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**Report of Policy Lab on
Bridging Gaps in
Climate Change Mitigation Policies and their
Implementation in Pakistan**

پاکستان میں موسمیاتی تبدیلی سے نمٹنے کی
پالیسیوں کے اطلاق میں حائل رکاوٹوں کا خاتمہ

**Policy Analysis &
Recommendations- Part-11 of 11
Gender Inclusion and Cultural
Engagement for Climate Mitigation
Ensured Inclusivity in Climate Policies,
with a Focus on Empowering Women and
Recognizing Cultural Dimensions**

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بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

إِنَّ اللّٰهَ لَا یُغَیِّرُ مَا بِقَوْمٍ حَتّٰی یُغَیِّرُوا مَا
بِأَنفُسِهِمْ

(سورة الرعد 13:11)

ترجمہ (اردو)

بے شک، اللہ کسی قوم کی حالت نہیں بدلتا جب تک وہ خود اپنی حالت کو نہ بدلے۔

Translation (English):

Indeed, Allah does not change the condition of a people until they change what is in themselves.

(Surah Ar-Ra'd 13:11)

ظَهَرَ الْفَسَادُ فِي الْبَرِّ وَالْبَحْرِ بِمَا كَسَبَتْ أَيْدِي
النَّاسِ لِيَذِيقَهُمْ بَعْضَ الَّذِي عَمِلُوا لَعَلَّهُمْ
يَرْجِعُونَ

(سورة الروم 30:41)

ترجمہ (اردو)

خشکی اور تری میں فساد ظاہر ہو گیا ہے، لوگوں کے اپنے ہاتھوں کے کیے ہوئے اعمال کی وجہ سے، تاکہ اللہ انہیں ان کے کچھ اعمال کا مزہ چکھائے، شاید کہ وہ باز آجائیں۔

Translation (English):

Corruption has appeared on land and sea because of what the hands of people have earned, so that He may let them taste part of what they have done, that perhaps they will return (to righteousness).

(Surah Ar-Rum 30:41)

**Gender Inclusion and Cultural
Engagement for Climate Mitigation
ensured inclusivity in climate
policies, with a focus on empowering
women and recognizing cultural
dimensions**

Research Group

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PREFACE

Climate change presents an existential challenge to Pakistan, demanding urgent, well-coordinated, and evidence-based policy responses. Recognizing the gravity of the issue, the Policy Lab on Climate Change Mitigation in Pakistan was conceived, designed, and led under the visionary guidance of Dr. Muqem ul Islam, Chief Instructor, National Institute of Public Administration (NIPA), Peshawar, during the 41st Mid-Career Management Course. This initiative aimed to foster a dynamic and policy-oriented dialogue through a Public Policy Simulation Exercise, conducted from September 24th to 29th, 2024, followed by research presentations and seminars on September 30th and October 1st, 2024.

The Policy Lab brought together policymakers, researchers, and practitioners to develop actionable strategies for climate change mitigation, with a particular focus on Pakistan's national and regional policy frameworks. Structured into eleven dedicated research groups, the Policy Lab comprehensively addressed various dimensions of climate governance, adaptation, and mitigation. Each research group (RG) was tasked with developing strategic policy recommendations aligned with national priorities and international commitments.

RG-1: Task Force on National Climate Policy Framework and International Obligations focused on aligning Pakistan's policies with global frameworks like the Paris Agreement and the Sustainable Development Goals.

RG-2: Task Force on Climate Policy Framework of Khyber Pakhtunkhwa ensured regional priorities were harmonized with national and international commitments.

RG-3: Committee on Biodiversity, Ecosystem Restoration, and Reforestation worked to protect biodiversity, enhance reforestation, and promote ecosystem restoration.

RG-4: Committee on Climate-Smart Agriculture, Food Security, and Sustainable Land & Water Management explored innovative solutions for sustainable agriculture and resource management.

RG-5: Committee on Energy Conservation, Renewable Resources, and Electric Vehicle Adoption developed policies for energy efficiency and transition to renewable energy.

RG-6: Committee on Carbon Financing, Carbon Credits, and Global Climate Resilience Investments proposed financial mechanisms to support climate action and resilience building.

RG-7: Committee on Capacity Building, Climate Education, and Mass Awareness emphasized the need for public engagement, education, and institutional capacity development.

RG-8: Committee on Climate-Adaptive Infrastructure and Environmentally Sustainable Urban Growth addressed sustainable urbanization and resilient infrastructure development.

RG-9: Committee on Circular Economy and Sustainable Waste Management advanced the adoption of circular economy principles and efficient waste management systems.

RG-10: Committee on Climate Risk Reduction, Disaster Preparedness, and Flood Resilience developed strategies for disaster risk reduction and flood resilience.

RG-11: Committee on Gender Inclusion and Cultural Engagement for Climate Mitigation ensured inclusivity in climate policies, with a focus on empowering women and recognizing cultural dimensions.

The research outcomes of the Policy Lab present a roadmap for Pakistan's climate resilience, rooted in policy innovation, multi-stakeholder engagement, and actionable frameworks. This report serves as a valuable resource for decision-makers, practitioners, and researchers committed to mitigating climate change impacts in Pakistan. It is hoped that the insights and recommendations put forth in this document will inform future policies and drive Pakistan towards a sustainable and climate-resilient future.

It is hoped that this document will serve as a significant milestone in the design, implementation, and facilitation of policies, paving the way for broader economic and industrial transformation in Pakistan, انشاء الله .

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Executive Summary

The climate crisis in Pakistan is an immediate and pressing challenge, disproportionately affecting the most vulnerable populations, particularly marginalized groups such as women. The 2022 floods highlighted the exacerbating effects of climate change, amplifying existing socio-economic inequalities. Despite contributing only 1% to global greenhouse gas emissions, Pakistan is one of the most severely impacted countries by climate change. The vulnerability of marginalized groups and women demands urgent attention, requiring climate change policies that are gender-sensitive, inclusive, and culturally engaged.

Key Insights:

- **Urgency of Climate Change in Pakistan:**
Despite contributing only 1% of global greenhouse gas emissions, Pakistan faces some of the worst impacts of climate change, such as frequent floods, droughts, and extreme weather events. This stark contrast underscores the urgency for inclusive solutions and adaptive measures that encompass gender and social inclusion.
- **Disproportionate Impact on Vulnerable Groups:**
Women, marginalized communities, and rural populations are disproportionately affected by climate change. These groups already experience poverty, lack of access to education, and limited socio-economic opportunities. The climate crisis exacerbates these inequalities, making them more vulnerable to displacement, loss of livelihood, and health impacts.
- **Gender and Social Inclusion (GESI) in Climate Response:**
Including women and marginalized groups in climate policies is essential for effective mitigation and adaptation. Gender equality and social inclusion (GESI) can lead to more equitable, sustainable outcomes in climate change actions. Studies have shown that women's involvement in leadership and decision-making in environmental policies reduces the environmental impact and improves the outcomes of climate initiatives.
- **Cultural and Citizen Engagement:**
Cultural and citizen engagement, as part of policy discussions, brings in diverse perspectives that lead to more ethical and inclusive climate responses. The involvement of local communities, particularly in rural regions, ensures that climate policies are tailored to the real needs and challenges of those affected. Empowering citizens through education and awareness also improves community resilience to climate risks.

Climate Change Mitigation and Adaptation: A Dual Approach

• Mitigation Strategies:

Mitigation efforts focus on reducing greenhouse gas emissions, such as through renewable energy adoption, reforestation, and enhancing carbon sinks. However, these measures will take years to significantly reduce temperatures. Immediate actions are necessary, particularly through green infrastructure, energy efficiency, and reducing dependency on fossil fuels.

• Adaptation Measures:

Adaptation involves adjusting to the changing climate by implementing measures that protect vulnerable communities, such as better disaster preparedness, crop diversification, and water management systems. Adaptation is especially important in Pakistan, where local weather patterns are unpredictable and crop cycles are disrupted.

Policy and Governance Gaps

• Inadequate Gender Inclusion in Climate Policies:

Despite policy frameworks like the National Climate Change Policy and the Climate Change Act, gender inclusion in climate-related decision-making remains underdeveloped. Policies often overlook the specific needs of women in climate mitigation and adaptation strategies. A clear gap exists in ensuring women's voices are heard at every level of climate governance.

• Barriers to Effective Gender and Cultural Engagement:

The absence of gender-specific frameworks in climate programs leads to missed opportunities for creating gender-sensitive interventions. Women often face cultural, social, and economic barriers to participating in climate solutions, such as limited access to resources and patriarchal norms. Tackling these barriers requires systemic change, including gender-focused climate financing and promoting gender equity in leadership positions.

• Need for Intersectional Approaches:

Climate change does not affect all individuals equally, and marginalized communities face compounded vulnerabilities due to intersecting factors like gender, ethnicity, disability, and socio-economic status. A successful climate policy must address these multiple layers of disadvantage by ensuring that marginalized groups have the resources and opportunities to adapt.

Strategic Recommendations for Inclusive Climate Action

1. Enhancing Gender-Responsive Climate Policies:

- Develop and implement gender-specific climate change strategies, ensuring women are included in climate decision-making processes at both local and national levels.
- Invest in programs that increase women's capacity to lead and participate in climate change solutions, such as women-led climate adaptation projects and environmental advocacy.

2. Cultural and Local Community Engagement:

- Strengthen citizen engagement platforms to ensure the local population, especially women, marginalized groups, and indigenous communities, have a voice in climate action.
- Promote local knowledge and practices in climate resilience and adaptation to ensure that policies are culturally appropriate and effective.

3. Inclusive Financing and Access to Resources:

- Create climate financing mechanisms that prioritize gender-sensitive investments, ensuring women and marginalized communities have access to funding for adaptation projects, green technologies, and sustainable livelihoods.
- Promote equitable access to education, healthcare, and climate resilience programs to tackle the root causes of vulnerability.

4. Strengthening Institutional Capacity for Gender Integration:

- Train and build the capacity of local and national institutions in gender-responsive climate governance.
- Ensure that both federal and provincial governments align their climate policies with gender equality frameworks and the sustainable development goals.

Enhancing Gender Inclusion and Cultural Engagement in Climate Mitigation in Pakistan

Key Insights:

• **Climate Change and Vulnerable Populations:**

Climate change is a growing global challenge, with significant impacts on vulnerable populations, including women, indigenous communities, and low-income groups. These communities often face heightened risks due to existing social inequalities and limited access to resources. The intersection of climate change and these pre-existing vulnerabilities compounds economic, health, and environmental challenges for these groups.

• **Gender and Cultural Barriers in Climate Action:**

While Pakistan has established strong legal frameworks for gender inclusion and cultural engagement in climate action, these frameworks are hindered by weak implementation, inadequate resources, and limited integration of gender perspectives in climate strategies. This gap in policy and practice diminishes the effectiveness of climate mitigation efforts.

• **Importance of Gender Inclusion and Cultural Engagement:**

Women, particularly those involved in resource management and community resilience, play a crucial role in climate mitigation. Their unique perspectives and solutions can enhance efforts to address climate change. Cultural engagement, which integrates local knowledge and practices, is essential for fostering ownership of climate strategies, making them more sustainable.

• **Critical Opportunity for Pakistan:**

Pakistan is at a pivotal point where addressing climate change and gender inequality together can drive significant progress. By adopting global best practices and adapting them to the local context, Pakistan can strengthen its climate resilience

while promoting gender inclusion and cultural engagement. A more integrated, gender-responsive approach will empower women, foster sustainable development, and contribute to a more equitable and resilient future.

Strategic Recommendations:

1. Enhance Policy Coherence:

- Formulate integrated gender-climate policies with specific targets and accountability mechanisms.
- Create a National Gender-Climate Action Framework to ensure consistency across all climate policies.
- Regularly review policies and develop monitoring frameworks to track gender-specific outcomes of climate initiatives.

2. Strengthen Institutional Capacity:

- Develop targeted training programs for government officials, local leaders, and community organizations on gender-responsive climate action.
- Allocate dedicated financial resources for gender-responsive climate initiatives and recruit gender experts to provide specialized guidance.

3. Foster Inter-Agency Collaboration:

- Establish multi-stakeholder committees and joint action plans for more effective gender-inclusive climate initiatives.
- Strengthen cross-sectoral coordination among ministries to ensure a unified approach to climate and gender issues.

4. Integrate Innovative Approaches:

- Utilize technology for data collection and monitoring to enhance gender-disaggregated insights.
- Support community-led innovations that incorporate traditional knowledge into climate resilience efforts.
- Launch social media campaigns and include climate and gender-inclusive content in educational curricula.

5. Address Cultural Barriers:

- Launch awareness programs to shift societal attitudes and break down cultural barriers limiting women's participation.
- Engage men as allies in promoting gender equality in climate action.
- Share success stories of women and communities actively involved in climate resilience initiatives to inspire wider participation.

Introduction

In Pakistan, the intersection of social injustice and climate change is not just an emerging challenge; it is an immediate crisis. The devastating floods of August 2022 highlighted this reality, as countless vulnerable populations were displaced, their livelihoods shattered, and socio-economic disparities widened. These challenges disproportionately affect marginalized groups, particularly women, who often bear the brunt of environmental degradation due to socio-economic inequalities.

Despite contributing only 1% to global greenhouse gas emissions, Pakistan is one of the four countries most severely impacted by climate change, as reported by the National Disaster Risk Management Fund (NDRMF) and the World Risk Report 2023. This paradox exemplifies the urgent need for a nuanced understanding and inclusive solutions to the climate crisis.

Background

Gender Equality and Social Inclusion (GESI) addresses improving access to livelihood assets and services for all, including women, the poor, and the excluded. It supports more inclusive policies and mindsets, increasing the voice and influence of these marginalized groups (UNDP, 2016).

Cultural and citizen engagement is a deliberative form of public participation that informs effective policy-making by providing members of the public with a platform to discuss policy issues. It recognizes the views, perspectives, and knowledge of a diverse group of people within a particular region or country as part of policy discussions. This deliberative integration between the public and national policy-making distinguishes cultural engagement from other participatory governance mechanisms (Bombard, Abelso, Simeonov, & Gauvin, 2013).

Cultural engagement fosters ethical awareness, encouraging individuals to think, relate, and respond to local and global issues, connecting them to communities both near and far. Constructive relationships between communities and governmental institutions make community engagement not only desirable but necessary and viable. It leads to more equitable, sustainable public decisions and improves the livability of local communities, benefiting individuals, public organizations, and governments alike (Bombard, Abelso, Simeonov, & Gauvin, 2013).

Climate Change Mitigation and Adaptation

Climate change mitigation refers to actions taken by governments, businesses, or individuals to reduce or prevent greenhouse gas emissions, or to enhance carbon sinks that remove them from the atmosphere. These gases trap heat from the sun, keeping the planet warm. Climate change adaptation involves altering behaviors, systems, and – in some cases – ways of life to protect families, economies, and the environment from the impacts of climate change. The more we reduce emissions now, the easier it will be to adapt to the changes we can no longer avoid (Fischer & Newell, 2008).

Mitigation aims to reduce heat-trapping greenhouse gases to prevent extreme

temperature increases, but it will take decades to affect rising temperatures. Therefore, we must adapt now to the changes already upon us and those we will continue to face in the foreseeable future (Fischer & Newell, 2008).

Literature Review

As the international community becomes increasingly aware of the “gender gap” in agriculture sectors and the important role of women and marginalized groups in climate change solutions, commitments to integrating gender and social inclusion in climate change policies have grown. Article 7 of the Paris Agreement, Sustainable Development Goal 5 on gender equality under Agenda 2030, and the UNFCCC enhanced Lima Work Programme on Gender and its Gender Action Plan all indicate progress toward integrating gender and social inclusion in the global response to climate change.

Sectors that attract the most climate capital are also the ones where women are most underrepresented in business leadership. For instance, only 7% of startup founders in the energy sector are women (IFC, 2023). A 1% increase in the share of female managers leads to a 0.5% decrease in CO₂ emissions (ECB, 2022). Lending volumes to more polluting industries are 10% lower when banks have at least 37% women on their boards (ECB, 2022). Companies with greater gender diversity on their boards are 60% more likely to reduce energy consumption intensity, 39% more likely to reduce greenhouse gas emissions, and 46% more likely to reduce water use (IFC, 2023).

People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and to some adaptation and mitigation responses. This heightened vulnerability is rarely due to a single cause. Rather, it is the result of intersecting social processes that create inequalities in socioeconomic status, income, and exposure. These social processes include discrimination based on gender, class, ethnicity, age, and disability.

Statement of Problem

The current climate crisis requires effective mitigation strategies that integrate diverse perspectives and inclusive practices across Pakistan. However, many initiatives overlook the crucial roles of gender inclusion and cultural engagement, disproportionately affecting vulnerable populations such as women and marginalized communities. This gap underscores the need for a comprehensive examination of existing policies to develop more effective and equitable solutions that foster resilience and ensure a just response to climate change.

Scope of the Study

- This study will investigate the inclusion of women in climate mitigation efforts and the importance of cultural engagement in addressing climate change at both the federal and provincial levels in Pakistan.
- It aims to identify barriers that hinder the participation of women and marginalized communities in climate mitigation initiatives.
- Through qualitative research and case studies, the study will evaluate existing policies and highlight best practices that integrate gender perspectives.
- Ultimately, the research seeks to develop actionable recommendations for

creating more equitable climate strategies that empower vulnerable populations and enhance community resilience.

Research Methodology

This study employs a mixed-methods approach, combining primary and secondary research. Primary research involves semi-structured interviews with government officials and representatives from non-governmental development organizations to gather firsthand information. Secondary research supplements this data through analysis of research articles, relevant laws and policies, newspapers, television talk shows, websites, and books. By integrating these sources, the study provides a comprehensive and nuanced understanding of the research topic.

Interviews with Officials

The Research Group team met with the Director General of the Environmental Protection Agency in Peshawar and the Additional Secretary of Climate Change, Forestry, Environment & Wildlife Department, Government of Khyber Pakhtunkhwa. A telephonic interview was also conducted with the Deputy Director of Social Welfare and the Women Development Department. Lastly, the team interviewed the Senior Chief of Environment Planning & Development Department regarding gender-inclusive and community-centric initiatives taken by their departments.

Interviews with NGO Representatives

Amongst the NGO sector, Khwendo Kor, a women-led, gender- and rights-based organization dedicated to promoting women's empowerment, gender equality, and social justice in Pakistan, was interviewed. During a visit to the NGO's head office, the management informed the team that KK works in villages of Khyber Pakhtunkhwa (KP) and New Tribal Districts. They have initiated projects on girls' education, civil rights, women's political participation, economic empowerment, humanitarian responses, and climate change with local communities to create a conducive environment for women's development, access to opportunities, and climate resilience and justice at different levels.

Secondary Data

In secondary data collection, the study reviewed research articles, policies, newspapers, television talk shows, websites, and books. It also examined the following laws, which provided insights into Pakistan's and Khyber Pakhtunkhwa's environmental and climate change frameworks.

Federal Laws

- Pakistan Environmental Protection Act (1997)
- Pakistan Climate Change Act (2017)
- National Climate Change Policy (2012 & 2021)
- National Adaptation Plan (2023)

Provincial Laws

- Khyber Pakhtunkhwa Environmental Protection Act (2014)
- Khyber Pakhtunkhwa Climate Change Policy (2022)
- Khyber Pakhtunkhwa Climate Action Plan (2022)
- Khyber Pakhtunkhwa Women Empowerment Policy (2017)
- Khyber Pakhtunkhwa Social Protection Policy (2022)

The study also employs qualitative research to conduct an in-depth comparison of federal legislative and institutional frameworks with those of Khyber Pakhtunkhwa (KP). The research tools utilized include Situational Analysis, which provides an overview of the current context; Stakeholder Analysis, to identify key players and their interests; SWOT Analysis, to examine strengths, weaknesses, opportunities, and threats; PESTLE Analysis, to study the political, economic, social, technological, legal, and environmental aspects affecting gender inclusion and cultural engagement for climate mitigation; and Gap Analysis, to pinpoint areas for improvement.

By applying these tools, the study aims to provide a comprehensive understanding of the similarities and differences between the two frameworks, shedding light on potential areas for reform and enhancement. This qualitative approach enables a nuanced exploration of the complex relationships between legislative and institutional mechanisms, ultimately informing policy recommendations for effective governance in Pakistan and KP.

Stakeholder Analysis

International Stakeholders

i. International Donor Bodies

Several international governmental bodies are actively supporting climate mitigation efforts, prioritizing gender inclusion and cultural engagement. These organizations include the United Nations Development Program (UNDP), United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), Global Environment Facility (GEF), Green Climate Fund (GCF), Climate Investment Funds (CIF) of the World Bank, Asian Development Bank (ADB), and International Fund for Agricultural Development (IFAD). These entities integrate gender and cultural considerations into their climate mitigation initiatives, recognizing the critical role of gender equality and cultural engagement in effective climate action.

ii. International Non-Profit Organizations

Several International Non-Governmental Organizations (INGOs) are actively addressing climate change, prioritizing gender inclusion and cultural engagement. Notably, Oxfam International, CARE International, World Wildlife Fund (WWF), The Nature Conservancy, and Women's Environment and Development Organization (WEDO) are implementing gender-sensitive climate resilience projects. These INGOs work with local communities, governments, and other stakeholders to promote women's empowerment, cultural preservation, and climate justice. They also advocate for policy

changes and support climate change adaptation and mitigation initiatives that address the unique needs and perspectives of women and marginalized communities.

National Stakeholders

i. The Ministry of Climate Change

The Ministry of Climate Change in Pakistan has been working toward climate mitigation, with a focus on cultural engagement and gender inclusion. The ministry is headed by the Prime Minister of Pakistan, who oversees initiatives aimed at reducing the country's carbon footprint and promoting sustainable development. The ministry's Climate Change Division has developed the National Climate Change Policy (2012) and the Climate Change Act (2017).

ii. Ministry of Planning, Development, and Special Initiatives

The main division under the ministry is the Planning Commission of Pakistan, responsible for financial and public policy development. It is headed by the Minister for Planning, Development & Special Initiatives, who must be a Member of Parliament. The Planning Commission undertakes research studies and state policy development initiatives for the growth of the national economy and the expansion of public and state infrastructure.

iii. Planning and Development Department, Peshawar

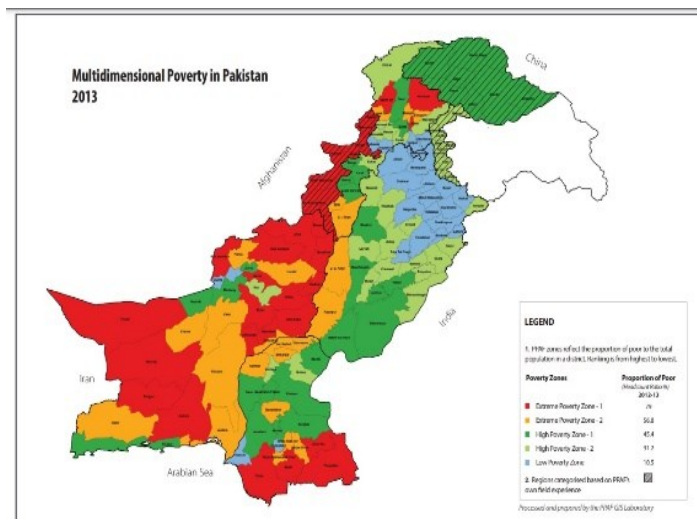
The Planning and Development Department, headed by the Additional Chief Secretary, provides policy and strategic guidance for provincial socio-economic development. This department is working toward climate mitigation, focusing on cultural engagement and gender inclusion. It has approved two donor-supported projects, namely KP-RAP and KP-RETP, where gender inclusion and cultural engagement are key components.

iv. Environmental Protection Agency, Peshawar

The Environmental Protection Agency (EPA) Peshawar, headed by the Director General of the EPA, operates under the supervision of the Ministry of Climate Change (MoCC), Government of Pakistan. As a regulatory body, the EPA focuses on environmental protection and conservation. It has issued the Khyber Pakhtunkhwa Climate Change Policy 2022, which emphasizes youth and women's development, creating guidelines for gender-inclusive climate change initiatives.

Target Population

Disparities in poverty within a country are linked to differences in geographic capital, biophysical endowment, access to infrastructure, and market areas. Spatial poverty has emerged as a severe challenge for developing countries, resulting in biased and unjust distribution of resources (Petrucci, Salvati, & Seghieri, 2004). FATA and Balochistan are the poorest larger administrative units in Pakistan. By and large, the poorest districts in Pakistan belong to Balochistan (i.e., Sherani, Kohlu, Chaghi, and Dera Bugti) and Sindh (i.e., Badin, Umerkot, Tando Muhammad Khan, and Tharparkar) provinces (Ullah & Chishti, 2023).



There is a tremendous need to invest in education and healthcare provision, which are particularly low in the poorest districts. Some of the populations facing the worst consequences of climate change belong to the coastal regions, high-altitude mountainous terrains, and desert regions of Sindh and South Punjab, where communities are entirely dependent upon rain cycles and weather patterns to farm their sustenance locally.

The gender discriminatory practices in Pakistani society also shape the distribution of poverty in the country. Traditional gender roles in Pakistan define a woman's place as in the home and not in the workplace, while defining the man as the breadwinner. Consequently, society invests far less in women than in men. Women in Pakistan suffer from a poverty of opportunities throughout their lives. Female literacy in Pakistan is 46% compared to male literacy at 69% (World Bank, 2022).

Situational Analysis

Expanding women's leadership roles in climate governance at the provincial level is crucial. Programs aimed at increasing female representation in decision-making processes will ensure that gender perspectives are better integrated into climate policies. At both the federal and provincial levels, Pakistan's climate change policies increasingly emphasize gender inclusion.

The National Climate Change Policy (NCCP) 2021 acknowledges the disproportionate impacts of climate change on women, especially in rural areas where they play a critical role in agriculture, water management, and fuel collection. The NCCP stresses integrating gender perspectives into all climate-related policies, ensuring women's participation in decision-making, and developing gender-sensitive climate mitigation strategies. The Climate Change Gender Action Plan (ccGAP) has also been developed to address gender vulnerabilities and encourage female leadership in climate action. Environmental problems in Pakistan, such as erosion, the use of agro-chemicals, and deforestation, contribute to rising poverty in the country.

Increasing pollution contributes to an increasing risk of toxicity, and poor industrial standards in the country contribute to rising pollution.

Key Points from Discourse Analysis with Government Officials & Experts:

In the course of data-gathering interviews from various related departments, the DG of the Environmental Protection Agency (EPA), Peshawar, briefed the team on the establishment and general functions of the EPA. When asked about initiatives taken by the EPA regarding gender inclusion in climate mitigation, he stated that the EPA focuses on human beings in general, without specific emphasis on gender. However, the EPA has launched an awareness campaign called "Green Club" in various schools, with the help of donors, organizing workshops in 21 schools, mostly focusing on female schools. Regarding cultural engagement in climate mitigation, he mentioned that the EPA is working on the Climate Change Action Plan 2022, which includes 34 sector guidelines currently under process.

The Additional Secretary of the Climate Change Forestry, Environment, and Wildlife Department of the Government of Khyber Pakhtunkhwa discussed the forest department's climate-friendly projects. However, they noted that their projects aren't gender-specific, except for the Tsunami Tree Project, which involves recruiting women for plantation drives in many areas. The Deputy Director of the Social Welfare and Women Development Department, KP, informed the research team that their department is not directly involved in cultural engagement and gender inclusion for climate mitigation, emphasizing that agriculture and environmental departments primarily handle these issues. Nevertheless, they organize awareness campaigns, seminars, and tree plantation activities at Dar-ul-Amans and Special Education Institutes. Similarly, the Senior Chief of the Environment Planning & Development Department informed about various executed projects, including two provincial government initiatives – KP RAP and KP RETP – specifically focusing on gender.

Current/ Ongoing Projects in Khyber Pakhtunkhwa**KP-Rural Accessibility Project**

The KP-Rural Accessibility Project, approved by ECNEC on May 31, 2023, allocates Rs 69.4 billion to enhance rural accessibility to markets, education, and health facilities through infrastructure upgrades and transport service improvements. Component 2 focuses on safe and affordable school journeys for girls, promoting education for women.

The KP-RAP Education Component aims to facilitate girls by providing transport to and from school to enroll 5,000 out-of-school middle-school girls initially, with potential expansion to primary school girls, support 60,000 enrolled girls, ensuring regular attendance and reducing attrition, as well as to benefit female teachers to enhance safety perceptions among parents.

Khyber Pakhtunkhwa Rural Economic Transformation Project (KP-RETP)

The Khyber Pakhtunkhwa Rural Economic Transformation Project (KP-RETP) is a flagship initiative between the Government of Khyber Pakhtunkhwa and the International Fund for Agricultural Development (IFAD) aimed at revitalizing the rural economy. Approved by the Provincial Development Working Party (PDWP) on October 8, 2021, and the Executive Committee of the National Economic Council (ECNEC) on March 16, 2022, KP-RETP targets households in PSC 0-34, with a focus on youth (50%) and women (25%). The project aims to improve rural

incomes through climate-resilient agriculture and off-farm employment opportunities, benefiting 785,000 households or approximately 4.35 million individuals.

The project's total cost is PKR 30.264 billion (USD 179 million), with funding shared between IFAD (58%), the Government of Khyber Pakhtunkhwa (15.56%), and beneficiaries (26.44%). Implemented from 2022 to 2028, KP-RETP covers all districts in Khyber Pakhtunkhwa, including merged districts, through five Agribusiness Clusters: Southern, Northern, Central, Eastern, and Chitral Natural. The project comprises three components: Agribusiness Development, Skills and Employment Promotion, and Project Management and Policy Support.

Community Engagement Programs:

Various NGOs operate grassroots initiatives aimed at empowering women in climate adaptation efforts. These include training programs on sustainable agricultural practices and awareness campaigns about climate change impacts. However, these programs often lack support from government bodies and are not systematically integrated into broader climate policies.

Organizations such as the Aga Khan Rural Support Program are working in the mountainous and far-flung northern regions of Pakistan. Their Program for Poverty Reduction (PPR) has been developed in light of the Indigenous Peoples Framework to protect the rights of indigenous people in Chitral.

The Kalashi people have socio-economic and cultural characteristics of indigenous people as defined by the World Bank Policy on Indigenous Peoples. This project is specifically working to address the needs of the Kalashi people by engaging them in project planning and implementation. So far, 13 community trainings benefiting 400 people have been conducted; 27 small community infrastructures have been developed; 12 government schools and 4 Kalash Community schools have received improvement support; and 4 government health centers and 7 bashalanis (Kalashi women maternity homes) have been established. Additionally, 131 ultra-poor households and 155 youth from poor households have received productive support assets and skills under the projects.

Under the Indus for All Programme, where 39 villages are being covered through nine community-based organizations, efforts are being made to reduce the pressure on natural resources by providing alternative livelihood resources to the community. WWF has supported the project titled Rehabilitation of Keenjhar Fishermen Communities through a participatory approach being implemented by the Keenjhar Fishermen Welfare Society. The project aims to improve the livelihood resources of fishing communities by releasing two hundred thousand fish seeds into the lake and raising awareness among fishermen regarding sustainable fishing practices.

The Sindh Rural Support Organization (SRSO) is a not-for-profit organization registered under Section 42 of the Companies Act 2017. The SRSO operates in 15 districts. Its mandate is to alleviate poverty by harnessing people's potential and undertaking development activities in Sindh, including climate mitigation, girls' education, and poverty reduction.

Khwendokor, a Peshawar-based NGO, focuses on the active involvement of communities, especially women and children. KK works in the villages of Khyber Pakhtunkhwa (KP) and New Tribal Districts, where health and wash, girls' education, civil rights and women's political participation, economic empowerment, humanitarian responses, and climate change projects have been initiated with local communities to create a conducive environment for women's development, access to opportunities, and the supportive role of stakeholders at different tiers.

Evaluation of Capacity, Coordination, and Effectiveness

Capacity:

The federal government possesses a relatively strong legal framework and a commitment to gender inclusion; however, its capacity to implement these frameworks is hindered by limited human and financial resources. The provincial government has made strides in climate policy but often struggles with resource constraints and inadequate staffing to address gender-specific needs effectively.

Coordination: Coordination between federal and provincial levels is often weak, with overlapping mandates and insufficient communication channels. This fragmentation hampers the development of cohesive strategies that comprehensively address both climate change and gender issues. Opportunities exist for collaboration among relevant ministries (e.g., Ministry of Climate Change, Ministry of Women Development) and local government bodies to improve integrated approaches.

Effectiveness: While policies exist, their effectiveness is compromised by inadequate enforcement mechanisms and a lack of accountability for gender inclusion in climate projects. There are effective grassroots initiatives led by NGOs that successfully engage women, but these efforts are often not supported or scaled by governmental institutions.

Legal Framework Analysis of Relevant Acts and Policies

Pakistan is facing a dual challenge: the pressing need to mitigate climate change impacts and the imperative of ensuring gender inclusion in this process. With significant vulnerabilities among marginalized communities, particularly women, the effectiveness of legal and institutional frameworks at both federal and provincial levels is crucial. This review critically assesses these frameworks, particularly in Khyber Pakhtunkhwa (KP), examining how they support or hinder efforts toward gender inclusion and cultural engagement in climate mitigation.

Federal Level

Constitution of Pakistan (1973):

1. Article 25: Ensures equality before the law and prohibits discrimination based on sex.
2. Article 35: Mandates the protection of family and the rights of women. While the Constitution provides a robust framework for gender equality, practical enforcement remains inadequate. Gender provisions often lack integration into climate policies, resulting in limited advocacy for women's rights in environmental governance.

Pakistan Environmental Protection Act (1997):

The Pakistan Environmental Protection Act (1997) primarily focuses on protecting, conserving, and rehabilitating the environment, preventing pollution, and promoting sustainable development, but it doesn't explicitly address gender inclusion and cultural engagement for climate mitigation. The Act establishes the Pakistan Environmental Protection Agency to coordinate research and activities related to environmental protection. Overall, while not directly addressing gender and cultural engagement, it lays the groundwork for future climate change policies that do. It only provides that the Government shall make rules regarding the Convention Concerning the Protection of World Cultural and Natural Heritage; otherwise, not a single word is used regarding culture, gender-specific issues, and minorities.

National Climate Change Policy (2012 & 2021)

The National Climate Change Policy, 2021, prioritizes gender inclusion and cultural engagement for climate mitigation. The policy ensures gender mainstreaming in climate change decision-making processes and recognizes women's vulnerability to climate change, promoting gender-sensitive adaptation strategies. Additionally, it incorporates cultural preservation and community engagement in climate resilience efforts, aiming to enhance public awareness, education, and participation, including marginalized communities. Clause 4.8.2 of Pakistan's National Climate Change Policy recognizes women as disproportionately vulnerable to climate change impacts, particularly in agriculture and natural resource management, and commits to empowering women through gender-responsive strategies, participation, and decision-making. Sub-clause (k) of Clause 4.6.4 of the policy measures stresses the need to identify vulnerable coastal areas that should be protected from any infrastructure construction or commercial activities and to notify the level of activities allowed in these areas.

Pakistan Climate Change Act (2017)

The Climate Change Act 2017 of Pakistan is federal legislation aimed at addressing environmental and climate challenges in the country. However, upon critical analysis, it's clear that the Act lacks specific provisions for gender inclusion in climate mitigation, sufficient focus on cultural engagement, and penal provisions against culprits.

Section 7, sub-section (3) of the Act provides that the authority shall ensure that all appointments are made in a transparent manner and that adequate and equal treatment is given to women, minorities, and disabled persons. Section 8(3) indicates consideration for gender equality and inclusivity in climate change and renewable energy initiatives. The word "vulnerability" is used only once in clause (o) of section 8(1), which refers to Pakistan's susceptibility to climate change impacts, assessing its exposure, sensitivity, and adaptive capacity to climate-related risks, and does not focus on the vulnerable segments of society.

National Adaptation Plan (2023)

The NAP 2023 prioritizes gender inclusion and cultural engagement through the Climate Change Gender Action Plan (ccGAP). The plan enhances women's

participation in climate decision-making, promotes gender-sensitive adaptation strategies, and empowers rural women in climate-resilient agriculture. It also incorporates traditional knowledge, community-led initiatives, and cultural preservation in climate resilience efforts. Clause 3.4 describes the vision and goals and stresses empowering vulnerable communities through gender-responsive approaches. Clause 4.6.1 focuses on gender and social inclusion, tackling the 23% female labor force participation. Empowering women, youth, and marginalized communities drives equitable climate resilience.

Provincial Level (Khyber Pakhtunkhwa)

KP Environmental Protection Act (2014):

Establishes a framework for environmental governance at the provincial level. The Khyber Pakhtunkhwa Environmental Protection Act primarily focuses on environmental protection, conservation, and sustainable development, without dedicated clauses addressing gender or cultural considerations. Similar to the federal act, this legislation does not address gender-specific impacts, hindering the ability to develop inclusive environmental policies that consider women's roles and experiences.

Khyber Pakhtunkhwa Climate Change Policy (2022):

The Khyber Pakhtunkhwa Climate Change Policy, 2022, prioritizes gender inclusion and cultural engagement for climate mitigation. It recognizes women's vulnerability, ensures participation in decision-making, and promotes gender-sensitive adaptation strategies. The policy also acknowledges traditional knowledge, encourages community-led initiatives, and integrates cultural considerations. This inclusive approach aims to enhance climate resilience and social inclusion.

Clause 5.8.2 of the policy recognizes the unique vulnerability of poor, rural women to climate change due to limited access to education, opportunities, and decision-making processes. To address this, the policy aims to incorporate gender perspectives, ensure women's participation, and reduce their vulnerability through measures like gender-inclusive planning, education, and capacity building.

Khyber Pakhtunkhwa Climate Action Plan (2022):

The Khyber Pakhtunkhwa Climate Action Plan 2022 prioritizes gender inclusion and cultural engagement for climate mitigation. It aims to enhance women's participation in decision-making, incorporate gender perspectives, and reduce vulnerability through education and capacity building. The plan also supports inclusive policy dialogue, capacity development, and pilot projects for women, promoting a gender-sensitive approach to climate resilience. Clause 2.11 provides for youth and gender development. Strategy 1.17 stresses the importance of gender-inclusive farming and awareness. Sr. no. 6 of strategy 6.1 describes the need for an awareness program for gender inclusiveness. Strategy 6.1 emphasizes the requirement for creating coherence among institutions dealing with climate change and gender. Strategy 1.17 stresses women's participation in the solid waste collection and management system.

Khyber Pakhtunkhwa Women Empowerment Policy (2017):

The Khyber Pakhtunkhwa Women Empowerment Policy, 2017, promotes gender equality and empowerment. It enhances economic opportunities, decision-making participation, and protection from violence. While not exclusively focused on climate mitigation, it indirectly supports climate resilience through women's empowerment.

The policy encourages sustainable livelihoods and resource management. Clause 3.3.2 provides for the social empowerment of women through education, health, and justice, whereas clause 3.3.4 stresses the need for the political empowerment of women and decision-making.

Khyber Pakhtunkhwa Social Protection Policy (2022):

The Khyber Pakhtunkhwa Social Protection Policy (2022) aims to promote gender equality and empower women through targeted programs. It recognizes the social inclusion and sustained livelihoods of vulnerable groups, including women, persons with disabilities, the elderly, minorities, and transgender persons. The policy also acknowledges the importance of cultural and social practices in shaping social protection and welfare. Clause 2.1 of the policy recognizes that women are facing a gender gap in the province. Clause 3.2.5 makes a comparison of literacy rates between women and stresses the need to improve the literacy rate of women. Clause 4.5.3.3 advocates for a gender-sensitive approach.

*Institutional Framework Analysis***Federal Level Ministry of Climate Change & Environmental Coordination (MoCC&EC):**

MoCC&EC is responsible for the following six key elements:

1. Steering the NAP process at the national level.
2. Undertaking climate change research, vulnerability reduction assessment, and prioritization of climate actions.
3. Developing climate information systems.
4. Streamlining the planning process for the NAP and climate-proofing the development sector.
5. Mobilizing finance for climate change adaptation.
6. Developing and implementing monitoring, evaluation, and verification systems.

Ministry of Planning, Development & Special Initiatives (MoPD&SI):

The MoPD&SI serves as the focal point for planning and coordination with the provincial planning and development departments. The latter spearheads planning and investment portfolios, projects, and programs with sectoral ministries, departments, and line agencies. It is also the custodian of the budget-making process, in collaboration with the Economic Affairs Division (EAD) and the Ministry of Finance (MoF) and the MoPD&SI provincial counterparts. It plays an important role in mainstreaming climate change considerations into overall development planning and public financial management processes.

Provincial Level (Khyber Pakhtunkhwa)

KP Department of Environment:

- a. **Role:** Implements environmental policies and programs in the province.
- b. **Assessment:** The Department has made some strides in community engagement; however, the integration of gender perspectives in environmental initiatives remains weak. Capacity-building initiatives for staff on gender issues are lacking.

Women Development Department:

- a. **Role:** Focuses on women's empowerment and promoting gender equality in KP.
- b. **Assessment:** While the Department works to advance women's rights, its integration into environmental policies is minimal. Without a clear mandate to engage in climate policy, its effectiveness is limited.

Local Government Institutions:

- a. **Role:** Engage with communities at the grassroots level.
- b. **Assessment:** Local institutions are better positioned to understand cultural contexts but often lack the capacity, resources, and training needed to implement gender-inclusive climate initiatives effectively

SWOT & EETH Analysis of Existing Institutional Framework

Strengths

Established Legal Frameworks:

- Both federal and provincial governments have legal provisions supporting gender equality and climate action, including the Constitution and specific climate change policies.

Awareness of Gender Issues:

- Increasing recognition of the importance of gender inclusion in climate policies within governmental institutions and among stakeholders.

Community Engagement Initiatives:

- Various NGOs and community organizations actively engage in grassroots-level programs, promoting women's participation in climate resilience efforts.

Commitment to International Agreements:

- Pakistan is a signatory to several international agreements (e.g., the Paris Agreement), reflecting a commitment to gender-responsive climate action.

Weaknesses

Limited Capacity and Resources:

- Many institutions, especially at the provincial level, lack adequate human and financial resources to implement gender-inclusive climate strategies effectively.

Weak Coordination Mechanisms:

- Fragmented approaches among various departments and agencies lead to inefficiencies and a lack of coherent strategies.

Inadequate Training:

- There is a significant gap in training and capacity building for officials on integrating gender perspectives into climate initiatives.

Insufficient Monitoring and Evaluation:

- Existing frameworks lack robust monitoring and evaluation mechanisms to assess the impact of gender inclusion in climate actions.

Opportunities

Increased Funding for Climate Projects:

- Potential to secure funding from international organizations and climate funds (e.g., Green Climate Fund) to support gender-responsive climate initiatives.

Strengthening Partnerships:

- Opportunities to forge partnerships with civil society, academia, and the private sector to enhance community engagement and capacity building.

Leveraging Technology:

- Utilizing technology for data collection, monitoring, and community engagement can improve the effectiveness of climate initiatives.

Global Best Practices:

- Learning from successful international models for gender inclusion and cultural engagement can provide valuable insights for adapting strategies in Pakistan.

Threats

Political Instability:

- Frequent changes in government and policy priorities can disrupt ongoing initiatives and hinder long-term planning for gender-responsive climate action.

Cultural Barriers:

- Societal norms and traditional gender roles may limit women's participation in decision-making processes related to climate adaptation and mitigation.

Climate Change Impacts:

- The increasing frequency and intensity of climate-related disasters can overwhelm institutional capacities, diverting attention from gender inclusion efforts.

Resource Competition:

- Competing priorities for limited resources may lead to climate initiatives being deprioritized, particularly those focusing on gender inclusion.

EETH Analysis

E: Enhancement of Strengths

- **Leverage Established Legal Frameworks:** Utilize existing constitutional provisions and national policies that support gender equality and climate action as a foundation for advocacy. This can involve organizing stakeholder meetings to ensure all relevant parties understand these frameworks and how to use them effectively.
- **Promote Awareness:** Implement targeted campaigns and workshops to increase awareness among government officials and stakeholders about the importance of gender inclusivity in climate policy. This can involve collaboration with NGOs and academic institutions to create tailored training modules that highlight successful case studies and best practices.

E: Elimination of Weaknesses

- **Capacity Building:** Develop comprehensive training programs focusing on integrating gender perspectives into climate strategies. This could include modules on gender analysis, project management, and monitoring and evaluation techniques tailored for officials at all levels of government.
- **Improve Coordination:** Establish a centralized coordination body to enhance inter-departmental collaboration. This body could facilitate regular meetings and communication channels to ensure all relevant departments are aligned on goals and strategies, fostering a more cohesive approach to policy implementation.

T: Taking Advantage of Opportunities

- **Secure International Funding:** Actively seek and apply for funding from international organizations, climate funds, and development partners. This could involve creating a dedicated task force responsible for identifying funding opportunities and developing compelling proposals that emphasize the integration of gender perspectives.
- **Foster Partnerships:** Build strategic partnerships with civil society organizations, academic institutions, and the private sector to leverage their expertise and resources. Collaborative projects could focus on community-level initiatives that promote women's involvement in climate resilience and adaptation strategies, ensuring broader engagement.

H: Hedging Against Threats

- **Political Stability Strategies:** Develop adaptable plans that allow for flexibility in response to political changes. This could involve creating pilot projects that can be scaled up or modified based on shifting political priorities, ensuring that gender-responsive initiatives can continue regardless of the political landscape.

- **Address Cultural Barriers:** Engage local community leaders, influencers, and women's groups in discussions aimed at challenging and reshaping traditional gender roles. This could involve awareness campaigns that highlight successful female leaders in climate action and promote gender equality as a community benefit, thereby fostering a supportive environment for women's participation.

By focusing on these areas, stakeholders can create a more effective and sustainable framework for integrating gender considerations into climate initiatives, ultimately leading to improved outcomes for both communities and the environment, and enhancing the overall effectiveness of gender-inclusive climate initiatives.

PESTLE Analysis of Gender Inclusion and Cultural Engagement for Climate Mitigation

People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and to some adaptation and mitigation responses. This heightened vulnerability is rarely due to a single cause. Rather, it is the product of intersecting social processes that result in inequalities in socioeconomic status and income, as well as exposure. These social processes include, for example, discrimination based on gender, class, ethnicity, age, and (dis)ability (IPCC, 2014).

Political

- **Government Commitment:** Increasing political will to address climate change and gender issues, evidenced by the ratification of international agreements.
- **Political Stability:** Frequent changes in government may disrupt continuity in climate policies and initiatives, affecting long-term strategies.
- **Policy Fragmentation:** Lack of coherent policies across different levels of government leads to inconsistent implementation of gender-responsive strategies.

Economic

- **Funding Availability:** Limited financial resources at both federal and provincial levels hamper the implementation of gender-inclusive climate initiatives.
- **Economic Dependency:** Reliance on agriculture and traditional industries may restrict investment in sustainable practices and climate resilience.
- **Job Creation:** Opportunities for job creation in green sectors are significant, but often do not prioritize women's participation or benefit marginalized communities.

Social

- **Cultural Norms:** Traditional gender roles and societal attitudes can hinder women's involvement in climate decision-making and adaptation strategies.
- **Awareness and Education:** Limited awareness of climate change impacts and gender issues at the community level affects engagement and participation.
- **Community Resilience:** Social structures can enhance community resilience

but may exclude women's voices from critical discussions.

Technological

- **Access to Technology:** Limited access to technology and information for women, especially in rural areas, restricts their ability to engage in climate mitigation efforts.
- **Innovative Solutions:** Advances in technology (e.g., renewable energy, information systems) can promote gender inclusion but require targeted training and capacity building.
- **Data Collection:** Lack of gender-disaggregated data on climate impacts limits effective policymaking and resource allocation.

Legal

- **Legal Frameworks:** Existing laws support gender equality and climate action; however, implementation is often weak.
- **Enforcement Mechanisms:** Insufficient enforcement of gender-responsive policies leads to inadequate accountability in climate initiatives.
- **Rights and Protections:** Gaps exist in legal protections for women in climate-related sectors, impacting their ability to participate fully.

Environmental

- **Climate Vulnerability:** Women are disproportionately affected by climate change impacts, particularly in rural and marginalized communities.
- **Resource Management:** Environmental degradation affects traditional livelihoods, necessitating a focus on sustainable practices that include women's roles.
- **Biodiversity and Conservation:** Integrating cultural practices in environmental conservation can enhance climate resilience but requires inclusive approaches.

The PESTLE analysis reveals several internal and external factors impacting gender inclusion and cultural engagement for climate mitigation in Pakistan. Political instability, limited economic resources, cultural barriers, and inadequate technological access are significant challenges. Meanwhile, legal frameworks exist but lack enforcement, and environmental vulnerabilities disproportionately affect women.

Comparative Analysis with Global Best Practices

UN Women's "Gender and Climate Change" Initiative:

This initiative emphasizes integrating gender perspectives into climate policies globally, advocating for women's participation in climate governance. It includes training programs for women in leadership roles related to climate adaptation and ensures that women have equal access to financial resources, technology, and information necessary for climate resilience. Pakistan could adopt similar capacity-building programs targeted at women in rural areas to enhance their roles in climate action.

The Adaptation Fund's Gender Policy:

This policy requires gender assessments in all funded projects, ensuring that gender considerations are central to climate adaptation initiatives. Projects must demonstrate how they address gender disparities while establishing mechanisms to track gender-specific outcomes. Implementing mandatory gender analyses for climate projects in Pakistan could help identify and address gender-specific vulnerabilities effectively.

Sustainable Agriculture Practices (India):

Programs like the National Mission for Sustainable Agriculture focus on promoting sustainable agricultural practices.

- **Organic Farming:** Encouraging practices that reduce chemical inputs and enhance biodiversity.
- **Women's Cooperatives:** Engaging women in sustainable agriculture through cooperatives to improve livelihoods and resilience. Promoting sustainable agriculture practices through women's cooperatives can enhance food security and empower women economically.

Energy Transition Initiatives (Germany):

Germany's Energiewende focuses on transitioning to renewable energy sources while ensuring public participation.

- **Community Renewable Projects:** Local communities are involved in renewable energy projects to foster acceptance and participation.
- **Education and Awareness:** Comprehensive programs to educate citizens on renewable energy benefits. Developing community-led renewable energy projects can improve energy access and resilience while promoting local ownership.

The Indigenous Peoples' Climate Change Assessment (Canada):

This cultural engagement model involves Indigenous communities in climate change assessments, recognizing their traditional knowledge and practices.

- **Community-Led Assessments:** Indigenous communities lead assessments, ensuring their cultural practices and knowledge inform climate strategies.
- **Respect for Traditional Knowledge:** Integrating traditional ecological knowledge into policymaking. Engaging local communities and integrating traditional knowledge in climate adaptation strategies could enhance cultural relevance and community buy-in in Pakistan.

The Green Climate Fund's Engagement Strategy:

The Fund, designed for cultural engagement, promotes stakeholder engagement, emphasizing the inclusion of marginalized groups in decision-making. In Mauritius, UNDP, with funding from the Green Climate Fund, has supported the government in installing battery energy storage capacity that has enabled 50 MW of intermittent renewable energy to be connected to the grid, helping to avoid 81,000 tonnes of carbon dioxide annually.

- **Participatory Processes:** Ensuring that vulnerable groups, including women

and local communities, have a voice in climate projects.

- **Building Partnerships:** Collaborating with civil society organizations to enhance community engagement. Strengthening participatory processes in Pakistan’s climate initiatives can lead to more equitable and effective outcomes.

Indonesia:

In Indonesia, UNDP has been working with the government for over a decade to support sustainable palm oil production. In 2019, the country adopted a National Action Plan on Sustainable Palm Oil, which was collaboratively developed by government, industry, and civil society representatives. The plan increased the adoption of practices to minimize the adverse social and environmental effects of palm oil production and to protect forests. Since 2015, 37 million tonnes of direct greenhouse gas emissions have been avoided, and 824,000 hectares of land with high conservation value have been protected.

Green City Labs:

In Moldova and Paraguay, UNDP has helped set up Green City Labs that are helping to build more sustainable cities. This is achieved by implementing urban land use and mobility planning, prioritizing energy efficiency in residential buildings, introducing low-carbon public transport, implementing resource-efficient waste management, and switching to renewable energy sources.

Comparative Analysis with Pakistan's Strategies

Aspect	Global Best Practices	Pakistan’s Current Strategies	Gaps/Opportunities
Gender Analysis	Mandatory gender assessments for projects	Limited gender analyses in climate policies	Implement mandatory gender assessments in climate initiatives.
Capacity Building	Training programs for women in climate leadership	Minimal focus on capacity building for women	Establish targeted training programs for women in rural areas.
Community Engagement	Indigenous-led climate assessments	Some community engagement, but often top-down	Foster community-led approaches and integrate local knowledge.
Participatory Processes	Stakeholder engagement and collaboration	Fragmented engagement with local communities	Develop robust participatory frameworks for decision-making.
Monitoring and Evaluation	Gender-specific outcomes tracking	Weak monitoring mechanisms for gender impacts	Create frameworks to monitor gender-specific outcomes.

GAP Analysis

GAP Analysis for Gender Inclusion and Cultural Engagement in Climate Mitigation

Policy Gaps

- **Lack of Integrated Policies:** There is a lack of coherent policies that effectively integrate gender and climate action at both the federal and provincial levels.
- **Inadequate Gender Mainstreaming:** Policies do not consistently include gender analysis or gender-responsive strategies in climate initiatives.

Regulatory Gaps

- **Weak Enforcement:** While legal frameworks exist, enforcement mechanisms for gender inclusion in climate policies are insufficient, leading to ineffective implementation.
- **Insufficient Regulatory Frameworks:** There is a need for specific regulations that address the unique impacts of climate change on women and marginalized groups.

Operational Gaps

- **Limited Capacity Building:** Insufficient training programs for government officials and community leaders on gender-responsive climate action.
- **Fragmented Implementation:** Disjointed efforts among various agencies and departments hinder the effective operationalization of gender-inclusive climate initiatives.
- **Lack of Monitoring and Evaluation:** Inadequate mechanisms to monitor and evaluate the impact of gender inclusion in climate policies limit accountability and improvements.

The GAP analysis highlights critical policy, regulatory, and operational gaps, such as the need for integrated policies, effective enforcement mechanisms, and capacity-building initiatives. Addressing these gaps is essential for enhancing the effectiveness of gender-inclusive climate strategies, ensuring that women play a vital role in climate resilience efforts. By focusing on these areas, Pakistan can create a more equitable and sustainable response to climate change.

Issues and Challenges

The institutional landscape for addressing gender inclusion and cultural engagement in climate mitigation in Pakistan, particularly in Khyber Pakhtunkhwa, presents a mixed picture. Strengths in legal frameworks and community engagement are overshadowed by weaknesses in capacity, coordination, and effectiveness. The main challenges faced by the government in climate mitigation that harness gender inclusion and cultural mainstreaming are as follows:

A. Lack of Specific Frameworks for Cultural Engagement: There are limited guidelines for incorporating diverse cultural practices into climate action, which may restrict meaningful community involvement.

B. Lack of Specific Targets: There are few concrete targets or indicators to measure progress on gender inclusion, making it difficult to assess effectiveness over time.

C. Underrepresentation of Indigenous Voices: Indigenous populations, who often have unique insights and practices for environmental stewardship, may not be adequately represented in the policy decision-making processes.

D. Insufficient Training and Capacity Building: There are limited training programs aimed specifically at empowering women and enhancing their roles in disaster management, which can hinder their effective participation.

E. Lack of Gender-Disaggregated Data: There is a shortage of gender-disaggregated data on disaster impacts and responses, making it difficult to tailor interventions to the specific needs of women and marginalized groups.

F. Monitoring and Evaluation Challenges: There is often a lack of mechanisms to evaluate the effectiveness of culturally engaged strategies, hindering adaptive learning and improvement.

By leveraging opportunities for funding, partnerships, and best practices while addressing threats from political instability and cultural barriers, institutions can enhance their ability to create resilient and inclusive climate strategies. A focused effort on building capacity and improving coordination will be essential for achieving meaningful progress in gender-responsive climate action.

Conclusion

Climate change is one of the most pressing global challenges, characterized by rising temperatures, extreme weather events, and shifting ecosystems. Its effects are not felt evenly; vulnerable populations—including women, indigenous communities, and low-income groups—often bear the brunt of climate impacts. These communities face heightened risks due to existing social inequalities, limited access to resources, and a lack of representation in decision-making processes. As a result, they may experience more severe economic, health, and environmental consequences, exacerbating pre-existing vulnerabilities.

The legal and institutional frameworks governing gender inclusion and cultural engagement in climate mitigation in Pakistan, especially in Khyber Pakhtunkhwa, show both promise and significant challenges. While there are strong legal foundations and progressive frameworks, their effectiveness is undermined by weak implementation, insufficient resources, and a lack of integration between gender and climate strategies.

Addressing climate change effectively requires a holistic approach that prioritizes gender inclusion and cultural engagement. Women, who are often key stakeholders in resource management and community resilience, have unique perspectives and solutions that can enhance climate mitigation efforts. Cultural engagement ensures that local knowledge and practices are integrated into climate strategies, fostering ownership and sustainability.

Pakistan stands at a critical juncture in addressing the intertwined challenges of climate change and gender inequality. By drawing on global best practices and adapting successful models to its unique context, Pakistan can enhance its climate resilience while promoting gender inclusion and cultural engagement. A more integrated approach that prioritizes gender-responsive strategies and community engagement will not only empower women but also foster sustainable development, ultimately contributing to a more resilient and equitable future.

Recommendations

Based on the comprehensive analyses, the following strategic recommendations aim to address the challenges identified in the PESTLE and GAP analyses. These recommendations focus on enhancing policy coherence, strengthening institutional capacity, fostering inter-agency collaboration, and integrating innovative approaches into the national framework.

Enhance Policy Coherence

- a. **Integrated Gender-Climate Policies:** Formulate comprehensive policies that explicitly integrate gender considerations into climate action plans at both federal and provincial levels. This should include specific targets and accountability mechanisms to ensure effective implementation. It should be ensured that all climate projects undergo gender assessments to identify and address specific vulnerabilities.
- b. **National Gender-Climate Action Framework:** Create a framework that outlines clear guidelines for incorporating gender perspectives in all climate-related policies, ensuring consistency across various sectors and levels of government.
- c. **Regular Policy Reviews:** Implement a system for periodic reviews of gender-inclusive climate policies to assess their effectiveness and adapt to emerging challenges, ensuring they remain relevant and impactful.
- d. **Monitor Gender-Specific Outcomes:** Develop monitoring frameworks to track the gender impacts of climate initiatives, allowing for adjustments and improvements over time.

Strengthen Institutional Capacity

- a. **Training and Capacity Building:** Develop and implement targeted training programs for government officials, local leaders, and community organizations on gender-responsive climate action, emphasizing practical skills and knowledge necessary for effective policy implementation. Targeted training should be designed for women, focusing on leadership in climate resilience and sustainable practices.
- b. **Enhanced Resource Allocation:** Allocate dedicated financial resources to gender-responsive climate initiatives, ensuring that both federal and provincial governments can effectively implement and monitor relevant programs.
- c. **Recruit Gender Experts:** Integrate gender experts into climate-related departments and agencies to provide specialized knowledge and guidance on gender issues within the context of climate action.

Foster Inter-Agency Collaboration

- a. **Multi-Stakeholder Committees:** Create committees that include representatives from various government agencies, civil society, and local communities to facilitate collaboration and share best practices in gender-inclusive climate initiatives.
- b. **Joint Action Plans:** Encourage inter-agency partnerships by developing joint

action plans that outline collaborative strategies for addressing gender inclusion and climate change at both federal and provincial levels.

- c. **Cross-Sectoral Coordination Mechanisms:** Strengthen communication and coordination among relevant ministries (e.g., Ministry of Climate Change, Ministry of Women Development, Ministry of Agriculture) to ensure a unified approach to gender and climate issues.

Integrate Innovative Approaches

- a. **Technology for Data Collection and Monitoring:** Utilize digital tools and platforms for collecting gender-disaggregated data on climate impacts, enabling more effective monitoring and evaluation of gender-inclusive policies and initiatives.
- b. **Community-Led Innovations:** Encourage community-driven solutions by providing support and resources for local initiatives that incorporate traditional knowledge and practices in climate resilience efforts.
- c. **Social Media and Communication Campaigns:** Launch awareness campaigns using social media and other communication platforms to educate communities about the importance of gender inclusion in climate action and promote successful local initiatives. Additionally, include climate mitigation awareness and gender-inclusive climate change responses in school syllabi.

Address Cultural Barriers

- a. **Conduct Awareness Programs:** Launch programs aimed at changing societal attitudes and breaking down cultural barriers that limit women's participation in climate decision-making processes.
- b. **Engage Men as Allies:** Develop initiatives that actively involve men and boys in promoting gender equality in climate initiatives, fostering a supportive environment for women's engagement.
- c. **Highlight Success Stories:** Share and promote success stories of women and communities that have effectively engaged in climate resilience initiatives, serving as role models and inspiration for broader participation.

Practical Action Plan using Log Frame Matrix

The following logical framework (log frame) matrix outlines a detailed action plan to address the challenges identified in previous analyses. This plan includes specific objectives, activities, timelines, roles, and responsibilities to ensure effective implementation and long-term success in enhancing gender inclusion and cultural engagement in climate mitigation efforts.

Objective	Activities	Timeline	Roles & Responsibilities	Indicators of Success
1. Develop Integrated Gender-Climate Policies	a. Conduct stakeholder consultations to identify key policy gaps. b. Draft comprehensive gender-climate policy framework. c. Validate and finalize the policy with stakeholders.	Months 1-6	- Ministry of Climate Change (MoCC) - Ministry of Women Development (MoWD) - Local NGOs	- Number of consultations held - Policy framework drafted and validated
2. Strengthen Institutional Capacity	a. Design training programs for government officials on gender-responsive climate action. b. Implement training sessions across provinces. c. Create resource materials and toolkits for ongoing use.	Months 7-12	- MoCC - MoWD - Training institutes - Local NGOs	- Number of training sessions conducted - Participant feedback on training effectiveness
3. Foster Inter-Agency Collaboration	a. Establish multi-stakeholder committees focused on gender and climate issues. b. Develop joint action plans with clear roles and responsibilities. c. Hold regular inter-agency meetings to review progress.	Months 1-3 (ongoing)	- MoCC - MoWD - Other relevant ministries - Community representatives	- Number of committees formed - Joint action plans developed and implemented
4. Integrate Innovative Approaches	a. Identify and implement digital tools for data collection. b. Support community-led climate resilience initiatives. c. Launch awareness campaigns utilizing social media platforms.	Months 4-12 (ongoing)	- MoCC - Technology partners - Community organizations - Marketing teams	- Number of digital tools deployed - Engagement metrics from awareness campaigns

Objective	Activities	Timeline	Roles & Responsibilities	Indicators of Success
5. Address Cultural Barriers	a. Develop awareness programs targeting societal attitudes. b. Engage men and boys in promoting gender equality initiatives. c. Share success stories through media and community events.	Months 5-12 (ongoing)	- MoWD - NGOs - Media partners	- Number of awareness programs conducted - Increase in community participation metrics
6. Monitor and Evaluate Progress	a. Develop a monitoring and evaluation framework to track progress. b. Conduct annual evaluations of gender-inclusive climate policies. c. Use findings to adjust strategies and improve effectiveness.	Months 12+ (ongoing)	- MoCC - MoWD - External evaluators	- Completion of annual evaluations - Number of policy adjustments made based on findings

By focusing on these prioritized objectives and activities, the action plan aims to leverage the 80/20 principle to achieve significant improvements in gender inclusion and cultural engagement for climate mitigation in Pakistan. This strategic approach will enhance overall effectiveness and ensure that resources are utilized efficiently to produce the greatest impact.

Prioritized Action Plan Using the 80/20 Principle

Based on the previous analyses and focusing on the most critical areas that will yield the greatest impact, this action plan uses the logical framework approach.

Objective	Activities	Timeli ne	Roles & Responsibilities	Indicators of Success
1. Establish Integrated Gender-Climate Policies	a. Conduct targeted consultations with key stakeholders to identify critical policy gaps. b. Draft a high-impact gender-climate policy framework focusing on core issues (e.g., women's participation in decision-making, resource access). c. Validate the policy with stakeholders and initiate implementation.	Months 1-4	- Ministry of Climate Change (MoCC) - Ministry of Women Development (MoWD) - Key NGOs	- Policy framework drafted and validated - Implementation initiated within 4 months
2. Strengthen Institutional Capacity for Effective Implementation	a. Design and deliver focused training programs for key government officials on gender-responsive climate action. b. Develop practical toolkits for use in training and implementation. c. Establish a mentorship program for ongoing support.	Months 5-8	- MoCC - MoWD - Training institutes	- Number of officials trained - Toolkits distributed and utilized
3. Foster Inter-Agency Collaboration for Greater Impact	a. Form a high-level inter-agency task force to drive the gender-climate agenda. b. Create a joint action plan that outlines specific roles, responsibilities, and timelines. c. Schedule regular meetings for progress assessment and strategy adjustments.	Months 1-3 (ongoing)	- MoCC - MoWD - Other relevant ministries	- Task force established - Joint action plan created and being executed

Objective	Activities	Timeli ne	Roles & Responsibilities	Indicators of Success
4. Implement Innovative Approaches for Data-Driven Decisions	<p>a. Deploy technology tools for real-time data collection on gender impacts in climate initiatives.</p> <p>b. Support community-led projects that highlight women's roles in climate resilience.</p> <p>c. Launch targeted awareness campaigns on social media to educate the public on gender issues in climate action.</p>	Months 4-12 (ongoing)	<ul style="list-style-type: none"> - MoCC - Tech partners - Community organizations 	<ul style="list-style-type: none"> - Data collection tools implemented - Engagement metrics from campaigns
5. Monitor, Evaluate, and Adjust Strategies	<p>a. Develop a streamlined monitoring and evaluation framework focusing on key indicators of gender inclusion and climate action.</p> <p>b. Conduct bi-annual evaluations to assess policy impact and community engagement.</p> <p>c. Use evaluation findings to refine strategies and improve program effectiveness.</p>	Months 12+ (ongoing)	<ul style="list-style-type: none"> - MoCC - MoWD - External evaluators 	<ul style="list-style-type: none"> - Completion of evaluations - Number of strategy adjustments based on findings

Focus Areas Based on the 80/20 Principle

1. **Policy Integration:** Prioritizing the establishment of integrated gender-climate policies ensures that all subsequent actions align with a coherent framework, addressing the most pressing needs and maximizing impact.
2. **Capacity Building:** Strengthening institutional capacity through targeted training and support will empower key stakeholders to implement policies effectively, leading to sustainable changes.
3. **Collaboration:** Fostering inter-agency collaboration will enhance coordination and resource sharing, amplifying the effects of initiatives across different sectors and levels of government.

4. **Data-Driven Approaches:** Implementing innovative technological solutions for data collection and community engagement will ensure that policies are informed by real-time insights, leading to more responsive and effective strategies.
5. **Monitoring and Evaluation:** Establishing a robust framework for monitoring and evaluation will ensure accountability and allow for continuous improvement of gender-inclusive climate initiatives.

Annexures

Interview Questionnaire for Government Departments

1. What is the role of the Environmental Protection Agency in the province, and under which law has it been established?
2. What is the mechanism of coordination between the Environmental Protection Agency of Pakistan and that of Khyber Pakhtunkhwa?
3. You are aware of the Prime Minister's Task Force on Climate Change. How are the recommendations implemented in Khyber Pakhtunkhwa? How is the task force following up on this in the province?
4. How does the EPA address mitigation and adaptation efforts to combat climate change?
5. How is the EPA coordinating with other departments, e.g., the Forest Department or the Industries Department, in order to implement the policy?
6. What progress has been made in implementing the National Climate Change Policy since its update in 2021?
7. What are the major challenges hindering effective implementation, and how are they being addressed?
8. What mechanisms are in place for reviewing and updating the policy, and what feedback has been shared by provinces during the previous three years in order to update the policy?
9. Have the budgetary allocations by developed countries for developing countries under the Paris Agreement yielded any results? What are the avenues and modes through which the budget is spent in the country?
10. What are the major achievements of the EPAs in the provinces?
11. How is the province monitoring and evaluating the policies implemented by the PM Task Force?
12. There is a major focus on afforestation under the National Forest Policy 2017, and forests have a major role in controlling emissions. How is the EPA coordinating with the Forest Department for implementation, and has the Forest Department been able to achieve the targets?
13. Major sources of CO and CO₂ emissions are vehicles and brick kilns. Has the province acted in this regard with coordination from the Transport and Industries Departments to control the smoke emissions?
14. As the head of the department, do you feel that the agency is moving in the right direction as defined by the PM Task Force under international obligations?

In your opinion, what more could be done to align Pakistan's climate change policies with international standards and agreements?

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