



RESEARCH PAPER

The 18th Amendment and Climate Governance Gap in Pakistan: A Principal-Agent Analysis of Coordination Failure

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ABSTRACT

This study explores post-18th amendment coordination failures among institutions in Pakistan's climate governance from the Principal Agent lens. The paper focuses on the impact of the 18th Amendment on institutional coordination, accountability, and the causes of failure behind existing coordination channels, whilst assessing their capacity to produce actionable outcomes. Pakistan has developed policy frameworks and institutional structures aligned with international guidelines to mitigate climate-related adversities. However, the nation's vulnerability towards climate change remains unabated, raising concerns regarding its effective implementation. To systematically assess the climate governance gaps, this paper employed a document-based qualitative approach. Key policy instruments, relevant documents, and the role of institutional actors at different levels of government were studied. As a result of the 18th Amendment, repetitive mandates, lack of inter-agency coordination, and multi-dimensional coordination were identified as the emerging reasons impeding climate governance. The study recommends policy changes in climate governance through amendments in climate change act 2017, bridging the technical gap by introducing a digital tracking system, and increasing horizontal cooperation along with transparency and efficiency between the federal and provincial governments.

KEYWORDS Climate Governance, 18th Amendment, Principal-Agent Theory, Intergovernmental Coordination, Climate Change Policy

Introduction

Pakistan has one of the highest risks for the greatest impacts from climate change, and yet the institutional response is divided and weak. This is a paradox of both urgency for the response and a lack of efficiency in the climate institutions. Patterns of extreme weather, such as the cataclysmic floods of the past few years, have exacerbated the vulnerability and expanded the governance deficit in Pakistan. Despite the fact that Pakistan has significantly expanded its climate governance portfolio such as national climate frameworks and Nationally Determined Contributions (NDCs), a significant gap persists in implementation across provinces. Response remains weak, inconsistent, biased and uncoordinated. This dilemma raises a critical question: why despite having policy rich environment, response remains unsatisfactory?

Various evidences suggest that problem is not lack of effective policies but lack of effective institutional architecture that determines how these goal oriented and evidence orientated policies are to be executed. As reshaped by 18th amendment that devolved the major environmental and climate related sectors such as water, agriculture, and disaster management to provincial governments, climate Governance structure in

Pakistan is rooted into a multi-level federal system. The purpose of this amendment was to improve local responsiveness towards better mitigation of climate issue but instead it created further fragmentation and weakened coordination across multiple levels of government. A significant criticism suggests that federal-provincial divide remains the prime reason for incoherent policies and uncoordinated implementation (Fatima, 2025). The "implementation Vacuum" as discussed by many scholars has been created due to misalignment between the federal commitments backed by international commitments and the provincial capacity, incentives and outcomes (Batool, et al., 2023; Ashfaq et al., 2023). The climate governance is a divided system under which federal government formulates policies but willingness to execute these policies rests with the provinces, retaining constitutional right to exercise authority over execution. This system further creates ambiguities and confusions as no single authority or single level can be held accountable for under performance. This highlights the fragmentation of institutions and overlapping responsibilities creating governance gaps.

This diagnosis is supported by empirical evidences. Various Studies have identified the coordination, capacity, and monitoring gaps among various institutions at multiple levels that has led to only a fraction of climate related projects to be implemented successfully among a huge number of recommended initiatives (Khan & Ahmed, 2025). Provincial priorities develop conflict with national commitments, further deepening the divide (Malik, et. al., 2023; Inayat, 2025; Nadeem, et al., 2023). There is a lack of authority and regulation, as well as an incentive structure in place for the existing climate councils and the inter-ministerial committee.

This paper argues the primary cause of the climate governance in Pakistan is a public management failure involving coordination and institutional structure as the primary problem, as opposed to there being insufficient policy initiatives. Through the Principal-Agent lens, the focus of this paper shifts away from the dominant discussions of policy and focus more on the issues of implementation, specifically the roles of decentralization, lack of accountability, and poor coordination. In doing so, the study raises significant questions to the prevailing narrative that describe climate governance with financial or technical constraint only.

The paper critically analyzes the impact of 18th amendment devolution of institutional arrangements on coordination and accountability, and evaluates the reasons behind failure of existing coordination mechanisms and their capacity to translate policy commitments into actionable outcome.

Literature Review

Climate governance is a global policy challenge which refers to the wide range of activities, structures, processes, and frameworks dedicated to managing societies in response to climate change challenges. It involves multi-actor involvement, multi-level coordination across vertical and horizontal dimensions of governance and multi-state participation (Jänicke, 2017; Stranadko, 2022). Internationally, the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement (2015) are working towards global climate governance (UNFCCC, n.d.). At the national level, the National Climate Change Policy (2021), Framework for Implementation of Climate Change Policy (2014-2030), Nationally Determined Contributions (NDCs), and Pakistan Climate Change Act (2017) are responsible for governing climate change. While strong policy frameworks are in place, climate governance remains a pressing challenge due to recurring coordination and implementation gaps.

The 18th Amendment to the Constitution was a landmark development in the political and constitutional history of Pakistan. Despite the devolution of powers to provinces to strengthen provincial autonomy, climate governance faces fiscal, administrative and institutional gaps (Dialogue Social Science Review, 2025). The federal government is concerned with long-term goals and the fulfillment of international commitments, whereas the provincial government is concerned with the achievement of short-term goals and reporting of results. Resultantly, the Principal-Agent problem confounded the accountability of institutions. Furthermore, the siloed working of institutions compromised enforcement, weakening coordination between the federal and provincial governments. Disjointed coordination between vertical and horizontal dimensions of government widens the implementation gap (Khayam & Ahmad, 2020).

Another challenge which stood in the way of climate governance post-18th Amendment was fiscal decentralization. Due to reliance on temporary financing streams, Provincial Sustainable Development Funds and lack of secure funding, implementation suffered significantly (Siddiqui, 2024). In other words, rather than consolidating climate governance, the 18th amendment further weakened it (Khayam & Ahmad, 2020).

However, coordination failures in governments is not a Pakistan-specific problem and can be found in varying other contexts. Other decentralized systems also face similar problems. Due to fiscal instability and weak institutions, coordination failures are more amplified in Pakistan. Although climate governance is formally decentralized, it is, in practice, institutionally fragmented and weakly coordinated (Cole, 2011).

Several studies identified key institutional challenges, including the lack of clarity in departmental roles, definition of rights, ownership of the water sector, and neglected climate diplomacy (Khan, 2018). Findings of the study highlight institutional fragmentation impeding the operationalization of effective climate governance in Pakistan. Simultaneously, power plays a pivotal role in multi-level climate governance (Marquardt, 2017).

Another study stressed the role of intergovernmental relations (IGRs) in strengthening vertical and horizontal coordination among different levels of the government to encourage climate change policy formulation and adaptation. Absence of effective formal coordination mechanisms, a lack of clear roles and responsibilities, technical capabilities of employees, and weak institutional capacity were the key challenges underlined. Moreover, the collective efforts of institutes were disrupted as conflicting political manifestos weakened governance outcomes. Simultaneously, civil society organizations (CSOs) and diverse governance approaches were not consulted much. Among all the challenges underlined, political instability overshadowed (Muzaffar & Choudhary, 2017; Mumtaz, 2023). This research reinstates coordination failure as one of the key governance challenges.

In the same vein, a 2021 study highlights poor climate-water governance as one of the major reasons behind ineffective climate action in Pakistan. Despite the deployment of major governance elements, many aspects, including political commitment, consensus, policy formulation and implementation, institutional support, effective coordination and infrastructure, were compromised (Muzaffar et al. 2024; Trein et al., 2021). This underlines the existing implementation gap despite the available frameworks calling for robust climate action. Building on climate governance systems, a 2026 study conducted a diagnostic assessment of the individual capacity of policy professionals operating at the national and sub-national levels of government. The study

observed high levels of operational and political capacity but moderate levels of analytical capacity at the federal and provincial levels of the government (Heinen et al., 2022; Muzaffar et al. 2023; Shaheen et al., 2026).

Differences in the capacities of the policy professionals' levels highlight the lack of uniformity in their competencies, creating difficulties in translating into effective governance. Additionally, participation of non-state actors, such as businesses and CSOs, in decision-making, policy formulation, and formal governance structures remains limited, hindering effective coordination (Siddiqui, 2024).

An overview of existing literature post-18th Amendment focused on capacity, institutions, and political aspects of climate governance; however, coordination as a central explanatory variable remains under-researched.

Material and Methods

This study, using the principal-Agent lens and the theme of public management, is a qualitative and document-based attempt to identify and analyze the coordination failures involved in climate governance in Pakistan. The study is based on a meticulous analysis of existing governance policy and the literature on the topic, describing the governance frameworks and the implementation, or lack thereof, the outcome(s). The data source is limited to reports published by the UN and government agencies, which include national climate policy reports (e.g. Pakistan's National Climate Change Policy and Nationally Determined Contributions), governance documents, reports, and implementation plans. The documents have been cross referenced and peer-reviewed, and show the high-quality governance research of Pakistan. This methodology allows us to reflect on the official policy statements and the governance obstacles that have been encountered.

Institutional Architecture

Climate governance in Pakistan is a multi-level institutional system branched into federal and provincial actors. At the federal level, the Ministry of Climate Change and Environmental Coordination oversees policy formulation in alignment with international commitments, including the United Nations Framework Convention on Climate Change (UNFCCC) and Nationally Determined Contributions (NDCs). The Planning Commission is responsible for planning development initiatives and ensuring their integration into the national plans. The federal level is primarily concerned with policy formulation and provinces with the implementation. At the provincial level, Provincial Environmental Protection Agencies (EPAs) work towards the implementation and enforcement of national action plans. Here, the provincial departments such as agriculture, environment, water, and forestry carry out sectoral implementation of the National Climate Change Policy (2021) and the National Climate Change ACT (2017). These departments come under distinct administrative structures, with their operational responsibilities being divided but institutionally uncoordinated. Climate governance requires cross-sectoral coordination; however, institutional fragmentation restricts it.

Results and Discussion

Pakistan's Climate governance failure can be explained in terms of principal agent failure rooted into a multi-level fragmented system instead of labeling it a policy deficit just. In Pakistan' Governance system federal system play the role of principal, singing

international commitments for climate change while provinces play the role of agent, responsible for implementing the commitments made by federal government. Neither the incentives are aligned nor the effective monitoring and enforcement is ensured under the existing institutional design. This study discusses the systematic coordination failure as a consequence of the existing misalignment in institutional architecture.

Delegation without Control

There exists a key structural contradiction within the governance system of Pakistan which is in the form of authority-responsibility dilemma. Authority is devolved as done under 18th amendment yet the responsibility remains centralized. Since various sectors including environment, forestry, agriculture, and water have been transferred to provinces, but the federal government primarily through ministry of climate change continues to give commitments to international climate institutions under Paris Agreement. The recent NDC updated by Pakistan pledged emission reduction by up to 50%, yet the implementation authority remains with provinces that are beyond Federal control (UNFCCC, 2021). This highlights the classical principal agent dilemma where principal (federal) sets the targets but agents (provinces) exercise authority over implementation. Due to absence of a proper compliance mechanism, enforcement remains in question. Provincial Annual Development Plans (ADPs) are not bound legally to align with NDC targets as a result of which every province prioritizes its own interest rather than complying with international commitments. Punjab focuses on industrial and infrastructure growth, Sindh prioritizes coastal and marine management while KPK stresses on forestry. Hence, the existing misalignment of interests and incongruent goals due to absence of legal obligations points towards the fact that national climate commitment remains ambitious rather than enforceable.

Ineffective Monitoring

Principal agent theory indicates that delegation must establish mechanisms to keep a track on activities in order to prevent individuals from utilizing the present scenario. In Pakistan, such kinds of frameworks are either weak or do not exist. The Pakistan Climate Change Act of 2017 intended to establish a framework for making the Pakistan Climate Change Council a permanent part of the government. The Act states that the council must collaborate and monitor that how policies are implemented (*The Pakistan Climate Change Act, 2017*). However, the Act doesn't state the following:

- Evaluation criteria for assessing the performance.
- Provinces have to comply with standardized guidelines for reporting.
- Enforcement tools or the consequences for violating the guidelines. Pakistan lacks one standardized method to measure:
 - Improvements in emissions by province.
 - Success in dealing with climate change in different sectors.
 - Compliance with NDC obligations.

Based on this, the federal government reports to other countries but fails to monitor or impose domestic performance. The disastrous floods proved that coordination had been broken, federal agencies acquired resources from other countries, however provincial disaster management authorities experienced difficulties collaborating on responses. Various jurisdictions dealt with Relief and rehabilitation in various manners, despite the fact that the National Climate Change Policy (2021)

emphasizes on climate adaptation (NCCP, 2021). Since there were no mechanisms or frameworks for maintaining circumstances or to maintain coordination between them, governance became recursive instead of collaborative. This is an example of moral hazard that do not confront consequences for not being prepared or not being on the same page, which makes them more reluctant to take action to protect the climate.

Failure of Institutional Architecture

Principal agent theory emphasizes the necessity of reliable enforcement mechanisms in combination with monitoring. Pakistan's institutional framework, however, depends on coordination without any authority. The Framework for Implementation of Climate Change Policy (2014–2030) outlines sectorial roles and emphasizes intergovernmental coordination (*Framework for Implementation of CC Policy*, 2014). The framework, on the other hand is merely a proposal. It doesn't require provinces to follow the standards, define penalties for violation or set regulations that can be enforced. The Planning Commission of Pakistan and the Ministry of Climate Change both are in the loop of climate governance. The Planning Commission permits the approval for development projects, and the Climate Ministry sets the rules. However, there is no mandatory mechanism to monitor development projects for their influence on the climate.

Although policies say that development should be climate-resilient, infrastructure and urban expansion projects often proceed without considering climate risk into consideration. Irrigation, agriculture, and the environment are some of the departments that operate on their own terms. The irrigation authorities are responsible for flood management, and the environmental department handles the climate adaptation planning. This results in lack collaboration between provinces, which is a similar challenge at the national level.

Divergent Provincial Incentives.

Incentives derive response but if incentives are misaligned, this may lead to agents pursuing their individual interests rather than national objective as predicted by Principal agent theory. Billion tree tsunami initiatives in KPK is a notable success with respect to Climate issue yet it is views as political mandate rather than a unified institutional mandate. A significant limitation of this initiative is lack of integration into national climate accounting. Punjab has also implemented various climate initiatives under development projects but these projects largely remained externally funded and fragmented, implying that climate issues are not consistently prioritized in provincial budgeting. Hence climate governance without proper enforcement and aligned incentives will remain project-based rather than systemic.

Soft Budget Constraints

In Pakistan mostly climate related projects rely on external funding which eradicates the concept of internal accountability. The national climate change policy 2012 encourages international financing for climate initiatives (*National Climate Change Policy*, 2012). This leads to lack of federal ownership of climate institutions, limited sustainability, and increasing parallel donor driven projects. These parallel donor projects operate alongside existing governance structure but do not integrate into national governance system and prioritize international donor's interest rather local stakeholders. This handicaps the local governance system and accountability structure.

Moreover when multiple donors work simultaneously, this leads to proliferation and coordination failure. Hence, Pakistan's climate governance system due to over reliance on external finances remains shattered and fragile.

Conclusion

This study explored the post-18th Amendment coordination failures among institutions in Pakistan's climate governance from a public management lens. Pakistan has developed policy frameworks and institutional structures aligned with international guidelines to mitigate climate-related adversities. However, the nation's vulnerability towards climate change remains unabated, raising concerns regarding its effective implementation. Post-18th Amendment devolution of powers created ambiguities in role, repetitive mandates, lack of inter-agency coordination, fiscal constraints, and multi-dimensional coordination. These were the main reasons behind ineffective climate governance and coordination failures in Pakistan despite alignment with international commitments. If timely action is not taken to curb the menace of climate change via institutional coordination, it may incur substantial economic and social capital costs

Recommendations

Keeping in view the gaps analyzed by this study under Principal Agent Theory, following are the recommendations to address the climate governance gap.

- Make amendments to Climate Change Act 2017, requiring alignment between the provincial Annual Development Plans (SDPs) and Nationally Determined Contributions (NDCs). This would legally bind provinces to align their priorities with national climate targets.
- Establish the National Climate Performance and Monitoring System (NCPMS), a centralized digital tracking system that would track the provincial emissions, adaptation indicators, and sectoral performances. This would reduce information asymmetry,
 - Increase transparency, reduce manipulation at agents' end, and allow real-time monitoring.
- Condition climate financing and federal transfers with climate KPIs and compliance with NDC targets by creating a Climate Performance Grant System. This would incentivize provinces to align with national targets and penalties for non-compliance.
- Strengthen Pakistan Climate Change Council by making its decisions legally binding and granting authority to monitor provincial performance and issue compliance directives.
- Climate risk assessment should be made compulsory for all the projects to secure approval by planning commission, ensuring that climate governance is embedded in the system rather than viewing as a separate sector.
- Address the horizontal coordination gap by facilitating data-sharing and joint planning across provinces. This would allow policy coherence and reduce duplication of responsibilities.
- Eliminate parallel donor-driven system by creating a National Climate Finance Coordination Unit, integrating donor funding, federal funding, and provincial budgets.
- Federal government should provide required technical and financial support to provinces to fill capacity gap and ensure performance up to national standards.

References

- Ashfaq, M., Johnson, N., Kucharski, F., Diffenbaugh, N. S., Abid, M. A., Horan, M. F., Singh, D., Mahajan, S., Ghosh, S., Ganguly, A. R., Evans, K. J., & Islam, S. (2023). The influence of natural variability on extreme monsoons in Pakistan. *Npj Climate and Atmospheric Science*, 6(1), 148. <https://doi.org/10.1038/s41612-023-00462-8>
- Batool, A., Asmat, K., & Muzaffar, M. (2023). Governance and Transparency: A Case of Pakistan. *Annals of Human and Social Sciences*, 4(3), 846-856.
- Cole, D. H. (2011). *From global to polycentric climate governance*. <https://doi.org/10.1163/CL-2011-042>
- Constitution (Eighteenth Amendment) Act, 2010*. (n.d.). <https://www.pakistani.org/pakistan/constitution/amendments/18amendment.html>
- Fatima, K. (2025, July 13). National Climate Change Policy and Implementation Challenges. *Hoetests*. <https://www.howtests.com/articles/national-climate-change-policy-and-implementation-challenges>
- Government of Pakistan. (2012). *National Climate Change Policy 2012*. Ministry of Climate Change, Government of Pakistan.
- Government of Pakistan. (2017). *The Pakistan Climate Change Act, 2017 (Act No. VI of 2017)*. Government of Pakistan.
- Government of Pakistan. (2021). *National Climate Change Policy 2021*. Ministry of Climate Change, Government of Pakistan.
- Heinen, D., Arlati, A., & Knieling, J. (2022). Five dimensions of climate governance: A framework for empirical research based on polycentric and multi-level governance perspectives. *Environmental Policy and Governance*, 32(1), 56-68. <https://doi.org/10.1002/eet.1963>
- Ijaz, S., & Najam, B., (2025). *The Visual Identity of Lollywood: Poster Art, Borrowed Aesthetics, and Cultural Rebirth*. *Dialogue Social Science Review*. 3(9), <https://doi.org/10.5281/ZENODO.17064792>
- Inayat, Z. (2025). *Pakistan's Struggle in Disaster and Climate Governance*.
- Jänicke, M. (2017). The Multi-level System of Global Climate Governance – the Model and its Current State. *Environmental Policy and Governance*, 27(2), 108-121. <https://doi.org/10.1002/eet.1747>
- Khan, A., & Ahmed, I. (2025). *Pakistan's Climate Policy and Governance: Challenges, Progress and Pathways for Low-Carbon Future*. 3(3).
- Khan, K. M. J. I. and M. I. (2018). Climate Governance: Implementing Water Sector Adaptation Strategies in Pakistan. *Policy Perspectives*, 15(3), 139-155. <https://doi.org/10.13169/polipers.15.3.0139>

- Khayam, M. U., & Ahmad, I. (2020). Decentralization of Environment in Pakistan: Issues in Governance. *Policy Perspectives*, 17(2). <https://doi.org/10.13169/polipers.17.2.0101>
- Malik, A., Yaseen, Z., & Muzaffar, M. (2023). Governance in Pakistan: A Case Study of Pakistan Muslim League-N, *Journal of Politics and International Studies*, 9(2), 35–49
- Marquardt, J. (2017). Conceptualizing power in multi-level climate governance. *Journal of Cleaner Production*, 154, 167–175. <https://doi.org/10.1016/j.jclepro.2017.03.176>
- Mumtaz, M. (2023). Intergovernmental relations in climate change governance: A Pakistani case. *Global Public Policy and Governance*, 3(1), 116–136. <https://doi.org/10.1007/s43508-023-00066-1>
- Muzaffar, M. & Choudhary, S. (2017). Human Development and Democratic Governance: An Analysis, *Orient Research Journal of Social Sciences*, 2(1), 71-94
- Muzaffar, M., Fern, Y. S., & Yaseen, Z (2024). Good Governance and Citizen's Trust in Pakistan: A Moderation Effect of Unethical Behavior, *Asian Journal of Human Services*, 26, 91-108 https://www.jstage.jst.go.jp/article/ajhs/26/0/26_91/_article/-char/en
- Muzaffar, M., Fern, Y. S., & Yaseen, Z. (2023). Governance Dilemma: A Way Forward For Third World States, *Journal of Research Administration* 5(2), 9792-9803
- Nadeem, K., Yaseen, Z., & Muzaffar, M. (2023). Climate Change and Global Boiling: An Understanding. *Annals of Human and Social Sciences*, 4(3), 857–873.
- Shaheen, A., Hussain, F., & Mumtaz, M. (2026). Diagnosing Individual Policy Capacity for Climate Governance: Evidence From National and Subnational Institutions in Pakistan. *Review of Policy Research*, 43(2), e70086. <https://doi.org/10.1111/ropr.70086>
- Siddiqui, P. A. (2024). Climate Change and Global Governance: Challenges in Policy Coordination. *Journal of Future Building*, 1(1), 15–30.
- Stranadko, N. (2022). Global climate governance: Rising trend of translateral cooperation. *International Environmental Agreements: Politics, Law and Economics*, 22(4), 639–657. <https://doi.org/10.1007/s10784-022-09575-6>
- Trein, P., Biesbroek, R., Bolognesi, T., Cejudo, G. M., Duffy, R., Hustedt, T., & Meyer, I. (2021). Policy Coordination and Integration: A Research Agenda. *Public Administration Review*, 81(5), 973–977. <https://doi.org/10.1111/puar.13180>
- United Nations Framework Convention on Climate Change. (2021). *Nationally Determined Contributions Registry: Pakistan's updated NDC 2021*. UNFCC.
- United Nations. (n.d.). *The Paris Agreement* <https://www.un.org/en/climatechange/paris-agreement>