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# POLICY BRIEF

## Beyond Adaptation

Democratizing Climate Governance in Pakistan



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## Executive Summary

Climate change has emerged as one of Pakistan's most significant development and governance challenges. Recurrent floods, droughts, extreme heat, water stress, glacial melt and climate-induced displacement increasingly threaten livelihoods, infrastructure and economic stability. The 2022 floods alone affected approximately **33 million** people and caused losses exceeding **US\$30 billion**. Climate risks, however, are not distributed evenly.

Vulnerability is concentrated among particular geographies and populations, including riverine communities, drought-prone districts, rapidly urbanizing settlements, women, children, older persons, persons with disabilities and other marginalized groups. In many cases, those who contribute least to environmental degradation and possess the least economic and political influence bear a disproportionate share of climate impacts. This mirrors Pakistan's own position in the global climate system, where a country responsible for a relatively **small share of historical emissions** faces some of the world's most severe climate risks.

Over the past five decades, Pakistan has developed an increasingly sophisticated climate-governance architecture. Environmental regulation evolved into dedicated climate policies, legislation, institutions, Nationally Determined Contributions (NDCs), adaptation planning frameworks and provincial climate initiatives. Constitutional devolution further expanded provincial responsibility for sectors central to climate resilience. Despite these advances, **climate governance remains largely centralized**, technocratic and weakly connected to democratic institutions and citizen participation.

Climate resilience is not solely an environmental or technical challenge. Adaptation involves decisions about resource allocation, infrastructure, disaster management, energy transition, climate finance and development priorities. These decisions create trade-offs, distribute costs and benefits unevenly and affect communities differently depending on geography, livelihoods and social position.

Existing opportunities for participation remain limited. Environmental Impact Assessment (EIA) procedures provide the strongest formal avenue for public engagement, while climate laws, policies and adaptation plans largely treat participation as a guiding principle rather than an institutionalized governance function. Climate governance also remains weakly integrated into electoral politics, legislative oversight and routine democratic debate, limiting accountability for resilience outcomes. Local government laws provide democratic spaces for citizen engagement but rarely assign climate-related responsibilities to local institutions. Weak devolution, irregular local elections and limited fiscal autonomy further constrain their potential role in climate resilience.

The rapid expansion of **citizen-led solarization**, emerging carbon markets, climate finance and broader energy-transition debates further reinforce the need for democratic governance. These transitions have encountered resistance from some policy and regulatory quarters concerned about the financial sustainability of the national grid and the fiscal implications of a rapidly changing energy landscape. Nevertheless, the transition continues to create new opportunities while also raising important questions of equity, accountability and benefit-sharing that cannot be resolved through technical expertise alone and require broader democratic debate and public engagement.

Pakistan's climate challenge is ultimately as much a governance challenge as it is an environmental one. Long-term resilience will depend not only on policies, institutions and investments, but also on the ability of those most exposed to climate risks to influence the decisions that shape adaptation priorities, allocate resources and determine how the costs and benefits of climate action are distributed.



## Introduction: Climate Change and Democratic Governance

To understand the role of participation in climate resilience, it is first necessary to examine how Pakistan's climate-governance framework has evolved and where citizens fit within it.

### Climate Change as a Governance Challenge

Climate change is now one of Pakistan's most significant development challenges. Pakistan ranks among the top 10 countries worldwide most affected by climate change ([FAO, 2024](#)). The country faces recurrent floods, prolonged droughts, extreme heat, water stress, glacial melt, land degradation, air pollution and climate-induced displacement. The 2022 floods alone affected around 33 million people and caused losses and damages exceeding US\$30 billion (Planning Commission, 2022), demonstrating how climate shocks can disrupt livelihoods, infrastructure, public services and economic activity across entire regions.

These risks are not experienced evenly. Disaster vulnerability in Pakistan is concentrated in flood-prone riverine areas, drought-affected districts, mountainous regions exposed to earthquakes, landslides, and glacial hazards, as well as rapidly urbanizing settlements vulnerable to heatwaves and urban flooding. National Policy Guidelines on Vulnerable Groups by National Disaster Management Authority (NDMA) recognizes women, children, older persons, persons with disabilities, and other marginalized groups as disproportionately affected by disasters due to pre-existing social, economic, and institutional inequalities, and calls for their needs to be mainstreamed across all phases of disaster risk reduction, preparedness, response, recovery, and rehabilitation. The guidelines ([2024](#)) emphasize inclusive planning, sex-, age-, and disability-disaggregated data, accessible relief services, community participation, strengthened institutional capacities, and targeted protection measures to ensure that disaster management systems address the specific vulnerabilities and rights of at-risk populations.

The uneven geography of climate risk has important governance implications. Decisions regarding adaptation priorities, disaster preparedness, water management, energy transition, infrastructure investment and climate finance affect different communities in different ways. [Communities living on the frontlines of climate](#) impacts often possess critical knowledge about local vulnerabilities, coping mechanisms and development trade-offs, yet they frequently have limited influence over the decisions intended to protect them.

Pakistan's governance challenge is that climate impacts are overwhelmingly local, while climate decision-making remains largely centralized, technical and weakly participatory. Climate issues rarely feature in electoral politics, local government agendas, municipal planning or routine public debate despite their direct implications for agriculture, water, energy, urban settlements, public health and livelihoods. Participatory climate governance refers to governance arrangements through which citizens, communities and representative institutions are able to influence climate-related decisions, from identifying risks and setting priorities to monitoring implementation and evaluating outcomes.

### Evolution of Climate Governance in Pakistan

Pakistan did not initially approach climate change as a central governance concern. Environmental governance began to take institutional shape in 1974 with the creation of the Environment and Urban Affairs Division (EUAD) within the Ministry of Housing and Works. At the time, environmental concerns were viewed primarily through the lens of urban management, pollution control and natural resource conservation. For much of the following decades, climate change remained peripheral to public policy and was largely treated as an international environmental issue rather than a domestic development and governance concern.

Pakistan signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 at the Earth Summit in Rio de Janeiro. The country subsequently ratified the convention on June 1, 1994 ([UNFCC, 2018](#)).

Despite this, climate change remained largely confined to the realm of international environmental obligations under the UNFCCC rather than being treated as a domestic development and governance challenge. The discourse around what were once considered elite or niche environmental concerns gradually began to enter policy circles, culminating in the establishment of the Pakistan Environmental Protection Agency (Pak-EPA) under the Pakistan Environmental Protection Act (PEPA), 1997.

The country's treatment of climate change began to evolve during the 2000s as recurrent droughts, water stress, glacial concerns and extreme weather events exposed growing vulnerabilities. However, the most significant turning point came with the devastating floods of 2010, which affected millions of people and caused unprecedented damage to infrastructure, agriculture and livelihoods. The floods transformed climate change from a largely technical and environmental concern into a national development and governance challenge. They exposed weaknesses in disaster preparedness, institutional coordination, land-use planning and local resilience while highlighting the need for long-term adaptation rather than purely emergency response.

The National Climate Change Policy adopted in 2012 was Pakistan's first comprehensive climate framework, linking adaptation and mitigation with water, agriculture, energy, forestry, disaster management and urban development. Over the following decade, climate considerations increasingly entered national planning and policy discussions. Pakistan's engagement with the Paris Agreement in 2016 further accelerated this shift. Through its Nationally Determined Contributions (NDCs), the country formally committed itself to pursuing climate-resilient development, expanding renewable energy, promoting energy efficiency, supporting ecosystem restoration and strengthening adaptation measures across key sectors.

Through its NDCs, submitted in 2016, 2021 and 2025, the country progressively increased its climate ambition, from a conditional reduction of up to 20 percent of projected emissions by 2030 in its first submission to a 50 percent reduction target in the updated 2021 NDC and broader mitigation, adaptation and climate-finance commitments under [NDC 3.0](#).

[The Pakistan Climate Change Act, 2017](#) later established the Pakistan Climate Change Council (PCCC), Pakistan Climate Change Authority (PCCA) and a climate fund, creating a formal national institutional architecture for climate coordination and financing.

Provincial climate governance emerged unevenly after the subject was devolved to provinces in 18th Amendment to the constitution in 2010. Provinces initially relied on environmental protection agencies, forestry departments, irrigation departments and disaster-management authorities. Dedicated climate policies came later, including Sindh and Khyber Pakhtunkhwa climate policies in 2022, while national adaptation planning was formalized through the National Adaptation Plan (NAP) in 2023. The latest milestone in this evolution is the [Punjab Environmental Protection Act, 2026](#), adopted in April 2026, which provides the largest province in the country with its first dedicated legal framework for climate.

**Table 1: Chronology of developments on climate governance**

| Year | Milestone                                                   |
|------|-------------------------------------------------------------|
| 1974 | Establishment of the Environment and Urban Affairs Division |
| 1992 | Pakistan signs the UNFCCC                                   |
| 1994 | Ratification of the UNFCCC                                  |
| 1997 | PEPA and establishment of Pak-EPA                           |

|             |                                                                     |
|-------------|---------------------------------------------------------------------|
| <b>2010</b> | 18th Constitutional Amendment                                       |
| <b>2012</b> | National Climate Change Policy (NCCP)                               |
| <b>2016</b> | Ratification of the Paris Agreement and submission of the first NDC |
| <b>2017</b> | Pakistan Climate Change Act                                         |
| <b>2021</b> | Updated NDC submitted                                               |
| <b>2022</b> | Sindh Climate Change Policy                                         |
| <b>2022</b> | Khyber Pakhtunkhwa Climate Change Policy and Action Plan            |
| <b>2023</b> | NAP                                                                 |
| <b>2025</b> | NDC 3.0 submitted                                                   |
| <b>2026</b> | Punjab Environmental Protection Act                                 |

## Existing Consultative and Participatory Provisions

Pakistan's climate-governance framework contains several entry points for public consultation and participation, but these remain fragmented, project-specific and weakly connected to climate decision-making. Among existing instruments, the Environmental Impact Assessment (EIA) process provides the strongest formal mechanism for citizen engagement, requiring public disclosure and public hearings before approval of projects with significant environmental impacts. By contrast, the Initial Environmental Examination (IEE) process offers considerably fewer opportunities for public participation.

The climate-specific legal and policy framework places greater rhetorical emphasis on participation but provides limited institutional mechanisms to operationalize it. The Pakistan Climate Change Act, 2017 establishes climate-governance institutions and mandates the preparation of adaptation and mitigation policies, plans and programmes, but contains no explicit provisions for public consultation or citizen participation in climate decision-making.

Provincial climate policies in Sindh and Khyber Pakhtunkhwa were themselves developed through consultations involving government departments, academia, civil society and other stakeholders, and both emphasize awareness, stakeholder engagement and inclusion as implementation principles. However, these policies stop short of establishing permanent citizen forums, consultation requirements or participatory planning mechanisms through which vulnerable communities can regularly influence climate priorities and investments.

The National Action Plan 2023 comes closest to recognizing participatory climate governance as a policy objective. It explicitly promotes gender-responsive, transparent and socially inclusive approaches, emphasizes local knowledge and vulnerable groups, and acknowledges the importance of collaboration among governments, civil society and communities in building resilience.

Yet even the NAP largely treats participation as a guiding principle rather than creating legally enforceable structures through which citizens, particularly climate-vulnerable populations, can participate in adaptation planning, monitoring or climate-finance decisions.



**Table 2: Participation provisions in Pakistan's climate governance framework**

| Instrument                           | Participation provision                                                                                                              | Who participates?                                                                   | Nature of participation                         | Assessment                                                                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| EIA                                  | Mandatory public disclosure and public hearing before approval of projects with significant environmental impacts                    | Affected communities, citizens                                                      | Project-level consultation                      | Strongest formal participation mechanism, but limited to individual projects and does not influence broader climate priorities. |
| IEE                                  | Administrative environmental review with limited public engagement requirements                                                      | Primarily regulatory authorities and project proponents                             | Limited consultation                            | Weak participation mechanism                                                                                                    |
| Pakistan Climate Change Act, 2017    | Establishes climate institutions, plans and funds but contains no explicit citizen consultation requirements                         | Government institutions and designated bodies                                       | Institutional and administrative                | Very limited direct public participation provisions.                                                                            |
| Sindh Climate Change Policy, 2022    | Developed through stakeholder consultations; emphasizes inclusion, awareness and community engagement                                | Government, academia, civil society organizations (CSOs), stakeholders, communities | Policy consultation and implementation guidance | Moderate recognition of participation, but no institutionalized citizen decision-making mechanism.                              |
| KP Climate Change Policy, 2022       | Developed through consultations with departments, academia, civil society and experts; promotes awareness and stakeholder engagement | Government, experts, CSOs, academia, stakeholders                                   | Policy consultation and implementation guidance | Moderate recognition of participation, primarily advisory rather than decision-making.                                          |
| National Adaptation Plan (NAP), 2023 | Emphasizes local knowledge, inclusion, vulnerable groups, gender-responsive approaches and collaboration                             | Government, communities, CSOs, vulnerable populations                               | Strategic planning and implementation guidance  | Strongest policy commitment to participation, though largely non-binding.                                                       |



## Citizen Participation Under LG Systems

Local government laws provide a more promising institutional foundation for participatory governance. The Punjab, Sindh, Khyber Pakhtunkhwa and Balochistan local government laws establish elected local institutions, representative councils, development planning functions and varying forms of community engagement.

The [Punjab Local Government Act, 2025](#) explicitly refers to transparent decision-making through the institutionalized participation of people at the local level. [The Sindh Local Government Act, 2013](#) provides for consultative planning and development processes, while the [KP Local Government Act, 2013](#) creates village and neighbourhood councils that can identify local needs, approve local priorities and monitor development activities.

The [Balochistan Local Government Act, 2010](#) similarly incorporates community development and local planning functions. However, none of these laws explicitly recognize climate adaptation, resilience planning, climate finance, renewable-energy transition or climate-risk management as local-government responsibilities.

**Table 3: Participation and consultation provisions in LG frameworks**

| Instrument                                    | Participation provision                                                                             | Who participates?                                   | Nature of participation                 | Assessment                                                                              |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Punjab Local Government Act, 2025</b>      | Explicitly promotes institutionalized participation of people in local decision-making              | Local residents through elected institutions        | Representative participation            | Provides democratic space but no climate-specific participation mandate.                |
| <b>Sindh Local Government Act, 2013</b>       | Consultative planning and development functions through elected councils                            | Local representatives and communities               | Representative and consultative         | Potential platform for climate participation but not linked to climate governance.      |
| <b>KP Local Government Act, 2013</b>          | Village and neighbourhood councils identify local needs, approve priorities and monitor development | Citizens through village and neighbourhood councils | Direct and representative participation | Strongest local participatory architecture, though climate is not an explicit subject.  |
| <b>Balochistan Local Government Act, 2010</b> | Community development, local planning and local consultation functions                              | Communities and elected representatives             | Representative participation            | Provides entry points for local climate engagement but lacks climate-specific mandates. |

Local governments also suffer from weak political commitment to devolution. Elections have been irregular, powers and resources limited, and transfers of authority from provincial governments slow and incomplete. Punjab, the country's largest province, last held local government elections in 2015, while elected representatives across provinces have repeatedly complained of inadequate powers and finances. In many cases, local elections were held only after judicial intervention. Under these conditions, local governments remain poorly positioned to serve as effective platforms for participatory climate governance.

## Why Climate Resilience Requires Participatory Governance

Climate resilience is not only a technical challenge but also a governance challenge involving choices about risks, resources and competing interests.

### Climate Impacts Are Local, Uneven and Context-Specific

Although climate change is a global phenomenon, its impacts are experienced locally. Floods affect particular river basins, droughts affect specific ecological zones, heatwaves affect certain cities and districts more severely than others, while water scarcity, land degradation and ecosystem stress manifest differently across communities.

The changing agricultural landscape of Punjab illustrates how climate impacts interact with markets and livelihoods in complex ways. Over the past two decades, cotton cultivation has largely disappeared from northern and central Punjab and has declined significantly in southern Punjab. While multiple factors have contributed to this shift, changing climatic conditions and the seed industry's adaptation to new weather realities have played an important role. In many areas, sugarcane has expanded into former cotton-growing zones, while farmers have experimented with maize, potato, sesame and other crops.

However, the disappearance of cotton has created a major gap in the kharif economy. Alternative crops often experience severe price crashes due to periodic overproduction, exposing farmers to new forms of economic vulnerability. Climate adaptation in agriculture therefore involves not only changing crops but also addressing market systems, value chains, price stability and rural livelihoods. Decisions about adaptation consequently become governance questions rather than purely agronomic ones.

### Climate Adaptation Involves Choices, Trade-Offs and Competing Interests

The emerging climate-finance landscape presents similar questions. Decisions relating to ecosystem restoration, carbon markets, renewable-energy projects and climate-resilience investments inevitably create winners and losers. Land-use changes may benefit some communities while imposing costs on others. Energy transitions may create new economic opportunities while disrupting existing livelihoods. Infrastructure projects may reduce climate risks in one area while shifting vulnerabilities elsewhere. Pakistan itself frequently argues in international climate negotiations that it bears a disproportionate burden of climate impacts despite contributing only a small share of global greenhouse-gas emissions. Similar questions of fairness and unequal burden-sharing arise within countries and communities, where those with the least influence over decisions often suffer the greatest consequences.

These dynamics are particularly visible during disasters. Following major floods, allegations frequently emerge that embankments were breached or floodwaters diverted to protect influential landowners, strategic infrastructure or high-value assets at the expense of less powerful communities. Similarly, government relief, donor interventions and media attention often concentrate around more visible and accessible areas, while remote and marginalized communities may receive less attention despite suffering comparable or greater losses. Decisions taken to protect highways, urban centres, industrial facilities or other strategic assets can sometimes expose surrounding populations to additional risks.

The experience of southern Punjab during 2025 flooding illustrates the complexity of these choices. In areas around Jalalpur Pirwala, local observers and researchers have argued that decades of hydraulic interventions, including embankments, alterations in river systems around Panjnad and major transport infrastructure, have gradually disrupted natural drainage pathways and increased water retention in low-lying areas ([Gadi, 2025](#)).



During periods of extreme flooding, these interventions can interact with natural river dynamics in ways that redistribute risks across communities, leaving some settlements disproportionately exposed to prolonged inundation.

These choices cannot be resolved through technical expertise alone because they involve competing interests, differing perceptions of risk and questions of fairness. Participatory governance provides mechanisms through which affected communities can express preferences, contest decisions, negotiate trade-offs and influence policies that directly affect their lives. Climate resilience is therefore not simply an engineering challenge but a democratic challenge involving representation, accountability and distributive justice.

## **Climate Resilience Depends on Collective Action**

Many of the measures required to build climate resilience depend on collective action rather than individual behaviour. Government policies and regulations can create enabling conditions, but long-term resilience ultimately depends upon the willingness and capacity of communities to act collectively. Farmers must coordinate water use. Communities must participate in disaster-preparedness efforts. Households and businesses must adapt consumption patterns and resource-management practices. Local organizations often play critical roles in awareness, mobilization and implementation.

Climate resilience therefore requires social legitimacy and public ownership. Policies imposed from above may achieve short-term compliance but often struggle to sustain behavioural change or secure community support. Participatory processes can strengthen collective action by creating trust, fostering cooperation and building shared responsibility for managing climate risks.

## **Climate Governance and The Democratic Deficit**

Climate governance in Pakistan remains largely driven by government departments, technical experts and development partners, with limited engagement from elected institutions and citizens.

Climate issues seldom feature prominently in election campaigns, political manifestos or legislative deliberations. Provincial assemblies devote limited attention to adaptation planning and resilience-building, while local governments rarely possess the authority or resources necessary to engage meaningfully with climate challenges. Consequently, climate policy often evolves through bureaucratic and project-driven processes rather than through democratic deliberation.

This democratic deficit has practical consequences. Climate interventions may fail to reflect local priorities, overlook vulnerable groups or generate resistance from affected communities. Weak public oversight can also reduce accountability in the allocation of climate finance and implementation of adaptation projects. As climate-related investments increase, the absence of robust democratic engagement may become an increasingly significant governance risk.

## **The Urban Climate Challenge**

Public discussion of climate change in Pakistan is often dominated by floods, agriculture and rural vulnerability. While these concerns remain critical, some of the country's fastest-growing climate risks are increasingly urban. Heatwaves, urban flooding, air pollution, water scarcity, waste-management failures and pressure on public infrastructure are becoming defining features of climate vulnerability in cities.

Urban climate risks disproportionately affect low-income communities, informal settlements and populations with limited access to resilient infrastructure and public services. Yet urban climate governance remains

fragmented across multiple agencies responsible for land use, transport, drainage, water supply, environmental protection and disaster response. Municipal institutions rarely possess dedicated climate mandates or meaningful mechanisms for citizen engagement in resilience planning.

As Pakistan continues to urbanize, climate resilience will increasingly depend upon the ability of cities to integrate adaptation into everyday governance. This requires not only technical solutions but also democratic processes through which residents can influence planning decisions, identify priorities and hold institutions accountable for managing urban climate risks.

## Pathways For Participatory Climate Governance

The challenge is no longer whether participation matters, but how it can be embedded meaningfully within climate-governance systems.

### Citizen Participation in Climate Planning

The first step towards participatory climate governance is ensuring that citizens and affected communities have a meaningful role in climate planning. Participatory climate governance requires moving beyond consultation towards continuous citizen involvement in identifying vulnerabilities, setting priorities and evaluating adaptation options. District-level vulnerability assessments, local adaptation plans and community resilience strategies should therefore be developed through participatory processes involving citizens, local organizations, vulnerable groups and elected representatives. Participation at the planning stage can also help ensure that adaptation investments reflect local priorities rather than administrative assumptions.

### Participatory Climate Finance and Budgeting

Citizens and local stakeholders should have access to information regarding climate-related expenditures, project selection criteria and expected outcomes. Local consultation can help identify priorities for adaptation spending, while citizen oversight can reduce the risk of elite capture, political favouritism and inequitable distribution of benefits. Emerging opportunities in carbon markets and ecosystem restoration further reinforce the need for transparent and participatory benefit-sharing arrangements, particularly where local communities bear the costs or provide the resources upon which such initiatives depend.

### Community-Led Adaptation and Resilience-Building

Climate resilience is most effective when communities are active participants rather than passive beneficiaries. Community-led adaptation initiatives can support water conservation, watershed management, disaster preparedness, ecosystem restoration and climate-resilient livelihoods. Such approaches not only improve local ownership but also increase the likelihood that adaptation measures will be sustained over time. Supporting community action therefore represents both a governance strategy and a resilience strategy.

### Deliberative Forums for Climate Dialogue

Participatory climate governance requires the creation of platforms through which citizens, government agencies, experts, civil society organizations and private-sector actors can discuss climate priorities and negotiate competing interests. Public hearings, district climate forums, local resilience committees, provincial consultations and multi-stakeholder dialogues can help bridge the gap between technical planning and democratic decision-making. Such forums can also strengthen public understanding of climate risks and increase



the legitimacy of difficult policy choices involving land use, water allocation, energy transition and adaptation investments.

## Digital Participation and Climate Information

Digital technologies create new opportunities for participatory climate governance. Mobile phones, social media platforms, digital reporting systems and geographic information tools can facilitate communication between citizens and public institutions while expanding access to climate information.

Digital participation can support community reporting of environmental risks, citizen feedback on adaptation projects, dissemination of early-warning information and monitoring of climate-related investments. It can also help amplify the voices of communities that are geographically distant from administrative centres and often excluded from traditional consultation processes. However, digital participation should complement rather than replace face-to-face engagement, particularly in areas where digital access remains uneven.

## From Consultation to Co-Governance

Participatory climate governance requires a more ambitious approach in which citizens, communities and local institutions play meaningful roles throughout the policy cycle, from vulnerability assessment and planning to implementation, monitoring and evaluation. Such a transition does not require replacing technical expertise or state authority. Rather, it requires combining expert knowledge with local knowledge, administrative capacity with democratic legitimacy and national objectives with local priorities.

## Climate Governance, Energy Transition and Developmental Tensions

The strengths and limitations of Pakistan's climate-governance model become most visible where climate action intersects with development priorities, energy transition and emerging climate-finance opportunities. It is in these arenas that questions of participation, representation, accountability and distributive justice become most difficult and most important.

## Climate Priorities Versus Development Imperatives

Pakistan's climate challenge is inseparable from its development challenge. The country must pursue growth, jobs, industrialization, energy access, urban services and poverty reduction while also adapting to climate risks and reducing emissions. With gross domestic product (GDP) per capita at about US\$ 1,901 in 2026 and a population exceeding 250 million, Pakistan's development space remains constrained.

Agriculture remains central to livelihoods and economic stability, contributing roughly one-fifth of GDP while remaining highly exposed to floods, droughts, heat stress and water scarcity. Energy policy illustrates the tension most clearly.

Pakistan needs affordable and reliable electricity for industrial growth and household welfare, but the energy sector is also central to decarbonization. Debates around coal, hydropower, renewables, electricity pricing and grid modernization are not merely technical. They are democratic choices about development pathways, distribution of costs and long-term resilience.

## Citizen-Led Solarization and the Politics of Energy Transition

Few developments illustrate the governance dimensions of climate transition more clearly than Pakistan's rapid adoption of solar energy. Recent evidence suggests that Pakistan is experiencing one of the world's fastest consumer-led energy transitions. According to [REN21 \(2025\)](#), Pakistan imported approximately 17 GW of solar panels in 2024 alone, double the volume imported in 2023, and nearly 45 GW over the preceding four to five years, making it one of the world's fastest-growing solar markets.

Much of this capacity has been installed by households, businesses, commercial establishments and farmers, often outside formal net-metering arrangements and therefore not fully reflected in official statistics. Unlike many energy transitions driven by government subsidies or environmental policy, Pakistan's solarization has been largely citizen-led. The transition emerged primarily as a response to rapidly rising electricity costs rather than environmental concerns.

Decisions made during the 2010s to expand electricity generation through imported fuels coincided with slower-than-anticipated growth in electricity demand during the 2020s. The resulting increase in capacity payments and other fixed costs contributed to a sustained rise in electricity tariffs. Faced with increasingly unaffordable grid electricity, households, businesses and farmers turned to solar energy as a means of reducing costs, improving reliability and gaining greater control over their energy consumption.

This transition demonstrates how citizens can respond collectively to economic incentives and technological opportunities without waiting for formal policy direction. It also illustrates how climate action can emerge from consumer behaviour and market forces rather than exclusively through government programmes. In many respects, Pakistan's solar revolution represents one of the largest examples of decentralized climate adaptation and mitigation occurring in the country today.

At the same time, the speed of solar adoption has exposed tensions within the existing energy-governance framework. As more consumers reduce their dependence on grid electricity, concerns have emerged regarding cost recovery, cross-subsidization and the financial sustainability of the power sector. Some policymakers and regulatory actors have therefore sought to slow or manage aspects of the transition through changes in net-metering arrangements and other regulatory measures. These debates reflect competing priorities between protecting the financial viability of the existing electricity system and facilitating a longer-term transition toward decentralized renewable energy.

The resulting tensions highlight that energy transition is not merely a technical or regulatory issue. Decisions regarding net metering, distributed generation, energy storage, feeder-level planning, tariff structures and grid modernization involve questions of equity, accountability and distribution of costs and benefits. Different groups stand to gain or lose depending on how these choices are made. Consumers seek affordable and reliable energy, utilities seek financial sustainability, governments seek energy security and environmental objectives, while businesses and farmers seek predictable costs and operational flexibility.

Solarization must therefore become part of democratic debate at local, provincial and federal levels. Given the scale and pace of adoption, there is a strong case for recognizing decentralized renewable energy as a local governance subject, creating space for micro-grids, community energy systems and other localized solutions that can accelerate the transition. Equally important is a public discussion on efforts to slow the solar transition in order to protect the financial viability of the national grid.

## Electric Mobility and Clean Energy Transition

The transport transition is far slower than the solar transition. Pakistan has introduced electric vehicles (EV) policy frameworks, including the National Electric Vehicles Policy, which targeted 30 percent of passenger vehicle and heavy-duty truck sales by 2030 and higher targets for two- and three-wheelers and buses. However, adoption has remained limited due to costs, weak charging infrastructure, regulatory uncertainty and limited integration between transport, energy and urban planning.

Electric mobility matters because transport affects emissions, air pollution, fuel imports and urban quality of life. It can reduce dependence on imported fuels, improve air quality and create opportunities in manufacturing, charging infrastructure and services. But the transition is not only technological. Decisions about public transport electrification, charging locations, tariffs, incentives and vehicle markets will determine who benefits and who is excluded.

## Climate Finance, Carbon Markets and Emerging Opportunities

Climate change is not only producing risks. It is also creating new opportunities around climate finance, carbon markets, ecosystem restoration, renewable energy and green investment. Pakistan's agricultural landscapes, forests, wetlands, renewable-energy potential and restoration needs position it to benefit from emerging climate-finance mechanisms.

Carbon markets are particularly important. Afforestation, reforestation, ecosystem restoration, improved land management and renewable-energy expansion could generate environmental gains and new income streams. But these opportunities also carry governance risks. Decisions about project locations, land use, resource rights, benefit-sharing and financial flows can affect local communities significantly.

Without transparency and participation, climate-finance benefits may concentrate among government agencies, private firms, intermediaries or politically connected actors. Participatory governance is therefore essential to ensure that carbon markets and climate finance contribute to resilience and inclusion rather than new forms of exclusion. Democratizing climate finance may become as important as mobilizing it.

## Democratic Actors and Institutions for Climate Resilience

Participatory climate governance ultimately depends on the institutions and actors capable of translating citizen voices into collective action and public decision-making.

### Civil Society as Democratic Intermediary

Civil society organizations serve as important intermediaries between citizens and public institutions. They can communicate local concerns to policymakers, facilitate citizen engagement, monitor public action and translate technical climate issues into accessible public discourse. This role becomes particularly important where formal participation mechanisms are weak and local governments lack the capacity or authority to convene meaningful public dialogue.

### Communities as Co-Governors of Climate Resilience

Participatory climate governance requires recognizing communities not merely as recipients of services but as co-governors of resilience. This means involving communities in vulnerability assessments, adaptation planning, project monitoring and evaluation. It also requires ensuring that local populations participate in decisions relating



to climate finance, ecosystem restoration, carbon-market initiatives and renewable-energy projects that affect their livelihoods and resources.

However, participation cannot be assumed to be inherently inclusive. Local power structures often mirror wider inequalities. Effective participatory governance therefore requires deliberate efforts to ensure that women, youth, small farmers, tenants, landless households, persons with disabilities and other marginalized groups are able to participate meaningfully rather than being represented by local elites. Climate resilience depends not only on community participation but on equitable community participation.

## **Local Governments as the Missing Democratic Institution**

No institution is better positioned to connect climate governance with everyday citizen concerns than local government. Climate impacts are experienced locally and many adaptation measures including water management, sanitation, drainage, local infrastructure, land use, public health, waste management and disaster preparedness, either fall within local responsibilities or are deeply influenced by local conditions.

Local governments possess several advantages. They are geographically closer to affected communities, better placed to understand local vulnerabilities and more accessible to citizens than provincial or federal institutions. They can potentially serve as platforms for climate planning, public consultation, citizen oversight and coordination among government agencies, communities and civil society organizations.

Yet local governments remain the weakest component of Pakistan's climate-governance architecture. Existing local government laws provide opportunities for participation but assign few explicit climate responsibilities. Political reluctance to devolve authority, irregular elections and weak fiscal autonomy have further limited their effectiveness. Strengthening local governments is therefore not merely a governance reform; it is a climate-resilience imperative. Without capable and empowered local institutions, climate governance is likely to remain centralized, fragmented and disconnected from local realities.

## **Provincial Assemblies and Political Parties**

Climate governance cannot become democratic unless it becomes political. At present, climate issues are largely discussed within government departments, development projects and technical forums. Provincial assemblies rarely devote sustained attention to climate adaptation, resilience planning, climate finance or energy transition.

Climate issues rarely function as electoral issues. Voters typically prioritize inflation, employment, service delivery, security and patronage networks, while climate risks are often perceived as long-term or sector-specific concerns. This limits incentives for political parties to develop climate platforms or compete on resilience outcomes. Bridging this gap will require framing climate impacts in terms that connect directly to citizens' everyday concerns, including livelihoods, food security, water availability, energy costs and public health.

This absence of political engagement weakens accountability and public ownership. Assemblies are responsible for legislation, budget scrutiny, oversight of executive action and representation of citizen concerns. Political parties shape public debate, influence policy priorities and determine development agendas. Their limited engagement with climate issues therefore restricts the extent to which climate governance becomes subject to democratic scrutiny.

A more participatory approach would require assemblies to debate climate priorities more systematically, review climate-related expenditures and hold executive institutions accountable for resilience outcomes. Political parties, meanwhile, would need to integrate climate concerns into manifestos, constituency engagement and

policy platforms. Climate resilience will be more sustainable when it is anchored in political competition and democratic accountability rather than solely in administrative processes.

## **Universities, Media and Knowledge Institutions**

Climate governance depends heavily on information, evidence and public understanding. Universities, research institutions, think tanks and the media therefore play an important democratic role. They generate knowledge about climate risks, evaluate policy effectiveness, monitor emerging trends and facilitate public debate on adaptation and resilience.

Universities, research institutions and the media play complementary roles in participatory climate governance. Research organizations generate evidence, evaluate policy effectiveness and support informed decision-making, while the media informs citizens, scrutinizes public institutions and shapes public discourse. Together, they help bridge the gap between scientific knowledge, public understanding and policy action, strengthening transparency, accountability and democratic engagement in climate governance.

## **Reforming Climate Governance for Participation and Accountability**

Pakistan's climate-governance architecture has expanded considerably over the past decade, but participation remains weakly institutionalized. Strengthening climate resilience will require moving beyond consultation towards governance arrangements that systematically incorporate citizen voices, democratic oversight and local institutions.

## **Empower Local Governments for Climate Action**

Climate adaptation should be integrated into local governance systems rather than treated as a stand-alone environmental function. Local governments should be assigned clear responsibilities for climate-risk assessment, resilience planning, public consultation and oversight of adaptation initiatives. District and municipal development plans should routinely incorporate climate risks and resilience objectives. Strengthening local governments is therefore not only a governance reform but also a climate-resilience strategy.

## **Institutionalize Citizen Participation**

Citizen engagement should become a permanent feature of climate governance rather than an occasional component of project consultations. Structured mechanisms such as district climate forums, citizen panels, public hearings and multi-stakeholder platforms can provide regular opportunities for communities to influence climate-related decisions. Particular attention should be given to ensuring the meaningful participation of women, youth, small farmers, landless households, persons with disabilities and residents of climate-vulnerable areas.

## **Democratize Climate Finance and Carbon Markets**

As climate finance and carbon-market initiatives expand, transparency and accountability will become increasingly important. Information on climate-related expenditures, adaptation investments and carbon-market projects should be publicly accessible, while affected communities should have opportunities to participate in project design, monitoring and benefit-sharing arrangements.

## Mainstream Climate Change into Democratic Politics

Climate adaptation, energy transition and climate finance involve decisions about resource allocation, development priorities and distributive justice. These issues should therefore become part of routine democratic politics rather than remaining confined to technical and administrative processes. Provincial assemblies, Parliament, political parties, local governments, civil society organizations and the media all have important roles to play in fostering informed public debate and democratic accountability around climate policy.

## Build Legitimacy for Pakistan's Green Transition

Pakistan's transition towards a more climate-resilient and low-carbon economy will inevitably involve competing interests, difficult trade-offs and contested policy choices. Managing these tensions requires institutions capable of facilitating dialogue, negotiating differences and ensuring that the costs and benefits of transition are distributed fairly.

Climate resilience in Pakistan will ultimately be determined not only by the quality of its climate policies or the scale of its climate finance, but by whether those most exposed to climate risks are able to influence the decisions that shape adaptation priorities, allocate resources and define the country's green transition. The challenge is therefore not simply to govern climate change, but to govern it democratically.



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## About Accountability Lab Pakistan

Accountability Lab Pakistan (ALP) is a think-and-do tank focused on making governance work for people by supporting active citizens, responsible leaders, and accountable institutions. Our approach reimagines how accountability can be built and sustained, envisioning a governance ecosystem where resources are used effectively, decision-making is inclusive and evidence-based, and public institutions respond to citizen needs.

Distinct from traditional approaches, ALP positions accountability as a cross-cutting value embedded across governance systems. This includes work spanning public sector reform, civic engagement, human rights, service delivery, and institutional strengthening. Through knowledge production, leadership development, innovation and institutional reforms, ALP contributes to shaping more transparent, responsive, and resilient governance structures.

ALP's work is anchored in strengthening the relationship between citizens and the state by advancing institutional effectiveness, public trust, and inclusive governance. By integrating research, practice, and coalition-building, the Lab supports reform processes and contributes to a more accountable and responsive governance ecosystem in Pakistan.