

**The Political Economy of Climate Change and Pakistan's Pursuit of  
Sustainable Development**



**Submitted To: Dr. Muhammad Fahim Khan**

**Submitted by: Hajra Fiaz**

**Enrollment: 01-257241-013**

**MS International Relation**

**Department of Humanities & Social Science**

**BAHRIA UNIVERSITY ISLAMABAD CAMPUS E8 Campus**

## **THESIS COMPLETION CERTIFICATE**

Student's Name: Hajra Fiaz

Registration No. 01-257241-013

Programme of Study: MS International Relations

Thesis Title: **THE POLITICAL ECONOMY OF CLIMATE CHANGE AND PAKISTAN'S PURSUIT OF SUSTAINABLE DEVELOPMENT**

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**Dedicated**  
**To**  
**My Beloved Father & Mother**

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## ABSTRACT

A complex of relations between the political economy of Pakistan and the growing threats of global warming is irreducibly entangled in the quest of sustainable development in this country. Pakistan is one of the country's most vulnerable to environmental shocks " due to floods and droughts, to rising temperatures when it comes to governing climate " yet it is haunted by institutional incoherence, absence of financial resources and political will. This paper aims at examining the role played by political and economic institutions in Pakistan in its ability to design and implement climate related policies that are aligned with the Sustainable Development Goals (SDGs). This analysis illustrates the lack of correspondence between the preferred policy vision and the operational facts based only on Green Theory as the major theoretical framework. Though the national plans, including the National Climate Change Policy and Vision 2025, articulate the sustainable development stories, the execution process is marred with lack of proper coordination among the agencies, the existing limitations in external borrowing, and inappropriateness of international climate funding. The National Disaster Management Authority (NDMA) has reiterated that climate resilience is important to Pakistan, especially when it comes to dealing with the effects of a natural disaster. Moreover, the Ministry of Climate Change has raised the issue of the necessity of a more integrated and holistic approach to climate change adaptation in accordance with international climate agreements. By relying on a Qualitative research approach, thematic analysis, it will be able to determine the gaps in governance, stakeholder relationships and financial limitations. They demonstrate the role of an elite-based agenda, coal-based growth under CPEC and unmet international assistance to curb any action on climate. The implications of these findings on integrated and contextualized climate-SDG nexus governance and policy reflections to inform inclusive, democratic, and country-specific solutions to sustainable development are apparent.

**Keywords:** political economy, climate governance, sustainable development goals, environmental policy, green transition, Pakistan

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# 1. CHAPTER ONE

## 1.1 Introduction

Pakistan is registered among the countries at the highest risk for negative effects of climate change; with environmental issues that span from seasonal floods and increased temperatures to changes in soil structure and increase in the occurrences of heatwaves and earthquakes. These climate-induced risks comprise push-pull forces, that are leading to an emergent environmental security predicament that is a consequence of domestic vulnerabilities and global environmental stressors. The consequences of climate change in Pakistan are of a very wide-ranging nature and are truthed to (the environment), economy, health, governance and security.

It is further complicated when the political economy is thrown in the mix. Although, climate policies have been sought from international actors like the UN, World Bank, ADB throughout the history of Pakistan, however, the implementation has not been regular. Global pledges of financial support are slow to be fulfilled or poorly used, and there is a lack of domestic political momentum for effective climate governance. The formal subscription to international blueprints such as the SDGs, Pakistan's weak institutional capacity, and financial limitations have impeded substantive movement toward sustainable development.

The climate strategy of Pakistan after the 2015 Climate Change Conference (COP21) in Paris is outlined by its National Climate Change Policy (NCCP).<sup>1</sup> Similarly, Vision 2025, which was launched in 2014, sets ambitious energy and infrastructure targets that include objectives like doubling power generation to 45 GW helping to raise electricity access from 67% to over 90% of the population under a "Security" point of view that interlinks the factors of energy, water and

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<sup>1</sup> Ministry of Climate Change, *National Climate Change Policy 2021* (Islamabad: Government of Pakistan, 2021), <https://mocc.gov.pk/PolicyDetail/MGIzOWFiNzMtNjQyMC00ZTQzLTkwMGUtNTEwNmY0MjgyODM3>.

food with the emergencies relevant to climate change.<sup>2</sup> The vision explicitly called for designing the policies for energy, water, and food in the light of “the profound challenges posed by climate change” policy.<sup>3</sup> In parallel, the NCCP that was first dispensed in the year of 2012 and revised for 2017–2030 also integrated the mitigation and adaptation to deal with the climate crisis as it prioritized factors like renewable energy, energy productivity, green transportation, sustainable agriculture and to pursue afforestation for the reduction of greenhouse gases and to consider disaster preparedness and water/land management for widespread climate resilience.<sup>4</sup>

Such plans align with SDG 13 (climate action) and SDG 7 (affordable clean energy) as the country formally comprised the SDGs in 2016. The Pakistani SDGs’ frameworks are explicitly tied with SDGs 7 and 8 which emphasize sustained growth and green jobs along with the induction of SDG 9 which encourages sustainable and strengthened industry and infrastructure for developmental ventures. The policies formulated by the state also aimed to follow SDG 11 (sustainable cities) and SDG 12 to ensure responsible consumption.<sup>5</sup>

The initiatives for clean energy have been in focus to develop solar parks on a large scale and enhancing measures for rooftop net-metering, which have flourished to the point of being an effective alternative to coal energy sources. In the agreements signed under the COP, the Government of Pakistan announced an ‘Energy Transition and Investment Plan’ to consider the point of evolution for the sake of a “cleaner and more resilient energy system” with ultimate investments, ensuring the creation of green jobs on domestic-level and encouragement of the industrial competitiveness in the country.<sup>6</sup>

There are also further measures instructed in such policies to ensure the political and economic dynamics of such SDGs are accommodated as per the requirement that there must be effective

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2 Ministry of Planning, Development and Reform, *Pakistan Vision 2025: One Nation, One Vision* (Islamabad: Government of Pakistan, 2014), <https://planipolis.iiep.unesco.org/index.php/en/2014/pakistan-2025-one-nation-one-vision-6295>.

3 Ibid.

4 Munir Ahmad, Muhammad Asad, and Ali Irtaza, "Analysis of Climate Change Policy of Pakistan: Hurdles & Loopholes," *Pakistan Review of Social Sciences* 4, no. 2 (2023): 4–17.

5 Munir Ahmad, Muhammad Asad, and Ali Irtaza, "Analysis of Climate Change Policy of Pakistan: Hurdles & Loopholes," *Pakistan Review of Social Sciences* 4, no. 2 (2023): 4–17.

6 Vaqar Ahmed and Muhammad Zeshan, "Green Energy Transition in Pakistan: A Path to Sustainable Development," *Partnership for Economic Policy (PEP)*, November 2024, <https://www.pep-net.org/blog/green-energy-transition-pakistan-path-sustainable-development>.

considerations to deal with the issue of climate change. Despite formulation of the effective policies to deal with the relevant issue and also consider the strategic aspects for shaping paths toward achieving all the relevant goals of sustainable development, the implementation had remained patchy due to constraints based on political-and economic aspects. Weak interagency coordination had remained one of the prime factors that stood behind the lack of success and seriousness by the policy-implementing bodies to deal with the issue on a broader scale and enhance initiatives based on objectives of the political economy of Pakistan to emphasize clear operational paths for sustainable development. International partnerships through SDG 17 are essential as Pakistan is concentrating and raising attention for more UNFCCC funds and getting the support from World Bank and developed states to meet its targets. The heavy debt burden and the International Monetary Fund (IMF)'s settings for Pakistan limit fiscal space for green spending in economic terms.<sup>7</sup>

The China-Pakistan Economic Corridor (CPEC) has locked in many coal plants that determine a political path that undermines the efforts for sustainable development in Pakistan. The CPEC will be achieving the supply of coal with ~20% of power up from 3% in 2017 to the year 2025 which had already put the low-carbon plans at risk.<sup>8</sup> Global climate diplomacy prodded reforms that made Pakistan the first country to localize the efforts for SDGs due to which the development agencies actively promote clean innovation in the country. Think tanks like the Pakistan Institute of Development Economics (PIDE) and the Sustainable Development Policy Institute (SDPI) have spotlighted the need for a path towards just transition that will be further discussed in the relevant study. The study will address how Pakistan's political economy played its role in shaping the policies towards sustainable development with further focus, then there will be analysis through fact-based inquiries of how the hurdles in different forms had not helped in achieving the prime of such policies to implement the stated SDGs. Finally, it will address what are those aspects that bring ineffectiveness to the politico-economic agendas of Pakistan in such regard, especially when it comes to lack of international funding.

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7 "Pakistan to Make Energy Transition, Investment Plan, UN Body Told," *Dawn*, March 15, 2025, <https://www.dawn.com/news/1898017>.

8 Erica Downs, *China-Pakistan Economic Corridor Power Projects: Insights into Environmental and Debt Sustainability* (New York: Center on Global Energy Policy, Columbia University, October 3, 2019).

## **1.2 Statement of the Problem**

In spite of there having been ranging of policies to deal with the issues relevant to climate and having a formal guarantee towards the Sustainable Development Goals (SDGs), the Pakistani state struggles to implement these agendas on an effective basis due to the challenges embedded inside its political economy. While strategic initiatives such as Vision 2025 and the National Climate Change Policy (NCCP) signaled the government's ultimate commitment to addressing the climate risks, in reality, it is revealed that fragmented implementation, weak institutional coordination, and under-utilized global financing had not helped in reaching out the ultimate conclusions of such measures. Pakistan's efforts to assimilate the SDGs 7, 8, 9, 11, 12, and 13 endure constraints due to the fiscal deficits, hefty debts, and the contending priorities of the political leadership and circles. Moreover, the coal-based energy has also made transitioning to low-carbon development difficult given the China-Pakistan Economic Corridor (CPEC), which gives priority to energy generated from coal. The Government's commitment to green and climate initiatives had only resulted in inadequate disbursement of pledges and guarantees made at the international forums which compromised the ability of Pakistan to standardize the execution of scheme and finance them. In several of the countries, this mismatch between planning and implementation reflects structurally and governance ally immense incompetence. Thus, the case note encounters a contradiction in Pakistan's climate policy-making between the lofty goals of what the country aims to achieve and the means by which it intends to achieve them, which have been limited by economic and political factors. This gap will be closed with research to ensure that the necessary climate resilience is met to achieve the respective SDGs and matched with national strategies, in accordance with the relevant international environmental norms, implementation measures.

## **1.3 Objectives of Study**

1. To examine how Pakistan's political economy influences climate change policies and their alignment with sustainable development goals.
2. To identify the key institutional and financial challenges that hinder effective climate governance.
3. To propose strategic reforms for improving policy implementation toward sustainable development.

## **1.4 Research Questions**

1. How does Pakistan's political economy influence climate change policies and their alignment with sustainable development goals?
2. What institutional and financial challenges hinder effective climate governance in Pakistan?
3. What strategic reforms can strengthen policy implementation toward sustainable development?

### **1.5 Significance of the Study**

This study holds noteworthy value as it will address a critical gap in the context of Pakistan's political economy that influences the hunt for sustainable development with respect to the point of climate emergencies. It is added that Pakistan is amongst the topmost countries that face climate-induced disasters that could be seen in the form of urban and rural flooding, heat waves, drought, scarce or extensive rains, and soil degradation. Therefore, there is an urgent need to evaluate the effectiveness of policy responses affiliated with the SDGs and their implementation in the context of Pakistan. The research will highlight the practical and institutional obstacles, that impede the implementation of climate policies that already address significant levels of issues on paper. It also entices attention to widespread misalignment amongst external climate financing and the developmental needs of Pakistan. The study is predominantly substantial in the light of commitments of Pakistan under International accords like Paris Agreement and SDGs. Additionally, the understanding under this research will be useful for policymakers, development practitioners, academics, as it will ascertain systemic and political constraints that limit progress in such terms. By opening up the interdependence in the middle of political decision-making, environmental resilience, and economic planning, the study will be helpful in providing the insights that are decisive for designing effective, imprudent, equitable, and ascendable development-strategies in Pakistan for an equally ultimate sustainable future. The study will also contribute to the understanding of the global climate governance discourse in presenting Pakistan as a case study of a lower middle-income country trying to skirt the vicious circle in terms of development and environmental responsibility.

### **1.6 Scope of the Study**

At the junction between political economy on the Pakistani side of spectrum and its response to climate change, several of the interlocks observed in this paper also trigger processes that indirectly influence experiences in meeting the Sustainable Development Goals (SDGs). The research paper will critically review the issues regarding local and global drivers of sustainable development and encompass the issues currently being recognized as the drivers of environmental security. Under the post COP 21 framework, the research will look at the key policy frameworks on National Climate Change Policy (NCCP), Pakistan's strategies for energy transition and Vision 2025. Particular focus will be directed towards the stated objectives of research in the context of Pakistan as well as financial and administrative constraints hampering the utilization of research. The study will further include considering the dynamics which serve to contribute to the policy space and assess ultimate impact on domestic actors and international stakeholders of the policy making. Furthermore, it will assess the political economy constraints such as fiscal constraints, the dearth of governance, interagency coordination gaps, and the failure to address such an issue through schemes such as the China-Pakistan Economic Corridor (CPEC). The study will serve as an auxiliary aid for policy level and institutional analysis that has been conducted over the past decade in the form of policy developments up to 2025.

## **1.7 Literature Review**

### **1.7.1 Policy Response**

Shahid Ahmed, in his book “The Political Economy of Pakistan’s Development,” mentioned how the term ‘political economy’ has transformed in this modern era (Ahmed 2016). The traditional concept was more about the relationship between politics and the economy. However, the new concept explains the role of political power in exercising domestic policies to achieve the required results. By explaining Pakistan’s political economy deeply, he pointed out several factors, such as the distribution of power among certain elite groups and institutions. This unequal distribution of power in the country plays a vital role in political economy issues. It is added that how existence of such factors impacts the important policy measures that are meant to address the issues on the grass-root level and to deal with those primary issues that are important to be countered when it comes to the concerns of human-centric development. Moreover, merely spending financial resources and funds by political power, along with executing public policy through legitimate means, can be fruitful in upholding social justice in society. He also explained that for a better

future and the economic development of Pakistan, coordination among all sectors at both the domestic and state levels is essential.

The article “Climate Change and its Impacts on Pakistan” states that Pakistan is more vulnerable to climate change than other neighboring states (A. Hussain et al., n.d.). Recurring weather patterns and global warming have impacted not only other parts of the globe but also the South Asian region. As a result, they have significantly adverse consequences for Pakistan, resulting in long term consequences such as melting glaciers, floods, and loss of agriculture. It was mentioned that while the economy of Pakistan is agriculture driven, thermal extremes and erratic rainfall patterns are causing crop loss and drought in parts of the country, thus leading to excruciating consequences for biodiversity. Political economy that controls the agriculture sector is also a critical issue for scholars and experts in Pakistan, as the agriculture sector has not been able to address these complications that tend to adversely affect environmental security. Another point that further aggravates this situation is related to the rise in average temperature, which is mostly due to the burning of fossil fuels and emissions of greenhouse gases. Moreover, the authors found that climate change is also related to economic loss as it impacts irrigation, health, and residential infrastructure across the country, thus posing a great challenge to the environmental and energy security of Pakistan.

The Repercussions of climate change on the country are so adverse despite its minimal contribution, which is less than 1% of greenhouse gases. This aggravated issue is still not fully successful in opening the eyes of the government. However, their climate action plan is of limited scope and ineffective in dealing with major environmental problems, as critically analyzed in the article “The Challenge of Climate Change and Policy Response in Pakistan” (Khan et al. 2016).

The severity of the problems regarding climate change and Environmental degradation makes us realize that there should be law-making to cope with food security, water and natural resource management issues, energy conservation issues, and agricultural farming problems. In response to unsustainable development in Pakistan, the government enacted the Pakistan Climate Change Act to implement the National Climate Change Policy and meet the requirements of the 2030 Agenda for sustainable development in the country (W. Ahmed et al. 2020). The multi-faceted approach of the National climate change policy addressed the prolonged issues for their transition into low-

carbon emissions and the integrated mitigation and resilience process against Climate-induced negative impacts on society. Additionally, the country's agricultural industry faces pressure due to population growth, which is further hindering economic development. There's a need to enhance the technical capability of the country, and climate-smart agriculture should be introduced to adapt to the impacts of climate change and to increase agricultural productivity, as most of Pakistan's GDP depends on the agricultural sector (Wang et al. 2024).

### **1.7.2 Institutional Capacity**

While discussing the role of Climate change Governance in Pakistan, Muhammad Mumtaz has highlighted in his work entitled "Intergovernmental Relations in Climate Change Governance: A Pakistani Case" that there is a lack of coordination between different government sectors (Mumtaz 2023). The institutional fragmentation persists mainly due to unstable political regimes and a lack of collaboration among different government tiers. He further added that the Climate change issue has persisted for the past many years, and that's why to deal with the government announced the Climate Action Plan. However, due to the complexities in intergovernmental relations, they are still trying to achieve their prime objectives, which are mandatory for sustainable development in Pakistan. For a better adaptation and resilience program, the government should integrate cohesiveness and integration into its policymaking.

Besides this, Pakistan has a population of more than 230 million, thus facing serious issues like environmental disasters and rapid urbanization that are putting constraints on the economic development of the country. For environmental preservation and economic progress, Pakistan has started focusing on sustainable development under the framework of the United Nations conference. On the other hand, the role of the Ministry of Planning, Development, and Special Initiatives is quite appreciable for the socio-economic development in the country, thus aligning itself with the global sustainability norms for a prosperous future. The major concern that comes up here is the existence of the lack of coordination between the ministries of the Government of Pakistan to ensure processes for procuring those factors that can help in benefitting environmental safety and security (Aziz and Afridi 2024).

### **1.7.3 International Finance**

Pakistan faces heightened risks from climate change due to a lack of resilient and adaptive community-based mechanisms. Additionally, various socioeconomic factors exacerbate this vulnerability, such as poverty, population growth, lack of technological innovations, and insufficient institutional coordination. These issues significantly threaten agriculture, people's livelihoods, and water resources. To address the impacts of natural and environmental calamities, the government should establish early warning systems and enhance water management in the country with the support of international cooperation (M. Hussain et al. 2019).

Moreover, there should be effective communication channels established between civil society, the public, and policymakers, utilizing the media as a key facilitator. For a better Environmental policy formulation, digital/social media coverage and campaigns can be helpful in public engagement and promoting sustainable policy action for the welfare of the community. However, certain challenges may hinder this progress, such as misinformation and the influence of powerful political stakeholders who are resistant to moving away from traditional climate policies (Tariq and Shahzad 2024).

The Sustainable Development Goals help fulfill the requirements of both the present and the future as they address global problems such as inequality, climate change, poverty, and other economic issues. Jeffery D. Sachs contends in his book “The Age of Sustainable Development” that economic, social, and environmental factors are interlinked with one another. For any nation to achieve future development, it must adhere to the criteria set forth by these Sustainable Development Goals, which were endorsed by the United Nations in 2015 (Sachs 2015)

#### **1.7.4 Political Economy and Climate change in Pakistan**

Political Economy of Climate Change Policy written by Franklin Steves Alexander Teytelboym analyzed the climate change policy and the political economy variables that affect the implementation of effective mitigation strategies. They present the Climate Laws, Institutions, and Measures Index (CLIMI), which is a detailed instrument that explains policy reactions of 95 nations, which comprise 90 percent of the greenhouse gases worldwide. The authors maintain that policy of climate is highly influenced by public knowledge, instead of the degree of democracy. Moreover, they point out that economies that experience a high level of concentration of carbon-intensive industries have a severe hindrance in enacting progressive climate policies. Their results

highlight the role of knowledgeable general population in the process of meaningful climate action.(Steves & Teytelboym, 2013)

Policy implementation barriers in climate change adaptation: The case of Pakistan written by Shafaq Masud and Ahmad examine the impediments to effective climate change adaptation in Pakistan that are based on concerns related to policy implementation. Their analysis cites major challenges that include the absence of inclusiveness in the policy formulation process that fosters mistrust among the stakeholders and lack of coordination. The paper also emphasizes the problem of a decentralized system of governance in Pakistan whereby the lack of communication between the federal and provincial government pulling agencies worsens the enactment of policies to control climate change. The authors emphasize the need to enhance stakeholder participation, the quality of policy documents, and match the climate policies with the current frameworks in order to achieve high levels of successful adoptions.(Masud & Khan, 2024)

Environmental costs of political instability in Pakistan: policy options for clean energy consumption and environment written by Muhammad Tayyab Sohail, Muhammad Tariq Majeed, Parvez Ahmed Shaikh and Zubaria Andlib investigate the effects of political instability on clean energy use and CO<sub>2</sub> emissions in Pakistan using the time-series data between 1990 and 2019. They find that political stability encourages adoption of clean energy and lowers the level of CO<sub>2</sub> emissions in the long-term. On the contrary, political instability obstructs the use of clean energy and deteriorates the quality of the environment. The paper points out the asymmetry of impacts of political stability in that positive shock results in improved environmental performance, whereas negative shocks cause worsening of the pollution. The authors indicate that sustainable energy practices and environmental outcomes in Pakistan should be promoted through the establishment of stable governance. (Sohail et al., 2022)

Climate change impact assessment, flood management, and mitigation strategies in Pakistan for sustainable future written by Imran Khan Hongdou Lei Ashfaq Ahmad Shah Inayat Khan and Ihsan Muhammad analyze socio-economic effects of floods in Pakistan with the emphasis on the role of climate change that increases the risk of floods. Their research highlights huge economic losses, especially in GDP, population vulnerability and urban destruction, which is a result of frequent floods in the country. The authors emphasize the role of flood protection and postulate

future flood protection situations to reduce such risks. They predict the possible damages at various levels of flood protection by applying such tools as the Aqueduct flood analyzer. The paper recommends the need to improve the flood management measures, better preparedness as well as the solutions that would prove to be sustainable in the long run to cut the disastrous effects of floods.(Khan et al., 2021)

### **1.7.5 Climate change and sustainable Development Goals**

Climate Change and Sustainable Development: Interconnections and challenges written by Biswajit Biswal. this paper discusses the intricate interaction between climate change and sustainable development and indicates the influence each has on each other. The writer emphasizes the significance of inclusive development in the Sustainable Development Goals (SDGs), which promotes the development approach that promotes economic growth, social justice, and environmental sustainability. The paper addresses the need to adapt but to do it context-specifically by using governance and institutional support in order to be more resilient.(Biswal, 2025) The discussion offer the scientific background on the issue of climate change, underlining the immediate necessity of international collaboration and enormous emissions cuts. The research emphasizes the significance of compound measures comprising reduction and adjustment initiatives to attain sustainable growth, specifically the vulnerable communities who suffer disproportionately due to climate change. It also talks of the global coordination, economic trade-offs, and inequality as the challenges that are going to stop progress between the SDGs. (Biswal, 2025)

Climate Change: Impacts on Sustainable Development Goals and Human Rights written by Dr. Fakhara Shahid and Adil Ahmad. The study highlights the connection between climate change and human rights and SDGs realization, especially SDG 2 Zero Hunger. It highlights the negative impact of climate change on agriculture, which poses a threat to food security, and increases poverty in people, especially in developing countries. According to the paper, the water shortage is increasing in areas such as Saudi Arabia due to climate change. Moreover, the article emphasizes that a combined policy strategy, cooperation, and investment into renewable energy are required

to reduce the effects of climate change the intersectionality of gender and climate change is also briefly discussed in the review where women become more vulnerable as a result of agricultural labor and the lack of access to resources in the event of a climate disaster.(Shahid Fakhara & Ahmad Adil, 2023)

Climate Change and Sustainable Development in Pakistan: An Analysis of the 2030 Agenda written by Israf Javed, Muhammad Usama Haroon, Muhammad Javedan, Haris Nusrat and Abdullah Ekinici. This study examines how climate change has affected some of the critically important environmental SDGs (SDG 6, 13, 14 and 15) in Pakistan. The study also involves more advanced statistical tools such as correlation, covariance and quantifying the connections between climatic factors i.e. temperature, precipitation and SDG indicators.(Javed et al., n.d.) The results indicate that changes in temperature and precipitation have a strong impact on water resources and ecosystems, and seasonal lakes and water stress are especially prone to such changes. The paper also highlights the resilience of mangrove ecosystems and also the adaptive ability of water efficiency in respect to climate pressures. The authors recommend that climate-adaptive water management practices are essential to curtailing the adverse impact of climate change on water resources. The study recommends specific climate adaptation to cover the vulnerabilities of those regions that are significantly exposed to water deficiency and ecosystems deterioration. (Javed et al., n.d.)

#### **1.7.6 Role of Non-state actors in Climate action**

Shapers, Brokers and Doers the Dynamic Roles of Non-State Actors in Global Climate Change Governance written by Naghmeh Nasiritousi examines the growing role of non-state actors in the governance of global climate change. Non-state actors, such as international environmental groups, business associations and indigenous groups are assuming governance roles that nation-states have traditionally played.(Nasiritousi, 2016) The analysis classifies these actors into three major roles namely the shapers of information, the brokers of knowledge and norms and the doers of policy implementation. It draws our attention to the increasing power and legitimacy of non-state actors, especially in the UNFCCC framework, and their enormous influence on the formation of the global climate action (Nasiritousi, 2016). One interesting statistic in the thesis is the 10, 773 commitments registered in the NAZCA portal by 2015, mostly in the energy efficiency and renewable energy industries. The study demonstrates that non-state actors are important in offering

expertise and promoting policy changes thus shaping climate negotiations and governance practices.(Nasiritousi, 2016)

Role of Non-Governmental Organizations in Promoting Climate Action in Pakistan written by Muhammad Kaleem Ullah and Muhammad Zubair Khan. This paper is devoted to the important role of NGOs in climate action in Pakistan, specifically in disaster risk reduction, ecosystem rehabilitation and community adaptation. Although NGOs play an extremely important role in promoting climate resilience, there are a number of problems such as the lack of finances, political instability and bureaucracies that hinder their operations in Pakistan.(Ullah & Khan, 2024) The study points out that NGOs have been proactive in the energy promotion of renewable projects and community-based adaptation approaches. The most striking ones are the "Ridge to Reef" program implemented by WWF Pakistan, which recovered more than 1,000 hectares of the mangrove forests, making them more resilient to sea-level rise. The NGOs such as the Rural Support Program Network have emphasized on sustainable agriculture, securing water and educating local populations on the use of climate-smart agriculture. Nevertheless, the article highlights that funding limitations and political hurdles are critical to ensuring that these NGOs are in a position to magnify their influence and achieve global objectives in climatic matters.(Ullah & Khan, 2024)

#### **1.7.7 Political Instability and its effect on climate change and reaction.**

The relationship between climate change and political instability: the case of MENA countries written by Emrah Sofuoğlu and Ahmet Ay. This paper analyzes the causal association between the political instability and climate change in 18 countries in the Middle East and North Africa (MENA). The authors use panel causality tests with data on temperature and precipitation and indexes of political instability. They discover that climate change is a threat multiplier, which has been a source of political instability and conflict in 16 MENA nations.(Sofuoğlu & Ay, 2020) In particular, rising temperatures are associated with the increase in political instability, whereas shifting precipitation patterns are the causes of conflicts, especially in such countries as Syria, Egypt, and Libya. Another point that the research makes is that migration that is caused by climate contributes to social tensions. Moreover, the work insists on the fact that climate change does not

cause the instability directly, however, it enhances the already existing weaknesses, including poverty, food insecurity, and the lack of water, which puts the region at an increased risk of unrest and political instability. These results support the idea of considering climate change adaptation as a part of political and economic stability in MENA nations. (Sofuoğlu & Ay, 2020)

Climate change and its impact on the political dynamics of Pakistan written by Zafar Imran. The study poses the interrelation between climate change and political instability in Pakistan and argues that climate changes increase the preexisting social and political fault lines that result in conflicts. The article points out how the fluctuation of water resources, especially those of the Indus River, has shaken the Pakistani socio-economic equilibrium and created the tension between agricultural elites and the manufacturing industry.(Imran, 2013) The flow of water has become decreased and the rainfall patterns have become unpredictable and this has led to the worsening of tensions between the provinces especially between Punjab and Sindh regarding resource allocation. Moreover, the paper mentions the contribution of political fragmentation, corruption, and the increasing urban-rural gap to the social unrest. The poor political structures of Pakistan expose it to violence and instability as climate change induced stressors such as food and water insecurity continue to be felt. The study emphasizes that climate adaptation policies must be holistic in terms of considering the intricate interplay of environmental and socio-political drivers to avoid a mass conflict.(Imran, 2013)

The Political Instability and Its Impact on Economic Development in Pakistan: A Historical Perspective written by Dr. Irfan Ahmed Shaikh Rehana Kausar Arain and Musharaf Ali Talpur. The study provides the historical correlation between political instability and economic development of Pakistan. The authors point out that political instability, which is marked by the high occurrence of government changes, military takeovers as well as contradicting policies, has greatly affected the economic growth of the country in the long-term. (Ahmed Shaikh Rehana Kausar Arain Musharaf Ali Talpur, 2025)The paper puts emphasis on the political history of Pakistan, which was characterized by quick transitions between civilian and military governments and how such insecurity has resulted in economic insecurity and bad decision making. The authors make comparisons with the African countries who also face similar challenges where underdevelopment is aggravated by weak governance and corruption despite the presence of abundant resources that are natural. The paper also addresses the effects of political instability on

important sectors such as education, infrastructure and health which are essential to sustainable development. The authors indicate that institutional fortification of Pakistan, transparent governance, and inclusive political approaches are the solutions to the breakage of this cycle so as to attain economic stability and growth.(Ahmed Shaikh Rehana Kausar Arain Musharaf Ali Talpur, 2025)

### **1.7.8 International Cooperation's and Climate mitigations**

International Cooperation on Climate Change Mitigation: The role of climate clubs written by Rafael Leal-Arcas Andrew Filiswrite. The paper talks about the idea of climate clubs as the alternative to the conventional multilateralism in the issue of climate change. They propose the creation of climate clubs which comprise coalitions of willing nations and that these clubs would be effective in eliminating the inefficiencies of the current global climate systems. The authors believe that such clubs may utilize carbon pricing systems, technological partnerships, and trade policies to reach high emissions levels. They mention the 34 percent reduction in coal use in the US and Europe since 2009 as one of the positive changes that occurred with the help of the government policies and market forces(Leal-Arcas & Filis, 2021). In addition, the paper has also emphasized the necessity of inclusive membership requirement and motivation of countries to join. It also stresses the importance of having balance between ambition, benefits of membership, and non-compliance sanctions in order to make climate clubs successful. The authors add that such clubs can be the key to meeting the global climate targets, even in the case of the global stagnation in multilateralism.(Leal-Arcas & Filis, 2021)

Increasing Participation and Compliance in International Climate Change Agreements written by Aart de Zeeuw (2015), the author discusses the application of game theory to the analysis of international environmental agreements (IEAs) in order to find solutions to the problem of global pollution such as climate change. The paper identifies the issue of the free-rider phenomenon, which weakens the collective action of the emissions reductions.(De Zeeuw, 2015) De Zeeuw analyzes cooperative and noncooperative games dynamics, demonstrating that large coalitions can potentially be advantageous but they do not last long because countries always feel tempted to forsake them. It is important to note that the research identifies the size of the coalition and the scale of collaborative benefits as the factors that determine the stability of the coalitions in the IEAs. The success of the phase-out of CFCs in the Montreal Protocol is a positive example since

the environmental gains are evident and trade sanctions are used as an inducement to join the protocol. Nonetheless, this paper concludes that the effectiveness of the IEAs is dependent on strategic design, believable threats, and side payments to maintain stability and wide distribution. The Participating and complying more in International climate change agreements.(De Zeeuw, 2015)

Increasing Participation and Compliance in International Climate Change Agreements written by Robert N. Stavins and Scott Barrett critically evaluate the Kyoto Protocol performance and discuss 13 other possible climate policy structures with respect to their potential to guarantee participation and compliance. They claim that economical mitigation measures like market-oriented mechanisms (e.g. tradable permits) can prove efficient, yet they have a lower possibility of creating high participation and compliance.(Stavins et al., n.d.) The paper notes that the Kyoto Protocol has high short-term emission reduction and is also limited in the provision of compliance mechanisms, which has made it ineffective. The authors propose that this aspect of relying on a high participation and a high compliance will necessitate other frameworks that are both cost-effective and effective in terms of enforcing these actions. They point out that international agreements are required to tackle these challenges at the early stages instead of assuming that they will be solved in future. The paper also discusses the different recommendations towards the realization of these goals such as hybrid systems where market incentives are combined with enhanced compliance measures. (Stavins et al., n.d.)

### **1.7.9 Research Gap**

The current body of literature on Pakistan political economy and climate change review presents some useful information, yet they raise some gaps in knowledge. The key findings emphasized in most of the studies include vulnerability of the country to climate change and the influence of the political economy on the policy responses. There are no studies directly relate the Green Theory to the achievement or failure of implementing the Sustainable Development Goals (SDGs) in Pakistan. Although the environmental vulnerability and economic dynamics of climate change have been the focus of several works, little has been done to investigate the particular role of political economy in climate change challenges, particularly, the SDG realization. To give an example, the literature tends to concentrate on the effects of climate change, including floods, droughts, melting glaciers, etc., and their impact on economy. On the other hands, it does not

provide a thorough analysis of the impact of the distribution of political and economic power in Pakistan on the performance of the climate policies. There are studies such as Masud and Khan (2024) that explain the issues with the policy implementation, but they fail to explicitly relate those issues to the political economy on the country level. The influence of the elite groups, institutional fragmentation and the political will in preventing the implementation of the climate policies has not been adequately explored. Moreover, most of the current studies on climate response in Pakistan presuppose that national policies such as the National Climate Change Policy or Vision 2025 are sufficient but have implementation issues because of the absence of coordination and funds. The studies fail to reach up to the root cause of these failures, which could be the force of selfish political ideas and domination of resources by the elite. The absence of a unified and long-term political plan including the environmental sustainability as the part of the economic system of the country is an unexploited problem. Moreover, climate finance and international cooperation is often discussed, but little is analyzed regarding the role of the political economy of the country that can help Pakistan access or use those funds. The studies by Tariq and Shahzad (2024) emphasize the importance of international collaboration and better water management, although they lack adequate consideration of how domestic political dynamics, including the instability of a government or concentration of power in some segments, influence the capacity of the country to secure and use climate finance. Furthermore, although the literature covers the socio-economic effects of climate change (Biswal, 2025; Shahid and Ahmad, 2023), there is no systematic framework to comprehend how institutional looseness and political disunity are driving away the introduction of the climate change adaptation into more comprehensive national development plans. The literature gap is more evident especially as regards the insight into how governance systems are connected to the capacity to deal with climate-induced problems at the national and provincial level. Lastly, the literature gap is furthered to the practical implementation of the Green Theory in the context of tackling the issue of climate change. Though some of the studies blame the environmental governance and inefficiencies of policies in Pakistan, they have not directly investigated how Green Theory with the theme of ecological justice and sustainability can achieve solutions in the context of political economy in Pakistan. In the absence of this relationship, the existing research does not offer practical information on how to align the political economy in the country with its objectives of environmental sustainability. Therefore, the gap in the research lies not only in the connection between political economy and climate action but also in the process of

comprehending how the Green Theory can be used to design and implement the policies in the specific socio-political setting in Pakistan. This gap also offers a chance to investigate the direct possibilities of political configurations and institutional constraints on the effective implementation of SDGs in the sphere of climate change.

review.

## **1.8 Research Methodology**

This study used a qualitative research approach in order to comprehensively examine the issue of climate governance and sustainable development in Pakistan to place it within the contexts of political economy. A qualitative design is selected because it enables the dynamic and complex nature of institutional processes, stakeholder views and governance arrangements that cannot be sufficiently realized in quantitative data. The study is based on interpretive, discourse, and thematic analysis to identify the structural, institutional, and political impediments to effective climate governance in Pakistan.

### **1.8.1 Research Design**

The proposed study utilizes a qualitative research design featuring a case study analysis to examine the political economy of climate change in Pakistan and its effects on the formulation and implementation of climate policies, namely, whether they are aligned to Sustainable Development Goal (SDG) 13: Climate Action. It intends to examine the way in which climate policy decisions in Pakistan are conditioned by political, economic, and institutional factors and what challenges impede the effective implementation. The study used qualitative research design with a keen interest in a case study analysis to determine the intricacies of climate governance in Pakistan. The study look at the role of the political economy, in effect by influential elites and institutional fragmentation, on climate action by analyzing key climate policies, institutional structures, and financial obstacles. The research design embraces case study design in order to explore the National Climate Change Policy of Pakistan, climate financing and the functions of key institutions such as the Ministry of Climate Change (MoCC) and the National Disaster Management Authority (NDMA). This methodology allows narrowly examining the effectiveness of climate policy implementation in Pakistan with special emphasis on the consistency of climate goals with SDG 13 and the obstacles to climate goals.

### **1.8.2 Data Collection**

The primary data are collected in the form of interviews with key stakeholders, which includes policy makers, researchers, the representatives of the think tanks, and multilateral agency officials. These interviews are offering useful information on decision-making procedures, policy planning and implementation challenges, climate financing barriers, and interagency coordination issues. The contributions of the National Disaster Management Authority (NDMA) and the Ministry of Climate Change will also be important primary sources since both the bodies are the stakeholders of climate governance. Their views are contributing to the realistic issues that Pakistan encounters in achieving its climate policies in accordance with SDGs. On the other hands the sources of secondary data, there are numerous policy reports (e.g. National Climate Change Policy and Vision 2025), parliamentary debates, and documents of the Ministry of Planning and Development. The secondary data pool is providing by peer-reviewed case studies, scholarly articles, white papers, and think tank reports.

### **1.8.3 Data Analysis**

Qualitative data were analyzed using the thematic analysis. Thematic analysis is used to analyze the data and are enable the detection and analysis of the repeated themes. The analysis of these themes is based on the Green Theory. The main themes that examined are the fragmentation of governance, elite role in policy-making, obstacles to climate funding, and insufficient interagency coordination. Thematic analysis offers some flexibility in uncovering both anticipated and unforeseen themes to reflect the realities of policy implementation and governance that are complex. This indicates the difference between the rhetoric of policy and the reality of climate governance on the ground, illuminating the dissimilarity between the idealistic vision of policies and their practical implementation.

### **1.8.4 Ethical Considerations**

The study observes ethical considerations in respect to informed consent, privacy, and confidentiality of respondents. The purpose of the research, the right of the interviewees to remain anonymous, and the voluntary nature of participation was fully informed to all. Furthermore, the study also be cautious of the conflict of interest as well as make sure that all data is stored safely.

In order to ensure the study integrity, the findings are presented in an objective way such that personal and external interests do not affect the analysis. Particular attention is paid to making sure that the views of the main stakeholders, including NDMA and Ministry of Climate Change, are reflecting in the analysis correctly, as they play the essential role in climate governance and policy execution.

## **1.9 Organization of Study**

The study is organized into seven chapters, each addressing a distinct component of the research focus and corresponding to specific research questions:

**Chapter 1: Introduction:** In the introduction, while presented a picture of what presented in this study, research questions and research objectives are mentioned. The significance of the research, the Problem Statement, the delimitation of the research, the literature review.

**Chapter 2: Theoretical Framework:** The chapter on theoretical framework outlined the proposed theory and how it was applicable to the current study. It also shed light on how this theory guide the analysis of the research topic.

**Chapter 3:** The Political economy of Pakistan its impact on Climate change policy and alignment with SDGS

**Chapter 4:** identification of institutional and financial challenges to promote effective climate governance

**Chapter 5:** Recommendations to Enhance Policy Implementation towards Sustainable Development.

**Chapter 6:** Conclusion and Policy Implications

## **1.10 Conclusion**

This study is a critical analysis of the political economy-political ecology of climate governance for SDGs in Pakistan. The country may possess concrete legislation such as the National Climate Change Policy and Vision 2025, but the progress keeps lagging due to divisive institutions, resource poverty, interests of elite classes, and lack of global support. Though theoretical

perspectives of Green Theory, are useful in understanding the mismatch between policy and practice, it is the Green Theory that holds a mirror reflecting the true face of structural injustices and governance shortcomings in the climate policy of Pakistan. It highlights that without systemic political reform, improved inter-agency coordination between the provinces and federal government, and a more accountable and inclusive approach to the environmental policymaking process, efforts to tackle climate change in Pakistan will continue to underperform. The results demand a recalibration of priorities towards sustainability, equity, and localism if the country is to chart a successful course through the difficult terrain of climate resilience and deliver on its international pledges to sustainable development.

## Chapter 2 Theoretical Framework(s)

### 2.1 What's Green Theory

The core of Green Theory is the critique of anthropocentrism, or the belief that human beings are the universe and nature is just something that has to be used by people.<sup>9</sup> Green Theory suggests the idea of ecocentrism where the ecosystems are central to human well-being, and interdependence between humanity and the environment is stressed. In contrast to the conventional political theories, the central idea of which revolves mostly around human-oriented perceptions and thoughts, Green Theory requires a whole perspective, which incorporates both environmental issues and the wider concerns of social, economic, and political problems.<sup>10</sup> The theory stresses that ecological sustainability is not a frivolity or a second-order factor, but a key precondition to human security in the long run. The theory is opposed to the traditional models of capitalistic development that place emphasis on short-term economic growth and over-consumption leading to depletion of natural resources and degradation of the environment. Green Theory criticizes the capitalist global market economy on grounds that it is not sustainable because it functions in a way that ignores ecological boundaries. Rather, Green Theory promotes sustainable economic systems that consider human development in accordance with the ecological limits of the earth.<sup>11</sup> This criticism can be especially applied to such countries as Pakistan, where the rapid economic growth driven by the exploitation of natural resources and the use of fossil fuel-rich energy is causing a rising number of environmental disasters and social injustices. Green Theory provides a fundamental guideline that Pakistan can use to reconsider the development strategy. According to the principles of the theory,<sup>12</sup> the Pakistani political economy should be transformed to make environmental justice, social equity, and sustainable management of resources a central issue in its policies. A radical shift in the national development agenda proposed by the Green Theory

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9 Dyer, Hugh. (2017) Green Theory. In McGlinchey, S, Walters, R and Scheinpflug, C, International Relations Theory (PP. 84-90). E-International Relations, Bristol, England <https://eprints.whiterose.ac.uk/120472/>

10 Ibid

11 Barry, J. (2014). *Green Political Theory*. In V. Geoghegan & R. Wilford (Eds.), *Political Ideologies: An Introduction* (4th ed., pp. 153-178). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315814384-7/green-political-theory-john-barry>

<sup>12</sup> Ibid

would require placing the long-run ecological welfare and the interests of future generations above short-term economic profit maximization.

## **2.2 Application of Green Theory**

Climate change is one of the most acute challenges to Pakistan, as the country is extremely susceptible to the effects of climate change, but it is also directly connected to the global environmental and political order. The political economy of Pakistan, which is a resultant combination of complex historical-economic-political dynamics is in a crossroad, with the current model of growth-focused development becoming increasingly unsustainable because of its indifference to the environmental issues.<sup>13</sup> Green Theory, which is a criticism of the traditional economic and political set-ups by pushing towards an eco-centric worldview, offers a crucial prism through which it is possible to think about how Pakistan can be transformed into a more sustainable, inclusive, and ecologically-informed system of governance. This use of Green Theory is useful to point at the need to re-orient the development policies of Pakistan in terms of ecological boundaries, social justice, and human security as the nation is becoming engulfed in growing environmental disasters including floods, droughts, and extreme temperatures.<sup>14</sup> The application of Green Theory to the political economy of climate change analysis of Pakistan would require a paradigm shift. It also criticizes the capitalist world market system that has in many cases been involved in contributing to the destruction of the environment by orderly extracting resources, excessive consumption, and the growth of the economy through short-term gain. To Pakistan, where the effects of climate change continue to pose a growing threat to its development path, the theory can provide some revolutionary feedback on how its national development policies can be re-oriented to attend to both ecological and socio-economic issues. Green Theory suggests that the state-centric and growth-oriented paradigm must be abandoned and that the transition to more collaborative and ecologically conscious models of governance should be made.<sup>15</sup> It creates the image of the future in which environmental justice, intergenerational fairness, and human security

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13 Imran, Z. (2013). *Climate change and its impact on the political dynamics of Pakistan*. CISSM Working Paper, Center for International and Security Studies at Maryland, University of Maryland

14 Ibid

15 Dyer, Hugh. (2017) Green Theory. In McGlinchey, S, Walters, R and Scheinpflug, C, *International Relations Theory* (PP. 84-90). E-International Relations, Bristol, England  
<https://eprints.whiterose.ac.uk/120472/>

are prioritized over economic growth at all costs. In this paper, the Green Theory will be applied to the political economy of Pakistan with the aim of exploring how the critiques and proposals of the theory can help to reconsider the development policies of Pakistan in the context of climate change. It looks at the way in which political systems, the economic activities and the mode of governance in Pakistani society are a source of environmental degradations and provides the Green Theory as a measure of correcting the situation by applying system reforms.<sup>16</sup> The application of the Green Theory to Pakistan by paying attention to such important areas as water management, agriculture, and energy shows that it is necessary to make the development in Pakistan more sustainable, equitable, and community-oriented. As the nation pursues sustainable development especially following its commitment to the United Nations Sustainable Development Goals (SDGs) the necessity of incorporating ecological concerns into national policy is critical. The focus of Green Theory towards global cooperation, decentralization of government, and incorporating environmental issues in economic planning provides a significant insight to Pakistan as it seeks to maneuver through the multifaceted nature of climate change.<sup>17</sup>

### **2.2.1 The Political Economy of Pakistan, Climate change and Green Theory: Critical analysis**

The political and economic systems of Pakistan are embedded in structures that tend to persist in environmental degradation. The development pattern of the country has greatly been based on fossil fuels and non-sustainable agriculture that have led to the exhaustion of natural resources, deforestation, and rising emission of greenhouse gases. Moreover, the nature of the political system in Pakistan, in which the emphasis has been mostly on the state sovereignty and national security, has tended to ignore the globalization of environmental issues. The Westphalian model of nation-state sovereignty, which focuses on territorial dominance, is inappropriate when it comes to combating climate change which is a transnational problem that crosses national boundaries. Green Theory opposes the state-based mode of governance and promotes more cooperative and decentralized modes of governance, which acknowledge the interrelationship of ecological systems over national boundaries. The strategy is also quite applicable to Pakistan, where climate-related effects like floods, water shortage, and migration needs a global and regional response.

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16 Shaikh, I. A., Arain, R. K., & Talpur, M. A. (2025). *The Political Instability and Its Impact on Economic Development in Pakistan: A Historical Perspective*. *Journal of History and Social Sciences*, 16(2), 127-139. <https://doi.org/10.5281/zenodo.16618015>

17 Ibid

Green Theory demands a change in perception of the national security to environmental security in which the ecological stability will be the core of both the national and global security. In the case of Pakistan, this would imply, not just dealing with domestic environmental issues, but also the necessity to collaborate with the neighbors and share in resources and cooperate internationally. The use of fossil fuels in Pakistan especially with initiatives such as the China-Pakistan Economic Corridor (CPEC) further traps the country into an unsustainable energy infrastructure that further increases its environmental vulnerability. Green Theory criticizes the capitalist-based growth model, which forms the core of such projects, as requiring environmentally sustainable growth. This would demand the abandonment of coal and fossil fuels in favor of renewable ones, including solar, wind and hydropower that are more responsive to the demands of Green Theory of environmental justice and ecological balance. Political instability and ineffective coordination of institutions in Pakistan are also a major issue that would impede proper climate governance. There is a lack of effective regulation frameworks and cross-sector collaboration to enhance the adoption of climate policies even though the country also makes commitments to global frameworks like the Paris agreement and the Sustainable Development Goals (SDGs). Green Theory proposes decentralized and participatory type of government structure, in which local communities and regional actors are given more active role in the decision-making process of environmental issues. In the case of Pakistan, this would entail enhancement of interagency coordination, formulation of policies focusing on sustainable development, and leaving the marginalized communities behind in the shift to a greener economy.

### 2.3 Core concept of Green theory

<b>Core concepts of Green Theory</b>	<b>Theoretical Lense and its applications</b>
Eco-Centrism	Green Theory supports ecocentrism, where the ecosystem can be seen as the core of human well-being, and Pakistan should prioritize ecosystem health instead of human economic development within a short time
Capitalism VS Green Theory	Green Theory criticizes the capitalistic developmental models as excessive consumption and environmental degradation. The use of fossil fuels and mining of resources in Pakistan is an example of this unsustainable direction.

Environmental Justice and social equity	The communities which are marginalized are disproportionately affected by environmental degradation. Green Theory proposes policy to provide these communities with equal chances to adapt and survive.
Criticism on state sovereignty	Green Theory is against the models of traditional state sovereignty which suggests international and regional collaboration in solving the climate change, which is beyond the borders, such as in the water and migration crisis in Pakistan.
De-Centralization of Governance	Green Theory involves decentralization where local communities in Pakistan are to play central role in resource management and practicing sustainable approach particularly in rural and marginalized communities.
International Cooperation's	Green Theory focuses on international collaboration, particularly in the utilization of common resources (e.g. water resources with other nations such as India) and the international climate treaties (e.g. the Paris Agreement).
Green theory supports human security	Environmental security is the redefinition of Green Theory of security. Floods, droughts, and lack of water in Pakistan are some of the causes of climate migration that needs a human security strategy, which will provide safety to the affected communities
Green theory and Energy Transitions	The Green Theory criticizes the use of coal-powered energy in Pakistan (CPEC), and promotes the shift to renewable energy sources such as solar, wind, and hydropower as an alternative to coal-powered energy

## 2.4 Conclusion

climate change, which provides a paradigm shift in managing environmental and socio-economic issues in Pakistan. It requires a shift in the state-centric, growth-based models to more collaborative and environmentally conscious forms of governance that are integrated with sustainability, social equity and human security. The focus of Green Theory on international collaboration, decentralized rule and integrating the environmental issue into economic planning offers important ideas on how Pakistan can overcome its climate crisis and strive toward a better

and balanced future. Through the implementation of the Green Theory, Pakistan can re-focus its development policies towards the values of ecological sustainability whereby future generations will have the benefit of inheriting a livable planet and at the same time attain social and economic justice. This would entail systematic political changes, enhanced regulatory systems and participatory governance systems that put the well-being of people and the environment at the forefront. Green Theory provides Pakistan with a roadmap to the future where climate resilience cannot come along without sustainable development, but instead the two are inseparable.

### **3. CHAPTER NO THREE: POLITICAL ECONOMY OF PAKISTAN, CLIMATE CHANGE POLICY AND ITS ALIGNMENT WITH SDGS**

This chapter discusses how political economy in Pakistan has shaped its policies on climate change and how they are consistent with sustainable development goals (SDGs). It also looks at the impact of elite group concentration of power, especially the agricultural elite, on the position of the country on climate action. These elites tend to focus on the immediate economic benefits but not the sustainability of the environment in the long term, which makes it difficult to combat climate change. The chapter covers the disjointed governance structure in Pakistan, which increases the inability of the policies on climate to be implemented due to the absence of coordination between the federal and provincial agencies. The diffusion of environmental responsibilities, though generated by the desire to empower the provinces, tends to create inefficiencies because of insufficiency of financial and technical capabilities. Another aspect that was brought to the fore in the chapter is the role of political instability in preventing a steady climate policy and the role of elites in the process of defining these policies. The international climate obligations of Pakistan with an emphasis on the Paris Agreement evaluated along with political obstacles to addressing SDG 13 (Climate Action). The issues of policy creation and especially the aspect of gaps in governance and contradicting priorities of economic growth and mitigation of climate changes are examined. Lastly, this chapter recommends reforms to promote coordination, strengthen financial mechanisms as well as ensuring that nation policies align with international aims to combat climate action, and proposes ways to overcome current obstacles.

#### **3.1 Political Economy and Governance Issues in the Response to Climate Change in Pakistan**

The climate change policies and activities of Pakistan are strongly shaped by the political economy within the country and in particular, allocation of power, economic interests, and resources. Although Pakistan is among the nations that are susceptible to climate change, a number of systemically obstacles in combating its effects are caused by governance, socio-economic disparities, and historical vices. The political environment in the country is also a key factor in limiting efforts to deal with climate change due to a lack of power and resources among the population and the tendency of concentrating power and resources among the agricultural elite. The manner in which Pakistan is governed is not unified and the federal and provincial agencies

are poorly coordinated. (Adeel Mukhtar , 2020) The Ministry of Climate Change (MoCC) which was formed to spearhead climate policy and mitigation strategies, has had a massive challenge of implementing the policies based on ineffective resources and power. Although the federal government has made some attempts to institutionalize climate change policies, they are still fragmented at the provincial level, and therefore the implementation of these policies is inefficient (Deeba & Nawaz , 2024) . The delegation of environmental duties after the 18th Amendment only made the coordination issues worse. Although this was supposed to give strength to the provincial governments, these provinces tend to have a weak financial and technical capacity to handle climate adaptation, and there are weaknesses in the overall response of the country to climate shocks (Asif , 2025). The excessive influence of the agricultural elite is one of the key characteristics of the political economy in Pakistan. In some provinces such as Punjab and Sindh, big landowners exercise considerable control over water resources which form a major source of agriculture and hydropower. This has placed a very big gap between the agricultural and the industrial sector whereby the former is given priority treatment as far as water allocation is concerned even in times of scarcity. This unbalance creates tensions between the agricultural interests and the requirement of the energy sector of Pakistan which is experiencing growing demand of water to produce electricity (Dawn, 2025). This resource distribution feud yields another purpose of division that complicates the political and economic situation, making social and ethnic tensions worse (Imran , 2013) . Corruption in the Pakistan political economy is a relevant factor that creates an obstacle to effective climate action as well. Corruption compromises the effective execution of the policy and enforcement of the laws on climate change. Pakistan has environmental protection laws and policies such as the Environmental Protection Act of 1997 and the National Climate Change Policy of 2012 that seek to reduce the risks of climatic change. But the impact of such policies is usually undermined by corruption that contributes to the dilution of environmental laws and implementation systems. (Asif , 2025) Certain officials can be driven by self-interest and not prioritize the common good of the people, leading to the softening of policies that are expected to protect the environment. In this regard, transparency and accountability have not been observed thus remaining a challenge in ensuring that climate adaptation funds are deployed appropriately. The dependence of the Pakistani government in foreign financial aid in solving climate change is the other key factor. Although the country is a signatory to several international climate treaties including the UNFCCC and the Paris Agreement, it is struggling with

the problem of ensuring the international obligations are translated into practical policies. Pakistan receives much of climate financing in the form of loans, as opposed to grants and this increases the financial susceptibility of the country. (Ullah & Ali , 2024) This reliance on foreign assistance compromises the capacity of the country to control the country-level strategies of climate management and local ownership of climate-related initiatives. This scenario creates a dependency cycle, in which international organizations, including the World Bank and the IMF, still determine climate policy and interventions in Pakistan, at times without sufficiently responding to the needs of locals (Asif , 2025). The socio-economic inequalities are also ingrained in making Pakistan vulnerable to climate change. The most vulnerable groups are the rural poor communities in Sindh, Balochistan, and Khyber Pakhtunkhwa who are disproportionately hit by disasters caused by climate, including floods and drought.

According to stakeholder from national disaster management authority These communities that are majorly agricultural based communities are at increased risks owing to exposure of the country to extreme weather patterns. The 2025 floods and the ones that have occurred in the past years have brought immense displacement, infrastructure damage, and agricultural losses. In spite of these obstacles, these communities have low access to financial opportunity, recovery initiatives, or even simple services such as insurance. In addition, women and marginalized groups in such communities are highly prone, since they do not even have the ability and access to engage in decision-making concerning climate adaptation (Asif , 2025). The politics of Pakistan as a country with historical reliance and structural imbalance has also served to perpetuate the vulnerability to climate. The industrial and political elites of the country have been enjoying policies that favor them to the disadvantaged groups. The fact that the agricultural sector remains influential in the political decision-making process is a guarantee that the interests of the industrial and energy sectors continue to take the backburner despite the fact that they are paramount in the climate resilience of Pakistan in the long term. This imbalance does not just cripple climate change adaptation efforts but also increased the already established social rifts, which cause political instability (Imran , 2013). These structural inequalities are further intensified by the dependence on external funding in that the climate finance mechanisms are not usually able to meet the needs of the most vulnerable populations. The international climate agreements that Pakistan has expressed in the form of the Paris agreement among others reinforce its awareness of the necessity of dealing with climate change. But the disconnect between policy making and policy application

is immense. The recently introduced National Climate Change Policy 2021 that aims at developing climate adaptation, climate resilience, and a green economy is a significant step in the direction of a more sustainable future. However, institutional coordination has not been achieved due to the shortage of finance and technical resources to implement these policies (Deeba & Nawaz , 2024).

According to the stakeholder from ministry of climate change the struggles that Pakistan has encountered in implementing its climate-related commitments outline the necessity of a more participatory and integrated way of governance, which incorporates every tier of society, especially the marginalized ones who have to endure the effects of climate change. The political economy of Pakistan contributes significantly towards the response to climate change. The inability of the climate change policies to work is obstructed by the concentration of power in the hands of the agricultural elite, weak governance structures, corruption and dependence on foreign aid. In order to create a stronger and fairer future, these systemic obstacles should be combatted by Pakistan through improving the institutional coordination process, bringing about fair distribution of resources and empowering the local people to own the climate adaptation process. Furthermore, Pakistan needs to stop relying on loans to international climate funds and instead rely on grants, which require climate funds to be applied in a manner that more directly impacts those who are most susceptible to climate change. It is through these structural issues that Pakistan can hope to be able to effectively deal with the existential threat of climate change.

### **3.2 National climate policy of Pakistan and its alignment with sustainable development goals**

The National Climate Change Policy (NCCP) is a significant element of the national strategy of tackling the climate change issue in Pakistan, and it is consistent with the United Nations Sustainable Development Goal 13 (SDG 13) on climate action. This objective is seeking to make an immediate response to fight climate change and its consequences, especially in the case of Pakistan because it is highly prone to climate-related risks, including floods, droughts, and heatwaves. Despite the general framework on climate action that NCCP establishes in Pakistan, the gap between the policy development and the implementation levels remains wide, especially when compared to the targets of SDG 13. It is possible to view the NCCP of Pakistan following the SDG 13 alignment in a number of its crucial aspects, yet in multiple aspects, there are a number of structural challenges that hinder the realization of the goals in full. (Nusrat , Ahmad, & saeed , 2025) NCCP which was first launched in 2012 and revised in 2021 is the expression of Pakistani

interest in managing climate change, emphasizing both adaptive and mitigation solutions. The policy framework of Pakistan is in line with SDG 13.1 that requires the promotion of resilience and adaptive capacity to climate-related hazards and natural calamities. Other initiatives, such as the One Billion Tree Tsunami, and the Clean Green Pakistan Initiative, are geared towards rehabilitating natural ecosystems and decreasing the environmental impact of urbanization and industrial development directly into the climate resilience of the nation. These initiatives also correspond to SDG 13.2 which focuses on the implementation of climate change policies and strategies in the national level (Umar, et al., 2023) . Nevertheless, the difference between policy objectives and actual practice is still broad, even though the initiatives are implemented. The institutional and governance constraints of the country are one of the fundamental issues of alignment of the NCCP and SDG 13. The decentralization of the environment to the provinces according to the 18th Amendment has resulted in a serious fragmentation of policy-making and practice. Though the federal Ministry of Climate Change (MoCC) takes charge of overall climate strategies, it is not able to make meaningful impacts due to inadequate resources and institutional limitations. It leads to a slow pace of development and the disjointed climate response among the provinces and is further complicated by the difference in the capacity rates between the provincial and local government (Umar, et al., 2023) . Moreover, one cannot forget about the contribution of corruption to the impairment of climate action. The environmental protection acts of 1997 and the National climate change policy of 2012 among other policies have weak enforcement mechanisms that are easy to corrupt and mismanage. According to the stakeholder from ministry of climate change the absence of transparency of climate finance and monitoring and evaluation mechanisms to measure the effects of climate projects have been a drag on the adaptation process. This is especially problematic in the country where local communities and, in particular, the residents of the rural areas are disproportionately affected by climate phenomena including floods or drought but have a shorter access to the resources and recovery initiatives. (Akram, Li, Anser, Irfan, & Watto, 2023). According to stakeholder from NDMA another major challenge to the realization of SDG 13 since Pakistan is still relying on fossil fuels, which are undermining its move towards the adoption of renewable energy. Although the NCCP recognizes that there must be a change in the energy sector and move towards renewable energy sources, such as solar and wind, the changes have been gradual. The energy industry in the country is mainly coal and oil-driven and it is one of the major contributors of GHG emissions in the country. The renewable energy projects like the

Quaid-e-Azam Solar Park are only at the infantile levels and the percentage of renewable energy in the energy mix of Pakistan is low. The energy infrastructure based on fossil fuels remains a significant contributor to emissions, and it is not an easy task to help Pakistan achieve its climate action goals in SDG 13 (Akram, Li, Anser, Irfan, & Watto, 2023) . Pakistan has another weakness in the way it has committed SDG 13 since it has a high dependence on global climate funding which forms major portion of its climate action agenda. The country revised Nationally Determined Contributions (NDCs) that have an ambitious goal of 50 percent reduction of greenhouse gas emissions by 2030 is largely reliant on external financial assistance, particularly in the area of mitigation and adaptation projects. Although Pakistan has been helped by the international institutions such as the Green Climate Fund, the country is exposed to the unpredictability of International aid as well as restraints to achieve its climate objectives on its own (Saeed et al., 2025). Furthermore, there is an additional problem of attaining SDG 13 due to socio-economic vulnerabilities in Pakistan. The country is among the most climate-vulnerable countries even though the country contributes the least emission to the global GHGs. It is a fact that much of the Pakistani population depends on agriculture as a means of livelihood, and consequently, rural populations are especially vulnerable to disruptions caused by climatic factors. Climate change has increased the vulnerability of the agricultural sector by causing water shortage, inefficiency of irrigation systems and alterations in the pattern of precipitation. Although the NCCP also provides the way to get climate-resilient agriculture and water management, the policies have been slow to make it to the populations that require it the most (Umar et al., 2023; Saeed et al., 2025). The adaptation of the Pakistani side to the international climate negotiations indicates its susceptibility to the effects of climate despite the fact that its contribution to the global emissions is minimal. Nevertheless, these global commitments still remain weak due to the absence of their implementation on the domestic level. There is a need to have a more integrated participatory approach to climate governance in Pakistan because of the complex inter-linkages between the environment, economy and the social structure in Pakistan which require the active participation of local communities, the private sector and civil society (Saeed et al., 2025). The NCCP adopted by Pakistan is consistent with the SDG 13 goals and the way in which the government is determined to ensure that it does not ignore the issue of climate change, there are some significant structural and institutional constraints which constrain the efficiency of the policy. The nation needs to enhance its institutional frameworks, enhance cooperation between

federal and provincial institutions and allocate more finances to climate action. Moreover, the country will need to move towards less dependence on external climate finance and more towards renewable energy and resilience in the long term. It is only with the capacity to overcome these obstacles that Pakistan can play a crucial role in global climate action and guarantee a sustainable future of its population (Azam , et al., 2025)

### **3.3 Institutional Problems in the Development of Climate Policies**

The institutional challenges at the formulation and implementation of climate change policies are a major problem in Pakistan, as it struggles to deal with the increasing menace of climate change. These issues are as a result of institutional fragmentation, lack of coordination among different governmental structures, poor financial and technical, and lack of awareness among people. The country has achieved so much through coming up with detailed climate policies and frameworks, but turning these policies into concrete measures is a significant challenge. (Khan & Abbas, 2024) One of the most significant hindrances to good policy making is the disintegration of climate governance in Pakistan. The responsibilities of the country in the climate-related arena are divided among various ministries, such as the Ministry of Climate Change (MoCC), the Ministry of Water Resources, or the Ministry of Agriculture. This overlapping jurisdiction brings inefficiencies and delays in policy implementation since the various departments do not coordinate sufficiently between each other. (Khan & Abbas, 2024) To illustrate, although the MoCC is mandated to develop climate policy, provincial ministries of water management or agriculture are commonly independent without consultation or collaboration with the MoCC or other stakeholders. The institutional incoherence and the disjointed governance structure results in the development of conflicting priorities and slowness in the decision-making process, which ultimately diminishes the climate resilience efforts in Pakistan. Moreover, the process of climate policy implementation is usually slow because of bureaucratic efficiency and insufficient technical skills in the local systems of governance. (Hussain M. , 2024) The 18th Amendment to the Constitution of Pakistan that devolved powers to provincial governments was theoretically meant to improve the contribution of local bodies to climate action. But the provinces, especially in less developed areas such as Baluchistan, are alarmed to execute the climate action plans because of lack of resources and knowledge. This has seen provincial climate policies, including Sindh and Khyber Pakhtunkhwa, only partially developed and some parts have not been developed at all. The inadequacy of the provincial level capacity, the absence of proper funding and technological

assistance, is a large gap in climate adaptation and mitigation activities in the country. Pakistan is also challenged financially making the situation worse. Although climate change remains a national policy priority, the policies of climate action within the country are not well-funded. (Waheed , Fischer , & khan , 2021) The factor that has played a vital role in this gap is the dependency of Pakistan on external funding on climate projects. International funding although necessary is usually characterized by bureaucratic delays and conditions which slows the process of funds disbursement. Furthermore, the government has a challenge in marshaling enough local resources to finance climate adaptation and mitigation systems. This economic constraint restricts the extent and efficacy of the climate policies in Pakistan that need to be dependent on irregular international assistance (Waheed , Fischer , & khan , 2021) . Engagement and awareness of people is also a very important factor in ensuring that climate policies are successful. The levels of awareness on climate change and its effects in Pakistan are still low especially in rural regions where most of the population relies on agricultural activities. This ignorance causes ineffective involvement with climate resilience programs and may diminish the efficacy of climate adaptation programs. Moreover, the interaction with the local communities is minimal, and they are generally the most susceptible to the effects of climate change. (Shah, Zahir, 2025) Effective climate action means that these communities must be engaged in the process, and the existing system has not sufficiently involved them in the process. Climate change is also hampered by institutional issues that do not provide timely introduction of climate adaptation plans. The National Climate Change Policy (NCCP) of 2012, and further revisions of 2021, offer a general outline of climate action, but the absence of an effective mechanism of monitoring and assessment of progress makes them ineffective. Even though the federal government has established some ambitious climate targets, the lack of a unified implementation strategy and the limited co-ordination between the federal and provincial governments pose quite a challenge to the realization of these targets (Zaheer, Waris , & Mumtaz, 2024). Conclusively, institutional factors that have contributed to the lack of climate policy formulation in Pakistan include poor governance, bureaucracies, financial limitations, and lack of public participation. These barriers affect the effectiveness of the country in implementing its climate policies, although it has come up with detailed frameworks and international commitments. In order to overcome these problems, it is necessary that Pakistan has to enhance the institutional coordination, allocate more funds to climate action, and engage more people in the decision-making process. It is only through these institutional weaknesses that Pakistan can

hope to reduce the effects of climate change and provide resilience to the vulnerable groups (Shah, Zahir, 2025)

### **3.4 Elite Effect and Climate Policy**

Elite interests have a significant impact on the way Pakistan tackles the issue of climate change, as in most cases they focus more on economic gains in the short term and not sustainability of the environment in the long term. This is often referred to as the elite capture and is highly entrenched in the political and economic systems of that country, where the influential landowners, business and political elites manipulate the policies to advantage themselves in the short term, taking advantage of the immediate financial gain. (Afzal & Akhtar , 2021) This leads to political and policy decisions about climate change considering factors that boost economic performance or the control of resources, at the cost of sustainable development and climate resilience. The agricultural sector, as an example, is largely controlled by few large landowners who control large water resources, which are important in farming and hydropower generation. These elites get interested in seeing the status quo that water allocation policies follow the interests of these elites in agriculture. (Raiz , 2018) These policies often ignore the increasing dangers linked to water scarcity and global warming and make rural populations more susceptible to floods, droughts, as well as other natural disasters. In this regard, the process of water distribution to irrigation is biased towards enriching the elite, even in the times of scarcity, which negates the idea of establishing a more just and sustainable system of water management (Afzal & Akhtar , 2021). Elite capture is not also restricted to the agricultural sector, but it also applies in political institutions which influence climate policy. The system of governance in Pakistan is decentralized where climate change responsibilities are divided among different ministries and provincial governments, but with no clear coordination. The Ministry of Climate Change (MoCC) has the responsibility of managing climate policy and is sometimes hampered with inadequate resources and authority to enforce and implement the policies. The political elites especially those that control regional governments tend to halt the adoption of sound climate policies that may jeopardize their economic supremacy. This division contributes to a scenario when climate policies are more hypothetical than operational, and they have little enforcement on the local and provincial tiers (News, 2013). The role of political elites is also seen in the energy industry of the country where the interest of fossil fuels is still deep rooted. The political and economic strength of the fossil fuel industry remains influential in the energy policies though efforts have been made to move towards

renewable energy. The energy production of Pakistan is mainly dependent on coal and oil, which adds to emission of greenhouse gasses, although the shift to the use of cleaner energy sources is slow because of the massive lobbying done by interested parties within the energy industry (Springer, 2023). This means that climate policies in Pakistan are mostly subservient to the elite interests that will lose economically due to the transition to renewable energy. Furthermore, inefficiency of climate policies is also caused by the extended political and economic climate in Pakistan. The issue of institutional weaknesses such as corruption and capacity shortage at federal and provincial levels make the mainstreaming of climate change into national development plans even more challenging. Though the National Climate Change Policy (NCCP) was adopted in 2012 and updated thereafter, the political will is lacking, poor governance, and underfunding have impeded the implementation of these policies. (Springer, 2023) Although climate change is an accepted threat to national security, it has not been successfully discounted into the larger national development approach as the political elites tend to prioritize more pressing issues such as security or economic development, leaving environmental sustainability on the backburner. (Raiz , 2018) Finally, elite capture is a major factor that defines the climate policies in Pakistan with the political and economic elites focusing on the short term benefits at the expense of the long term environmental sustainability. To overcome this difficulty, Pakistan requires a more robust governance framework, better coordination of the federal and provincial agencies as well as more open policy making process to minimize the role of vested interests.

### **3.5 Political instability and Its Implication on Climate Governance reference required**

Pakistan has been facing political instability and its effect on climatic governance is good. The high rate of political change, poor governmental institutions and lack of political will in the country have hindered the enactment of consistent and uniform climate change policies. Such problems have caused challenges to ensure Pakistan manages to deal with its susceptibility to climate change despite the fact that it is among the nations that have been the most victim to climate related disasters. Political instability in Pakistan has also led to inconsistent action in climate because each government has different priorities. ( Khan, Ali, Khan, & sabah, 2024)Climate change is a long-term problem that does not attract the attention of politicians who are more interested in short term political benefits and economic interests. This discontinuity in leadership leads to the constant suspension of climate policies or inability to adopt the prevailing structures, including the National Climate Change Policy (NCCP). Without long-term political support, the policies on climate in

Pakistan remain fragile and disaggregated, which increases the susceptibility of the nation to disasters caused by climate. (Non-traditional security challenges to Pakistan, 2018) There have also been delays in policy formulation and implementation, which is contributed by the administrative instability where there is a continuous change of leadership and cohesive strategies are absent. As an example, there has been a hurdle in launching such critical climate policy as the Ten Billion Tree Tsunami Program because bureaucratic obstacles and a lack of backing by the political community ( Ramzan, 2025). Poor inter-ministerial coordination has contributed to these delays and has acted as a deterrent to the action to be taken over climate change. The situation is also aggravated by the decentralization of climate obligations following the 18th Amendment whereby provincial governments are not always capable and endowed to handle climate adjustment by their own ( Fatima, Ali, Raza, Siddiqi, & Ali, 2025). In addition, the political situation in the country cannot be viewed as stable because there is no concentration on climate-related concerns on the national development agendas. Although climate change is recognized as a serious problem, it is usually subordinated to more burning security or economic problems. As an example, when there is political uncertainty or crisis, like the floods of 2022, climate resilience and adaptation responses are sidelined instead of responding to the disaster on the spot. This lack of converging the political realities with the climate priorities in Pakistan not only weakens the efficacy of the climate policies but also slows down the process of realization of international climate commitments of the country as reflected in the international agreements such as the Paris Accord. The political instability in Pakistan has halts negative effects in terms of influencing the nation to adopt consistent policies on climate change. ( Ramzan, 2025) This has not helped the country deal with the increasing climate crisis effectively due to lack of long-term commitment to the political process, institutional disintegration, and lack of effective coordination. In order to make sure that the issue of climate change is effectively accommodated in the governance setups within Pakistan, there is a need to stabilize the political will, enhance inter-ministerial cooperation, and use long-term climate resilience plans. (Mumtaz, 2018)

### **3.6 International commitments on climate change: A critical evaluation**

The international climate obligations of Pakistan especially the Paris Agreement are known to encounter a lot of political, economic as well as institutional hurdles that do not allow full adoption of the obligations. Even though Pakistan has committed to cut its total greenhouse gas emissions by half by 2030, provided that the international community supports it (GoP, 2021), there are many

obstacles on the way to these goals. ( Devenport, Muhammad, Jamshaid, & Jamshed, 2025) Of great concern is the instability of the political situation in Pakistan, which undermines planning, which is required to take climate action in the long run. The alternation of governments leads to the absence of a constant set of priorities and continuity of climate policies (Wazir, et al., 2024). This volatility derails the attempts to enforce the National Climate Change Policy (NCCP) which was introduced in 2012 and revised in 2021 to reflect the global climate policies. Although the policy has ambitious intentions, such a strategy as the promotion of renewable energy and sustainable development, it has been impaired by broken institutional frameworks and poor governance (Iqbal, 2020; Khan, Idrees, and Shahid, 2024). The absence of coordination between the federal and provincial governments also makes it challenging to implement the policy since both tiers of governments have various areas of responsibility regarding climate change mitigation and adaptation that create inefficiencies ( Shah A. H., 2023) . Pakistan also faces financial constraint as an additional impediment to politics. Although global climate funding systems like the Green Climate Fund (GCF) are necessary to facilitate climate activities, Pakistan has found it difficult to tap into these funds because of technicalities and bureaucracy. Additionally, the reliance of the country on the external financial assistance dilutes its capacity to undertake climate resilience efforts by itself and makes it susceptible to changes in global funding priorities (Raza, , 2023). The institutional weaknesses are also important factors that are going to help impede the implementation of the climate commitments in Pakistan. Although several legal frameworks, such as the Climate Change Act (2017) are in place, the absence of technical skills, resources, and political will has hindered the process of emission reduction and climate adaptation. (Wazir, et al., 2024) The institutional ability of the country is also still fragile and has a poor implementation of environmental policies and poor data collection and monitoring systems, which further undermines the success of climate policies. The socio-economic issues also make the international climate binding of Pakistan difficult. The fact that the country depends on agriculture, which is extremely vulnerable to disasters brought about by climate, increases its susceptibility to climate change .This renders the implementation of climate objectives including those established in the Paris Agreement especially difficult because climate effects affect the lowest economic strata in an unequal manner since they do not have the means to cope with such changes. Finally, despite committing major international commitments on climate change Pakistan has failed to implement effective climate policies due to political instability, financial limitations and institutional

weaknesses. (Shah A. H., 2023) It is important to strengthen the governance structures, improve financial systems, and increase political determination to make sure that Pakistan is able to fulfill its climate obligations and improve on its capacity to respond to climate change. The federal and provincial governments have to coordinate their activities and expand their institutional capacity to transform international climate agreements into domestic policies.

### **3.7 Financial limitation and achieving of SDG 13**

According to national disaster management authority Pakistan experiences a huge problem in terms of funding its climate action targets especially on SDG 13 which aims at climate action and its effects. Domestic and international financial constraints are very significant barriers in preventing the capability of the country to achieve the targets laid out under the Paris Agreement and its own national climate policies. On the domestic level, lack of financial resources is exacerbated by the fact that Pakistan has a limited fiscal base and a competing budgetary demand. The budgetary allocations of the country on the issue of climate change are relatively low and the available funds are channeled towards climate adaptation and mitigation efforts. Climate experts says that it is estimated that Pakistan needs around 7-14 billion every year to implement effective adaptation and mitigation, however, domestic resources are nowhere near the amount that the country requires. This lack can be mostly attributed to competing priorities like poverty alleviation, education, healthcare, and infrastructure development which impose constraint on the quantity that can be used in climate specific investments. According to stakeholder of ministry of climate change Pakistan heavily depends on international climate financing mechanism but encounters a number of hurdles when trying to access international climate funding. The green climate fund (GCF) which is one of the international financing tools that have been initiated under the UNFCCC to aid in climate adaptation and mitigation has failed to avail sufficient resources to Pakistan. The country has been given some of the funds but the sums are not adequate to achieve its climate targets. The funding of the GCF is very competitive and is also usually dependent on strict project proposals of the projects that puts more strain on the Pakistani institutions to develop and implement quality climate projects. Besides the GCF, Pakistan has also been requesting monetary support of multilateral development banks like the World Bank and Asian Development Bank. These funding sources are, however, usually conditional or are slow to be released, which make them less effective in providing urgent climate solutions (Majeed, 2022). The financial constraints are also worsened by institutional issues. The poor governance systems, and ineffective

coordination between federal and provincial governments, coupled with the inadequate technical capacity in Pakistan make it difficult to allocate and utilize climate finance. The political structure of the country is decentralized such that as the federal government gives climate commitments, the provinces, which are tasked with the implementation, tend to have resources or expertise to implement these commitments. Pakistan has several international commitments on climate with its financial constraints being the key limiting factor to achieve SDG 13. The country is facing domestic fiscal limitations, dependence on sluggish global financial processes, and institutional hurdles, which are all major impediments to the capacity to meet its priorities of climate change. In overcoming such barriers, Pakistan must invest more in its home-based investments in climate action and enhance the international funding access as well as enhance institutional frameworks so that the climate policies can be effectively implemented.

### **3.8 Climate Policy Implementation and Governance Gaps**

The governance gaps have also affected the implementation of the climate policy in Pakistan since Pakistan cannot achieve its climate action targets and commitments as made in the Paris Agreement. These are major gaps as a result of lack of interagency coordination, a weak accountability and weak implementation of regulations concerning climate. Interagency coordination is a very important issue. The management of climate in Pakistan consists of various ministries, each charged with a distinct responsibility of climate action including energy, agricultural and water resources. These agencies however tend to be in silos without any proper communication or cooperation. This kind of disconnection results in the duplication of efforts, missed opportunities to adopt synergy, and inefficiency in the execution of climate policies (Naz, 2024). As an example, the Ministry of Climate Change (MoCC), which oversees the national climate action plan, tends to be unable to synchronize its goals with the goals of other ministries, including the Ministry of Water Resources, which also addresses the problem of climate adaptation in the water sector (Iqbal et al., 2022). This fragmentation has not allowed Pakistan to have a cohesive strategy that will respond to the risk of climate across sectors. The second notable gap is the absence of responsibility in the enactment of climate policies. Though Pakistan has signed international agreements on climate action such as the Paris Agreement, it lacks a legal framework that firmly enforces the government agencies to be accountable on their actions relating to climate. In the absence of strict accountability mechanisms, policies usually stay on paper and do not actually translate into the ground level application. According to observers, although Pakistan has

developed numerous institutional structures such as the Pakistan Climate Change Council, these institutions have no powers or resources to make sure climate promises are met (Naz, 2024). In addition, it lacks binding rules on how to take climate action and thus, this institutionalized action is usually voluntary making enforcement of climate policies further compromised. Climate-related regulations are also not enforced well especially at the provincial and local stages. Climate governance is decentralized as per the 18th Amendment that has resulted in transfer of responsibilities to provincial governments. But numerous provinces including Balochistan and Sindh do not have the technical knowledge or the financial means to effectively carry out climate policy. Local government officials interviewed have indicated that despite provincial climate action plans, much hindrance is usually observed in the process of implementation due to vagility of mandate, inadequate funding, and deficiency in technical planning and monitoring (Iqbal et al., 2022). To summarize, the lack of effective interagency coordination, insufficient accountability frameworks, and enforcement of laws are some of the issues impeding climate governance in Pakistan. In order to close these holes, this requires the reinforcement of a stronger institutional coordination, confidence in improved accountability and a legally binding climate framework to guide the effective implementation of climate policies at all levels of government. It is only with such reforms that Pakistan can expect to fulfill their international climate obligations and deal with the increasing climatic crisis successfully.

### **3.9 Climate Change and Economic Development: Competing Interests**

One of the major development projects that are underway to strengthen economic growth in Pakistan is the China-Pakistan Economic Corridor (CPEC), which also has serious environmental issues; especially those concerning climate change. CPEC, as an extension of the Belt and Road Initiative (BRI), will help to improve the connectivity and economic cooperation of China and Pakistan. The project entails significant energy, infrastructure, and industrial belts investments with the emphasis on transportation systems enhancement and the resolution of the energy shortage in Pakistan (Fatima et al., 2017). Nonetheless, these developments particularly in the energy sector have drawn concerns over how they are consistent with mitigation of global climate change. One of the biggest elements of the CPEC energy projects involves the construction of power plants that use coal. These projects make a positive contribution to the mitigation of the chronic energy shortage in Pakistan but also increase carbon emissions in the atmosphere which is exactly the opposite of what the world wants to achieve which is reduction of greenhouse gas emissions. Plants

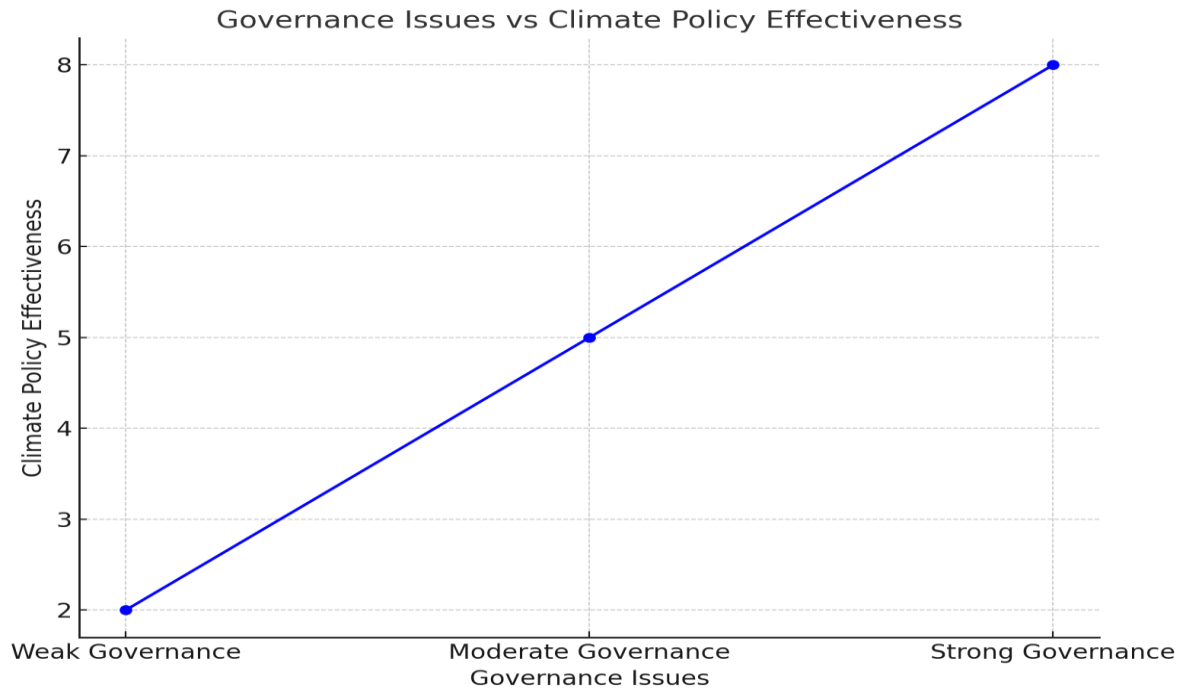
that are coal-fired, like the one intended in the Sahiwal and Thar regions, are going to contribute thousands of megawatts to the national grid although they are also very dangerous to the environment. As described by Fatima et al. (2017), the use of coal, particularly sub-bituminous coal that is high in carbon, may worsen environmental degradation in Pakistan, leading to air pollution and increasing climate change. Regardless of these issues, the economic CPEC advantages cannot be overlooked. The energy projects would also assist in boosting the economy through availing constant and dependable energy source, which is imperative in growth of industries and foreign investment. Moreover, under CPEC, Special Economic Zones (SEZs) will be created that will provide thousands of people with jobs and will prove to be an effective way of industrializing the underdeveloped parts of Pakistan. Nevertheless, the use of coal-focused energy projects is likely to compromise the sustainability of the environmental development of the country (Akram & Hamid, 2015). The conflict between economic growth and environmental sustainability in Pakistan brings out the issue of short-term development targets and long-term climate commitments. As CPEC has a great potential to promote the economic development, its environmental effects highlight the necessity of a more sustainable approach. It is imperative that Pakistan seeks cleaner sources of energy in the framework of CPEC, including solar, wind, and hydroelectric energy that could address the negative environmental impacts of coal dependence (Ellahi, 2021). Further, more emphasis on the application of sound environmental impact assessment and the employment of green technologies will be necessary so that economic progress will not be achieved at the cost of climate stability.

### 3.10 Key Factors that effects climate governance in Pakistan

Factors	Descriptions	Impact on climate policy
<b>Political Economy</b>	Climate policy is shaped by the dominance of agricultural elites who possess important resources and command the process of political decisions. This established system of power puts economic gains of fossil fuels and agriculture ahead of environmental issues.	The emphasis on short-term economic benefits, e.g., coal-based energy projects, compromises the sustainability of the environment in the long term. This results in climate policies that fail to comply with SDG 13 to climate action.

<b>Governance Fragmentations</b>	The decentralization of governance provided by the 18th Amendment has resulted in absence of co-ordination between the federal and provincial governments. This division of duties and undefined roles leads to ineffective policy-making and enforcement of climate policies.	The issue of fragmented climate policies is that they cause slow implementation and wasteful resource utilization at various governmental tiers. It does not allow unified, integrated approach to the issue of climate change in the country.
<b>Corruptions</b>	Political institutions are also being corrupted which undermines the implementation of climate policies, in most cases, via the issue of bribery, misconduct of funds, or political interference. These corrupt actions destroy the credibility of the climate policies and make them less effective.	The corruption also results in watering down of the climate laws and policies making them hard to enforce successfully. It creates an atmosphere in which climate action is undermined and long-term climate objectives become hard to fulfill.
<b>Dependency of Foreign Aid</b>	Pakistan is a country which is largely dependent on the international financing of their climate policies through the loans as opposed to the grants. This reliance on foreign subsidies opens it up and causes little power of the country to manage the climate activities.	The dependency on foreign debts on climate projects limits local independence and tends to result in delayed or underfunded climate projects. It also exposes Pakistan to external political and economic pressures which makes it not to be able to execute the sustainable climate policy.
Political instability	There is a lack of continuity in climate policies due to frequent	Lack of political will over time interrupts the continuity of the

	change of leadership, political uncertainty, and changes in government priorities. The effect of political instability is that climate change has always been pushed aside to less urgent political issues.	climate action policies and makes it hard to have a consistent long-term climate approach. This undermines the growth of Pakistan in achieving its climate targets.
Elite Capture	The pressure of powerful landowners and industrial elites especially in agriculture is very influential in climate policies. Policies that can be detrimental to the long-term sustainability of the environment are usually influenced by their vested interests.	Elite capture undermines the climate policies to the short-term economic gain at the cost of long-term environmental and sustainability goals required to act effectively on climate. This results in the development of policies that are not concerned with green development and environmental justice.
Climate finance Constrained	International climate funds are not easily accessible, and there are also difficulties with grants competition that leads to the impossibility to obtain the required funds. Pakistan is struggling to access these funds because of bureaucracy and inability to do so.	The availability of little international climate funds delays the process of implementing key climate adaptation and mitigation initiatives. This weakens the capacity of Pakistan to fulfill its SDG 13 commitments leading to the late action on climate.



### 3.10 Conclusion

To sum up, the politics of climate change in Pakistan is heavily conditioned by its political economy in which there are the issues of power structures and elite interests playing a major role in shaping its policy-making and implementation. Weakness in balancing the mitigation of climate change and economic growth has been caused by the dominance of the agricultural elite especially in resource allocation and water management. These problems are further advanced by the fragmentation of the governance, ineffective institutional coordination and political instability, which hinder effective climate action. Climate financing by other countries is very important in assisting Pakistan in its policies on climate, however the dependency of loans and slow access to funds is a problem which prevents the achievement of its climate objectives. In spite of international agreements such as Paris Agreement that Pakistan has signed, the disconnect between policy formulation and policy implementation is still vast and in part because of lack of technical expertise and institutional capacity at different levels of government. Moreover, some of these projects such as the China-Pakistan Economic Corridor (CPEC) though essential to economic development go against long-term environmental sustainability. The high dependency on coal-fired energy projects under CPEC poses a high environmental threat, and this brings out the need to adopt clean energy options. To ensure that Pakistan aligns her climate action with the

Sustainable Development Goals (SDGs) and SDG 13 in particular, which deals with climate action, there is need to address these governance gaps, improve on the interagency coordination and ensure that the international climate financing is better utilized. Finally, a more sustainable and equitable form of development should be implemented in Pakistan that is concerned with both the economic growth and environmental sustainability to be able to address the urgent problems of climate change.

## **4. Chapter Four Identification of Institutional and Financial challenges to facilitate Effective Climate Governance.**

This chapter talks about the institutional frameworks of climate change within Pakistan and how the various ministries and agencies contribute to managing climate adaptation and mitigation initiatives. It is analyzing the important policies like the National Climate Change Policy (NCCP) and Climate Change Act of 2017, which present the background of climate policies in the nation. The chapter are underscoring the problems that Pakistan encounters when enforcing effective climate policies especially the problem of institutional fragmentation, poor coordination, and accountability. It is also discussing how the mandate overlap between ministries which include the Ministry of Water Resources, Ministry of Agriculture, and the Ministry of Energy inhibits a coordinated effort.

The chapter is also discussing the lack of finance to support climate governance in Pakistan, such as the scarcity of resources to fund climate projects within the country and the dependency of Pakistan on external climate funding. It is addressing the political uncertainty and frequent leadership change that disrupts the sustainability in climate management. Lastly, the chapter is suggesting ways of eliminating these barriers such as the creation of a centralized climate governance institution, stronger coordination between the stakeholders, and increased funding of climate action in Pakistan.

### **4.1 Institutional Frameworks of Climate Governance**

One of the most topical global issues, which requires efficient governance frameworks, is climate change that produces negative outcomes. In Pakistan, climate change governance is dealt with mainly by different institutional set ups which deal with coordination and implementation of climate adaptation and mitigation policies. These frameworks are created to strengthen climate, solve such important problems like the increase of the temperatures, extreme weather conditions, and water shortage. But even with these structures, there are a number of challenges associated with the coordination, accountability and decision-making processes that hamper the effective governance of climate change. (Shah Z. , 2025)

The Ministry of Climate Change (MoCC) is one of the major institutional frameworks that govern climate in Pakistan. This ministry is central in the formulation of climate policies and ensuring that the policies do not conflict with the international climate agreements, including the Paris Agreement. Pakistan has a strategy to address climate change, which is outlined in the National climate change Policy (NCCP) which was developed in 2012 and serves as the guiding document of climate action in Pakistan. These efforts are further reinforced by the Climate Change Act of 2017 that provides a legal basis of climate governance. These policies are climate adaptation, disaster risk mitigation and sustainable development particularly in the energy, agriculture and water resources sector. (khan , shah , & Ahmad , 2024)

These factors notwithstanding, institutional fragmentation is one of the biggest obstacles to effective climate governance in Pakistan. According to stakeholder in ministry of climate change the mandates of different government ministries and agencies are overlapping and they tend to create confusion and inefficiency in the process of implementing climate policies. As an example, the Ministry of Water Resources, the Ministry of Agriculture, and the Ministry of Energy have their own role in resolving the problems of climate-related concerns, yet their activities are frequently not coordinated. The consequence of this coordination gap is delays and ineffectiveness, as well as the inability to monitor the progress in achieving the national climate objectives (Saeed & Piracha , 2021) This is increased by the fact that there is no central authority to coordinate climate action, and it is hard to manage and execute climate initiatives.

Accountability is another major problem. Pakistan has established a comprehensive policy framework on climate change, however, there is a wide gap between the formulation and implementation of policies. The NCCP and Climate Change Act of 2017 are examples of those policies that failed to do what was expected because of the problem of bureaucratic inefficiency, financial limitations, and political instability (Hussain M. , 2024). The weak enforcement mechanisms tend to compromise institutional accountability, and therefore it is challenging to make sure that policies are being implemented in the way they were set. Moreover, inadequate public participation and awareness on the topics of climate change is another setback to the success of such policies. Most climate efforts are perceived as state-led instead of being community-oriented, which restricts the involvement of local stakeholders who play a critical role in making climate efforts sustainable (Shah , Usman , & Ahmad , 2023) .

The financial restraint is also a valuable obstacle to the effective climate governance in Pakistan. The budgetary allocation of the country on climate is still way beneath the suggested 1 percent of GDP, and climate programs only occupy between 0.4- 0.5 percent of GDP. This funding gap has created an underfunded climate project, sluggish implementation, and failure to achieve climate adaptation and mitigation goals. The country is highly dependent on foreign climate funding, especially the Green Climate Fund and other sources, however, there are administrative bottlenecks and delays in releasing financial resources to the country, which worsens the mobilization and utilization of the country's financial resources (Mukhtar & Raja , 2022)

The institutional issues in climate governance are also due to lack of effective decision-making procedures. The process of decision-making in Pakistan is usually characterized by various stakeholders with antagonistic interests that tend to slow down the process of development and implementation of climate policies. The political instability that Pakistan has gone through in the recent years further complicates the decision-making process. The continuity in the process of climate governance is missing because of the differing policies direction, due to the frequent change in leadership in the government. It is challenging to construct a multi-year, consistent climate action when it involves this kind of political fracturing. (Shah , Usman , & Ahmad , 2023)

In order to overcome these issues, Pakistan must create centralized systems of climate governance that will enhance the coordination of ministries and agencies participating in climate action. An autonomous climate agency can also be established with the aim of simplifying the decision-making process, increasing accountability, and financial management of climate projects. In addition, enhancing the relationships between the state and the business sector and encouraging local communities to participate in climate efforts may help to increase involvement and ownership of climate policies (Ullah & Ali , 2023 )

Pakistan has established a number of institutional frameworks to deal with climate change, the impact of these structures has been impeded by institutional fragmentation, lack of proper coordination, accountability problems and financial limitations. It will take a united effort to overcome these obstacles by ensuring the power of the governance structures, development of better inter-agency coordination, and the sufficient financing of climate action. It is only based on such reforms that Pakistan can develop a strong institutional capacity that is able to address the difficult and urgent problems of climatic change. (Shah Z. , 2025)

## **4.2 The lack of policy and regulatory measures in climate action.**

Good policy frameworks and regulatory procedures are essential in effective climate action. In most developing nations, however, such frameworks are not accompanied by the enforcement mechanisms that are required to create a significant change in these nations such as in Pakistan. Although climate policies are ambitious in most instances, they are inadequate because of implementation loopholes, institutional co-ordination, and funding. This chapter will discuss the policy and regulatory loopholes present in Pakistan climate action and how the loopholes have served to affect the country to tackle climate issues in a very poor way.

### **4.2.1 Policy Frameworks and their Limitations.**

The policy environment of climate change in Pakistan has also been changing in the last 20 years, where policies have been set to curb climate change and increase resilience. The Pakistan climate strategy is based on the National Climate Change Policy (NCCP) of 2012, which states that the priority areas include disaster risk reduction, water management, and energy efficiency. The policy also focused on climate change mitigation as well as adaptation (MoCC, 2012). Nevertheless, the policy, regardless of its exhaustiveness, has gone through a number of challenges. Among the main problems includes absence of enforcement mechanisms. The NCCP is not obligatory to different stakeholders, despite its ambitious nature, and its effectiveness largely relies on the political goodwill of the different governments. The consequence is that although the policy is a future vision, its implementation has been slow and sporadic (khan & Ahmad , 2025)

The Climate Change Act of 2017 was supposed to put climate governance into practice by creating the Pakistan Climate Change Authority. This organization was to organize climate activities in various sectors and across regions, yet it has failed because of the lack of resources and institutional disunity. The inter-agency coordination of the act is also problematic since 17 federal agencies are charged with different requirements in climate governance, thus lack of coordination and forced collaboration. This organizational division compromises any form of long-term planning of climate action. (khan & Ahmad , 2025)

### **4.2.2 Lack of Regulation and Policy inconsistency.**

According to stakeholder of NDMA the absence of modern standards to deal with the existing climate threats is one of the primary regulatory gaps of the Pakistan climate system. To illustrate this, the National Environmental Quality Standards (NEQS) which were enacted in 1997 have not been updated to address the reality of climate change. These archaic norms are barriers to the

country regulating emissions and making sure that it adheres to climate targets. Moreover, sectoral policies tend to clash together, which makes it difficult to execute climate objectives. As an example, fossil fuel energy subsidies remain a major concern, as they deter the development of renewable energy and hamper the process of turning the economy to a low-carbon one (Pakistan Environmental Protection Agency (Pak-EPA, 2021 )

The energy sector that generates more than 40 percent of the greenhouse gases in Pakistan is an excellent example of regulatory loopholes in climate development. In spite of the designs of policies of renewable energy, including the Alternative and Renewable Energy Policy (AREP), fossil fuels still take the center stage, and they produce approximately 60 percent of all the electricity generated in the country. There are no effective enforcement mechanisms in the policy framework to make certain that the renewable energy targets are achieved. The barriers to the adoption of clean energy technologies also include regulatory barriers (high initial costs and restricted access to finance) (khan & Ahmad , 2025)

#### **4.2.3 Institutional and Financial Obstacles.**

The second major impediment towards effective climate action in Pakistan is a poor institutional capacity of the provincial and local levels. Though the federal government has come up with climate policies, the ability to execute the policies at the grassroots is usually constrained. Climate change units in provinces like Balochistan or Khyber Pakhtunkhwa do not have the technical expertise and financial resources to design and implement climate programs (Planning Commission, 2022). These gaps in capacity lead to delayed project execution and inadequate gains in dealing with local risks of climate. (Annual progress report on climate change governance in pakistan, 2022)

Moreover, one of the greatest barriers to climate policies implementation is financial barriers. Climate change-related activities in Pakistan consume less than 1 percent of the GDP, which is much lower than the 2-3 percent recommended to ensure successful adaptation and mitigation of climate change (World Bank, 2022) . The country has tried to access international climate finance, and has indeed done so by receiving grants in the Green Climate Fund, but the nature of its dependency on foreign aid inhibits its capacity to deliver big climate projects. The Climate Change Fund, which was introduced in 2019, is grossly underspending also making it difficult to scale climate policies (Pakistan economic survey 2022–23: climate finance and budgeting)

#### **4.2.4 Suggestions regarding Policy and Regulatory Gaps**

Pakistan needs to engage in enhancing enforcement mechanisms in its climate policies, to deal with these gaps. Institutional coordination can be greatly enhanced by the formation of a centralized climate body that has the authority to supervise climate action in all sectors. This organ should be charged with the responsibility of enforcing, implementing and monitoring climate policies. Moreover, Pakistan needs to revise its regulatory standards to correspond to the recent scientific knowledge of climate change effects and reconcile the international best practices. (khan & Ahmad , 2025)

Pakistan will have to fill the funding gap through domestic investment in climate action. It may include the mobilization of resources via green bonds, carbon prices, and the public-private arrangements (ADB, 2022). It will be important to enhance the contribution of the private sector towards climate action, especially the contribution in areas such as renewable energy and sustainable agriculture to scale up the efforts. (Akhtar , 2016)

Resource Constraints and Institutional Capacity.

The capacity of institutions to adopt good climate policies depends on a number of issues, such as human resources, technical capacity, and availability of the expertise. In Pakistan, although policies have been made regarding climate related matters as well as institutions established such as the Ministry of Climate Change (MoCC), Pakistan has a major institutional capacity and resource limitation. These constraints mean that there is no proper governance of the climate and stifled efforts towards relevant climate policies and programs.

#### **4.2.5 Human Resource Limitations**

The lack of skilled human resources is one of the main challenges to effective governance of climate in Pakistan. This is because a significant percentage of employees dealing with climate related initiatives at federal and provincial levels do not have specialized knowledge in fields of climate science, climate adaptation, and environmental policy (shah , Rehman , & Latif , 2024) This leads to a common gap between the requirements of the climate change agenda and the capacity of the institutions charged with its implementation. As an illustration, an overview of climate projects showed that just 30% of federal employees possess an advanced understanding of climate planning or project management, provincial figures are even less (khan & Ahmad , 2023) This skills gap is an important impediment to the development and proper implementation of

climate policies. Moreover, the constant replacement of major governmental posts causes disruption of climate programs continuity, which dilutes institutional memory and delays advancement (Afzal & Akhtar , 2021) .

### Technical Capacity Gaps

Besides the human resource constraints, Pakistan is limited by technical capacity to take proper action against climate. The institutions in the country do not have the technological infrastructure they need to track and assess the climate-related programs. The systems of data collection on climate in Pakistan are old and disjointed to monitor progress and facilitate informed decision-making (Hussain et al., 2020). The example is that only approximately 30 percent of climate activities possess trustworthy data to track, which decreases the transparency and accountability of climate activities. Moreover, insufficient development of climate models and technical skills in such fields as climate risk assessments and climate predictions undermines the possibilities of the country to foretell and anticipate climate-related events and problems (Tanvir & Mukhtar , 2022). In addition, dependency on foreign expertise in technical advice and assistance worsens the situation in Pakistan. Although international cooperation and partnership with such institutions as the Global Change Impact Studies Centre (GCISC) and the International Centre of Integrated Mountain Development (ICIMOD) has been a contributor to the capacity building, the reliance on foreign assistance restricts the self-reliance of the country in the long term in responding to climate change (Shah, Rehman , & Lattif , 2024). Technological innovation of such spheres as renewable energy, climate-resistant agriculture, and disaster management is also in high demand. The rate at which technology is being adopted as well as the inaccessibility to hi-tech tools further deter climate policy implementation.

### Financial Constraints

The biggest constraint that institutions in Pakistan experience in as far as climate policy implementation is concerned is financial limitations. Though the National Climate Change Policy (NCCP) and other structures dealing with climate issues have laid down some ambitious objectives, which involve the reduction of emissions and enhancement of resilience, the objectives have been compromised by a lack of sufficient funds. In Pakistan, climate finance is equivalent to less than 1% of the national GDP, which is nowhere near 2-3% of the recommended national GDP in relation to an effective climate action (Hassan , Khan , Mumtaz , & Mukhtar , 2021). Poor financing has been the cause of underfinance of the climate adaptation projects, lateness in the implementation of various critical projects and insufficient investment in climate resilience at smaller levels. As Pakistan has obtained international climate finance through international funds, like the Green Climate Fund (GCF) and the World Bank, the funds are not

disbursed in time owing to the bureaucratic delays and administrative bottlenecks. The Climate Change Fund is a newly created fund in 2019, designed to fund adaptation and mitigation projects, but the fund has had low financial allocation and poor utilization (Shah et al., 2024). Moreover, administrative costs usually eat up much of the accessible money, leaving minimal funds to be used in the real project execution (Saeed & Piracha, 2021). This financial autonomy issue on provincial level aggravates this situation because most of the provincial climate units rely on federal resources which are not necessarily distributed timely and effectively. Institutional Fragmentation Institutional fragmentation is also another problem that is very serious as it impacts institutional capacity. Climate policies are not well coordinated because of overlapping mandates of various ministries and agencies. In Pakistan, there are 17 federal ministries and agencies that deal with climate related tasks, however, their functions are not always clear, which creates inefficiency and delays (Khan and Ahmed, 2023). As an example, the responsibilities of the Climate Change Ministry, the Water Resources Ministry, and the Provincial Environmental Protection Agencies have overlapping roles. This disjointedness not only causes duplication of efforts but it also makes it impossible to create a national climate strategy. Capacity gaps at the provincial level are even stronger. Some of the provinces like Balochistan and Khyber Pakhtunkhwa are faced with lack of human resources and poor infrastructures to execute climate policies (Hussain, 2024). These provinces have a long-term underinvestment, low access to technologies, and unskilled staff to run climate resilience initiatives. Provincial vulnerability to climate due to the shortage of financial autonomy and institutional strength also increases the inability to respond to provincial climate risks, especially in the most climate vulnerable areas, such as water shortage and severe weather.

#### **4.3 Funding Mechanisms of Climate Adaptation and Mitigation**

The problem of obtaining long-term financing of climate-related projects is still of a high concern to every nation in the world and especially the developing world such as Pakistan. Climate change has massive financial needs to accommodate and reduce its impact on human society but most developing countries fail to raise funds to match their needs satisfactorily and sustainably. This is largely because of absence of innovative financial instruments; poor development of investment models and the mechanisms of risk-sharing are not fully developed. In this respect, the financial issues and means of achieving climate finance are important in ensuring that the nations will be able to achieve their climate targets. Difficulties in Long-Term Funding. The unavailability of

innovative financial instruments to direct funds into climate projects is one of the most urgent issues that feature in the context of climate adaptation and mitigation finance. Conventional sources of finance, including grants and loans, are not always adequate to the magnitude and the extent of the climate change issues. In Pakistan, climate finance is not average with the country only getting a small portion of the total amount of climate finance provided in the world. The United Nations Framework Convention on Climate Change (UNFCCC) indicates that Pakistan spends approximately 4.7% of the global climate finance yet it is among the most at-risk regarding climate change (United Nations Framework Convention on Climate Change (UNFCCC, 2023) ). This huge disparity in funding is based on the fact that there have not been green financial products, including green bonds, green loans and equity investments, which are essential to finance large-scale climate projects, such as renewable energy and climate-resilience infrastructure. Additionally, the models of climate change mitigation and adaptation used in investment in Pakistan are not developed. The condition of the country depends on external climate financing, which is a limiting aspect although the international financial institutions such as the World Bank and Asian Development Bank (ADB) have been assisting it. Financial institutions in the local market are inadequately involved in climate finance and commercial banks lack awareness and capacity to recognize and fund climate-friendly projects. The green banking guidelines by the State Bank of Pakistan (SBP) are designed to influence financial institutions to be green, yet, in this regard, there is no serious investment in green sectors (Wijeweera,).

#### **4.3.1 Risk-Sharing Mechanisms**

The other issue is that there is no proper risk sharing mechanisms in climate finance. There is high risk of investment in climate related projects, especially in developing countries since the climate change is uncertain and returns are volatile. The private investors normally show reluctance in funding climate projects without guarantee or reduction in risk. Financial institutions and governments have to come up with the financial products like green bonds, insurance provisions, and debt-for-nature swaps to help in the sharing of financial risks of putting money into the climate projects. Giving some examples, carbon markets in which the emissions are bought and sold can be taken as a stimulus to encourage nations to invest in emission-cutting initiatives. The idea of debt-for-nature swaps, in which the part of the external debt is canceled with the condition of promises to look after natural resources or use climate-friendly initiatives, was not fully utilized in Pakistan yet but has great potential (Wijeweera,).

#### **4.3.2 Climate Finance and Public-Private Partnerships (PPP)**

One of the new avenues of financing climate adaptation and mitigation projects is through public-private partnerships (PPPs). These alliances enable the governments to take advantage of the investments made by the private sector and decrease the financial expenditure of the state funds. The absence of transparent regulatory systems and political unrest in some countries such as Pakistan has however been an obstacle to the formation of successful PPPs. Some of the areas that need massive investments like renewable energy and climate-smart agriculture cannot achieve their potential without proper cooperation between the community and the business world. The legal and institutional support of PPPs, such as better guidance on how to finance and share risks, might assist in getting the private sector to invest more capital in climate-related projects (Hussain M. , Butt , Uzama , & Ahmad , 2019).

#### **4.3.3 Financing Global climate initiatives.**

The international climate financing tools, including the Green Climate Fund (GCF) and the Adaptation Fund (AF), are important in assisting the developing countries in their quest to fight climate change. Pakistan has availed some funding through them, although the application process is complicated and access to concessional finance is still an obstacle. The Global Landscape of Climate Finance report says that most climate finance in the globe is located in East Asia and Europe, and South Asia and Pakistan in particular have a significantly smaller portion (Global climate , 2021). Thus, the global collaboration is paramount in order to make sure that such nations as Pakistan get the funding necessary to ramp up the climate efforts.

#### **4.3.4 Climate Finance and Engaging the Private Sector**

The private sector is vital in funding climate governance as it fills the gap in the funding limitation of the public sector and increasing demand of sustainable investment. Climate vulnerabilities are severe in Pakistan and financial resources are limited; therefore, in this country, the role of the financial institutions in the country, which are privately owned, has become an important actor in promoting climate adaptation and mitigation programs. However, even with the recent advancements in sustainable finance, the industry still experiences significant obstacles in the context of market risks, policy uncertainties, and regulatory uncertainty.

#### **4.3.4 The role of the Private Sector in Climate Finance.**

In Pakistan, the private financial institutions are progressively becoming decentralized development planners, leveraging upon investment, divestment and engagement channels to shape

the corporate Environmental, Social and Governance (ESG) conduct. The sustainable investments incorporate ESG-related frameworks like the Environmental and Social Risk Management (ESRM) Manual by the State Bank of Pakistan (2022) and the ESG Guidelines by the Securities and Exchange Commission of Pakistan (SECP) (2024) are restructuring the portfolios of the banks, insurance companies, and capital market players. These tools are assisting to shift Pakistan private finance environment toward the global standards of sustainable finance (UZ , Mohtashim , & Alam , 2024) . The input of the private sector goes beyond mere funding - it also encompasses the creation of new risk management instruments, like climate insurance, sustainability-linked loans and green bonds. The (Re)insurance industry is also launching parametric insurance plans so that companies and farmers can reduce the losses related to climate (Haider et al., 2023). In addition, the participation of corporations and coalition-building in the financial sector is assisting in the standardization of ESG practices and the increase in the plausibility of sustainability-related investments (Wijeweera,)

#### **4.3.5 Hurdles to Investment in the Private Sector**

However, with these favorable changes, the private sector in Pakistan is still limited by regulatory uncertainty and an absence of good institutional coordination. The analysts are focusing on, the inconsistency of taxation policies, uncertainty of energy tariffs, and the unstable political environment compromise the long-term sustainability projects of investors. The problem of both access to quality climate data and the lack of standardized ESG disclosure rules can be especially problematic when it comes to estimating risks related to climate by the private firms. Furthermore, the financial institutions are not encouraged to invest in the big-scale renewable energy and adaptation projects due to bureaucratic red tape (Wijeweera,). Market risk is another significant challenge, especially that there are no hedging instruments to cushion the investors against the unpredictability of climate-sensitive investments. Climate finance is still viewed by many commercial banks and individual investors as a low-risk-high-reward investment sector, particularly considering that Pakistan has a weak economic climate. Unless there is a guarantee or way of reducing risks, the private investors are reluctant to fund climate projects (Haider et al., 2023). These perceptions are enhanced by poor green credit systems and lack of awareness of investors, which restrain the circulation of the private capital towards sustainable development projects. (Hussain & Butt, ESG Finance and Climate Transition in Developing Economies, 2023)

#### **4.3.6 Institutional Fragmentation and Uncertainty in Regulations**

Fragmentation of the regulation also hinders the private climate finance. The mandates of many agencies such as the Ministry of Climate Change (MoCC), State Bank of Pakistan, and SECP lack a coordination mechanism. Some experts although the policies of climate in Pakistan have ambitious targets, they are not implemented, and the coordination of actions across agencies is ineffective. The uncertainties generated by this ambiguity discourage long-term investments among investors. In the same vein, international climate investors are reluctant to invest in the Pakistani private sector because of the lack of policy continuity and contract enforcement risks (UZ , Mohtashim , & Alam , 2024). The lack of healthy incentive structures also curtails the engagement of the private. As an example, it has inadequate tax credits, risk guarantees, or public-private partnership (PPP) models oriented toward climate, projects. Banks, corporations and investment firms are supposed to invest more and provide more financial literacy and capacity-building program in ESG to enhance their risk assessment capacity. (United Nations Framework Convention on Climate Change (UNFCCC, 2023 )

#### **4.3.7 Direction Ahead: Gaining Investor trust**

There should be a multi-pronged improvement to improve the involvement of the private sector in climate finance. Pakistan needs to work towards regulatory coherence by having cohesive frameworks that would clearly identify the roles of institutions and minimize duplication. Green bonds, carbon markets and blended finance schemes are financial products that should be encouraged to stimulate private investment. Financial literacy training should be increased to enhance risk-assessment skills and cooperation among the government, the private sector, and the international donors should play the key role in building confidence and long-term commitment to climate management (Dawn, 2024)

#### **4.4 Climate Governance: Equity and Inclusivity**

Climate change is a multi-faceted, global phenomenon, which is proportionately more severe on marginalized and vulnerable populations, such as low-income areas, women, and indigenous people. Climate governance in Pakistan is challenged by the need to have policies that are efficient, but also equitable and inclusive. The unequal effects of climate change on the vulnerable populations underscore the importance of inclusive decision-making and gender-sensitive policies in dealing with the challenge of climate stress.

##### **4.4.1 Problems of Vulnerable Groups in Climate Governance**

Women in Pakistan and particularly in the rural regions have special problems in climate change. Female agriculture, e.g., is considered a crucial contributor to food production and is very underpaid and excluded in decision-making mechanisms. Women are proportionately the most affected as climate-related phenomena such as droughts and floods become more frequent and severe since they rely on natural resources to survive. Their vulnerability is also worsened by the fact that they are not aware of risks related to climate and lack training (zaidi , 2022). Moreover, the legal ownership of the land rights by indigenous communities in Pakistan is commonly unrecognized, and they are not always included in the climate adaptation and mitigation initiatives. These populations rely heavily on local ecosystems to earn their living, and climate stress, including water shortage and ecosystem degradation, poses a direct threat of extinction to such populations. However, they are not usually heard in the policy-making process and therefore their unique needs are not met. (zaidi , 2022)

#### **4.4.2 Obstacles to Equity and Inclusivity in Climate Governance.**

One of the biggest problems to inclusive climate governance is the issue of institutional neglect. There are climate policies in Pakistan, such as the National Climate Change Policy (2021), which already recognizes the importance of gender equity but still views gender as an auxiliary or a secondary concern to the core aims of climate action. The importance of women in climate adaptation and mitigation is often not considered in policymaking and in budgetary allocations, thereby constraining their abilities to be change agents . Though there are efforts like the Ten Billion Tree Tsunami Programme that have gone a long way in appreciating environmental justice, the programmers do not usually consider the role of gender inequalities in intensifying the vulnerability to climate stress (Bakhtiar, 2021). The absence of gender sensitive climatic policy structures implies that the unique needs of women (i.e. access to clean water, energy, and health care during climatic crises) are not properly met. The policies should include gender-sensitive data and consider gendered roles in managing the resources to provide women with their effective involvement in climate action.

#### **4.4.3 The necessity of Intersectional Approaches**

Climate governance requires an intersectional approach, which would handle the multiple susceptibilities of diverse groups. Gender-based violence, economic disparity, and inability to access resources are other common causes of discrimination faced by women, children, and disadvantaged groups of the population, which increases the vulnerability of these groups towards

climate risks. Policies in climate change should go beyond considering the environmental determinants of climate change to also consider systematic inequalities that contribute to the severity of the hit on vulnerable populations (UNDP, 2021)

#### **4.4.4 Policy Recommendations to an Inclusive Climate Governance**

There are a number of policy changes that are needed in order to make climate governance inclusive and equitable. To begin with, gender mainstreaming should be integrated at the same level of climate action, and concrete gender-specific goals and evaluation tools are to measure the achievements of women and the marginalized communities (Zaidi, 2022). This should be done by governments and other development partners to make the vulnerable groups part of the decision-making process and to have a forum to make the voices of the marginalized heard during the process of policy formulation and implementation as well. This will assist in making sure that the policies are based on the needs of most impacted people by the climate change especially women, indigenous people, and low-income populations (UNDP, 2021). Further, capacity-building initiatives must be made so as to enable vulnerable groups by giving them knowledge and resources to engage in climate governance. As an example, female population in rural regions should be trained specifically on resilience to climate, Disaster risk prevention, and agriculture sustainability. These will not just improve their capacity to cope with the climate change, but also enable them to participate in the mitigation of climate. (UNDP, 2021)

#### **4.5 Global Cooperation and International Climate Finance**

The concept of international climate finance is essential in empowering the developing countries to mitigate and adapt to the problem of climate change. The budget to accommodate and relieve climate change is enormous, and most developing countries find it challenging to obtain sufficient and viable funding. The dynamics of international climate finance such as the impediments to finance, regulatory ambiguities, and the dynamics of global collaboration must be pursued.

##### **4.5.1 Funding Issues of Developing Nations**

The climate change is particularly hurting the developing countries, which encounter huge obstacles in finding funds to act on climate change. Climate finance by international standards is essential to assist these countries in reducing the impacts of climate and also to take up adaptation policies. Nevertheless, current financial mechanisms cannot always be sufficient to achieve the necessary scale. This financial disparity is especially apparent in the area of climate adaptation, with only a relatively low amount of global climate financing going to climate adaptation projects.

The Climate Policy Initiative (2021) states that 70% of climate finance around the world is spent on mitigation, and 30% are on adaptation (CPI, 2021) An example is Pakistan which has a goal of reducing greenhouse gas emissions by 50 percent by 2030. These targets would need an estimated USD 151 billion of investments in the energy sector alone, yet availability to the international climate finance (CF) has been restricted in the country (Mako & Nabi, 2022). The amount of concessional finance which is a key to the developing countries is quite small. As an illustration, the poorest countries, such as Pakistan, received only USD 20 billion of grants in 2019-2020, with most of the money going to East Asia and high-income countries (CPI, 2021). This shows the unfairness in the global financial flows whereby more funds flow to richer territories yet the developing countries are extremely vulnerable to global warming.

#### **4.5.2 Challenges to International Collaboration and Funding**

The absence of coordination and divergence in national interests is one of the major issues of international climate finance. Despite the existence of a roadmap on how climate action and funds should be done in the Paris Agreement, there is no consistency in the way the financial commitments are being realized. The developed nations being the highest emitters in the past are supposed to offer financial aid to the developing countries, but this has not been satisfactory. The USD 100 billion annual climate finance promise of the developed countries created in COP15 in 2009 is yet to be met (UNFCCC, 2021). Financial uncertainty is another impediment. The investments made in climate projects by the private sector are on the rise, but they are only focused on renewable energy projects and urban infrastructure. Nevertheless, industry sectors with the highest level of risk (agriculture and forestry) cannot find enough investors (CPI, 2021). This can be partially explained by the fact that climate adaptation projects are low-profit and costly to start-up, and this aspect makes them unattractive to the eyes of the private investors. This has led to the importance of international financial institutions like the World Bank, the Asian Development Bank (ADB) in offering concessional finance to alleviate such risks. However, there are only concessional funds available and the demand by the countries with different climate benefits is high.

#### **4.5.3 The role of Multilateral Institutions and the Private Sector**

Multilateral institutions and the private sector need to collaborate in order to remove such barriers. Despite the fact that multilateral climate funds include the Green Climate Fund (GCF) and the Adaptation Fund (AF) have played an essential role in funding climate projects, their amount is

still modest in the context of the estimated global climate finance need of USD 4.5 to 5 trillion annually. (UNFCCC, 2021) . This gap can be closed by the intervention of the private sector. The climate finance ecosystem has been introduced to new resources by green bonds, carbon trading and private-public partnerships (PPPs). Nevertheless, the risk aversion and absence of incentives among the private sector in investing in climate in the developing countries remain barriers to its contributions. Moreover, the carbon pricing systems might provide motivation to the private sector to invest in the activities that are climate-friendly. Carbon markets and carbon taxes in developed and developing countries may slightly improve the financial situation of climate investment. Nevertheless, in most developing nations, such as Pakistan, these mechanisms remain in their early stages, and would need additional international engagement and technical help to plan and enact such policies in the most effective way (Mako, & Nabi, 2022)

#### **4.6 Information and Gaps in Climate Governance**

Good climate governance is also dependent on well-established data and information to make decisions and track progress, and assess the effects of climate policies. The data availability, transparency and access to climate information gaps in Pakistan are posing serious challenges in the process of formulation and implementation of the climate policies. The gaps not only reduce the capacity of the government to monitor the climate development but also restrict participation of the different stakeholders especially the marginal communities in climate governance.

##### **4.6.1 Problems with Data Availability**

The absence of accurate, complete, and timely data on the effects and exposures of the climate change is a significant obstacle to successful climate governance in Pakistan. Major institutions which carry out climate research (including the Pakistan Meteorological Department (PMD) and other similar organizations like the Global Change Impact Studies Centre (GCISC)) are leading in collecting climate data. Nevertheless, their work does not eliminate the fact that there is a dire lack of good quality databases on several parameters of climate, especially on the local and regional levels. The existence of this data gap restricts the possibility to estimate properly the risks of the climate, forecast future climate conditions, and come up with specific mitigation and adaptation measures. An example can be the PMD that has a rather limited network of weather stations around the country, and the information received is frequently incomplete or obsolete (Rasul , 2022). This lack of coverage is especially worrisome in those distant and vulnerable regions where the effects of climate change are the worst. Moreover, the climate information is commonly disseminated

between different government and non-governmental bodies, which makes the process of assembling and synthesizing this data rather challenging. In the absence of centralized data stores or capability to share information, the spectrum of climate data is unavailable to the stakeholders, which prevents informed decision-making.

Indicatively, SUPARCO and WAPDA, which accumulate considerable data in connection with climate change and water resources, fail to share them with other interested agencies, which leads to duplication of efforts and missed cooperation opportunities (Rasul , 2022)

#### **4.6.2 Transparency and Access to Information**

Transparency and the access to information issues contribute to the climate governance problems even in the presence of climate data. In Pakistan, climate information is usually shrouded in institutional silos, and cannot be accessed by the general population, civil society institutions and decision-makers. (Khan S. , 2023) This is not transparency which weakens the accountability of climate actions and policies. The lack of available information does not allow the local population, especially rural and indigenous communities, to learn about climate risks and take necessary steps to defend themselves. It also restricts the involvement of these communities in the climatic decision-making processes and makes them more susceptible to climatic effects (Khan S. , 2023) Furthermore, non-experts, such as policy makers and local authorities, are not always able to interpret and utilize the data due to its complexity and technicality. The stakeholders lack the capacity to handle and interpret climate data thereby limiting its practical use. This capacity mismatch combined with ineffective inter-agency coordination translates into slow responses to the effects of the climate and ineffective policy integration.

#### **4.6.3 Financial restrictions to data collection and management**

The data and information gaps are compounded by the financial constraints of the climate governance in Pakistan. The cost of collecting and managing climate data is high in terms of financial investments in technological capability, personnel training and data processing capabilities. The climate financing in Pakistan is very minimal, and the nation struggles to obtain enough resources to have advanced data systems and climate modelling tools (Hussain , M; Butt, A.R; Yousuf , B, 2022) . International support, particularly via programs such as the Green Climate Fund (GCF), can be seen as an extremely limited amount of funds being allocated to massive mitigation or adaptation initiatives, leaving the much more vital task of data collection and

management uninvested in. Also, there is lack of coordination between the international donors and the local institutions. Several donors tend to fund projects involving data, yet due to a lack of cohesion in approach, their effort is unequally divided, resulting in ineffectiveness and overlap in the process of gathering data. According to experts, the data on climate issues need to be aligned between organizations so that they can be utilized in policymaking and climate adaptation planning in an effective manner. (Hussain , M; Butt, A.R; Yousuf , B, 2022)

#### **4.6.4 Bridging Data Gaps Recommendations**

In order to overcome these challenges, one of the priorities of Pakistan has to be the development of national approach to climate data, whose priorities are data accessibility, transparency, and coordination with different institutions. The creation of a centralized climate data repository where all pertinent climate data can be stored and disseminated across the institutions would greatly enhance the access and use of data. Moreover, the capacity-building initiatives should be aimed at enhancing the abilities of the local stakeholders in the area of data analysis and climate forecasting so that the stakeholders could be actively involved in the decision-making process (UNDP, 2023) . The accuracy and reliability of climate data can be improved by investing in advanced climate monitoring tools like remote sensing tools and climate modeling software. A greater number of public-private partnerships (PPP) also have a potential to contribute to the creation of climate data infrastructure utilizing both the state resources and private development to fill in the gaps in data. Lastly, data collection and analysis should be made participatory to the local communities to enhance the relevance and application of climate data at the grassroots.

#### 4.7 Challenges of Climate Governance of Pakistan

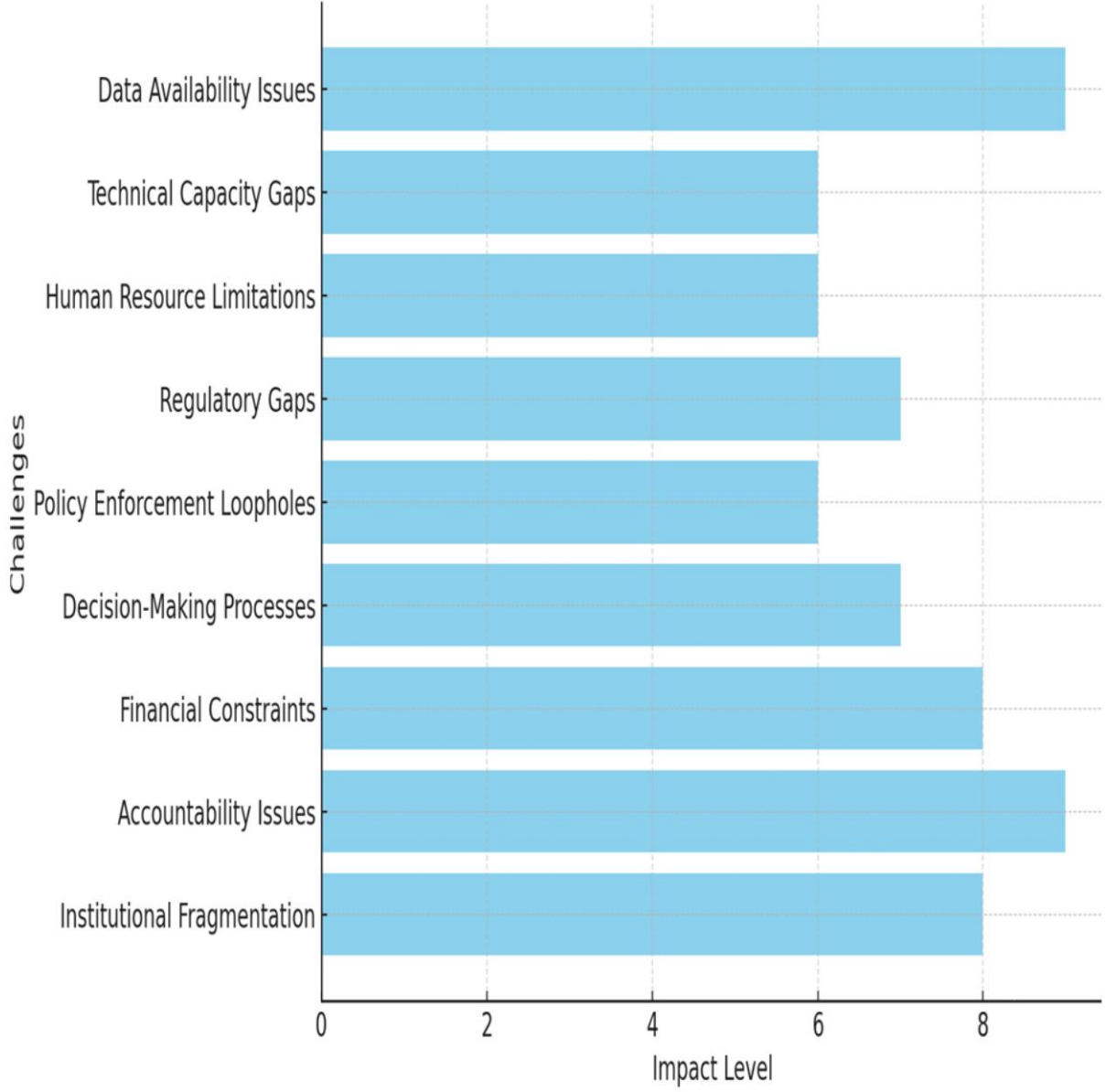
Factors	Descriptions	Impact on Climate Governance
Institutional fragmentations	The Ministry of Climate Change (MoCC), the Ministry of Water Resources, the Ministry of Energy and the Ministry of Agriculture overlap in their mandates. The overlap causes role and responsibility confusion that causes inefficiency in decision-making. The communication of policies between these ministries is also affected by absence of clear coordination mechanisms which makes implementation of climate policies quite difficult.	This uncoordination results in stalling of implementation of climate policies as well as the inability to achieve the climate targets at the national level. It is counterproductive to addressing the climate crisis as there is no proper implementation of policies. This discontinuity also brings about ambiguity on accountability leading to poor climate governance.
Accountability Issues	Bureaucratic inefficiency, political instability, and corruption are some of the factors that have led to weak implementation of climate policies in Pakistan. The fact that there are no proper accountability mechanisms on different levels of government implies that there is no pressure or little pressure to see that policies are adhered to. Moreover, politics will distract priorities on serious climate matters.	<b>The absence of enforcing measures and accountability undermines climate action.</b> This leads to a slow implementation of policies which is essential in reducing the effects of climate change. Moreover, the poor execution of policies leads to the lack of connection between climate goals and reality.
Financial Constrains	Pakistan has few financial resources, especially since the climate-related initiatives are costly to finance. It heavily depends on foreign funding especially through organizations such as the Green Climate Fund, which comes with their administrative latencies and preconditions.	The insufficient allocation of domestic funds, which is significantly lower than it should be to take climate action, postpones the execution of climate programs. Pakistan is financially dependent on outside funding; it becomes difficult to implement large and long term projects and

		these limitations are the reason why most of the projects are not funded and the scale is not up to required scale.
<b>Decision making process</b>	The political instability in Pakistan leads to the change of leadership many times and each government coming into power has different priorities. The consequence of this absence of continuity is the lack of consistency in climate policies and a disjointed way of governing climate. Moreover, bureaucratic ineffectiveness makes the process of decision-making sluggish, as important climate problems remain unaddressed.	The leadership change and irregular policies make it challenging to make long-term commitment towards climate action. This results in continuity in the climate projects and slows down the process and creates a re-embarkation in the efforts to deal with the climate vulnerabilities in Pakistan. Furthermore, the inability to make decisions in a unified manner negates the capacity of the country in being able to deal with challenges brought about by climate.
<b>Policy implementations loopholes</b>	Although such policies as the National Climate Change Policy (NCCP) and the Climate Change Act of 2017 have been created, their enforcement has a number of gaps. These policies are not effective enough since there are no strong mechanisms to monitor and enforce the compliance.	There is lack of proper enforcement mechanisms to help in the implementation of the climate policies, which are in turn essential to help in addressing the environmental issues of the country. This in turn fails to deliver the desired results, including reduction of emissions and adaptation, which restrains the capacity of the country to fight climate change.
<b>Regulations gaps</b>	The old laws like the National Environmental Quality Standards (NEQS) cannot be helpful in solving the present-day climate problems anymore. Furthermore, the subsidies on fossil fuel still exist, which do not help to switch to cleaner energy. Such inconsistencies in regulations pose obstacles in the	These regulatory loopholes make it impossible to have modern and effective climate regulations which Pakistan needs to achieve global climate benchmarks. The use of environmentally unfriendly sources of energy adds to the decision to subsidize fossil fuels and the presence of outdated regulations that

	successful realization of climate objectives.	impede the process of decreasing the greenhouse gas emissions and switching the country to the new energy systems.
<b>Resources and limitations</b>	Various federal and provincial positions that require experience in climate science, environmental policy and project management have a shortage of skilled professionals. Such skills gap is particularly pronounced in provincial climate change departments where climate programs design and implementation is limited.	Climate programs are not designed, implemented, and monitored due to the unavailable skilled personnel. This complicates the need to handle climate change issues at the grassroots level hence the country cannot adapt to the impacts of the climate and adopt effective mitigation measures. The problem of skills gap also has an impact on the design and implementation of the projects aimed to develop climate resilience.
<b>Technical capacity gaps</b>	The absence of technological infrastructure to track and evaluate the effects of climate is a significant problem. Secondly, the models of climate in Pakistan are obsolete, and data on climate risks lacks adequacy in predicting possible hazards. The nation is faced with the problem of insufficient resources and technology to carry out climate risk assessments and anticipatory planning.	The capacity gaps are technical that hamper the capacity of Pakistan in anticipating and reduce the effects of climate change. The country lacks the capability to forecast climate related incidences without the use of modern tools and data infrastructure, thus exposed to unexpected weather patterns and environmental shocks. This unpreparedness enhances the implications of climatic change, which makes adaptation activities less effective.
<b>Data Availability issues</b>	The availability of climate information in Pakistan is usually old, incomplete and poorly distributed. Pakistan Meteorological Department (PMD) and the Global Change Impact Studies Centre	Absence of full, precise and prompt data hinders decision making and policy formulation. It decreases the capacity of the government agencies and local communities to react to

	<p>(GCISC) are some of the key agencies that gather useful climate data yet the information is not always available to decision-makers and other stakeholders. This is occasioned by bad coordination and data management habits.</p>	<p>climate risks and impedes the development of evidence-based climate policies. In addition, there are no integrated data systems so that there can be no nationwide approach to dealing with climate change.</p>
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Impact of Institutional and Financial Barriers on Climate Governance in Paki



## **5. CHAPTER FIVE: STRATEGIC REFORMS FOR STRENGTHENING THE IMPLEMENTATION OF POLICIES FOR SUSTAINABLE DEVELOPMENT**

In this chapter, the researcher explains how critical the institution coordination in Pakistan has been in its attempt to attain the Sustainable Development Goals (SDGs). To facilitate the translation of global undertakings including the 2030 Agenda, into regional specific undertakings, close collaboration between federal and provincial governments is needed. This chapter explores the setup of SDG Units at national and provincial levels with special emphasis on the functions of the National SDG Monitoring and Coordination Unit under the Planning Commission in partnership with the United Nations Development Programme (UNDP). Under this framework, the federal government is liaising with the provincial governments to make sure that the policy meets the SDGs as well as making sure that there is continuous monitoring of progress. Regardless of the existence of these frameworks, the chapter emphasizes the problem of disaggregated institutional design and weak provincial capacity. It presents the necessity of a proper separation of roles and duties at different levels of government to make SDG implementation effective and efficient. The researcher also prioritizes data and monitoring systems to monitor SDG progression, determine gaps and be able to make evidence-based changes to the policy. The other aspect that the chapter addresses is the importance of building multi-stakeholder partnerships where government, civil society, the private sector, and international organizations work together towards the implementation of SDGs. It states that SDGs must be attained through a holistic approach, which incorporates all spheres, including climate action to poverty reduction, and is based on transparency and accountability and constant changes in policies. The chapter finally highlights the need to build institutional frameworks, both nationally and provincially, in order to have Pakistan work towards its SDG obligations in an effective manner.

### **5.1 Enhancing Institutional Coordination to SDGs in Pakistan**

The institutional coordination is important in the capacity of Pakistan to attain the Sustainable Development Goals (SDGs). The establishment of SDG Unit in federal and provincial directions is the key to the institutional framework of the country on climate action and sustainable development. On the federal level, with the help of the United Nations Development Programme

(UNDP), the Planning Commission formed the National SDG Monitoring and Coordination Unit to be the fundamental body of coordination of SDG implementation (UNDP, 2019). This institution will oversee SDG implementation, submit results, and keep the policies of Pakistan in line with international objectives. The SDG support units are part of the network of federal units and provincial activities that facilitate the coordination with the provinces in translating SDG frameworks into regional policies that are actionable. The system is still disjointed despite these frameworks with the federal and provincial units being disconnected. The first one is the poor institutional capacity on the provincial level, where resources and autonomy are inadequate to execute SDG implementation successfully (Nasir, Ahmed, & Basharat, 2024). The provincial SDG support units, even though functional, tend to be challenged with lack of sufficient financial and human resources, thus they end up having a hard time to deliver their mandates. (Waheed, Fischer, & Khan, 2024)The capacity gap is also visible in the decentralized governance system in Pakistan where the provinces possess different levels of readiness and capability of enforcing SDG strategies. As an example, such provinces as Balochistan and Khyber Pakhtunkhwa (KP) have a problem with coordination because they have constrained institutional capacity and financial limitations (Wazir S. , 2023). The key to institutional coordination is to have clear role and responsibilities in all levels of government. This transparency makes sure that the work of federal and provincial units is not duplicated and that all ministries are set to meet the same SDG objectives without any duplication or opposition. The cross-ministerial collaboration is not so widespread, which impedes the entire SDG implementation. The government ministries should incorporate SDG related actions with departmental strategies which will encourage cross silo collaboration. The importance of inter-ministerial cooperation is high in order to deal with the multidimensional character of the SDGs that are to be dealt with in the holistic approach to development. the role of intergovernmental collaboration is important because the SDG strategy of Pakistan has been stunted by poor institutional frameworks that lack proper coordination across the various levels of government. To this end, the formation of stronger and empowered SDG units at provincial levels is crucial in curbing the governance gap that compromises the SDG commitments of Pakistan.

### **5.1.1 Strong data Framework and SDGs Progress**

The strong data frameworks will be the core of monitoring the progress and seeing to it that SDGs are achieved in Pakistan. The lack of proper data collection, analysis, and reporting mechanisms will stifle decision making and there will be no way to measure the effectiveness of policies or programs. Pakistan is in a lot of trouble in this perspective. Despite the improvement of data collection and reporting mechanisms in the recent years, they remain rather fragmented, delayed, and even incomplete. This compromises evidence-based decision-making and complicates it to determine whether the country is progressing to achieve the SDGs (Waheed et al., 2024). Enhancement of quality and availability of data is one of the issues that are major concerns of Pakistan. (Wazir S., 2023) The Pakistan Bureau of Statistics (PBS) has undertaken the measures to include more SDG indicators in national surveys but the process of the indicator's implementation is not consistent, particularly at the provincial and district levels. The absence of disaggregated data and the slow pace of reporting about SDG-related data also complicate the country to formulate policies based on the correct and current information. The enhancing data systems on a national level is not only the issue of capacity enhancement but also directly related to making data flow in the national SDG framework. This would help in making evidence-based policies and enhance the success of climate action and development initiatives. In order to monitor the SDG progress more efficiently, Pakistan should create a central database that will combine the information on different sectors, including education, health, agriculture and environmental sustainability. Through this integrated system, the policymakers would be able to know the gaps, allocate resources more efficiently and also real-time adjustment of strategies. Furthermore, provincial governments should be empowered to gather and report data that can conform to national SDG frameworks. The investments should also be made in provincial and local statisticians capacity building aiming to increase the capacity of these statisticians to monitor region-specific indicators. Another measure is to match the surveys implemented by PBS with SDG indicators. This would make national surveys consistent with worldwide SDG frameworks, and all data collection endeavors would be in tandem, thus eliminating any discrepancies and give a clearer account of progress. The integrated data collection framework is essential when establishing transparency and making the SDG policies evidence-based. It is hard to imagine that Pakistan will be able to achieve its SDG targets without an effective data system to monitor the real progress.

### **5.1.2 Cooperation and Multi-Stakeholder Partnerships**

To realize the SDGs, wide cooperation is needed between a wide range of actors such as government agencies, civil society, academia, and the private sector. Though the government has tried to adopt various stakeholders, the civil society and the private sector have limited participation in various aspects of SDG implementation (Hanif & Hanif , 2025). These stakeholders must be integrated to come up with solutions that are practical, inclusive and sustainable. One of the positive ways of promoting collaboration is institutionalizing multi-stakeholder partnerships. There should be the creation of multi-stakeholder platforms that will unite government institutions, non-governmental organizations (NGOs), academic institutions, businesses, and other participants. These platforms may take the role of discussion, strategizing, and evaluation of SDG development. These types of partnerships are particularly valuable in terms of innovation and resources sharing, especially in such areas as sustainable infrastructure and clean energy, which form the core of the SDGs achievement. Through these partnerships, Pakistan will be in a position to harness the skills, resources and capabilities of various industries towards dealing with the issues of climate change and sustainable development. Public-private partnerships (PPPs) can be viewed as one of the possible directions of collaboration and contribute to inclusive and sustainable development. PPs come in handy especially in renewable energy, development of infrastructures and conservation of the environment. They enable the government to have a common pool with the private sector to come up with new solutions to the development problems facing the country. The involvement of the private sector in the SDG-related efforts is crucial to a long-term funding approach and creating solutions to be scaled and replicated nationwide. But to make such partnerships work, a framework of collaboration is required, a set of goals is agreed upon, responsibility is shared, and accountability mechanisms. This framework should also be designed in a way that the marginalized groups (women and rural population etc) should have a say in the decision-making process so that the gains of SDG initiatives can likewise percolate into all the layers of the society.

### **5.1.3 Institutional Capacity Building and Empowerment**

One of the most serious obstacles to the successful coordination and implementation of the SDGs is the institutional capacity especially at the provincial and local levels. Pakistan has gone a step towards the establishment of SDG Units, the units tend to lack the technical, economic, and human resources to effectively implement their mandates (Waheed et al., 2024). The increasement of the

effectiveness of SDG coordination and implementation, capacity building should then be considered a priority. There is the need to invest in government officials training and capacity building. The training must be aimed at enhancing technical skills, boosting the knowledge on SDG frameworks, and providing the officials with means to monitor and assess the progress of SDGs. ( Hanif & Hanif , 2025) The institutional capacity building must also be extended to local governments as recommended by experts and enable them to make major contributions to the SDG implementation at the community level. It is true that local governments are usually in a good position to meet the unique needs of their populations, but they require resources and powers to do so efficiently. It is very important to empower local authorities and provide them with the mandate and means to enforce SDG-related policies to overcome the obstacles presented by the decentralized political system in Pakistan. According to UNDP (2019), the decentralization of power has given local governments a chance to own the implementation of SDGs, which is usually missed as a result of the poor institutional frameworks. Empowering local institutions, securing sufficient funding, and technical assistance will empower the local institutions to be more proactive in the achievement of the SDGs. The government should also see to it that the SDG Units have clear lines of accountability and each have specific roles and performance goals. This will assist in making sure that the units are working on attaining measurable outputs and that there is a transparency in the implementation process.

## **5.2 Strengthening of Governance Structures: Strategic Reforms to Improve the Implementation of Sustainable Development Policies**

It is important to reform a governing structure in order to promote effective implementation of sustainable development goals (SDGs) within any given country. The interrelationship of the SDGs requires combined efforts that would improve transparency, accountability and effective decision-making This is more so in Pakistan, where institutional disunity and poor governance had recorded a history of failure to achieve these objectives ( Zeewaqaar, 2024) The improvement of governance frameworks through the creation of a transparent accountability mechanism and the cohesion of the government departments towards shared development goals. The introduction of centralized oversight bodies to help keep a check on the implementation of climatic and development policies so that there is uniformity and an observance of sustainable development goals in all governance sectors is one of the significant reforms in this sector. (UNDP) One of the major reforms that are required in Pakistan is establishment and empowerment of centralized

oversight bodies that would be charged with the mandate of overseeing the implementation of climate policy. These bodies would be the main points of coordination in the work of different ministries and provinces and the alignment of the policies, as well as monitoring of the progress. The lack of institutional roles and overlapping jurisdictional areas in the governance framework of Pakistan can usually lead to inefficiencies and time wastage when it comes to policy implementation. Pakistan could improve coordination activities by setting up a special oversight body, like a national climate commission, to help eliminate some of the inefficiencies that are currently undermining the implementation of climate policy. In accordance with the best practices in the international arena, the effectiveness of climate policies should not be assessed only by centralized oversight institutions; they are supposed to monitor as well. (OECD, 2023) The central monitoring bodies are able to offer valuable insights on effectiveness of national strategies so that governments can implement changes in policies and actions in response to the real-time feedback. The OECD also stresses upon the significance of institutional mechanisms through which various governance level actors, including provincial and local government, are involved in the nationwide SDG endeavors. This intergovernmental style is useful in reducing the policy fragmentation especially in cases where policies need to be adjusted to the local situation without losing focus towards the national development objectives. In addition, transparency and accountability in decision-making should be highlighted in institutional reforms. Governments can enhance the legitimacy of their actions and policies by encouraging open government practices and engaging the stakeholders, including the civil society, the private sector, and marginalized groups, in the decision-making process. (UNDP, 2019) Involvement facilitates the involvement of various participants in the policy arena and policies are not only effective, but also equitable to meet the needs of the vulnerable groups that face the greatest effect of climate change. This involvement is possible through institutionalizing multi-stakeholder platforms whereby there is co-development and revision of policy strategies by the different actors (Baber, 2023). The other key parameter in enhancing governance structures is connecting budgets with SDGs. The strategic budget allocation makes sure that resources are channeled to areas of priority and it promotes long-term sustainability goals. Monetary correspondence to SDGs enables governments to allocate funds more efficiently, whereby the government expenditure is in accordance with sustainable development objectives and long-term climate-resilience. Pakistan should also streamline its fiscal policies in line with its climate objectives by setting up budgetary procedures that give priority to

sustainability like green budgeting. It is impossible to overestimate the role of integrity and anti-corruption measures in enhancing the purpose of governance. ( Zeewaqaar, 2024) The systems of governance should allow transparency so that climate finance and resources are utilized effectively and without abuse. By enhancing anti-corruption measures and providing checks and balances existing, more people will trust the institutions of the state and it is necessary to attract investment and achieve good policy implementation.

### **5.3 Government Funding and Budgetary allocations towards SDGs.**

Government financing is a vital instrument to meet the Sustainable Development Goals (SDGs) in Pakistan and especially SDG 13 on climate action. The government spends money in its Annual Development Programme (ADP) and other budgetary tools, and resources are channeled towards its priority SDG sectors which include education, health, water, sanitation and more recently, climate adaptation and renewable energy. A key element of the Pakistan strategy of organizing resources to achieve sustainable development is the alignment of public budgets with SDG targets (Nasir, Ahmed, & Basharat, 2024)The government is also coming up with a Sustainable Financing Framework which incorporates the SDG goals in national budgetary procedures. The framework makes sure that sectors such as the renewable energy, climate adaptation, and resource management have budget allocations. It is a very important step, as it will be possible to focus on financing the projects which directly relate to the goals of sustainable development . (Finance Ministry, 2025) More so, there is a prioritization on climate action in which investments are directed to clean energy infrastructure, as well as climate resilience initiatives that underpin the Nationally Determined Contributions (NDC) of Pakistan in the Paris Agreement. Moreover, the government is paying more attention to green budgeting, which means that the fiscal policy is directly associated with sustainability objectives. In this way, Pakistan would be able to make sure that its domestic expenditure is supporting long-term environmental objectives, especially a reduction in climate change and its adaptation (Kumar., 2022). Nevertheless, substantial loopholes are still present in the complete implementation of SDG goals to the public finance management, and additional capacity building and regulation changes are needed.

#### **5.3.1 Participation of the Private Sector and Civil Society**

The role of the private sector investment is very crucial in narrowing the financing gap that is required to attain SDGs in Pakistan. Under social impact funds and venture philanthropy, through

public-private partnerships (PPP) and the social vision of the SDGs, a call is made on the private sector to internalize the SDG objectives in their business models. The private sector will also play a major role in funding the SDGs by aligning business interests with the SDGs, particularly in renewable energy, clean technology, and sustainable agriculture (Hanif & Hanif , 2025)e . Banking and finance industries are beginning to realize the contribution they can make to SDG financing. Social impact funds and venture philanthropy models are being encouraged in order to motivate private investors to finance projects that can bring both a social and environmental good payoff as well as a financial payoff. According to a report on the banking sector in Pakistan, the acceptance of these financial instruments among businesses seeking to infiltrate the idea of sustainability into their operations is slowly happening (UKIFC., 2022) . In addition, corporate social responsibility (CSR) has become a central element of participation in the private sector where business is encouraged to invest in climate action and sustainable resource management initiatives which explicitly are aimed at meeting the SDG goals.

### **5.3.2 International Collaborations and effective Financing Structures**

Another important source of funding of SDG agenda in Pakistan is international financing especially the Official Development Assistance (ODA) and cooperation with international financial institutions. ODA has continued to play a significant role; however, Pakistan is increasingly exploring other forms of foreign assistance to lure investment into sectors related to SDGs. New forms of green finance, including green bonds and sustainable finance instruments are being examined by the government to attract both domestic and international investors to finance climate action initiatives and renewable energy projects (Nasir, Ahmed, & Basharat, 2024). In this respect, green bonds play a very important role. These tools enable the government and the business sector to mobilize funds to finance initiatives that would help in dealing with environmental issues such as adaptation and mitigation of the climate change. The exploration of green finance instruments is increasingly becoming a reality in Pakistan, where the government is trying to develop the regulatory framework that would help to issue these bonds. (Finance Ministry, 2025) Green finance, as Chang (2022) puts forward, is also a key to directing investment towards climate resilience initiatives, particularly in developing nations, such as Pakistan, where climate action finance is a burning issue. Pakistan is also participating actively in international forums and climate agreements such as the Paris Agreement to exchange resources, technology

and expertise required to implement SDG. These partnerships help in the exchange of expertise and financial assets to help in climate ambitions and other objectives associated with SDG. The creation of a Sustainable Financing Framework in this international cooperation also enhances the capabilities of Pakistan to access various sources of financing SDG (UKIFC., 2022)

### **5.3.3 Monitoring Systems and Strategic Allocation of Resources**

In order to guarantee that funds are well mobilized and distributed Pakistan has made its resource allocation and monitoring systems robust. One of the main elements in the SDG financing strategy of the country is that projects should be assessed and costed properly to ensure that they are synchronized with the SDG targets. Strategic alignment implies that people should invest more in renewable energy, climate adaptation, and clean transportation to overcome climate change (Waqas & Khan, 2024). Modern data collection and tracking programs are being designed to monitor the SDG-related projects progress and make sure that the money is utilized in the most efficient way. This includes incorporating SDG indicators into budget regimes where more accurate monitoring of spending and project deliverables can be done. Moreover, by developing performance indicators in relation to SDG targets, the government will be able to evaluate the effectiveness of its programs on climate and development. Budget tagging is being deployed as part of such monitoring to determine and trace the expenditure in areas contributing to the SDG objectives. This means that the investments made in water management, education, and renewable energy sectors among others are aligned with the general SDG agenda. These improved monitoring mechanisms will offer the transparency and accountability needed in the context of sustainable funding in a country like Pakistan as it pursues its sustainable financing efforts. (Kumar., 2022)

### **5.4 Decentralization of Climate Governance to achieve Sustainable Development Goals (SDGs).**

It is increasingly accepted that decentralization of climate governance is an important facilitator to the realization of the SDGs, and in particular SDG 11 (Sustainable Cities and Communities), SDG 7 (Affordable and Clean Energy), SDG 1 (No Poverty) and SDG 13 (Climate Action). Climate actions can be more localized, responsive and owned by the local communities when there is a shift in decision-making, resource allocation, and implementation closer to local communities. In an illustration, sub national governments tend to be in a better position to develop context specific solutions that address specific ecological, economic or social conditions (Cattivelli, 2021)

#### **5.4.1 Context Specific Solutions and Synergies**

The local governments are able to come up with their own climate and sustainability policy that reflect their local realities, including watershed management of mountainous areas, urban heat islands of cities, or renewable energy opportunities of rural areas. This brings about increased innovation and efficiency, in that the national approach of one size fits all fail to take into consideration the local geographic, social or economic variations. Decentralization and local governance, that suggested in the case of mountain ecosystems, allowed more specific adaptation mechanisms, but increased coordination issues. In addition, a decentralized climate governance generates many synergies: e.g. investing in low carbon public transport does not only promote SDG 13 (climate action), it also promotes public health (SDG 3), generates local jobs (SDG 8), and sustainable cities (SDG 11). The local level provides fertile soil to such integrative planning which cuts across sectors and goals. (Cattivelli, 2021)

#### **5.4.2 Greater Community Involvement and Innovation**

Decentralization also enhances more engagement and ownership by the community: closer to citizens, the local governments can engage them in the design, implementation and monitoring of climate initiatives, promoting more legitimacy, trust and sustainability of interventions. Studies on local climate governance highlight that the lower level of decision making is more workable to institute participatory practices and leverage local knowledge (Akbar, 2023) Moreover, sub national organizations are more agile and innovative than central governments- they are capable of testing new technologies, governance models and experimenting, which may be duplicated on a regional or national level later on. (Akbar, 2023)

#### **5.4.3 Local Ownership and Efficient Resource Utilization**

The management of local resources like the potential of solar or wind, municipal waste heat, or local forests can be better addressed under decentralized governance, avoiding oversight by centralized fossil fueling systems and facilitating the development of green economics. The responsibility of the local governments to be in charge of climate mitigation or adapting efforts can enable the deployment of resources in an efficient manner and locally-focused way. (Warraich, 2025)

#### **5.4.4 Key Challenges**

There are also serious problems with decentralization. The capacity gap is one of the key obstacles: the ability to perform new climate governance functions is not present in most local governments in the developing world: most of them do not have the administrative, technical and financial capacity to do so. To illustrate, institutional overlaps, poor local capacity and lack of devolved funding are hindering the process of decentralization of environmental governance in Pakistan (Akbar, 2023). Such misalignment in the policy can be also disastrous, national and local policies are not aligned, frantic mandate and sectoral silos lower the effectiveness of climate policy action. Another risk is unfair enforcement: without high-level central controls, local incentives to invest may undermine environmental rules, a race to the bottom situation occurs. Lack of accountability arise when there are uncertainties regarding the roles and responsibility of the tiers of responsibility which restrain monitoring and evaluation of the local climate activities. (Warraich, 2025)

#### **5.4.5 Pathways Forward**

Several changes are necessary in order to achieve the optimal results of decentralized climate governance. National governments need to give some enabling frameworks: articulate legal and monetary frameworks to give power to local structures without compromising coherence of policy. According to a study by the World Bank on fiscal decentralization to address climate change, efficient allocation of the expenditure roles between the central and sub national governments may be effective to decarbonize by aligning expenditure with capacity. Further, local capacity building and foreseeable financial transfers are necessary in order that local governments are capable of meeting devolved mandates. Sector coordinated planning and effective data and monitoring systems at the sub national level can help to monitor progress of both climate and SDG targets in a locally relevant manner. Overall, decentralization of climate governance holds considerable potential of making localized, inclusive and owned contributions to SDGs - however, it should be supported with explicit structures, capacity-building, coordination tools and accountability to surmount its embedded limitations. (Bank, 2023)

#### **5.5 National Policies of Pakistan and International Agreements to Achieve Sustainable Development Goals (SDGs)**

National policies must be aligned with international treaties in order to ensure that countries such as Pakistan are able to fully execute the Sustainable Development Goals (SDGs). The international

system that the United Nations (UN) and pertinent treaties offer us offer a blueprint on how to act in a concerted manner. This roadmap will not work though, unless it is reflected in national planning, budgeting and governance. The facilitating environment that will be developed based on effective institutional structures and coherent policies is a precondition to transforming the 2030 Agenda into national action. In the first place, it is based on the integration of SDG targets into the national planning. Pakistan has done so: the national SDG framework, which was passed in 2018, incorporates global goals into national policies and strategies of development. (Ali, 2017) The national plans on SDG objectives make sure that the financial allocations made by the people are directly triggered by the global commitments: this is vital when the resources gathered at national and international levels are to produce meaningful results and not just lost in the current systems. The nations that have poor public financial management structures find it hard to harmonize their domestic policy structures with the international agreements, and hence minimize the effectiveness of resources. Ministry silos are not acknowledged in international agreements: international agreements demand combined responses in economic, social and environmental spheres. The mainstreaming of SDGs in Pakistan has entailed the development of SDG Support Unit in the Planning Commission and provincial planning departments to aid in the breakdown of silos. (Ali, 2017) The progress is however not even as the policy makers note that political instability, changing volatile shifts in the official priorities and poor governance mechanisms hinder alignment of national policies with international commitments. In the absence of consistent alignment of ministries and levels of government, national strategies will be ineffective in connecting with the international frameworks and in responding to the complexity of SDGs. Third, stakeholders should be involved to overcome international gaps between nations. (Aslam, & Muzaffar, 2025) The 2030 Agenda underlines that SDG implementation has to involve government, the private sector, civil society and the international actors. The use of One UN Programme (UNSDP) in Pakistan and the development of country SDG frameworks can be considered an indication that the country aims to work with multi stakeholder networks. Making national policies matched to global pacts therefore requires inclusive mechanisms: such as involving the private sector players into national plans that can respond to global commitments on climate, and allowing the civil society to monitor and implement the plans. National policy becomes valid and relatable when it is aligned with global goals of stakeholders. Fourth, operationalization of alignment between national and international goals is facilitated through leveraging technology, innovative finance and domestic

capacity building. The national system of implementing SDG in Pakistan has steps that involve incorporation of SDG indicators into the budgeting and data systems in order to guarantee that the national policy monitoring indicates the international obligation of reporting. (Aslam, & Muzaffar, 2025) The complement to that is having the national policy environment aligned to international agreements so that there would be more avenues to access to global finance, climate funds and technology alliances which would strengthen the connection between domestic policy and global commitments. Lastly, consistent policy appraisal and adjustment, gives the feedback loop to be in accordance. National policies should be dynamic enough to adapt to the changing international frameworks (such as by new climate agreements). Being able to evaluate the implications of national policies on the SDG results and make corresponding adjustments is a feature of effective alignment. It is noteworthy that the absence of monitoring, evaluation and adaptation mechanisms is likely to leave the countries inefficient in resource spending and unable to achieve the desired outcomes. (Ali, 2017)

## 5.6 Factors that affecting sustainable development Goals

	Descriptions	Impacts on SDGs
<b>Factors</b>		
<b>International Coordination's</b>	The SDG implementation requires that provincial governments coordinate with federal governments via SDG Units. Nevertheless, the federal and provincial levels of coordination are poor, which leads to delays and inefficiencies.	Lack of coordination translates into fragmented efforts at various levels of government slowing down the achievement of SDG targets. The coordination would facilitate easy processes that would see timely attainment of SDGs.
<b>Data Frameworks for SDGs</b>	The absence of a powerful and consolidated data hub hinders proper monitoring of SDG development in the provinces. Moreover, incomplete data that is disaggregated complicate the measurement of regional inequalities and the development of specific interventions.	The absence or incorrect data does not allow making evidence-based decisions, which is why policy-makers cannot make their adjustments to SDG implementation strategies. Enhanced data systems play a very important role in tracking progress and gaps.

<p><b>Multi-stakeholder partnership</b></p>	<p>Implementation of SDGs entails the cooperation of different stakeholders, which include the government, civil society, private sector, and academic institutions. Nevertheless, the involvement of the civil society and the private sector has been limited and this has been detrimental to the success of SDG initiatives.</p>	<p><b>Multi-stakeholder partnerships can be used to mobilize a wide range of resources, promote innovation, and develop ownership of SDGs in sectors.</b> By growing these partnerships, the magnitude and influence of SDG-related activities will rise.</p>
<p><b>Institutional Capacity Buildings</b></p>	<p>The provincial and local SDG Units are challenged with inadequate technical, financial and human resources. These are the gaps in capacity that cannot lead to the successful implementation of SDG policies, especially in areas with limited resources.</p>	<p>Establishing the capacity of local governments and SDG Units will enable them to successfully plan, monitor and implement SDG initiatives. It is important to strengthen institutional capacity in order to make the SDG progress sustainable.</p>
<p><b>Reform of the implementations of SDGs</b></p>	<p>Pakistan should have a centralized body of control to coordinate and oversee the implementation of SDGs in different ministries. The lack of such a body contributes to fragmentation in policies and sluggishness in goal realization of SDGs.</p>	<p>The coherence of policy direction would be enforced by centralized control and greater coordination would be achieved by the ministries. Such reform would enable the improved resource distribution and more effective SDG targets accomplishment.</p>
<p><b>Civil society and Private sector involvement</b></p>	<p>The role of the private sector in the SDG implementation is important in mobilizing investment, particularly using Public-Private Partnerships (PPPs). Regulatory issues and incentives have however not exhausted the potential role of the private sector.</p>	<p>The involvement of the private sector and the civil society provides extra funds and skills, which means that the SDG projects are sustainable and replicable. It is important to strengthen these alliances to achieve long-term success in implementing SDGs.</p>
<p><b>International Finance and Coordination's</b></p>	<p>Pakistan reimbursement of international climate financing initiatives like the Green Climate Fund is also</p>	<p>International partnerships are necessary, to offer necessary financial aid and technical skills to speed up SDGs</p>

	significant in financing the SDG related initiatives. But the nation is struggling to find sufficient and timely foreign financing of SDGs.	implementation. Enhancing these alliances and easing access to finance would enable Pakistan to achieve its SDG goals.
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## 5.7 Conclusion

To sum up, enhancing institutional coordination is critical to the successful implementation of the Sustainable Development Goals (SDGs) in Pakistan. This chapter has demonstrated the pivotal importance of the federal and provincial SDG Units working to match national policies with the international commitments, as well as to make sure that the climate action, sustainable development, and other SDG targets are met effectively. Although the National SDG Monitoring and Coordination Unit was established under the Planning Commission, there are still major challenges especially at the provincial front with a weak institutional capacity, poor governance and lack of sufficient resources to ensure full implementation. The absence of defined roles and responsibilities and a deficiency in cross-ministerial cooperation are additional factors which increase these difficulties, as it is hard to attain SDG targets in a coherent manner. The significance of data and monitoring systems cannot be emphasized. Strong data systems are required to monitor SDG progress, locate gaps and make evidence-based policy changes. As highlighted in the chapter, in order to take significant steps towards the SDGs, Pakistan needs to invest in improving its data collection, reporting systems, and monitoring systems at the national and provincial levels. Moreover, multi-stakeholder partnerships, such as the government, civil communities, and the business sector, need to be involved to mobilize the resources and encourage innovation, as well as make the policies inclusive and accepted by all. Finally, to implement the SDGs in Pakistan, it is not only policies that are needed, but empowering the local governments, providing good intergovernmental coordination and enabling environment where the collaboration and resource allocation can take place. The chapter ends with the claim that the country needs to pull itself out of the governance issues, establish institutional capacity, and maintain transparency and accountability at the grassroots to facilitate the achievement of its SDG targets. Through the appropriate reforms and improved institutional coordination, Pakistan has a chance to deliver on its international obligations and clear the way to sustainable development in the future.



## **6. CHAPTER SIX MAJOR FINDINGS AND CONCLUSION**

### **6.1 Major findings**

The study Political Economy of Climate Change and Pakistan's Pursuit of Sustainable Development had discussed in detailed some insights like political economy and climate change. The results of the study can be generalized along several major themes and Findings

1. The lack of proper coordination between federal and provincial agencies in decision making complicates the climate governance in Pakistan, leading to ineffective implementation of policies. Climate governance, which has been decentralized since the 18th Amendment, has increased inefficiencies since provincial governments are not always financially or technically able to implement climate policies well.
2. Pakistan policies leading towards short term economic benefits are engineered by the agricultural elite and other interest groups that do not guarantee long term sustainability. The elite capture leads to promoting coal-based projects, including the ones within the China-Pakistan Economic Corridor (CPEC), which contravenes the attempts to shift to renewable energy and reduce climate change.
3. Pakistan has some of the highest dependency on foreign loans and aid in financing climate. This reliance has led to a position of reliance whereby international financial institutions tend to determine where the climate policies of Pakistan are headed. The delay in payment of funds and conditions that accompany them further postpone proper climate action.
4. Although such policies as National Climate Change Policy (NCCP) were formulated, there are still loopholes in its implementation because of institutional fragmentation, inadequate enforcement processes, and regulatory inconsistencies. The absence of inter-agency coordination and the splintered governance mechanism have made climate initiatives slower.
5. Climate change has a disproportionate impact on rural populations in Pakistan especially those areas that are prone to flooding and drought. Such populations do not have resources, access to recovery services, and climate adaptation programs that would enable them to handle the effects of climate-related catastrophes.
6. Pakistan has a political and bureaucratic framework that is corrupted, which influences the management of climate. This poor governance results in underutilization of climate funds,

laxity in the enforcing of the climate laws and delay in implementation of the climate policies. The issue of transparency and accountability is also a challenge.

7. Despite the efforts by Pakistan to adopt renewable energy, it has been slow. The nation is still very dependent on coal and other fossil fuels that are still part of the greenhouse gas emissions. The solar and wind projects are renewable energy sources which are still in their initial phases and the government should still concentrate on coal which slows down the process of transitioning to the low-carbon energy-based system.

## **6.2 Conclusion**

This paper has examined political economy of Pakistan and its effect on the development and adoption of climate change policies, particularly the question of whether the policies are in line with Sustainable Development Goal (SDG) 13 that is climate action. The paper has also examined the institutional and financial constraints that Pakistan encounters in an attempt to have effective climate governance. Lastly, the study provided strategic reforms to enhance the execution of climate policies and attain sustainable development in Pakistan. The study mainly utilized the Green Theory to understand the political, economic, and institutional dynamics that shape the climate action in the country. The goals of the study were to learn how the political economy of Pakistan influences climate change policies, to learn about the institutional and monetary constraints on effective climate governance, and to present strategic reforms with the capacity to improve the enforcement of the climate policies and contribute to the achievement of the SDGs. In Pakistan, the political economy is one of the factors that have been influential in determining the policies on climate and the decision-making process is largely influenced by the agricultural elite and the influential political groups. These elites put a lot of emphasis on the short-term economic growth as opposed to long-term environmental sustainability. The paper has concluded that coal-based energy projects like the ones in the China-Pakistan Economic Corridor (CPEC) have received priority, even before their harmful impacts on the environment. This mindset of short-term economic development is in direct opposition with SDG 13, which urges instant response to the problem of climate change and its effects. The political elites in Pakistan have ensured the status quo by encouraging the use of fossil fuels, which has only prolonged the serious action on climate change. The discontinuity between the intentions and the actual implementations of the policy is reflected in the existence of policy inertia, and the absence of tangible measures to tackle the problem of climate change. Some major problems in implementing climate policies and

formulation in Pakistan were also identified in this study. The lack of a logical and coherent climate governance approach is among the primary factors that make the gap between the development of the policies and their implementation. There are national policies on climate such as the National Climate Change Policy (NCCP) and the Climate Change Act of 2017, which have been created, but their practical realization on the provincial and local levels have been blocked by a lack of resources, technical skills, and political will. The 18<sup>th</sup> Amendment to the constitution that decentralized governance and gave increased power to the provincial governments has failed to achieve effective climate governance. Decentralization has actually brought about lack of coordination and inefficiencies between the federal and provincial governments. The paper indicates that national policies on climate are not regularly dispatched or executed at provincial level particularly in areas which are at the highest risk of the effects of climate change. Pakistan is also unable to effectively put in place climate policies due to financial constraints. Pakistan, being a signatory to several international climate agreements including the Paris Agreement, is still a highly reliant country that uses foreign aid to fund climate projects. The analysis demonstrates that the international climate finance system that relies on loans or grants has imposed a burden on Pakistan to be able to act independently on the issue of climate. Climate finance at the international level is usually characterized by bureaucratic delays, terms and unreliable funding streams thus leaving Pakistan to find it hard to implement climate projects in time. This has been enhanced by the fact that Pakistan has not been receiving domestic funds to carry out climate adaptation and mitigation initiatives meaning that it has not been equipped to respond to climate change issues through resources. The issue of institutional fragmentation and poor coordination between ministries and agencies has been found out as major hindrances to effective climate governance. The government departments are split in their mandates with the Ministry of Climate Change (MoCC), the Ministry of Water Resources, and the Ministry of Agriculture having similar mandates, leading to inefficiencies and delays in climate policy implementation. The research also established that there has not been a centralized climate governance agency that has facilitated the lack of coordination and accountability. Having several ministries involved in working on climate related challenges but not having a common framework, Pakistan has failed to formulate and implement a holistic climatic approach, which is aligned with the world climate agenda, such as SDG 13. The study proposes a number of strategic reforms to overcome such challenges. First, there is a need to increase the level of institutional coordination by establishing a centralized

climate governance structure. This body would play the role of monitoring the implementation of climate policies, coordination between ministries and ensuring that federal and provincial governments collaborate to realize SDG 13. This can be achieved by bringing together climate action in a single body and enhancing coherence in its policies, facilitating decision-making to prevent overlaps and redundancy. The paper highlights the importance of having more strong and empowered provincial climate units that would allow the provinces to be more active in climate governance and to ensure that national policies are well executed at local levels. Second, the research paper supports the financial changes to curtail the reliance of Pakistan on foreign loans to act on climate. The nation ought to work on building internal systems of climate funding such as development of incentives to encourage the business world to invest in the renewable energy projects, water management as well as disaster risk reduction initiatives. The role of the public-private partnerships (PPP) may be important in bringing in more resources to act on climate. Pakistan can also achieve this by ensuring that there is a partnership between the government and the private sector to invest in the green infrastructure and renewable energy and thus do away with depending on the external financial resources. Moreover, the research suggests that green finance instruments including green bonds should be introduced to attract finances towards climate-related projects and to guarantee that those projects will be sustainable in the long term. The third significant reform that is found in the research is the shift towards renewable energy. The energy infrastructure in Pakistan is largely based on coal and fossil fuels that are the greatest contributors to greenhouse gas emissions. The research shows that Pakistan needs to urgently change its natural resource base to renewable energy, which includes solar, wind, and hydropower. Although such projects as the Quaid-e-Azam Solar Park have been undertaken, the process of switching to renewable sources has been slow and more efforts are required to speed up this process. Renewable energy is not only helping to reduce climate change but also enhancing energy security and green jobs, which are the key factors towards sustainable development in Pakistan. The paper further reiterates the essence of the need to have a more sustainable and ecologically friendly model of development in Pakistan according to Green Theory. Green Theory suggests that the long-term environmental sustainability should be given preference rather than focus on short-term economic development. In the course of the research, it is recommended that the development strategy of Pakistan should be concerned with the ecological sustainability, the social equality and the safeguarding of the natural resources. With Green Theory embedded in its climate governance

framework, Pakistan will be able to transition to more sustainable future that will be consistent with the global climate agenda and SDG 13. The paper also highlights the significance of community participation in climate governance especially in rural and marginalized communities. The Green Theory emphasizes the need to make the decisions inclusive and involve the local communities in climate adaptation and mitigation efforts. The empowerment of the local communities is proposed in the study by giving the local communities the resources, the technical knowledge, and the power to make their choices that directly influence their lives, as regards to developing and implementing climate policies. By making sure that the marginalized groups are involved in the process of making climate decisions, it would be possible to develop more fair and effective policies. To sum up, the paper has determined the main political, institutional, and financial obstacles that make effective climate governance in Pakistan an impossibility. Political economy, which is the cause of elite decisions, financial limitations, and institutional fragmentation, has posed serious problems to Pakistan in meeting SDG 13. Nevertheless, some strategic reforms such as improving institutional coordination, switching to renewable energy, and forming domestic financial mechanisms, can be used as the ways of assisting Pakistan in overcoming these challenges, as the study also provides. Through more inclusive, decentralized, and ecologically sustainable vision of governance, Pakistan will be able to meet its climate targets and guarantee a sustainable and resilient future of its inhabitants. Adopting the concept of Green Theory in their climate policy will help Pakistan to achieve a more sustainable, fair, and climate resilient future in accordance to the global climate agenda.

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