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RENEWABLE ENERGY AS POLITICAL STRATEGY: PROVINCIAL VARIATION IN ENERGY TRANSITIONS UNDER COMPETING PARTY GOVERNMENTS IN PAKISTAN

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ABSTRACT

This paper explores how the political parties influence the formation of renewable-energy policies and trends in Pakistan at the provincial level, which sheds light on the nexus between the politics of strategy and energy transitions at the subnational level. Regardless of increasing power dilemma in Pakistan and global climate policies, the application of renewable energy is still decentralized among provinces. The current study adopts the methodology of the qualitative comparative case study in comparing Punjab under the PMLN government, Sindh under the PPP and Khyber Pakhtunkhwa under the PTI and then executing basing on the party manifestos, provincial energy policy plans, project archives and open-ended interviews with the stakeholders. The results suggest that the renewable energy is not only a technical, or an environmental policy tool, but also a political tool, which is employed as a branding, electoral legitimacy and international signaling tool. The provincial performance varies as a result of the different political interests, institutional capacity, and the governance structure: Punjab focuses on macro-infrastructure projects to demonstrate the conspicuous benefits of politics; Sindh relies on the contribution of donor-driven providers with minimal provincial ownership; and Khyber Pakhtunkhwa previews the vision of decentralized renewed initiatives that support the reformist politics. The research adds value to the literature by learning that subnational level energy transitions in developing federations are a politically mediated process and that cross-party agreement, institutionalized persistence and stronger regulatory platforms are needed to achieve sustainable energy transitions.

Keywords: *Renewable Energy, Political Strategy, Political Parties, Competing Government*

1. Introduction

Renewable energy is rapidly getting recognized as more than a critical instrument in terms of response to the issue of global climatic challenges but also as a strategic tool in the context of political governance (Aamir Inam Bhutta, 2021). Under the developing economies like Pakistan, energy policy meets the environment demands and political needs, hence giving the governments a chance to utilize renewable energy programs towards achievement of various goals (Almaaitah, 2021). On the one hand, the move towards renewable energy helps in curbing climate and achieving
the sustainable development agenda; on the other hand, it acts as the political window dressing tool,

legitimacy, and indication of modernization and change agenda.

Pakistan experiences a chronic energy deficit, which is characterized by widespread power outages, rising demand and is sustained by depending on fossil energy imports, a situation that has worsened economic and environmental susceptibility (Ajaz, 2017). Simultaneously, the country has made bold climate goals in global parameters like the Paris Accord. Regardless of such pressures, the direction of the renewable energy implementation is still not balanced among a province which implies that only technical and economic variables are not enough to explain the policy results satisfactorily (Farooq Arshad, 2024). Available research on renewable energy transitions in Pakistan has mostly focused on the national-level policies and projects thus creating a gap, which is salient in terms of how political parties influence the subnational energy pathways. In particular, very little research has explored the effect that party ideology, electoral incentives, and provincial governance structure have on the adoption and implementation of renewable energy. This gap is particularly glaring within the post-18th Amendment period when ample freedom of action was granted to provincial governments, thus creating a healthy environment in exploring party-based policy dispensation.

This article seeks to address two central research questions:

- **How do political parties shape renewable energy policies at the provincial level? And**
- **Why do renewable energy outcomes vary across provinces under different party governments?**

A comparison of Punjab within the framework of the Pakistan Muslim League-Nawaz (PML-N), Sindh within the framework of the Pakistan People's Party (PPP) and Khyber Pakhtunkhaw within the framework of the Pakistan Tehreek-e-Insaf (PTI) proves that the role of institutional, governance, and political factors is fundamental in defining the provincial heterogeneity of renewable-energy transitions.

This article has two-fold contribution. To begin with, it shows that the adoption of renewable-energy in Pakistan is not as technical or environmental as a project but rather, a process that is mediated by parties and sub-national governments. Second, it makes significant contributions to the overall literature on energy transitions in emerging federations by clarifying the interactions between political incentives, institutional capacity and governance designs and a production of divergent provincial performance. The combination of political-science with energy-policy thinking allows this piece of work to provide fresh information on the multidimensional dynamics that influence renewable-energy transitions in Pakistan and other similar scenarios.

2. Political Parties, Energy Policy, and Subnational Governance

Political parties are also at the center of affecting the public policy in several areas such as in energy where ideological promises and electoral advantages assist in the process of establishing policy priorities, tools and results (Bulkeley, 2013). Political ideology gives the parties a prism in which they process energy challenges and opportunities, thus making them manifest tastes in the favored energy sources and technologies. Indicatively, studies have shown that governments with rather different political functions differ in their pro-renewable energy policies: the left-leaning governments are likely to focus more on environmental safety and uptake of renewable energy, whereas the right-leaning or conservative governments might be more interested in the conventional energy sources or market support under condition of the broader economic objectives. To this end there is such variation as ideology conditions the manner in which political actors evaluate tradeoffs between economic growth, environmental sustainability as well as regulatory intervention into energy markets (Chinowsky, 2011).

In addition to ideology, the energy policy has also been used by political parties as a political legitimacy and visibility tool. Single renewable energy projects, especially those on large grid-connected or high-profile projects serve to serve as a symbolic representation of modernization and growth to aid the parties that are currently in power to develop political back-up, responsiveness to popular needs, and indecisiveness to global climate agendas (Ayers, 2025). In a wide context,

renewable energy has formed a component of political branding, whereby the success of the energy-policy is used to bolster credibility and distinguish between parties within a competitive election type of atmosphere. This tactic of implementing the use of renewable energy is seen to represent the larger commentary that shifts in power to (and the emerging trends on) energy are not strictly technical or administrative procedures but are entrenched within the political struggles and public responsibility systems.

The formulation and implementation of energy policy is yet again complicated by subnational governance. The context of the post-18th Amendment of Pakistan has greatly augmented provincial powers of major policy frameworks such as energy sector hence allowing provinces to establish their own policy agenda based on political leadership, developmental purposes, and institutional capacities. Reforms The decentralization amendments have decentralized formal power at the center to provincial governments, giving regional political parties the discretion of the renewable-energy planning, regulatory systems, and implementation of such projects. Nevertheless, the drawback associated with this decentralization is governance, whereby, there are gaps in the coordination between the federal and provincial governments and also at the institutional capabilities across the provinces (H.Ali, 2019).

Combined, it leads to a conceptualizing of energy transitions as processes that are politically mediated. Instead of considering the adoption of renewable-energy to be a linear relationship in technology or economy solely, this view focuses on the presence of a dynamic interaction of party ideology, electoral motive, institutional set-up, and governmental framework. It acknowledges that political players determine the direction and speed of energy shifts, and that the results are based on compromised negotiations in the face of competing interests, priorities and coalitional reasoning within subnational governmental units (Farooqi, 2005). By doing so, renewable energy will become an object and tool of politics, where the government and political policies will highly define the course of transition.

3. Methodology

In this investigation, the qualitative comparative case-study approach is employed in order to understand the role which political parties play in the policies of renewable energy and the outcome of these policies at the provincial level in the situation of Pakistan. The case-study design provides the opportunity to examine complex processes, which are situational in their nature, and therefore, allows analyzing the political, institutional, and governance dimensions underpinning energy transitions. Besides, the comparative aspect of various cases can be used to identify common forms, deviations, and explanatory forces that provide explanations to the perceived provincial differences in renewable energy patterns.

There were three provinces that were intentionally chosen to be analyzed (Punjab, Sindh, Khyber Pakhtunkhwa (2013-2018): the three provinces with different political conditions at the time of the analysis and varied party governments. Punjab, with the leadership of the Pakistan Muslim League-Nawaz (PML-N) is characterized by preoccupation with the grandiose infrastructure projects and energy development in industries. Sindh under the rule of the Pakistan People's Party (PPP) has shown case of donor-led renewable energy efforts that have few provincial proprietors. KP with Pakistan Tehreek -e-Insaf (PTI) as its leader gives priority to decentralized renewable energy solutions and institutional innovation. Such cases thus offer a strategically heterogeneous contrast, which would enable the analysis of the substitution of renewable energy policy and implementation by the provinces according to party ideology, political incentive, and governance structures.

The study is methodologically informed by the fact that it relies on a multifaceted qualitative data in terms of triangulation and finding reliability. The party manifestos and policy papers were analyzed to discern the political promises, stated priorities, and ideological rhetoric of renewable energy by provincial governments. The information stored in the provincial energy policies and project records was analyzed to obtain knowledge on the intended and actual projects on renewable-energy, the budgetary allocations, and the plans of

executing the policies. Government officials, energy experts, project implementers and donor organizations representatives were subject to semi-structured stakeholder interviews in order to extract the insights about the government process of policy decisions, governance issues and stakeholder perceptions about the renewable-energy projects.

The assessment of provincial energy transitions was based on a comparative analytical framework to incorporate the political, institutional and governance aspects. The main variables included political motivation such as party ideology, election motives, the political branding of renewable-energy project; policy-implementation strategies such as selection of energy technology, the project size and project alignment with climate commitments; and institutional capability and governance systems, including provincial regulatory systems, coordination systems, and administrative aptitude. This research methodology will allow conducting a systematic analysis of the overlap between politically strategic force through parties and the experience of the institutions of governance, which will explain the variation in the progress of renewable-energy results in the different provinces of Pakistan. The official policy environment and the reality as experienced through stakeholder lens are combined to understand the context of sub-national changes in energy and thus, the study offers a complete view of policy changes.

4. Provincial Energy Transition Trajectories

4.1 Punjab (PML-N): Infrastructure-Led Energy Expansion

The Pakistan Muslim League-Nawaz (PML-N) in Punjab followed the policy of extensive energy infrastructure which was the central theme of the party, as administratively effective large-scale constructions of the kind would reflect the expertise of the party and be politically symbolic. The provincial administration during the 2013-2018 years emphasized on projects like the Quaid Azam Solar park at Bahawalpur, huge hydropower stations and thermal power plants targeting industrial centers. These were the projects aimed at boosting the stability of energy supply which will in turn guarantee uninterrupted power to the domestic and industrial consumers which are some of the political promises of the ruling party (Asad Khaliq, 2014).

Centralized planning and large-capacity installations based on high capacity highlighted the energy policy of the PML-N instead of small scale or off-grid renewable solutions. This emphasis reflected the overall political and economic agenda of the party signaling Punjab as the unit of industrial development in Pakistan and displaying infrastructural success to the voters and stakeholders. The case of renewable energy was often seen by the government as a direct response to industrial productivity, creation of jobs, and provincial growth, subsequently turning renewable energy into a tool of economic visibility and a tool of political visibility.

Nonetheless, such approach also pointed to the weaknesses of sustainability and inclusiveness. Large-scale projects made an addition to the overall energy supply, but smaller-scale renewable options, including rural small scale solar and micro-hydropower activities, were barely developed. Claiming that communities that were not close to major power grids acquired little direct visibility of these policies according to the stakeholders, a disconnect between the political symbolism and the effect on the communities was prominent. Though this was wanting, the strategy that was employed by Punjab was successful in firming the PML fools image of having a results-focused government, solidifying the political legitimacy with infrastructural successes that were evident.

4.2 Sindh (PPP): Wind and Solar with the influence of Donor and Private Sector

Sindh, which is under the Pakistan people party (PPP) took a quite different path where renewable energy development was much impacted by donor agencies, investor, and other external funding. Other significant projects comprised the wind farms in Jhimpir and solar projects in Tharparkar which were mainly aided by international climate funds and development loans. The provincial government also took facilitative role as opposed to directing control unlike Punjab, as the provincial government coordinated between the

outside funders and the implementing agencies (Oliveira, 2009).

The source of this dependence on outside actors created ineffective provincial ownership and coordination issues. Doubled up duties in provincial departments, lack of time in granting approvals and divided regulatory control hindered the execution of the project. As a result, development assistance often became the historical development tool of transitioning the energy in Sindh as the environment of developmental benefit instead of a politically motivated climate agenda, and the donor agendas were employed to choose and decide which development might receive priority over a provincial strategic plan (Chinowsky, 2011).

Although these programs led to the increase of the renewable power capacity as well as to the international exposure, they also appeared as a manifestation of low sustainability and lack of inclusivity in the overall plans of inter-provincial energy. Stakeholders interviewed focused on the importance of strong institutional capacity or strong provincial mandate as without this many projects would tend to be destroyed due to a lack of continuity and inefficiency. However, the PPP, using these renewable projects, was able to ensure political legitimacy by presenting the province as a recipient of the global development assistance and indicating willingness of environmental modernization despite the interaction party gaining political benefits secondarily in the matter.

4.3 Khyber Pakhtunkhwa (PTI): Renewables as Reformist Identity

The Khyber Pakhtunkhwa with the ruling Pakistan Tehreek-e-Insaf (PTI) provides a unique example of situations when renewable-energy projects were closely linked to the identity and governance reform. The provincial government focused more on hydropower, and decentrally-distributed energy services, such as the micro-hydro schemes in the northern territories, or the electrification of the rural optimal areas by solar power (H.Ali, 2019). All these measures were specifically intended to be compatible with the PTI narrative of creativity, administrative renewal and responsive governance making renewable energy a symbol of political seriousness.

The strategy of the PTI emphasized institutional experimentation; that is, new planning principles, interaction with the community, and coordination between departments. This strategy allowed the province to illustrate the energy delivery as well as capacity building and administration modernization. However, small project scales, the lack of technical capacity, and financial shortages, prevented a speedy expansion, and this fact should not be seen as the final argument supporting the idea that the lack of political will is not enough to fill any institutional capacity gaps completely.

The path of renewable-energy that KP follows serves as an ideal example of how ideology and political narrative of a party can be used to combine policy priorities and institutional change at the same time. PTI strengthened the idea of transforming a city-government relationship by identifying the decentralized energy solution with alternative goals of governance increase and branding as a reformist. This approach also clarifies another important lesson that the opportunities of energy transitions in emerging federations can serve as the tool of politics and the venue of the new system governance, in as far as the institutional capacity can support the project execution.

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5. Renewable Energy as Political Strategy

The analysis of development of the provincial renewable energy legislation in Pakistan shows that these policies do not only occur beneath the technical concerns of the energy shortage and environmental issues, but rather are intimately connected to the politics of the ruling parties. Examining the strategies in Punjab (PML-N), Sindh (PPP), and Khyber Pakhtunkhwa (PTI), it becomes clear that renewable energy is a complex tool of political use by making it possible to brand politically, grant the means of electoral legitimacy, and send international signals.

The ruling government in Punjab, the PML N, was placing beforehand major visible infrastructure projects, such as major hydro power plants and standalone solar farms, to show their administrative capability and industrial supremacy. These projects strengthened the image of the party as a results-oriented government that was able to face the issue of energy shortages as well

as boost economic growth. The PPP of Sindh, in turn, depended on intensive donor-based wind and solar projects, using the renewable energy as the means to keep provincial credibility to the global partners and point to a pro-development agenda in governance, even though the local political benefits at the time could be only scarcely short-term. In Khyber Pakhtunkhwa, the focus on small-scale, decentralized renewable development provided by PTI, not just energy access in the area, but also strengthened its reformist account. The strategy made the policy implementation compatible with the party identity of administrative innovation and the responsiveness. Three major processes across provincial borders demonstrate the strategy of renewable energy use, namely Political Branding, Electoral Legitimacy, and International Signaling.

- **Political Branding** is realized by taking advantage of the renewable energy initiatives to strengthen the image of the ruling party among people. Large-capacity projects in Punjab were massively publicized to demonstrate the success of good governance, and in Khyber Pakhtunkhwa decentralized solutions were given much emphasis in advancing the realization of community levels of reform and innovation by PTI.
- **Electoral Legitimacy** is sought through the implementation of renewable energy campaign to win over voters. Filled with the hopes of strengthening voter confidence and proving sensitive to the needs of the society, governments are doing everything to alleviate energy crunch and pledge to engage in the infrastructure modernization.
- **International Signaling** International Signaling comes into play because when parties engage in renewable energy use, they can adhere to the global climate pledges and secure donor funds thereby portraying a sense of ability and contemporary image on the global front.

However, the quest of short term political benefits creates conflicts with the sustainability of long term success. Large-scale projects focused by Punjab although politically expedient had not considered decentralized solutions that may improve the equity in energy and resilience. The dependency of Sindh on donor funding creates the discontinuity risks in the event of the diminution of external funding. Similarly, small-scale, reform-oriented initiatives in Khyber Pakhtunkhwa face the challenge of scalability because of a small institutional capacity. These issues were repeatedly emphasized in stakeholder interviews, with justification that although renewable energy programs positively affect the image of parties and their short-term legitimacy, long-term sustainability and continuity, however, are not guaranteed in relation to institutional reinforcement and cross-party agreement.

The comparative differences between the provinces can be summarized as follows at a table:

Province	Ruling Party	Political Approach	Renewable Energy Focus	Mechanism of Political Use	Key Challenges
Punjab	PML-N	Infrastructure-led	Large-scale hydropower and solar	Political branding, electoral legitimacy	Overlooked decentralized renewables, sustainability trade-offs
Sindh	PPP	Donor and private-sector driven	Wind and solar projects financed externally	International signaling, partial political credibility	Weak provincial ownership, coordination challenges, dependence on donors
Khyber Pakhtunkhwa	PTI	Reformist and decentralized	Micro-hydro, solar, community-based projects	Political branding, alignment with reform narrative	Limited scale, capacity constraints, financial and technical limitations

This point by point comparison reveals that the utilization of renewable energy in Pakistan is largely a political agenda of sorts which is not only dependent on technical or environmental factors. Such dynamic subtleties are necessary in both the correct interpretation of inter, provincial differences in the renewable energy performance, and in the creation of policies that balance between political motivation and requirements of long-term sustainability.

6. Implementation Challenges and Governance Gaps

Although there is a strong political topicality and the growing popularity of renewable energy projects across the provinces of Pakistan, their presence has been significantly connected by the lack of governance and institutional challenges (Jawad Ullah, 2024). One of their main obstacles is the lack of effective monitoring and enforcement of regulations that cannot positively impact the effectiveness and sustainability of renewable energy initiatives. The provincial regulatory agencies often do not have the technical capacity, resources and enforcement strength needed to ensure that they comply with the standards, schedules and the environmental protection measures. As a result, the performance of the projects is highly heterogeneous, and the accountability instruments are still in the stage of development, particularly, at the provincial level when the oversight functions are shared between several agencies.

Another challenge, which is related, is based on disjointed institutional mandates of provincial energy governance schemes. The division of responsibilities between the energy ministries, the environmental authorities, the planning bodies and the regulatory institutions tend to trigger the breakdown of the coordination and the incoherency of the policies (B3-Punjab, 2025). In some cases, jurisdictions and unclear levels of authority are causing projects to delay and even create problems with implementation. These problems of fragmentation are also worsened by the fact that the decentralized governance system created an environment where provincial powers have grown faster than administrative capability, creating uneven policy implementation and a limited ability to collaborate between jurisdictions. The landscape of implementation is still influenced by the financial poverty and reliance on donations. The projects of renewable energy are a cause of great international attention and financial resources are spent on the development, but there is a weakness in the form of dependence on external lending of funds, in particular, in such provinces as Sindh. Project cycles led by donor organizations incline towards short-term outputs of the projects at the expense of long- term development of the institution and by the time funding cycles end, provincial administrations do not have much of ownership and sustainability. On the other hand, those provinces that make domestically funded projects are faced with fiscal constraints and with limited accessibility to concessional funding hence limiting the volume and sustainability of renewable energy investments.

Lastly, a crucial issue to renewable energy regulation is the political turnover and termination of the project. Change of provincial leaders often leads to changes in policy priorities with new leaders reviewing or not following up programs started by their predecessors. Such lack of cross-party consensus interferes with long term planning, destroys institutional memory and creates uncertainty among investors, implementing agencies, and the local stakeholders. The stakeholder interviews demonstrate that there exists a great degree of apprehension that renewable energy projects tend to be closely associated with political identity of political parties and they are prone to reversal or neglect when political parties make a transition to power.

Consolidated with these issues of implementation challenges can be seen as showing the structural and governance constraints that limit the transformative power of renewable energy in Pakistan provinces. Despite the political incentives that have promoted the implementation of renewable energy initiatives, lack of robust regulatory implementation, lack of coherent institutional structure, sustainable financing, and political sustainability cripple the effectiveness of these initiatives in the long-run. These governance gaps would have to be addressed in case renewable

energy were to move beyond these symbolic political values and play a role in sustainable and resilient energy transitions.

7. Discussion: Explaining Provincial Variation

7.1 Similar National Commitments Produce Divergent Provincial Outcomes

Despite end-national persistent efforts towards renewable energy growth and the reduction of climate change (established in federal policy systems and transnational treaties, including the Paris Agreement) the country manifests significant disparities in the successes of the renewable energy industry on a provincial basis. This division cannot be satisfactorily explained by only the differentiation of resources endowment or technical capability. Instead, the empirical evidence of the current research seems to suggest that political forces of the subnational range play a dominating role in defining, prioritizing, and enforcing the national commitments upon the provincial scale.

With the 18th Constitutional Amendment, the provinces were granted a great level of autonomy in terms of energy planning and implementation, which created several levels of politics in the same national policy. Whereas the federal goals are generalized, provincial governments have freedom of choice on the selection of projects, modalities in which projects are implemented and institutional coordination. Thus, provincial political agendas, electoral motivations and administrative capabilities screen national commitments to climate agendas (Little, 2020). This multi-level system of governance allows like national objectives to produce differentiated and disproportionate provincial capitalisms, depending on the mobilization of renewable energy towards strategic and expressive purposes by political actors.

This dynamic is evident in the case of Punjab, Sindh, as well as Khyber Pakhtunkhwa. In Punjab, where national promises were gendered into massive infrastructural projects consistent with economic growth discourses; in Sindh, where national promises were hunter-gathered into environmentally-friendly and donor-funded programs with little provincial ownership; and in Khyber Pakhtunkhwa, where renewable energy was a decentralized policy agenda supported by a reform-based governance agenda. These differences highlight that policy dissimilarity is not accidental but manufactured politically, based on the politics of party politics and subnational political organizations.

7.2 Interaction of Political Incentives, Institutional Capacity, and Governance Design

The three factors that are interrelated and deployed to understand the provincial variation in the outcome of renewable energy include the political incentives, institutional capacity, and the design of governance. All these variables do not work separately but together determine the direction and sustainability of energy transitions.

Politics determines the kind of renewable energy project to be given priority by provincial governments. Parties desire salient credit-claimed opportunities that promote elections legitimacy and strengthen politeness. Centralized megaprojects were used in Punjab as a direct political reward because of immediate payoff of the project in the form of visibility and economic signaling. (George, 2005) Decentralized and smaller projects served a reformist discourse of focus on innovation and inclusivity in KP. This was made possible in Sindh where renewable energy was used as a means to send international signals and development aid and less as a means of weaker electoral incentive directly linked to energy provision.

Political ambition is dependent on the presence of conditions of institutional capacity that dictates whether a certain ambition leads to effective implementation. The more highly administratively coordinated and technologically equipped provinces have opportunities to keep renewable energy projects alive in the intervals between political periods. Inspite of weak institutional capacity- as it is in cases of donor dependent governance or severely fragmented governance- projects are prone to delays, inefficiencies, and discontinuity. The results imply that the lack of institutional strength is accompanied by the lack of commitment to politics, which delivers symbolic instead of transformative results.

A crucial role in explaining the relationship between politics and implementation is played by

governance design, specifically by the manner in which it is decentralized and controlled by the authority. The decentralized governance on energy in Pakistan has increased provincial jurisdiction but this does not come with the same investments in regulatory harmonization and intergovernmental coordination. Consequently, the provinces find themselves to be functioning on an unequal governance ecosystem, in which the success of renewable energy initiatives is overbearing on how the institutions are structured in terms of authority, accountability and coordination.

Combining these two factors of interaction can help explain why different provinces with varied political parties take different paths to renewable energy and why there is a disparity in outcomes even with common national policy frameworks. What the analysis highlights is that energy transitions are processes that are highly more subject to governance, as much as it is technology or finance, influenced by political Aristotle as much as it does by technology or finance.

7.3 Implications for Energy Transition Theory in Developing Federations

The research results of the study are an addition to the energy transition theory because they expand its use to the developing federal systems where decentralization, political competition, and the institutional asymmetry are intense. A large proportion of both the existing literature on energy transition focuses on governance structures, and institutional environments that are relatively stable and consistent. But the Pakistani example shows that energy transitions in developing federations are always partisan, lopsided, and conditional.

The research is consistent with an increasing research trend to viewed the energy transitions as processes mediated by political factors, not technological transitions. It underscores the importance of energy transition theory being better able to take into consideration subnational political agency, party competition and electoral incentives particularly where decentralization produces more than one center of power.

In addition, this analysis proposes that an effective accomplishment of energy transitions in emerging federation systems does not only demand encouraging national policies but also cross party agreement, governance and institutional consistency on the subnational level. The renewable energy cannot otherwise be turned into an instrument of short-term politics but a contribution to long-term sustainability.

This paper contributes to a more discriminate view of energy transitions by anticipating the significance of political parties and provincial governments by highlighting the role of the political, institutional and federal institutions in the outcome of renewable energy. These lessons not only apply to Pakistan but also to other decolonized federations like how the trajectories of energy transition are preconditioned by the processes of decentralization and political rivalry.

8. Conclusion and Policy Implications

The current paper explores the role of political parties in determining the policies and outcomes of renewable energy at provincial basis in Pakistan and attempts to answer the question why similar national undertakings lead to different subnational energy transition patterns. Through a qualitative comparative study on Punjab, Sindh and Khyber Pakhtunkhwa, the authors are able to illustrate that adoption of renewable energy is not an exclusive decision based on technical or environmental policy; it is a process that is mediated by parties, electoral interests, institutional capacities and governance structures. The conclusions show that the infrastructure-based approach of Punjab gives priority to political visibility and industrial growth, Sindh's external-influence based model of donor reliance, and decentralization-based approach of Khyber Pakhtunkhwa makes renewable energy plans involved with a reformist political identity and governance innovation. Taken together, these examples point to the overall importance of subnational politics to core aspects of defining the extent, magnitude, and sustainability of renewable energy transitions.

The discussion provides various general lessons to the energy transition of Pakistan. To start with, decentralization has created policy innovation opportunities but also, due to variations between institutional capacity and governance coherence

among provinces, it has increased uneven implementation. Second, political incentives have a tendency to accommodate short-term and high profile initiatives at the disfavour of long this system-wide sustainability which creates a conflict of goals between political payoff with wide benefits and lasting results on energy transition. Third, without effective regulatory enforcement and institutional coordination the renewable-energy initiatives stand the danger of remaining a mere token intervention as opposed to a transformative intervention intervention that could effectively abate the climate vulnerability and energy insecurity.

The paper has important policy implications. The key requirement is establishing a cross party agreement on the renewable energy, hence making energy transitions more of a national development agenda as opposed to partisan politics agenda. This kind of consensus would help diminish the volatile nature of the policies and protect long run investments against political interference. Another factor that is important is the need of institutional continuity that exists across the electoral cycles that is achievable through the fortification of provincial energy institutions, the improvement of bureaucratic capacity, and the insulation of important regulatory institutions against political turnover. Lastly, strengthened regulatory and monitoring systems are a necessity to ensure transparency, accountability, and consistency of performance to be maintained across the provinces. Greater alignment in federal and provincial governments accompanied by more precise requisite and effects would significantly enhance the effectiveness of forces governing the green-energy.

Regarding the future research directions, this study leaves a number of avenues to be included in the further research. Further insights into the influence of decentralisation and party politics on energy transitions under different institutional inputs in other developing federations might be gained by making comparative observations across other countries. The qualitative insights herein would be complemented by quantitative studies that are aimed at assessing the performance and sustainability of renewable-energy projects with political motivation in the long run. Additionally, the future study may address the importance of the non-state actors like individual investors or civil society in the mediation of the nexus between politics and the subnational energy transitions. Through the extension of the analytical discussion beyond national policy frameworks, this kind of research will be able to contribute to energy-transition theory and guide the creation of more efficient and comprehensive governance approaches.

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