NATIONAL CLIMATE CHANGE POLICY OF PAKISTAN: IN SEARCH OF ADAPTATION, CLIMATE RESILIENCE AND SUSTAINABILITY

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Abstract

Pakistan is facing critical challenges due to climate change. This paper critically examines Pakistan's National Climate Change Policy in the context of a skewed adaptation-mitigation balance. Despite efforts such as the Billion Tree Tsunami and adherence to international treaties reflecting the sense of mitigation, there are serious loopholes in the adaptation efforts. This research, based on an assessment of the governance issues, political instability, and shortage of funds, analyses the ineffectiveness of policy implementation and excessive reliance on foreign climate finance. The argument in this case is that Pakistan's unilateral emphasis on mitigation is dangerous to disaster resilience and economic stability, making the country susceptible to repeated cycles of environmental crises.

Keywords: Climate Change, Green House Gas (GHG) Emission, Floods, Mitigation, Billion Tree Tsunami Project, Carbon Dioxide Emission.

Introduction

Pakistan is going through the horrible impacts of climate change, from changed weather conditions to destructive floods, and projections suggest that climate change occurrences will cause environmental damage.[1] The Intergovernmental Panel on Climate Change has predicted an even more rise in temperature in the coming years, and the reports from GCISC are aligned with these predictions. Pakistan consistently ranks among the most climate-vulnerable countries globally.

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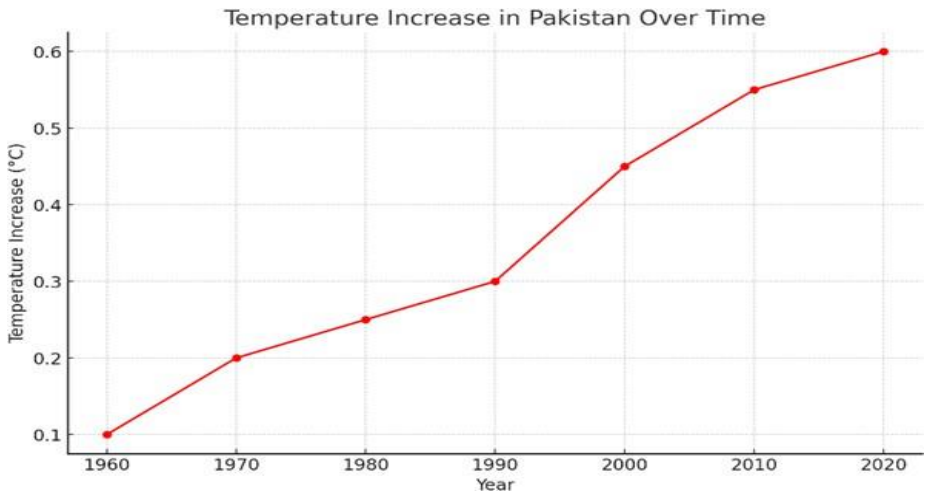


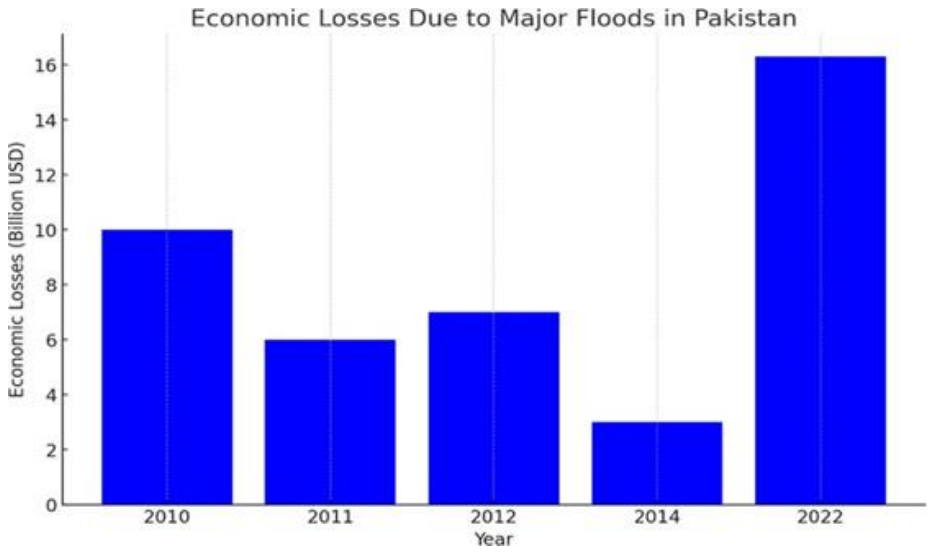
Source: Authors' Compilation

CRI 2000-2019 (1999-2018)	Country	CRI score	Fatalities	Fatalities per 100 000 inhabitants	Losses in million US$ PPP	Losses per unit GDP in %	Number of events (2000–2019)
1 (1)	Puerto Rico	7.17	149.85	4.12	4 149.98	3.66	24
2 (2)	Myanmar	10.00	7 056.45	14.35	1 512.11	0.80	57
3 (3)	Haiti	13.67	274.05	2.78	392.54	2.30	80
4 (4)	Philippines	18.17	859.35	0.93	3 179.12	0.54	317
5 (14)	Mozambique	25.83	125.40	0.52	303.03	1.33	57
6 (20)	The Baha-mas	27.67	5.35	1.56	426.88	3.81	13
7 (7)	Bangladesh	28.33	572.50	0.38	1 860.04	0.41	185
8 (5)	Pakistan	29.00	502.45	0.30	3 771.91	0.52	173
9 (8)	Thailand	29.83	137.75	0.21	7 719.15	0.82	146
10 (9)	Nepal	31.33	217.15	0.82	233.06	0.39	191

Source: Authors' Compilation

The country's policymakers are mainly focused on climate mitigation rather than its adaptation.[2] However, the issue with Pakistan is more to be addressed through adaptation rather than mitigation, as Pakistan is one of the smallest contributors to climate change. Thus, these goals are overly ambitious and not practical.

Pakistan has long been threatened with cataclysmic floods, and the nation has suffered some of the biggest disasters in recent decades. Recent floods (2022) exposed Pakistan's severe climate vulnerability.[3]



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The focus of Pakistan has been on traditional security, and the issue of climate change has usually been ignored in policy-making. The **Billion Tree Tsunami initiative** was a flagship environmental project that addressed deforestation, assisted with reviewing the future of trees, and meeting climate change targets. As a component of the broader "**Ten Billion Tree Tsunami" project**, it had sought to plant 10 billion trees across the country; however, it made progress relatively quickly in its initial phase. As of March 2022, it was reported that 1.5 billion of the 3.2 billion trees slated to be planted by 2023 had been planted.[4] The focus of the incumbent government seems to be shifting towards climate change as a priority issue. Some initiatives by Pakistan in this regard include:

- **Pakistan Climate Change Authority** coordinates national climate policies in line with the international obligations and agreements, the Paris Agreement, under the Climate Change Act 2017. It mainstreams the consideration of climate in its decision-making processes, adjusts and mitigates its actions under the Climate Change Council, and provides management for the Pakistan Climate Change Fund in financing projects for climate resilience.[5]
- **Living Indus:** Restoration of the ecological health of the Indus River Basin through nature-based solutions and ecosystem-based adaptation for building resilience against climate change.[6]
- **Recharge Pakistan** is a climate resilience project focused on the Indus Basin, characterised by ecosystem-based solutions for flood management, water security, and sustaining livelihoods. It will reduce vulnerability to climate through nature-based interventions and benefit millions through improved flood control and groundwater recharge.[7]

Research Questions

- What is the impact of political instability and issues regarding governance on the implementation and effectiveness of climate change policies in Pakistan?
- How effective is Pakistan's climate finance policy in confronting the required finances to meet the climate adaptation and mitigation goals?
- Is it causally related to Pakistan's low disaster resilience and economic vulnerability that the country is focusing more on climate mitigation than adaptation?

Argument

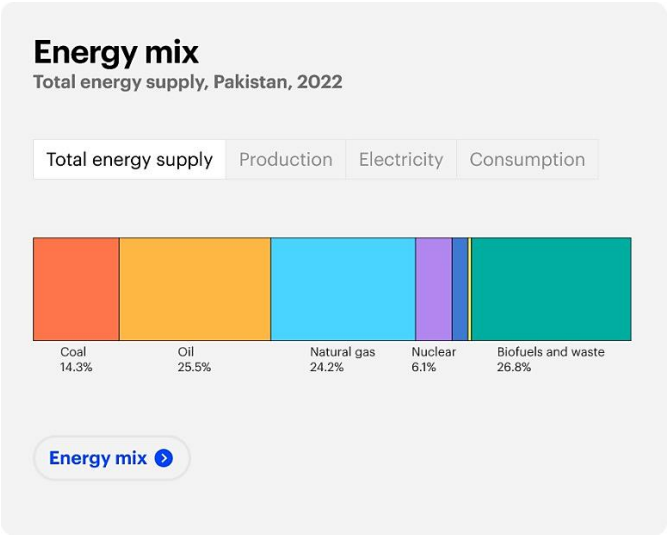
Pakistan's climate crises are inextricably linked with its institutional deficits, political instability, and economic frailties. For this self-reinforcing cycle to be dismantled, Pakistan needs to transition from a mitigation strategy to adaptation.

Methodology

The research paper incorporates information from both primary and secondary sources. Primary sources consist of policy briefs issued by organisations like the Ministry of Climate Change and the Pakistan Meteorological Department, along with reports from the *Global Change Impact Studies Centre (GCISC)*. Secondary sources include climate records and reports from institutions such as the *Intergovernmental Panel on Climate Change (IPCC)* and global entities, like the World Bank. To ensure that national policy aligns with climate goals, effectively analyse policy documents, such as the Paris Agreement and the Pakistan Climate Change Act 2017, which are referenced, along with reviewing Nationally Determined Contributions (NDCs). Additionally, academic research studies, economic analysis of disaster impacts and statistical modelling have contributed significantly to the research efforts.

Driving Factors behind the Issue

Greenhouse gas emissions of Pakistan are contributing their share to climate change, even though the country is producing less than 1% of global emissions.[8] The combustion of fossil fuels for electricity generation is responsible for the rise in Carbon Dioxide (CO_2) emissions in Pakistan.



Source: Authors' Compilation

The energy mix of Pakistan in 2022 mirrors the largest reason behind the country's contribution to global warming—complete reliance on fossil fuels.[9] Deforestation is one of the largest causative factors of climate change in Pakistan. Nevertheless, with increasing urbanisation, agricultural encroachment, and illegal deforestation, Pakistan's forest cover is very low at only 5% of the total land area of Pakistan, so more carbon is released into the environment, land gets eroded, and natural environments get disrupted.

Agriculture is also a major contributor to climate change in Pakistan and accounts for approximately 39% of total Green House Gas (GHG) emissions, according to the National Climate Change Policy 2021.[10] Mass industrialisation and urbanisation have also contributed to environmental pollution. [11] Scarcity of water is also a critical issue, which is a result of changed precipitation patterns and glacial melting. Climate change is accelerating the rate of glacial melting, while enhancing the risk of Glacial Lake Outburst Floods (GLOFs) and decreasing the supply of water in the years to come. This reduction in water resources has a secondary effect on agriculture, food security, and hydropower production, and ultimately on the livelihood and economy of millions.[12]

There are frequent extreme weather conditions. Heatwaves, floods, and droughts have devastated lives. Pakistan is among the most climate-vulnerable nations. Long-term droughts, particularly in provinces like Baluchistan and Sindh, lead to water shortages and threaten food security.[13] The use of fossil fuels in the country continues to be one of the major carbon-emitting sources. Despite having abundant solar, wind, and hydropower renewable resources, over 60% of Pakistan's energy continues to be fossil-fuel-based.[14]

Weak environmental governance is the biggest hurdle in tackling climate change.[15] Political differences, absence of financing, and ineffectiveness in regulatory institutions are impacting effective action on climate change. Without strict regulations on industrial emissions, forest destruction, and waste, environmental degradation is the only thing to grow.

Pakistan has taken steps towards solving these issues in recent years. In 2021, the government revised its National Climate Change Policy with a vision to create a climate-resilient, low-carbon future. The government also revised its Nationally Determined Contributions (NDCs) in its pledge to reduce projected greenhouse gas emissions by 50% till 2030—15% unconditional and the remaining 35% conditional on international finance support.[16] The nation has the challenging targets of 60% renewables and 30% electric vehicle electrification of all vehicles by the year 2030. [17]

Pakistan introduced the National Climate Finance Strategy in 2024 for investment mobilisation, global funding guarantees, and robust domestic financial institutions to drive climate action. Well-intentioned as these actions are, they require pragmatic action, good governance, and intense international collaboration to achieve the climate. The policies have been a demonstration of Pakistan's commitment to addressing climate change. Their implementation hinges on pragmatism, efficient administration, and intense international cooperation to achieve desired standards.

Gaps in the Implementation of Climate Policies

While Pakistan has been highly proactive in countering climate change by way of policy measures such as the new National Climate Change Policy (2021) and the Nationally Determined Contributions (NDCs) (2021), there are certain gaps in the implementation of these policies. For the gaps to be filled in an effective manner, climate policies must be effectively translated into action.

De-institutionalisation is among the biggest impediments to enacting climate policy in Pakistan. Both federal and provincial governments are left with fragmented, overlapping, or unclear responsibilities. Climate management changed after the introduction of the 18th Amendment to the Pakistan Constitution to vest environmental management entirely in provinces; however, a corresponding attempt at capacity-building is lacking. Therefore, provincial governments of the environment lack technical expertise and funds to implement national climate policy effectively. Furthermore, the Ministry of Climate Change and Environmental Coordination (MoCC) suffers from bureaucratic inefficiencies and struggles with coordination issues among different departments, such as energy, water, and agriculture. Without clear lines of authority and better coordination among the federal and provincial institutions, the climate policies are ineffective to a great extent. [18]

Second, political instability in Pakistan has also hindered long-term climate action because frequent government changes are accompanied by shifts in policy priorities. With climate policy requiring constant implementation over the long term, sudden shifts in administration often result in policy discontinuity or reorganisation.[19] Furthermore, bureaucratic inefficiencies and corruption exacerbate the issue, and industries and corporations are able to avoid environmental regulations, particularly within the industrial and energy industries. The Pakistan Climate Change Act (2017), meant to operationalise the Pakistan Climate Change Authority, remains un-operationalised due to bureaucratic challenges and political setbacks.

Financing stringency is also among the most important barriers to the enforcement of climate policy. While Pakistan has committed to ambitious climate action, such as a cut in 50% of future emissions by 2030 under its new NDCs, the majority of that goal—35%—will depend on foreign climate finance. Pakistan is unable to mobilise domestic financing for climate adaptation and climate mitigation activities since climate funding does not receive priority in the national budget. In addition, even after establishing the National Climate Finance Strategy (2024) to access foreign funding, Pakistan is unable to access significant climate finance due to poor institutions, along with the development of low-quality project proposals. The nation remains highly reliant on foreign donors like the World Bank and the Green Climate Fund (GCF) to support its climate endeavours, thus bringing uncertainty in setting long-term policy. [20]

Even in instances where climate action occurs, without strong monitoring and evaluation systems in place, measuring progress and keeping actors accountable proves to be difficult. Programs like the Billion Tree Tsunami have faced corruption charges and a lack of transparency. Without an international benchmark with which to measure the effects of climate action, policymakers cannot put metrics around gaps and rethink.[21] Besides that, Pakistan also needs to create a national Climate Risk and Vulnerability Assessment Framework required for tracking climate adaptation and making sure resources are utilised to their full capacity.

Also, the Pakistani climate policy is centralised and therefore top-down in orientation, noting that it does not include local community, business, and civil society participation. By not including them, the policies do not have firm links with the priorities and needs of vulnerable groups like rural farmers, fisherfolk, and indigenous peoples. For instance, the National Adaptation Plan (NAP) has been criticised for not integrating indigenous knowledge and local adaptation plans into the plan. If human beings do not care, all the efforts in adaptation amount to nothing, as they do not confront the reality on the ground concerning the impact of climate change.[22]

Analysis and Discussion

How Governance Problems and Political Instability Influence the Implementation and Effectiveness of Pakistan's Climate Change Policies?

Pakistan's capacity to pursue effective climate policies is largely limited by political instability and governance inefficiencies. "Political stability conditions this process in such a way that even high levels of governance effectiveness are not necessarily responsible for effective climate policy implementation and enforcement in unsteady political settings."

Pakistan's climate governance is decentralised between the federal government and provinces, leading to duplication of efforts and inefficiencies. Provincial climate ministries do not have adequate expertise, weak enforcement systems, and inadequate coordination with national agencies. For example, the Pakistan Climate Change Authority set up under the Climate Change Act of 2017 has yet to become operational due to administrative lags and the lack of funds.[23] This institutional failure goes a long way in hindering the smooth implementation and enforcement of adaptation and mitigation measures.

In addition, the frequent change of government prevents long-term climate policy because new governments are more interested in short-term economic benefits than in sustainable climate action. This policy break plunges policies into uncertainty, discredits global climate financing, and emboldens instruments of enforcement. [24]

Policies, as much as they are created, are implemented at low levels due to inefficiencies in governance and the interference of politics. The application of greenhouse gas by industry and the energy sector keeps growing because the enforcement power lacks vigour due to vulnerability to manipulation by entrenched commercial interests. The application of coal-based electricity plants under the CPEC framework is contrary to Pakistan's publicly announced adoption of a green revolution, reflecting how governance failures undermine policy realisation.[25]

Therefore, political instability and government failure decisively exclude Pakistan's climate change response by causing institutional inefficiencies, policy dissonance, and enforcement failure. Although policy responses such as the National Climate Change Policy (NCCP) and Pakistan's NDC initiatives have developed highly ambitious goals, their impact continues to be limited by the absence of effective capacity in implementation and the continued lack of political will. Addressing the governance deficits through strengthened institutional coordination, depoliticised climate policy-making, and functional systems of climate finance is key to guaranteeing long-term climate resilience.

How Closely Does Pakistan's Climate Finance Approach Reflect the Fiscal Constraints in Reaching the Goals of Climate Adaptation and Mitigation?

The country's climate finance approach is the engine powering its climate adaptation and mitigation policy. Even with Pakistan's commitment to reducing greenhouse gas (GHG) emissions under its mitigation approach and becoming more resilient, weak finances, foreign aid dependence, and limited institutional capacity are among the most significant hindrances. The national climate finance strategies of the country, including the National Climate Finance Strategy (2024) and Nationally Determined Contributions (NDCs) 2021, aim to mobilise domestic and international resources. Whether or not they will be able to do so effectively under inefficient financial management, diversion of funds, and poor handling is the worry.

"Increased reliance on foreign capital lowers financial security and lowers the capacity to execute, and thus limits the viability of long-run projects."

Pakistan issued a grand statement on climate action under NDCs 2021 by cutting down 50% of its projected GHG emissions by 2030.[26] However, 35% is made subject to the availability of international fund support, and that reveals a lot about the nation's abysmal reliance on outside finances. The "Loss and Damage Fund" mooted at COP29 and other institutions like the Green Climate Fund (GCF) and World Bank climate resilience lending are important in financing Pakistan's adaptation.[27] Such overdependence on foreign aid, however, is associated with fiscal risk and policy uncertainty since financing is subject to global economic cycles, geopolitics, and donor agendas. In the absence of robust domestic revenue mobilisation, climate action will continue to be underfinanced in the case of failure to fulfil international finance commitments. Such a situation compromises Pakistan's capacity to implement long-term climate adaptation actions.[28]

The biggest loophole is the inadequate domestic budgetary allocation towards climate action by Pakistan, primarily due to competing economic priorities like debt servicing, poverty reduction, and investment in infrastructure.[29] The Pakistan Climate Change Act 2017 also made provision for the creation of the Pakistan Climate Change Fund for financing adaptation and mitigation. Political instability as well as institutional weak capacity, however, have ensured that the fund is not operational. Other than that, Pakistan's fossil fuel energy industry appears to be contradicting its expressed climate ambitions. Pakistan's vision is 60% clean energy in 2030, but policy is to build coal-based power plants under China-Pakistan Economic Corridor (CPEC). It is policy vision vs no finance because investment in fossils is money taken away from clean energy projects.[30]

One of the most climate-vulnerable countries, Pakistan, is not positioned to leverage and utilise international climate finance effectively. Financial institutions and donors must have open policy systems, accountability, and open governance systems, which Pakistan does not offer. Being a highly climate-vulnerable country, Pakistan is not positioned to leverage and utilise international climate finance effectively. The international climate finance regime remains in its deficiencies, with the funds maintained at subminimum levels. The climate finance agreement at COP29 in Baku was agreed at $300 billion annually by 2035 from its prior $1.3 trillion agreement.[31] Nevertheless, the agreement was turned down by developing countries such as Pakistan due to it being too ambiguous and lacking, which could not capture their current needs.

Secondly, foreign aid dependency will be attracted to bring in economic assistance as loans instead of grants and increase Pakistan's burden overall. Even after the floods of 2022, even when $3 billion was spent on rehabilitation, it was spent mostly on loans and therefore increased the nation's burden. Besides this, complex application procedures of climate funds like GCF and Adaptation Fund entail complex project proposals and tight financial planning for which Pakistan has no institutional capabilities. Sudden bifurcation of the upfront tariff regime and delay in initiating competitive auctions have led to a culture of risk for investment. This fresh policy shock has resulted in declining confidence of investors in the nation, as seen through the cold welcome accorded to the Muzaffargarh 600 MW solar energy project. Despite such profitable offers, such as land provision, off-take guaranteed for 25 years, dollar-pegged and tax-free 70% tariff, the project was forced to accept pathetic bids, proof of the deterrence effect of policy unpredictability on investor moods. This slows down project approval and prevents Pakistan from having its climate resilience projects funded in a timely manner.

One of Pakistan's policy shortfalls in climate finance is weak private sector investment in climate adaptation and mitigation. In contrast to other countries where green bonds and Public-Private Partnerships (PPPs) are being employed to invest in climate projects, Pakistan has yet to develop a robust vehicle to mobilize the private sector to invest in climate resilience. Weak tax incentives, policy setting, and protection of investment discourage the private sector from investing in green business. Solar and wind energy projects, for instance, remain underexploited because of policy uncertainty as well as loosely defined financing and thus discourage Pakistan from achieving renewable energy goals. The Pakistan National Climate Finance Strategy 2024[32] does acknowledge the need for accelerating private sector finance but does not bring guiding principles to the process and thus limits mobilization of ginormous finance. In the absence of new policy incentives and risk-sharing instruments, private sector engagement will remain limited.

It is thus clear that the foreign-aid-fueled fiscal restraint of Pakistan is at least half-neutralised by the policy of climate finance, but is glaringly still disproportionately foreign-aid-hungry, unsettled by the government's inability and indifferent to the private sector. Despite there being mechanisms such as the Pakistan Climate Change Fund and National Climate Finance Strategy (2024), poor planning of budgets, gaps in institutional capabilities, and disorderly investment in fossil fuels may have the potential to stall their effect.

Is Pakistan's Undue Emphasis on Climate Mitigation at the Cost of Adaptation Resulting in Ineffective Disaster Resilience and Economic Susceptibility?

Pakistan's climate policy has always been skewed towards mitigation over adaptation, even when the nation has an infinitesimally small share of global total carbon emissions. While global climatic treaties also accrue advantage with a policy of mitigation, i.e., regulating emissions and utilising maximum renewable energy resources, present exposure in Pakistan is measured in terms of climatic events like floods, droughts, and heatwaves. Continuing along the adaptation path instead of mitigation has a policy imbalance and leaves Pakistan in the dark about relentless climatic tragedies and economically more vulnerable. The balance is in shambles unless Pakistan's climate policies have a vision for the country. [33]

Climate finance is in disproportionate flows going to mitigation, an estimation which in 2021, climate finance was about 80% into adaptation activity, which was a quite high-cost investment into renewable energy generation. It's not a Pakistani trend but rather a worldwide trend where adaptation action is under-financed.[34]

"Safe climate resiliency policy, such as carbon abatement, green energy transition, and afforestation policy, greatly enhances disaster resilience as well as economic exposure reduction. This is, however, counterbalanced by the utilisation of climate adaptation means whereby greater investment in disaster preparedness, water management, as well as infrastructural resilience, enhances capacity to weather climate calamity and minimises economic uncertainty."

Pakistan contributes below 1% of global total greenhouse gas (GHG) emissions, yet typical features of its climate policy are in favour of mitigation actions such as moving towards renewable energy, afforestation initiatives (such as the Billion Tree Tsunami), and Paris Agreement schemes. Although they collect dividends in the future, they are not necessarily working on country exposures such as floods, heatwaves, and droughts. Despite having pledged to use 60% renewable energy by 2030, Pakistan is still using coal and hydrocarbons that render its mitigation efforts futile.

Unfortunately, Pakistan's climate adaptation initiatives, such as Recharge Pakistan (flood preparedness) and Living Indus (river basin rejuvenation), mobilise less funding than financing organised to prevent, an indication of lopsided climate policy effort.

Pakistan was further struck by crippling floods, heatwaves, and droughts, whose value of only the 2022 floods aggregated to $16.3 billion with millions of displacements. Investments in water management, disaster-resilient infrastructure, and disaster preparedness are on the board everywhere.[35] Subpar drainage of Karachi city and Lahore city enter the picture now, but not because it is being revived due to there being no adaptation finance. Rural agrarian livelihood economy surpassing more than 40% remains highly exposed to whimsical monsoons and heatwaves, but without Pakistan having a drought-resilient agriculture policy. The Indus River Basin, with the highest agricultural vulnerability, is experiencing worsening water scarcity under climate change. Pakistan's transition has been extremely slow, and it has inefficient, wasteful irrigation with too much dependence on traditional water infrastructure. With more focus on reductions in longer-term emissions and less on near-term disaster resilience, Pakistan remains extremely vulnerable to climate shocks, constraining livelihood, food security, and economic stability.

Climatic hazards in Pakistan are relatively expensive on an economic scale. The 2022 floods alone were valued at $16.3 billion, which was a significant strain on economic growth and stability.[36] Its GDP will be decreased by 18-20% by 2050 because of climatic disasters, but the strategy is still development-oriented and not adaptation-oriented. The price of not investing in adaptation is staggering: Pakistan has an agricultural economy, but rising salinity, waterlogging, and heat stress have reduced agricultural production, worsening food insecurity.

Rather than irrigation technology and climate-resilient agriculture investment, the Pakistan policy continues to be on emission reduction through forestry. The current coal-based energy sector, while consisting of GHG emissions, is the sine qua non of economic stability for the nation. Industrial adaptation policy for enhancing efficiency in the climatic extremes, such as heatwaves affecting the electricity supply, is a no-go area. The economic development has been the focus point in Pakistan's planning, and projects such as "Uraan Pakistan" have envisioned 6% GDP growth by 2028 and have focused on sectors such as agriculture, energy, textiles, pharma, and IT.[37] Millions of flood-displaced people intensify the level of poverty, deteriorate labour markets, and lower productivity levels, placing further economic strain.

Government responses remain reactive and non-preventive in nature, and thus, Pakistan is forced to approach foreign aid every time a disaster hits. The gap between adaptation and mitigation policies is the main cause of economic instability since the country is yet to be economically ready to face recurring climatic disasters.

Amongst one of the key reasons why Pakistan places more emphasis on mitigation is that the international climate finance system, i.e., the Green Climate Fund (GCF), also places more emphasis on mitigation compared to adaptation. Pakistan's NDC commitments for climate finance equate to $101 billion in the actual implementation space, with most of it for adaptation in donors' hands in terms of mitigation. World donor agencies are always keenly awaiting world-class and well-prepared project proposals, for which Pakistan does not have governance capacity, with administrative inefficiencies.[38] Finance for Pakistan's climate adaptation declines due to the lack of affordable access to finance worldwide to avail mitigation measures like renewable energy projects.

Pakistan's structural imbalance in climate finance leads to its adaptation skew and against its greater adaptation requirements. Reallocating the priority to climate finance, in the case of Pakistan, would not allow it to enhance disaster resilience at the expense of relying on post-disaster assistance and not climate adaptation. Pakistan's climate change policy has thus established low disaster resilience and growing economic exposure. Emission reduction and transition to clean energy are laudable long-term goals, but for Pakistan, exposure to climate disasters is its short-term problem.

Placing emissions cuts ahead of adaptation has left the nation:

- Having disregarded disaster resilience has subjected tens of millions to climate displacement.
- Notice its economy is made more susceptible, with agriculture, industry, and infrastructure reduced by climate disasters.
- Through reduced access to international adaptation finance, which further aggravates its capacity to absorb climate risk.

Unless policy is reordered so that it responds more to adaptation, Pakistan will continue to be very susceptible to climate disasters and endure the ensuing economic and human losses, despite having given priority to the nation's action on mitigation.

Policy Directions towards Climate Resilience in Pakistan

Pakistan's climate policy is under unprecedented pressure from governance, fiscal imbalance, and disparate climate adaptation and mitigation progress. For the development of a strong system, the nation will have to follow a pragmatic path with a focus on adaptation and institutional and fiscal resilience. The following steps are necessary for Pakistan to make its climate future secure and its economy resilient.

Institutionalising Greater Effectiveness in Leadership and Institutional Resilience for Climate Policy

Political instability, lack of coordination, and lack of enforcement negatively impact Pakistan's climate policy. Decentralisation of environmental policy by the 18th Amendment was followed by the adoption of general control by the national and provincial governments, rendering its operation ineffective. For this to be rectified, Pakistan would have to establish a Pakistan Climate Resilience Authority (PCRA) under the Ministry of Climate Change. This institution must be charged with federal-provincial climate coordination and climate mainstreaming into national plans. The constitutional framework must be robust, i.e., the Pakistan Climate Change Act (2017), whereby climate policies are not political slogans but legally binding commitments. Provincial climate offices and capacity-building programs will render climate policies region-specific and thus region-wise effective.

Increasing Climate Finance and Reducing Foreign Aid Dependence

It is not possible for Pakistan to depend on foreign donors for obtaining climate finance. At least 2% of GDP should be invested by the government in climate resilience through domestic budgetary arrangements. The creation of a National Climate Adaptation Fund supported by private-public sector investment would end the country's dependence on foreign aid. To tap climate finance at the international level, the government should improve project preparation in the Ministry of Climate Change. This will support the preparation of high-quality proposals for financiers like the Green Climate Fund (GCF) and the World Bank. Second, green bonds and Public-Private Partnerships (PPPs) can be used to mobilise private sector finance. Offering tax credits and incentives to businesses investing in climate-resilient infrastructure or renewable energy will improve private sector engagement.

Less Focus on Mitigation and More on Adaptation for Resilience

Though mitigation is still the focus area of action, Pakistan's biggest threats are climate disasters, water shortages, and crop loss. Prioritising adaptation will have a lasting impact on decreasing risk from disasters and economic insecurity. There is a need for increased investment in early flood warning systems, flood defences, and drought-resistant crops. Projects such as Recharge Pakistan, aimed at improving flood resilience by using ecosystem-based measures, need to be upscaled to the national level. Urban planning regulations will also be improved, reducing the magnitude of urban floods and heatwaves. Water scarcity is also worsened by the overall degradation of the Indus River Basin. It is for this reason that the government must encourage national levels of water conservation, for example, irrigation, rainwater harvesting, and groundwater recharging.

Offering adequate funding support both locally and externally to the Living Indus Initiative would be one means of sustainable water management over the long term.

Enhancing Disaster Preparedness and Community Resilience

Pakistan's disaster response is one that is reactive in nature and costs huge economic loss and displacement. There must be a National Climate Disaster Preparedness Plan (NCDPP) and district-and community-level disaster response systems. There must be climate resilience centres at the community level that will give early warnings and emergency training to citizens. Efforts must also be made to incorporate resilience to climate while health planning because more heat and water-borne illnesses are increasingly threatening health. There must be more climate-resilient health centres constructed in flood-prone and rural locations to avoid healthcare crises in a post-disaster.

Strengthening Monitoring, Evaluation, and Accountability

The most critical problem in Pakistan is the insufficient monitoring and evaluation of climate policies, and therefore, there is corruption and inefficiency in climate projects. There will be periodic audits of climate projects, impact assessments, and public release of project performance through a National Climate Accountability Framework. It has to be an apolitical framework so that money can be utilised efficiently. There will be tracking of climate risk and policy efficacy in real time through a Climate Risk and Vulnerability Assessment System with inputs from satellite and GIS data. Moreover, making data on climate policy available on the Internet will increase transparency and accountability. With these policy proposals in hand, Pakistan can have a more resilient, sustainable, and effective climate governance system, which would be essential in overcoming the hurdles of climate change.

Conclusion

In Pakistan’s predicament lies the challenge of addressing climate change head-on—despite the country’s strides in policy making and international collaborations; progress remains sluggish due to political unrest and challenges in governance and budget management. The trajectory has been in the direction of emissions reduction, though Pakistan is not a high emitter of global carbon emissions. At the same time, the pressing need for adaptation—protection of people from floods, heatwaves, and water scarcity—has not been given the proper attention. To construct a realistically climate-resilient future, Pakistan needs to do more than promise and act in tangible ways, so that policies are not only made but also implemented effectively. The future course of action is challenging, but if it has stronger, resilient institutions, better financial prudence, and a stronger emphasis on adjustment, then Pakistan can protect its citizens and economy from climate change's deleterious impacts.

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