration with academia, particularly research universities, to bridge the gap between policy formulation and implementation.

3. Ensure sustainable funding for climate-related projects through the Government of Balochistan (GoB).

4. Build institutional capacity across provincial departments to improve implementation mechanisms and responsiveness.

5. Integrate local languages in awareness campaigns to enhance community engagement and ownership.

6. Promote gender empowerment by increasing women's representation at policy and decision-making tables.

7.5. Gender and Institutional Challenges

Dr. Anila also reflected on her personal experience as a woman leader in environmental governance, sharing that despite serving as Chairperson of the Environmental Department for the past two years, she continues to face institutional and structural barriers. She described the underrepresentation of women in policy spaces as a serious limitation to inclusive climate governance. She strongly advocated for women's empowerment and greater participation in policy formulation and implementation processes.

7.6. Closing Note

Dr. Ali concluded by emphasizing that Balochistan has a long way to go in building climate resilience, but progress is possible through behavioral change, strong research foundations, and inclusive policy mechanisms. Her intervention highlighted both structural challenges and practical solutions, contributing valuable insights to the roundtable discussion.

8. Question & Answer Session

Following the presentations, a dynamic Q&A session was conducted, allowing participants to engage with the speakers on practical solutions and regional challenges. Key discussions included:

- Strategies to enhance climate resilience in rural Balochistan.

- Leveraging technology for monitoring and evaluation of policies.

- Community-based initiatives to improve health access and awareness.

- Addressing gender disparities and promoting women's leadership in environmental and development sectors.

The session provided a platform for knowledge exchange and collaborative problem-solving among policymakers, academics, and youth stakeholders.

9. Event Conclusion

The session of the roundtable on *Smart Development: Linking Health, Technology, and Climate Resilience in Balochistan* concluded successfully. The event highlighted critical regional challenges, presented evidence-based insights, and proposed practical recommendations to advance sustainable development. The discussions underscored:

- The urgent need for integrated approaches to health, technology, and climate resilience.

- The importance of policy implementation, monitoring, and evaluation through technological tools.

- The necessity of community engagement, research-driven policy-making, and women empowerment.

The conference closed with consensus on actionable steps and emphasized the importance of continued collaboration between government, academia, and civil society to achieve sustainable and smart development in Balochistan.

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Dated: *17th October 2025*