



RESEARCH PAPER

**Environmental Governance and Policy Implementation in Pakistan:  
Assessing Institutional Capacities and Challenges**

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ABSTRACT

The main focus of the study was to comprehend environmental governance and policy execution in Pakistan and also to find out the barricades for operative policy enactment, including synchronization problems and civic responsiveness gaps. Environmental management in Pakistan is a challenge due to confusion in the structure of institutions, lack of relevant resources and mostly actuated by poor regulatory capacity. Analysis of current academic literature and adherent consultants' proposals and international benchmarks. The government of Pakistan capacity is dubious in terms of financial resources available and the institution's ability to deal with environmental problems in the federal, provincial, and local spheres. Promote and fortify the organizations engaging in the regulation and enforcement of laws, encourage cooperation in between different agencies, enhance public awareness, implement environmental considerations in development strategies, and utilize international assistance. The aforementioned measures should be adopted in Pakistan taking into consideration that the country and its individuals should invest in the conservation of the environment to develop sustainably and create a healthier nation. The world is also faced with serious environmental problems and thus requires urgent and significant attention and support to solve these challenges.

**KEYWORDS** Environmental Governance, Governing Frameworks, Institutional Capacities, Policy Execution, Sustainable Development

Introduction

One concise statement that credited to environment activist Wangari Maathai comes to mind related to the environmental governance is;

*"The true test of environmental policy is not in the formulation but in the implementation."*

In Pakistan the environmental governance and policy execution shows a complex difficult framework and landscape. It marked by abundant contests and prospects. As a country grappling with a range of environmental issues, from pollution to climate change, the operative administration of natural resources and the implementation of environmental guidelines are supreme. This study investigates into the details of environmental governance in Pakistan, pointing to measure the institutional capacities and recognize main encounters delaying policy execution.

The environmental governance framework in Pakistan covers an assorted range of institutes, rules, and rules aimed at addressing environmental worries and endorsing sustainable development. Pakistan claims a vigorous lawful agenda, adding the Pakistan Environmental Protection Act (PEPA) of 1997, which offered legal origin for environmental fortification and upkeep pains. Moreover, numerous departments, ministries, and agencies,

are assigned tasks to implement environmental strategies and guidelines at the central, provincial, and locale levels (Lau,2018, Saeed, 2012).

But, regardless of the survival of governmental and governmental apparatuses, the execution of environmental plans in the country is still facing big challenges. The main challenge is the shortage of an effective administration device and formal institutional capacity. Feeble implementation of ecological rules, tied with inadequate resources and skill, dents the use of current strategies and concerns ecological sustainability (Lau,2018). More over the institutional disintegration and minimal harmonization within pertinent participants pose important problems to operative environmental governance. The devolved environmental management type of system in Pakistan frequently leads to covering directives, and replication of energies, deterring synchronized accomplishments and policy lucidity. The institutional harmonization and partnerships are quite imperious for encountering existing challenges and encouragement more unified slants to environmental organization. Besides, the institutional limitations, insufficient civic responsiveness and sharing contemporary difficult encounters to environmental governance skeleton in Pakistan (Zaheer,2019). Inadequate civic consideration about of environmental problems, tied with socio-economic aspects like low-income and uneducated, encumber public rendezvous and grassroots inventiveness for environmental conservation. Speaking current hurdles needs battered responsiveness drives, capacity-building steps, and comprehensive policymaking procedures that vest groups to contribute in environmental governance.

Additionally, country's vulnerability to climate change worsens current environmental encounters and underscores the requirement for adaptive governance apparatuses (Fahad, 2020). The elevating temperatures, unpredictable climate forms, and natural tragedies lurk Pakistan's ecologies, water reservice, and agrarian production, requiring upbeat procedures to handle and build resilience the effects of climate change. Participating climate change thoughts into ecological strategies and planning procedures are vital for ornamental adaptive measurements and indorsing sustainable development.

Regardless of existing challenges in Pakistan, it offers prospects for consolidation environmental governance and strategies enactment. The increasing gratitude of environmental concerns at the state and international levels, it tied with collective responsiveness among officials and civil society, makes impetus for effective transformation. The emergent machineries, advanced backing devices, and multi-stakeholder corporations can improve the efficacy of ecological governance and catalyze sustainable development hard work.

In Pakistan, environmental governance and policy enactment are considered a multifaceted interaction of institutional capacities and contests. Though important steps have been made in evolving legal agendas and institutional structures, dogged gaps in implementation, organization, and public contribution weaken the efficacy of environmental strategies. Dealing with these issues, it requires concentrated hard work by the government agencies, public, and private sector organizations, to build an institutional measurement, that will enhance harmonization, and will promote public rendezvous. Having existing prospects and overcoming barricades, Pakistan can chart a way towards more operative environmental governance for sustainable development (Ali,2023).

## **Literature Review**

Like many other developing countries, Pakistan is also facing numerous challenges in policy implementation for environmental governance. The literature review aims to make standing research on the topic, offering insights into the prevailing state of environmental governance in the country and detecting important extents for upgrading.

Pakistan's environmental governance skeleton shaped by a multifaceted interaction of commandments, strategies, and institutions. Malik et al. (2018), has mentioned that the Pakistan Environmental Protection Act-1997 (PEPA) established for the legal basis for environmental fortification and protection efforts in the country. The Act sketched the roles and farm duties of several government entities, as the Ministry of Climate Change (MoCC) and the provincial Environmental Protection Agencies (EPAs), in enforcing ecological guidelines and policies.

Measuring the institutional capacities for policy enactment is decisive for consideration the success of environmental governance in Pakistan. Khan et al. (2020) also studied for gaging the measurements of EPAs to execute environmental policies. They have found that EPAs have made advancement in structuring technical proficiency and implementation mechanisms, but challenges like inadequate financial capitals and staffing limitations continue, hindering operative policy execution.

The various studies have pointed out those barriers that direct or indirect effect the operative policy enactment in Pakistan. Ahmed et al. (2019), also described that institutional feebleness, bureaucratic in competencies and corruption, pose challenges to environmental governance skeleton. Furthermore, Mustafa and Munir (2017), has highlighted that the less or weak coordination issues within federal, provincial, and local governments, often lead to overlapping directives and jurisdictional conflicts, that decline the consistency in the implementation of environmental policies.

Examining multiple case studies about environmental policy enactment in Pakistan have provided valuable facts that are influencing policy upshots. Khan and Ahmad (2018) have conducted a case study on execution of the Clean Air Action Plan in Lahore, Pakistan. The study highlighted the stakeholder engagement significance and enforcement in regulatory and addressing air pollution. On the other hand, Siddiqui et al. (2020) has examined Billion Tree Tsunami Afforestation Project by the Pakistan Tehreek-e-Insaf government in Pakistan, and find out the causes of the failure of the project due to governance fiascos and lack of civic participation.

This paper indicates that socio-economic aspects have a decisive role in the establishment of environmental policy. Shahbaz et al. (2018) also highlighted that in Pakistan, dearth and disparity have a direct impact on the environment standing, and it often cause attentiveness of anxieties about natural resources and ecologies. The migration of people to urban areas and new industrialization have deep impact on environment in any country especially developing countries like Pakistan. Ali and Mustafa (2019) mentioned that pollution and other negative impacts depreciate the environment and community health.

Khan et al. (2021) analyzed the consequences of climate change forming a part of ecological policies is decisive in confirming that Pakistan become resilient to the paraphernalia of climate change now ensuring sustainable development. They conferred that prevailing and impending roles of climate change adaptation in the country's National Climate Change Policy. This study accentuated the demand to cross-cut the adaptation inventiveness transversely dissimilar governance levels.

Malik et al., (2020) also, described that capacity-building measures must adopt for dealing and healing environmental degradation as mentioned that encompass edifice and refining the capability of imposing environmental institutions. The above-mentioned studies review points out the multi-layered nature of environmental governance in Pakistan. The progress made in evolving legal frameworks and institutional skeletons. The persistent challenges like institutional feebleness, synchronization issues, and socio-economic gravities keep destabilize the use of environmental policies. Dealing these challenges demands concentrated efforts from legislators, experts, society and stakeholders

to fortify institutional capacities. For the improvement, coordination mechanisms, and sustainable development in Pakistan, country needs a decisive mechanism and sound policies with implementation.

**Material and Methods**

The study on “environmental governance and policy implementation in Pakistan” is qualitative research and based on secondary sources for measuring institutional requirements and limitations thereby employing a research methodology. It builds upon the review and analysis of existing academic, and public policy literature and documents to give a comprehensive framework of Pakistan’s environmental governance. The research acknowledges the prevailing strengths and feebleness and arises with a view of problems to policy enactment. It explores the potential of policy challenges, encounters, and deliberations of environment and policy actors. So, it contributes significantly to the empathy of policymakers, consultants, and academics on institutional strengths and dimness, that can be leveraged and addressed separately in reshuffling execution blockades in Pakistan’s environmental governance.

**Theoretical Framework**

Analyzing the strengths and weaknesses of institutional capacitation and barriers to environmental management and policy in Pakistan, several theoretical paradigms are acceptable. There is one striking set of ideas that will help to engage in analysis, it is the Institutional Analysis and Development IAD framework containing rules and directions for policies developed by E. Ostrom (Ostrom, 2009). The IAD framework is rooted in Elinor Ostrom’s career as an accomplished American political scientist. In 2009, she was awarded the Nobel Memorial Prize in Economics achieving a benchmark that made her the first woman to receive such an honor in the field of economics study (Ostrom, 2009). It is especially relevant to explain how institutions facilitate human behavior and how they increase or decrease the possibility of collective action in the management of natural resources (Cole, 2017).

It considers the interaction between institutions, actors, spatial and structural characteristics of environmental governance. Here's how the IAD framework can be applied: Here’s how the IAD framework can be applied:

**Institutional Measures:** Examine the official and informal guidelines, standards, and policymaking edifices that govern environment in Pakistan. It includes government linked agencies, regulatory frameworks, lawful systems, community-based administrations, and normal practices and assess the lucidity, litness, and compliance of institutional arrangements in handling environmental challenges.

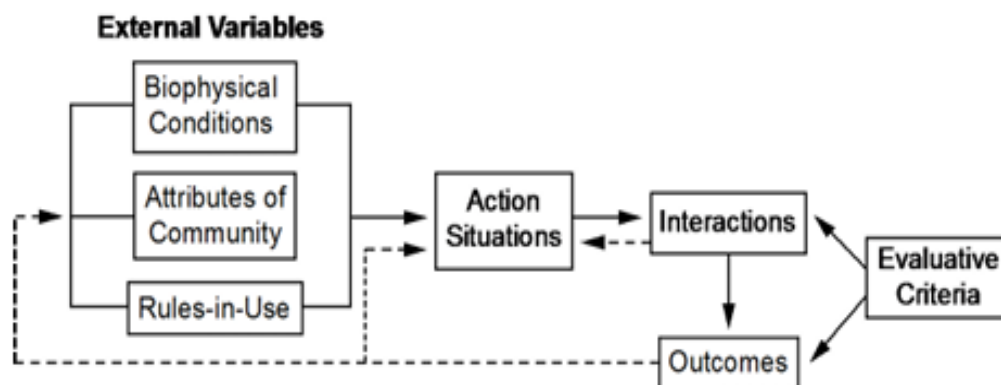


Figure 1 Framework for Institutional Analysis

**Actor Accumulations:** It is quite necessary to recognize the multiple actors that are involved in the entire process of environmental governance, with government officials, officials, community engagement, administrations, local communities, private sector bodies, and international donors. We need to Scrutinize their benefits, inducements, authority, and contacts within the governance system.

**Resource Systems:** Inspect the existing natural resource and environmental possessions that are key concern of governance in Pakistan. It added with forests, agricultural land, and urban areas.

**Governance Performance:** Understand and evaluate the environmental governance and linked institutions in terms of their efficiency, evenhandedness, and sustainability.

**Adaptive Governance:** Practice and implement adaptive governance to boost resilience of environmental governance in Pakistan. Indorse those approaches that may empower locales, and help social learning.

**Polycentric Governance:** Find out the covert for polycentric governance arrangements that work with different authority, and governance mechanisms. Promote decentralized models for decision-making, and multi-stakeholder collaborations to enhancement the legitimacy of environmental governance in the country.

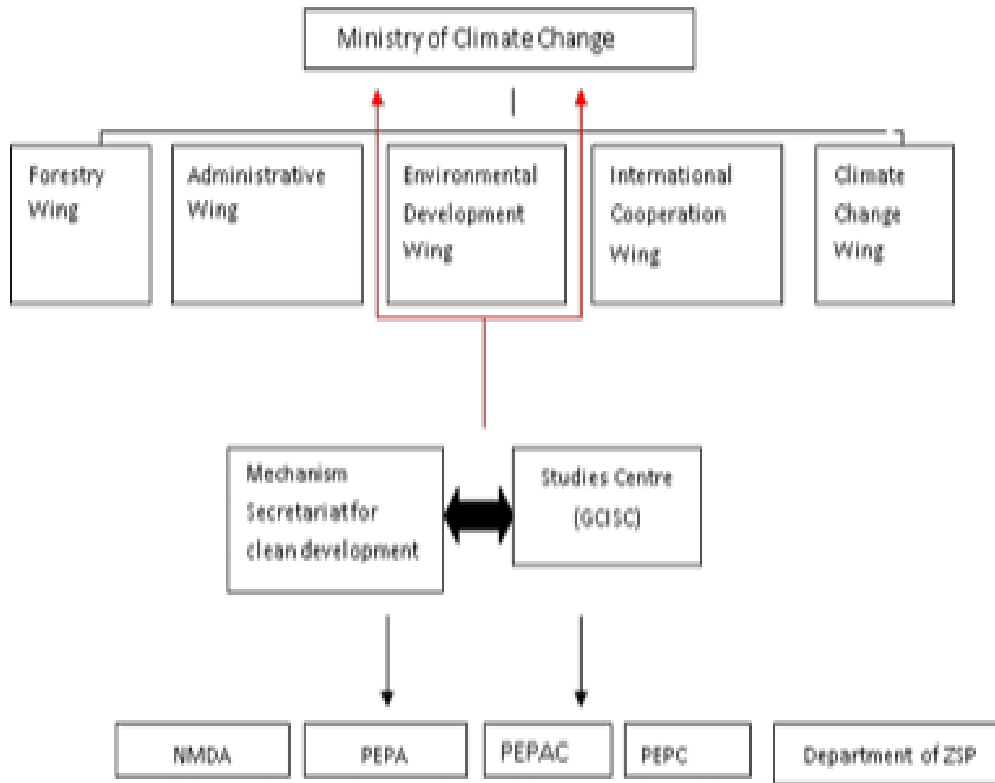
If we endorse the Institutional Analysis and Development (IAD) framework, in Pakistan, the policymakers, researchers, and experts would gain insights into the institutional capacities of environmental governance in Pakistan. They will be able to develop more operative stratagems for policy execution and institutional improvement.

### **Pakistan's environmental Governance Framework Function: An Overview**

Pakistan a country within a vast geographical area from hilly terrains to the flat lands and coastal belts is also at receiving end of certain environmental challenges of the twenty first century. Tackling these threats needs a strong Environmental management system (Khayam, 2020). In this paper, this writer sought to discuss the following: Pakistan's environmental governance structure, what the framework does and why it matters. In this paper, an attempt has been made to assess the effectiveness of Pakistan's environmental governance mechanisms by identifying the strengths and weaknesses of the system from an institutional perspective, political policies and practices and probable limitations encountered.

### **Environmental Governance Framework**

The decision-making regarding the environmental problems in Pakistan involves several institutional setups and policies related to environmental management and control. At the national level, there is a political body created to oversee environmental policy at its formation and implementation which is the Ministry of Climate Change (MoCC). On the same note, the provincial Environmental Protection Agencies (EPAs) are in charge of implementing environmental legislation and policies at this level (Abid et al., 2021).



Source: Organogram of MoCC, Pakistan. [www.mocc.gov.pk](http://www.mocc.gov.pk)

### Functions of the Environmental Governance Framework

The Environmental Governance Framework Skelton in Pakistan has multi task agenda. This may concern with specifying goals and directions, along with formulating strategies in relation to the environmental glitches as air and water pollution, deforestation, and global warming (Abid, 2021). The administration and regulation of environmental conservation depend on collaboration from the central government ministries/departments, NGOs and the community. There are many government environmental agencies and organizations in Pakistan and these entities collectively coordinate and share to ensure inclusiveness in the approaches taken to execute environmental policies. Environmental governance system supervises and enact environmental standards and measures in the country. Environmental policing involves ensuring that these bodies work with the environment adhere to certain standard or rules that regulate environmental activities, auditing or investigating entities breaking the set down laws in order to take indispensable action against them so to daunt anti-environment practices. Environmental governance in the context of Pakistan focuses on both public engagement and confirming the public of deviations, engaging the public in the decision-making processes and more on the sustainable activities. Besides, the country has intercontinental cooperation, through signing agreements besides seeking backing to overcome the issues of cross-national environmental concerns in Pakistan.

### Significance of the Environmental Governance Framework

In 2022 world ranking of environment performance index, Pakistan stand on 176<sup>th</sup> out of 180 countries and scored 24.6. The reason behind this is the lack of interest of related departments in handling the worsen situation of environment in the country. Despite a long journey of legislation and planning on the issues, the situation is getting worse. This involves the formulation, adoption, and administration of policies by law and policies with organizational structures that are meant to regulate and sustain the environment. Another

important principle of environmental governance is the participation of stakeholder that refers to how those who are affected by particular decisions are involved, including a range of assessments, experiences, and expertise, and ensures that the process of environmental management is in line with the principles of transparency and democracy. International cooperation is integral to the administration of environments; this is because most ecological challenges are cross-border in nature climate change and pollution, for instance. Conceivably, use of common resources and knowledge implies that countries and organizations can devise joint approaches to tackling international environment dilemmas. Some of the components of environmental governance include monitoring and enforcement, which plays a critical role in ensuring that stakeholders follow the laid down rules and regulations besides address environmental offenses. Public information is also crucial for engagement and ensuring that those in power are held to account for environmental resources. Globalization aims towards better collaboration for organizational or community development with the help of sound government policies and ideals to sustain the earth and its resources for future generations. The UNDP points out that environmental governance is defined as the practice of decision-making throughout the process of implementing (or the non-implementation of) a decision related to an environmental matter.

One more important feature that is part of the overall best practices in environmental governance is, its specific significance for environmental management and sustainable development on Pakistan (Zaheer,2019). By offering a structure for policy preparation, institutional synchronization, regulation and enforcement, public participation, and international cooperation, the environmental governance framework helps to: Environmental governance protect the biological and physical heritage assets of Pakistan by monitoring undesirable procedures including pollution and destruction of forests. It helps avoid problems like pollution and undesirable changes in climate, thus being helpful for people's health. Moreover, it boosts and develops sustainable development through the consideration of the environment, poverty eradication, economic growth, and development of people's living standards that can reciprocate the ecosystem.

### **Challenges and Opportunities**

The environmental governance framework in Pakistan is facing challenges such as institutional capacity restraints and weedy implementation, delaying policy execution and public participation. Nevertheless, prospects for the advancement exist via funds allocation for training and technology, enhancing intensive care, involving communities, and rationalization of institutional structures. Firming environmental governance in the country is decisive for dealing challenges and endorsing sustainable development in the country, requiring concentrated energies to daze difficulties and seize prospects for the upgrading.

### **Roles of Government Entities in Pakistan**

The government entities role in Pakistan is highly extensive and assorted, across various levels of government, like federal to provincial and local governments. These bodies play a crucial role in governing. They also perform indispensable duties, implementing strategies, and safeguarding the well-being of people. The given below are the described roles of all level of government entities in Pakistan, and highlighting their roles, and duties.

**Federal Level:** The federal legislative body is comprised of the National Assembly and Senate. Its key role is to ratify the legislative laws, revise the constitution, and oversee the executive branch. Members of Parliament represent their constituencies, deliberation on legislation, and share in team work. The President and the Prime Minister, the federal executive branch is responsible for implementing laws and policies. It oversees various ministries and departments, including finance, foreign affairs, defense, and interior. The

President serves as the ceremonial head of state, while the Prime Minister is the head of government.

The Supreme Court of Pakistan is the apex judicial body at the federal level. It interprets the constitution, resolves disputes between federal and provincial governments, and hears appeals from lower courts. The federal judiciary ensures the rule of law, protects fundamental rights, and upholds the constitution (Hassan, 2007).

The federal government is tasked with ensuring national security and defense. It oversees the armed forces, intelligence agencies, and law enforcement agencies such as the Pakistan Army, Navy, Air Force, ISI (Inter-Services Intelligence), and Federal Investigation Agency (FIA). These entities safeguard the country from external threats and maintain internal stability (Zaheer,2019).

Federal ministries and departments formulate economic policies, regulate industries, and promote development initiatives. The Ministry of Finance manages fiscal policies, while the Planning Commission (now known as the Planning and Development Division) coordinates development plans and projects. Other entities like the State Bank of Pakistan and the Securities and Exchange Commission of Pakistan regulate financial markets and institutions.

**Provincial Level:** Each province in Pakistan has its own provincial assembly, responsible for making laws on subjects within provincial jurisdiction. Members of provincial assemblies represent their constituencies, debate legislation, and oversee the executive branch at the provincial level. The provincial executive branch is headed by the Chief Minister and includes various ministries and departments responsible for implementing provincial laws and policies. The provincial governments in Pakistan manage various matters of civic wellbeing for instance education, health, agronomy, and local government.

The High Courts at provincial levels are the highest courts, that hear appeals from the district and session courts. It also addresses the matters that comes under the provincial jurisdiction. They ensure the administration within their respective provinces of impartiality, sustain provincial laws, and keep the citizens constitutional rights. These governments are also having authority for the development of infrastructure, like roads, streets, bridges, fresh water supply, and health. They look up the matters that are related to departments such as the Highway Patrol, irrigation and drainage Authority, and Public Health Engineering Departments.

Provincial governments also launch social welfare programs, and provide healthcare services, and support education to their citizens. They administer programs like the Benazir Income Support Program (BISP), Punjab Education Foundation, and Sindh Health Department to address poverty, healthcare, and education challenges.

**Local Government:** Municipal Corporations and District Governments at the grassroots level, are responsible for administering urban and rural areas. They manage services such as sanitation, waste disposal, street lighting, and local infrastructure development. Local councils, elected by residents, play a vital role in decision-making and governance at the local level (Zaheer,2019).

Local governments facilitate community development projects, including schools, healthcare centers, and small-scale infrastructure initiatives. They collaborate with local communities, NGOs, and development agencies to address specific needs and improve quality of life at the grassroots level.



Local governments oversee urban planning, zoning regulations, and land use policies to ensure sustainable development and efficient use of resources. They approve construction projects, enforce building codes, and regulate urban growth to mitigate environmental and social challenges.

Local governments generate revenue through property taxes, user fees, and other local levies. They administer the finances in municipal departments like noticing how to fund necessary services, intensify governmental transparency, and liability in the finance compartment. Ministries and departments of the government at state and provincial levels in Pakistan perform functions that are to some extent synchronized but also noticeably interactive in contemporary processes of governance and public administration. These institutions and formations comprise Federal and provincial governments, Local authorities, self-supporting organizations, and developmental NGOs, etc. All these have the concerns of supporting the Rule of Law, enhancing Socio, and Economic Development for the Public (Khayam, 2020). Inter-governmental co-operation is significant to embark upon the mixt problems in Pakistan. In order to gain a full developmental capability, it needs to provoke and overcome the issues.

### **Institutional Capacities at Diverse Levels for Implementing Environmental Policies in Pakistan**

Pakistan is facing urbanization and industrialization challenges that lead to extensive environmental hurdles. Pakistan can beat these challenges by promoting and enhancing the institutional capacities at all tiers of governance. The scrutinizes capacities, with governmental, non-governmental organizations and informal organizations' roles and hurdles (Khayam,2020). The Ministry of Climate Change (MoCC) leads federal contributions is still facing inadequacies, lack of funds and resource constraints (Government of Pakistan,2022). Provincial Environmental Protection Agencies (EPAs) also contribute efforts with limited resources and trying to combat the prevailing issues in their jurisdiction (Ministry of Climate Change,2022). Multiple NGOs as WWF-Pakistan and SDPI support government initiatives (WWF-Pakistan,2022). Some Community-based organizations (CBOs) also joined at grassroots level but due to lack of resources and support, they also now reluctant to continue (Sustainable Development Policy Institute,2022).

We need a triumph to handle the ongoing issues with a collaborative, and multi-stakeholder approach (Hussain,2020). Governmental organizations must rationalize harmonization and boost resources. NGOs also require financial aid but FATF restrictions are a big hurdle. These CBOs need government baking and capacity-building. Pakistan can efficiently deal environmental challenges and progress toward sustainability by boosting institutional capacities, encouragement and partnerships.

### **Barriers to Effective Policy Implementation and Co-ordination Problems in Pakistan**

In Pakistan's context, the limitation of its policies and coordination is departments and ministries-related issues, that are bureaucratic structure and Structural and Political instabilities (Hussain ,2020). It is also concerning that federal and provincial departments have overlapping authorities and responsibilities, which leads to coordination issues (Hussain,2020). Lack of capital and skills in enforcement decrease the achievement of this goal and further worsen the impacts on the environment (Hussain ,2020). Another factor by which political intervention and lack of succession set back the long-term goals. To address these barriers, there is a need to undertake governance reforms, implement capacity development, and ensure that the right political will is put in place on environmental management for sustainable and environmental conservation for development (Ahmad, 2019).

## **Environmental Policy Implementation Outcomes and Future Considerations in Pakistan**

Sustainable development in Pakistan facing environmental challenges, regardless of the practicing of several environmental policies. The following study aims to examine the impacts of policy, issues, and considerations about policy in the future because of implementation, lack of funds, and socio-economic factors. Poor air quality is a nuisance that has continuous effects on society, the pollution that harms quality air is generated by industrial emissions and vehicular exhaust. The presence of standards and policies like the Clean Air Program, still needs coherent measures to lessen the situation (Zaidi et al., 2021). Water scarcity and other related issues are a major concern for agricultural production and human safety owing to poor water usage and poor. It further leading to aquatic sickness from industrial and agricultural chemicals (Ahmad et al., 2020).

To tackle the issues, Pakistan need to expand its governmental agencies' capacities, tangle relevant stakeholders, improve or develop monitoring efforts, and adopt socio-economic interdependencies. Staff practices that should be implemented include Regime training and enforcement and staff development and training, both elements are strategic in the management of staff conduct; The government should engage with its people to support in pushing policy reform and gain endorsement. Mainly, the Practical performance entails, monitoring activities that are still efficient and effective to accept. The use of a sound technology guarantees must be a right decision made at the right time of taking it. But heading to social balance, these points mean eradicating these factors or at least reducing dearth levels and providing stock for the creation of constant incomes for the less fortunate persons. As that safe improvement is about managing the social disease right at the source and enhancing the effectiveness of policy delivery, it can achieve lasting results that are simply unattainable given the recognition of ecological concerns. Several sectors have been internationally recommended as visionary for placing environment in the map and improving the future of the country; these include institutionalism, stakeholders, monitoring and improvement, and socio-economic factors.

### **Conclusion**

The endeavor of Pakistan towards environmental reinforcement initiated in the year 1997, albeit inadequately. They rely on its competency to continue putting into practice on Environmental governance and evaluating measurements invested instituted challenges, complex. However, Pakistan can only get rid of existing barriers and achieve its ecological objectives through contributory increase in capacity for scholarly and technical support, development of cooperation between various supporters, endorsing the tenets of accountability and responsibility, and institutionalization of environmental discourses into policies. Thus, to strengthen Pakistan's environmental legacy, cogent environmental governance programmed is inevitable to ensure the well-being of future generations.

Currently, Pakistan has adopted decentralization system in addressing coupled environmental challenges as a system of governance. However, they are not very much for facing the challenges. The eighteen Constitutional Amendment was commenced to empower the provinces for effective management of the environmental concerns up till the increase in knowledge has been incomplete. The devolution sought to decentralize provinces and grant them more powers and autonomy from the central authority of Pakistan but it was useless to kick start an instrumental policy implementation process relating to federal-provincial balance of authority on weighty issues such as international treaties and resource management. In addition to this, provincial environmental protection acts (PEPAs) suffered from manpower thus lacking the capacity to develop and implement effective policies. This situation means that more mechanisms are needed for the infrastructure to adopt innovative technologies since there is a shortage of intra-provincial links. The outcomes show that the argument regarding the effectiveness of decentralized environmental

management remains dependent. While proponents claim it is an effective way to encourage local administrations to design solutions suitable for their areas and to increase compliance, sceptics worry about different invasion motives and potential environmental devastation masked by the gentle approach.

### **Recommendations**

The paper has identified that environmental governance in Pakistan case is greatly ignored at all tiers of government, to implement the environmental issue, the governments at all levels should focus on using capacity-building measures to involve the public with the officials since the environment is not just a subject and responsibility of one government. It can be proved by taking into account the proposed model and the activities carried out at all levels with the involvement of all interested parties. Increasing people's activity as citizens or enhancing the civic society is critical, as a guideline to enriching the stewardship functions of the ecological heart. It is therefore imperative to engage in environmentally risky considerations into growth development agendas as well as endorsing sustainable practices across the segments. These practices can dazzle, blockade, and ensure the lifestyle of the inhabitants and the preservation of natural treasures for the upcoming generations.

## References

- Abid, N., Ikram, M., Wu, J., & Ferasso, M. (2021). Towards environmental sustainability: exploring the nexus among ISO 14001, governance indicators and green economy in Pakistan. *Sustainable Production and Consumption*, 27, 653-666.
- Ahmad, R., Hayat, K., & Jabeen, R. (2019). Policy implementation issues in Pakistan: A bureaucratic perspective. *International Journal of Public Administration*, 42(13), 1133-1143.
- Ahmad, S., Khan, M. A., & Zaidi, S. A. (2020). Environmental challenges in Pakistan: A review of policies, laws, and regulations. *Environmental Science and Pollution Research*, 27(6), 6013-6027.
- Ahmed, M. (2019). Environmental Governance in Pakistan: A Critical Analysis of Institutional Arrangements. *Environmental Policy and Governance*, 29(1), 1-12.
- Ali, H., & Mustafa, U. (2019). Urbanization and Environmental Degradation in Pakistan: A Review and Research Agenda. *Sustainability*, 11(22), 1-16.
- Ali, N., Majeed, A., Saeed, S., Zulfiqar, N., & Ashraf, M. J. (2023). Climate Change in Pakistan and its Resilience Efforts. *Al-Qanṭara*, 9(4), 514-528.
- Cole, D. H. (2017). Laws, norms, and the Institutional Analysis and Development framework. *Journal of Institutional Economics*, 13(4), 829-847.
- Fahad, S., & Wang, J. (2020). Climate change, vulnerability, and its impacts in rural Pakistan: a review. *Environmental Science and Pollution Research*, 27, 1334-1338.
- Government of Pakistan. (2022). *Pakistan Environmental Protection Agency*. <https://www.epa.gov.pk/>
- Hassan, P. (2007). Environmental Protection, Rule of Law and the Judicial Crisis in Pakistan. *Asia Pac. J. Envntl. L.*, 10, 167.
- Hussain, A., & Ali, S. (2020). Institutional capacity building for environmental governance in Pakistan: A critical review. *Pakistan Journal of Commerce and Social Sciences*, 14(3), 727-746.
- Khan, A., & Ahmad, S. (2018). Air Quality Management in Pakistan: A Case Study of Lahore. *Environmental Monitoring and Assessment*, 190(6), 1-13.
- Khan, S. A., Nadeem, M., Rasheed, H., & Ahmed, N. (2020). Assessment of Institutional Capacities of Environmental Protection Agencies in Pakistan. *Journal of Environmental Management*, 267, 1-9.
- Khan, S. A., Rehman, A., Bukhari, S. A. R., & Javed, M. (2021). Mainstreaming Climate Change Adaptation into National Policy: A Case Study of Pakistan. *Environmental Science and Policy*, 123, 1-10.
- Khayam, M. U., & Ahmad, I. (2020). Decentralization of environment in Pakistan: issues in governance. *Policy Perspectives*, 17(2), 101-116.
- Lau, M. (2018). The role of environmental tribunals in Pakistan: Challenges and Prospects. *Yearbook of Islamic and Middle Eastern Law Online*, 20(1), 1-48.

- Malik, A., Jamil, A., Qureshi, S., & Baig, A. (2018). Pakistan's Environmental Legislation: A Review. *Journal of Environmental Sciences*, 31, 218-223.
- Malik, A., Hussain, S., Sarfraz, Z., & Shafique, M. (2020). Strengthening Environmental Governance in Pakistan: Challenges and Opportunities. *Environmental Science and Pollution Research*, 27(20), 25260-25274.
- Ministry of Climate Change. (2022). Government of Pakistan. <https://www.mocc.gov.pk/>
- Mustafa, D., & Munir, T. (2017). Environmental Policy Integration in Pakistan: Challenges and Prospects. *Environmental Development*, 24, 68-78.
- Ostrom, E. (2009). The institutional analysis and development framework and the commons. *Cornell L. Rev.*, 95, 807.
- Saeed, R., Sattar, A., Iqbal, Z., Imran, M., & Nadeem, R. (2012). Environmental impact assessment (EIA): an overlooked instrument for sustainable development in Pakistan. *Environmental monitoring and assessment*, 184, 1909-1919.
- Shahbaz, M., (2018). The Impact of Poverty, Income Inequality, and Population Density on Environmental Degradation in Pakistan. *Environmental Science and Pollution Research*, 25(15), 14340-14350.
- Siddiqui, Z., Hanif, M., Asghar, A., & Nasir, S. (2020). Understanding the Failure of a Large-Scale Reforestation Project: A Case Study from Pakistan. *Land Use Policy*, 97, 1-10.
- Sustainable Development Policy Institute. (2022). SDPI Pakistan. <https://sdpi.org/>(<https://sdpi.org/>)
- WWF-Pakistan. (2022). World Wide Fund for Nature - Pakistan. Retrieved from <https://www.wwfpak.org/>
- Zaheer, F. (2019). Legislation and Practices of Environmental Governance for Sustainable Development in Pakistan: A Post 18th Amendment Assessment. *J. Pol. Stud.*, 26, 97.
- Zaidi, S. A., Aziz, H., & Raza, S. M. (2021). Air quality management in Pakistan: Challenges and opportunities. *Environmental Science and Pollution Research*, 28(1), 611-626.