

Climate Budget Tagging in Pakistan: From Allocation to Last Mile Resilience

Umar Farooq, Amna Arooj, Nelam Pari, Ebadat Ur Rehman,
Zainab Naeem, Dr Abid Suleri

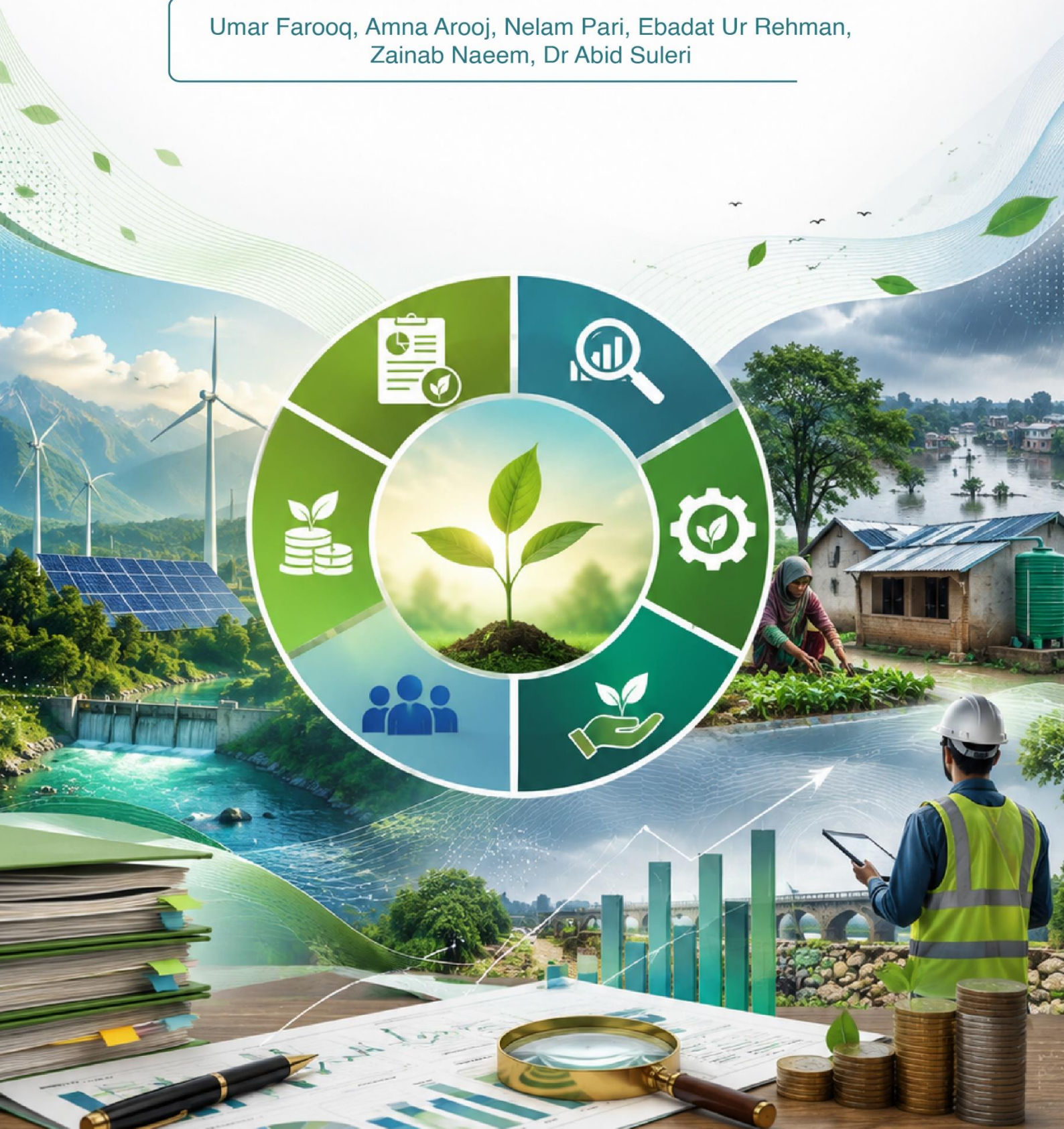


Table of Contents

Executive Summary	4
1. Introduction and Policy Context	5
2. Methodology	8
2.1 Analytical Design.....	8
2.2 Climate Expenditure Identification and Taxonomy.....	8
2.3 Benchmarking and Consistency Assessment.....	9
2.4 Governance and Institutional Assessment.....	9
2.5 Methodological Limitations	9
3. Climate Budget Analysis Across Federal Government and Provinces	11
3.1 Institutionalization of Climate Budget Tagging at the Federal Level.....	11
3.2 Federal Climate Budget Shares and Measurement	11
3.3 Composition of Federal Climate Expenditure and Green Revenues	12
3.4 Policy and Reforms Linkages	13
4. Provincial Climate Budget Analysis	15
4.1 Punjab.....	15
Allocation trends across sectors	15
Focus on irrigation, agriculture, disaster response.....	15
Gaps in mitigation spending	16
4.2 Sindh.....	17
Weak tracking mechanisms.....	18
4.3 Khyber Pakhtunkhwa (KP)	19
Forestry and nature-based solutions (e.g., afforestation).....	19
Disaster Preparedness Spending	20
Fragmentation across departments	20
4.4 Balochistan	21
4.5 Comparative Insights.....	22
5. Critical Review of Climate Budgeting	24
Reactive vs proactive spending (focus on post-disaster relief).....	24
6. Climate Budget Governance in Pakistan	27
6.1. Institutional Architecture	27
Who Owns Climate Finance in Pakistan?.....	27
6.2. Key Governance Gaps	28
6.3. Public Financial Management (PFM) Challenges	30
7. Policy Recommendations	31
7.1 Strengthening Climate Budget Systems.....	31

7.2	Improving Governance and Coordination.....	31
7.3	Enhancing Transparency and Accountability	31
7.4	Linking Budgets to Outcomes	33
7.5	Leveraging Climate Finance	34
7.6	Building Resilience Financing Mechanisms	34
8.	Conclusion.....	36
	References	37

List of Figures

Figure A:	Climate Budget Tagging Explainer.....	6
Figure 2:	Methodological Approach.....	10
Figure 2:	Punjab Climate Policy Vs Gaps in Mitigation Spending	16
Figure 3:	Sindh Environment Sector Allocations over 2024-2026.....	17
Figure 4:	Institutional Flow of Climate Budget Governance in Pakistan.....	27
Figure 5:	Key challenges around governance of climate budget at sub-national level	29
Figure 6:	Pakistan’s Climate Budget Maturity Curve	30
Figure 7:	Climate Budget Accountability Framework	33
Figure 8:	From climate budget towards strengthening resilience at the Last Mile	35

Climate Budget Tagging in Pakistan: From Allocation to Last Mile Resilience

Acknowledgement

This report was prepared through a collaborative research process that combined extensive desk review with stakeholder consultations to better understand the evolving landscape of Climate Budget Tagging (CBT) and climate public financial management in Pakistan. The authors sincerely acknowledge the valuable insights shared by representatives from the Ministry of Finance, Ministry of Climate Change and Environmental Coordination, Planning Commission of Pakistan, provincial Finance, Planning and Environment Departments, development partners, and climate finance practitioners who participated in key informant interviews (KIIs) and technical consultations. Their perspectives greatly enriched the analysis of institutional arrangements, governance challenges, and emerging reforms. We are equally grateful to the management and core teams of Sustainable Development Policy Institute (SDPI) for providing the institutional platform and research support necessary to undertake this study. Finally, we acknowledge all officials, experts, and organizations who generously shared their time, data, policy documents and technical expertise, making this report possible.

Executive Summary

Climate risks are increasingly imposing significant fiscal, economic, and development costs on Pakistan. In response, the federal government has institutionalized Climate Budget Tagging (CBT) and begun integrating climate considerations into public financial management systems. This study evaluates climate budgeting practices across the federal and provincial governments, focusing on expenditure composition, governance arrangements, budget utilization, and alignment with climate resilience objectives. It finds that while climate-related allocations are gradually increasing, spending remains heavily concentrated in adaptation and post-disaster response sectors such as irrigation, agriculture, infrastructure, and relief activities. Mitigation investments remain limited and are often poorly tracked. Significant disparities exist across provinces. Punjab has adopted climate budget tagging but allocates only a small share of its development budget to climate-specific interventions; Sindh demonstrates increasing climate-related allocations but faces persistent utilization challenges; Khyber Pakhtunkhwa has expanded investments in forestry and nature-based solutions but continues to prioritize reactive disaster spending; and Balochistan is facing severe fiscal and institutional constraints, reflected in extremely low budget utilization despite high climate vulnerability.

This study further finds that climate finance governance remains fragmented, with expenditures dispersed across sectors and departments, weak coordination between finance, planning and environmental institutions, and limited linkage between budgets and measurable climate outcomes. Although Pakistan has introduced climate-related revenue instruments, including Carbon Levy and Climate Support Levy, no dedicated national mechanism currently exists to transparently channel these resources towards adaptation, mitigation, disaster-risk reduction, and resilience-building priorities. The experiences of the 2022 and 2025 floods illustrate that there is a continued reliance on ex-post financing and emergency reallocations rather than anticipatory and risk-informed investments. The study concludes that Pakistan's climate budgeting framework must evolve from expenditure tracking towards outcome-based climate public financial management, supported by standardized climate budget tagging, stronger accountability systems, improved provincial-federal coordination, climate-risk screening of public investments and performance-based allocations.

Introduction and Policy Context

Most susceptible to climate change in the world, Pakistan has been experiencing increased frequency and intensity of climate shock incidents including floods, heatwaves, water stress, etc. The magnitude of this vulnerability can be assessed from the fact that extreme flooding events during recent years resulted in massive human, economic, and infrastructural losses. So much so the long-term heatwaves and diminishing water supplies are still threatening agricultural production, living conditions in cities and the overall well-being of people. The World Bank Country Climate and Development Report and the climate risk assessments by the Asian Development Bank show that the exposure to climate hazards in Pakistan is acute and systemic, and it has drastic effects on economic growth and human development^{1 2}. Such risks are not free of environmental problems, but they directly influence macroeconomic stability, poverty alleviation, and the developmental prospects.

Simultaneously, Pakistan has a tight fiscal constraint. The government has limited resources to allocate towards climate adaptation and mitigation due to high public debt, limited tax bases, and competing development priorities. Climate shocks also contribute to these pressures by compelling governments to redirect the money allocated to scheduled development spending to emergency response and recovery. The IMF country reports and public finance diagnostics indicate that these ex-post fiscal reactions generate budget volatility and undermine development planning^{3 4}. Such a reactive fiscal trend destroys benefits of development and leads to a situation where climate vulnerability and fiscal stress support one another. This is why the growing concern over policy and academic literature is that traditional budgeting methods, which revolve around short-term inputs, are not sufficient to handle long-term climate risks⁵.

In this regard, climate-responsive budgeting has become a very important policy instrument. After the 18th Constitutional Amendment, provinces in Pakistan have taken more responsibility in areas that are very sensitive to climate such as water management, agriculture, irrigation, infrastructure and environmental protection. It happens through this devolution that provincial governments have become primary players in climate action in the sense that a significant portion of expenditures on adaptation and resilience-related concerns are currently handled at subnational level. However, despite this shift in responsibilities, institutional capacity, coordination mechanisms and standardized methods of climate budgeting have not changed across provinces in a similar manner. The research on fiscal federalism and climate governance points out that these asymmetries frequently lead to a disjointed policy execution procedure and deficient coordination between national

¹ World Bank. (2022). *Pakistan Country Climate and Development Report (CCDR)*. <https://www.worldbank.org/en/country/pakistan/publication/country-climate-development-report>

² Asian Development Bank (ADB). (2024). *Climate and disaster resilience in Pakistan*. <https://www.adb.org/news/adb-approves-500-million-loan-support-climate-and-disaster-resilience-pakistan>

³ International Monetary Fund (IMF). (2025a). *Pakistan: RSF and EFF program documents*. <https://www.imf.org/en/-/media/files/publications/cr/2025/english/1pakea2025001-print-pdf.pdf>

⁴ World Bank. (2020). *Pakistan disaster resilience financing*. <https://www.worldbank.org/en/news/press-release/2020/12/08/world-bank-announces-300-million-for-pakistan-to-build-resilience-to-natural-disasters-and-health-emergencies>

⁵ Hallegatte, S., Rentschler, J., & Rozenberg, J. (2020). *Lifelines: The resilient infrastructure opportunity*. World Bank. <https://www.worldbank.org/en/topic/infrastructure/publication/lifelines-the-resilient-infrastructure-opportunity>

commitments on climate and subnational expenditure, including an overall impact, which is not visible most of the time⁶.

Other new reforms like Climate Budget Tagging (CBT) and introduction of climate considerations in the systems of public financial management are some of the steps taken to overcome these obstacles. Furthermore, the experience of other countries implies that CBT could be used to increase transparency and enhance the congruence of budgets and climate priorities in case of effective institutional structures and reporting mechanisms⁷. In Pakistan, recent initiatives such as the introduction of climate tagging into budgeting procedures and reforms financed under the IMF Resilience and Sustainability Facility (RSF) show that there is a move towards more organized and climate-aware fiscal management. Nevertheless, tagging is not enough as it should be connected to project appraisal, performance monitoring and outcome-based planning.

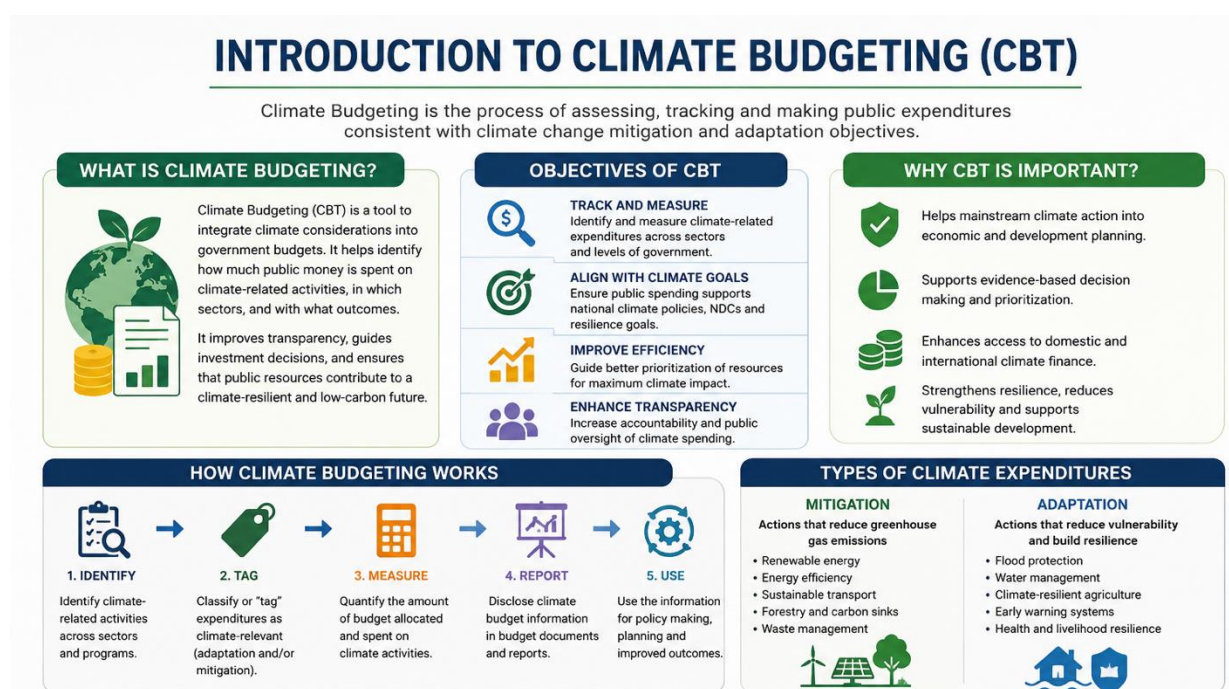


Figure A: Climate Budget Tagging Explainer

Against this backdrop, this study analyzes the allocation, classification and governance of climate related expenditures at the provincial level. It also attempts to transcend a limited concern with expenditure volumes to determine the quality, coherence and effectiveness of climate budgeting systems. Specifically, the discussion examines how adaptation, mitigation and disaster-response expenditure are balanced and how much climate factors are incorporated into larger development planning models like Annual Development Plans (ADPs) to reach the 'Last Mile'. Notably, the study is based on a governance approach to determine systemic failures, including leakage detection in the climate budget governance value chain that weakens the potential of climate budgeting. They involve poor coordination of finance among the planning and environmental authorities; lack of transparency in reporting of climate

⁶ World Bank. (2012). *Making federalism work: The 18th Amendment*. <https://documents1.worldbank.org/curated/en/687281468057882110/pdf/871020NWP0Box30ing0Federalism0Work.pdf>

⁷ OECD. (2021). *Green budgeting and public financial management*. <https://www.oecd.org/gov/budgeting/green-budgeting/>

expenditures and lack of mechanisms to tie spending to quantifiable resilience and adaptation outcomes. The literature on climate public financial management highlights the importance of fortifying governance frameworks so that climate finance might be converted into a real development outcome that sustains climate resilience.

In particular, the study aims to conduct a systematic evaluation that relates the budgetary allocations to the climate outcomes with the prism of governance. In this way, the study seeks to enlighten policy discourse on how Pakistan can shift out of a reactive, expenditure-based model to a more strategic, climate-sensitive fiscal model. This type of transition is necessary not only in the management of climate risks but also in the realization of more general development goals, such as sustainable growth, alleviation of poverty and adherence to global climate commitments.

Methodology

2.1 Analytical Design

This study anchors a mixed-method, document-based fiscal analysis combined with an institutional governance assessment to assess climate budgeting practices at sub-national level across the Punjab, Sindh, Khyber Pakhtunkhwa and Balochistan provinces. The analytical approach is tailored around the climate public financial management (climate-PFM) principles that extends beyond nominal expenditure tracking to assess:

- the composition and alignment of climate-related spending including adaptation, mitigation and disaster response,
- the integration of climate priorities within provincial development planning frameworks particularly Annual Development Plans (ADPs),
- the institutional capability to handle budgeting systems in translating allocations into measurable climate outcomes.

Rather than treating climate expenditure as a discrete budget line, the methodology recognizes its embedded and cross-sectoral nature, requiring reconstruction through classification, tagging, and critical analysis.

The study is based on a systematic review of primary fiscal and planning documents for FY2024–25 and FY2025–26, including:

- Provincial budget books (current and development expenditures),
- Budget speeches and finance bills,
- Annual Development Plans (ADPs),
- Sectoral allocations across key climate-relevant domains.

These are complemented by:

- Available Climate Budget Tagging (CBT) frameworks where implemented,
- Policy and reform benchmarks linked to the IMF Resilience and Sustainability Facility (RSF),
- Secondary evidence from international financial institution diagnostics.

The study focuses on provincial-level fiscal architecture, reflecting post-18th Amendment decentralization, where climate-relevant sectors like water, agriculture, irrigation, infrastructure, and environment are primarily devolved.

2.2 Climate Expenditure Identification and Taxonomy

Given the absence of a standardized and mandatory climate budget taxonomy across provinces, the study employs a structured proxy-based classification framework to identify climate-relevant expenditures.

Budget lines are mapped into five analytical categories:

1. Adaptation – investments reducing climate vulnerability (e.g., irrigation, flood protection, climate-resilient agriculture)
2. Mitigation – low-carbon and energy transition interventions (e.g. renewable energy, efficiency)
3. Disaster Risk Management (DRM) – preparedness, response, recovery and reconstruction
4. Environmental Protection – forestry, biodiversity, pollution control (with climate co-benefits)
5. Resilience-Building Investments – cross-sectoral infrastructure and systems with embedded climate resilience.

Where explicit tagging is unavailable, expenditures are identified through sectoral proxies and functional mapping, particularly in:

- irrigation and water resource management,
- agriculture and livestock,
- energy and infrastructure,
- disaster management authorities.

This approach addresses the structural issue that climate spending is often integrated within broader development heads, creating both overestimation risks where general expenditures are loosely tagged, and underestimation risks where climate-relevant investments remain unlabelled.

To mitigate this, the study applies a conservative attribution logic, prioritizing specificity and avoiding inflation of climate expenditure estimates.

2.3 Benchmarking and Consistency Assessment

Inter-provincial comparison is undertaken with careful considerations due to heterogeneity in CBT adoption, definitions and reporting practices.

To ensure analytical consistency, the study:

- standardizes expenditure categories across provinces
- normalizes sectoral allocations into comparable climate functions
- and qualitatively assesses alignment with national climate commitments (e.g. NDCs, adaptation priorities).

However, the absence of harmonized reporting frameworks remains a structural limitation, and findings have been interpreted as indicative of systemic patterns rather than precise fiscal quantification.

2.4 Governance and Institutional Assessment

This new methodology treats climate budgeting as a system of financial decision-making by the public rather than a purely accounting exercise.

The assessment focuses on four institutional dimensions:

- **Transparency:** visibility and traceability of climate expenditures within budget documents,
- **Coordination:** alignment across finance, planning, and environmental agencies,
- **Accountability:** existence of monitoring, audit, and reporting mechanisms linking spending to outcomes,
- **Outcome Orientation:** extent to which budgets are linked to measurable climate indicators (e.g. resilience gains, emission reductions).

This diagnostic enables identification of ‘leakage points’ in the climate budgeting value chain, where

- allocations fail to translate into implementation,
- spending is not linked to outcomes, and
- institutional fragmentation weakens policy coherence.

2.5 Methodological Limitations

The study is subject to three key limitations:

1. **Data opacity and aggregation:** Climate expenditures are frequently embedded within broader sectoral allocations that limits precision.

2. **Inconsistent CBT application:** The variation in tagging methodologies across provinces constrains benchmarking.
3. **Lack of outcome-linked data:** Budget systems remain largely input-driven, with minimal linkage to climate performance indicators.

These constraints are explicitly accounted for through a triangulated and interpretative approach, ensuring that findings reflect systemic fiscal patterns rather than point estimates.



Figure 2: Methodological Approach

3. Climate Budget Analysis Across Federal Government and Provinces

3.1 Institutionalization of Climate Budget Tagging at the Federal Level

The federal level Climate Budget Tagging (CBT) in Pakistan has already left the pilot stage and is integrated into the mainstream infrastructure of managing public finances. CBT was initiated in FY 2023-24 and formally incorporated into the budget system in FY 2024-25 and is operationalized in terms of a specific climate budget statement as well as intertwined throughout the important fiscal texts, with the Annual Budget Statement, Budget in Brief and Budget Call Circular as well as the performance budgeting framework. The system is enacted by tagging over 5,000 federal cost centres in SAP, by the classification structures in line with the National Climate Change Policy^{8 9 10}.

This change in institutions is a wider systemic change in fiscal governance where climate change is no longer perceived as a separate area of policy, but on a more structural level, it is becoming integrated into budgeting, reporting and expenditure tracking systems. CBT offers a starting point of standardizing the process of identifying and reporting climate-related spending at the federal ministries and agencies in a context whereby there is fragmented climate governance and poor coordination among different levels of government intervention.¹¹

3.2 Federal Climate Budget Shares and Measurement

Pakistan's Climate Budget Tagging (CBT) framework has gradually evolved into a core component of federal public financial management. Initially introduced in FY 2023–24 and formally institutionalized in FY 2024–25, CBT now covers current expenditures, development expenditures, grants and subsidies. The framework enables systematic identification and tracking of climate-responsive expenditures across federal ministries and agencies.

According to the Annual Budget Statement of FY 2025–26, climate-tagged expenditures accounted for 6.9 per cent of current expenditure and 8.2 per cent of development expenditure. Furthermore, approximately 50 per cent of federal subsidies were classified as climate-responsive under the expanded tagging framework. The extension of CBT coverage beyond traditional expenditure heads represents a significant step towards strengthening climate fiscal transparency and monitoring.

While these figures provide an important indication of climate-responsive spending, year-to-year comparisons should be interpreted cautiously because the climate budget tagging methodology continues to expand and new expenditure categories are progressively being incorporated into the framework.

⁸ Government of Pakistan, Finance Division. (2024). *Annual budget statement 2024–25*. <https://www.finance.gov.pk>

⁹ Government of Pakistan, Finance Division. (2025). *Annual budget statement 2025–26*. <https://www.finance.gov.pk>

¹⁰ Government of Pakistan, Finance Division. (2025). *Budget in brief 2025–26*. <https://www.finance.gov.pk>

¹¹ World Bank. (2022). *Pakistan country climate and development report*. <https://www.worldbank.org>

Table 1: Federal Climate Budget Shares (% of Expenditure Base)

Fiscal Year	Current / ROCG (%)	Development / PSDP (%)	Grants (%)	Subsidies (%)
2024–25	7.7 (ROCG)	15.3 (PSDP)	—	—
2025–26	6.9 (Current)	8.2 (Development)	0.2	Approx. 50

3.3 Composition of Federal Climate Expenditure and Green Revenues

Federal climate expenditure remains heavily concentrated in mitigation-related activities. During FY 2025–26, adaptation allocations amounted to Rs 85.4 billion while mitigation-related expenditures reached approximately Rs 603 billion, largely driven by climate-responsive energy subsidies and renewable energy support mechanisms. Supporting climate-related expenditures accounted for an additional Rs 28.3 billion.

An important development in FY 2025–26 was the emergence of climate-linked revenue instruments alongside climate expenditure tracking. For the first time, Pakistan's climate fiscal architecture began incorporating dedicated environmental and climate-related levies intended to mobilize domestic resources for climate action and resilience-building.

Carbon Levy

The Federal Government introduced a Carbon Levy on petrol, high-speed diesel and furnace oil at Rs 2.5 per litre during FY 2025–26, with a planned increase to Rs 5 per litre in FY 2026–27. According to the Federal Finance Minister, the levy aims to support Pakistan's green transition, reduce reliance on fossil fuels and generate domestic resources for climate-related investments. The measure also reflects Pakistan's broader commitment to integrating carbon pricing instruments within fiscal policy reforms.

Climate Support Levy

The Climate Support Levy represents another important fiscal measure aimed at generating domestic resources for climate resilience and adaptation priorities. Government statements indicate that approximately Rs 37 billion had been collected under the Climate Support Levy by June 2026. The levy has the potential to become a dedicated source of climate finance; however, a clear framework governing the allocation and utilization of these revenues remains absent.

Petroleum Development Levy and Climate Fiscal Space

Although not formally classified as a climate instrument, the Petroleum Development Levy (PDL) remains one of Pakistan's largest environmentally linked revenue streams. Between April 2024 and March 2026, petroleum levy collections reached approximately Rs 2.725 trillion. This amount exceeds the value of several international climate-finance packages received by Pakistan over the same period and highlights the substantial domestic fiscal space that could potentially support climate adaptation, mitigation and resilience-building investments.

The growing importance of climate-related levies and environmental fiscal instruments demonstrates that Pakistan's climate fiscal framework is gradually moving beyond expenditure tracking toward climate revenue mobilization. However, the absence of a dedicated Climate Fund or earmarking mechanism means that revenues generated through climate-related levies are not systematically linked to climate adaptation, disaster preparedness or resilience-building outcomes.

3.4 Policy and Reforms Linkages

Pakistan’s federal Climate Budget Tagging (CBT) framework is closely linked with the country’s broader public financial management and climate fiscal reform agenda, particularly under the IMF Resilience and Sustainability Facility (RSF). These reform commitments include the institutionalization of climate budget statements, the introduction of quarterly climate budget implementation reports, expansion of tagging methodologies to include grants and subsidies, climate-risk screening of public investments, harmonization of federal and provincial climate budgeting approaches by 2027, and alignment of CBT with emerging green taxonomies to improve consistency and comparability in climate finance reporting.

In May 2025, Pakistan secured access to approximately US\$1.4 billion under the 28-month IMF RSF to support climate resilience, disaster-risk management, climate budgeting, water governance, and climate-informed public investment reforms. Unlike traditional IMF financing, RSF resources are disbursed in tranches linked to the implementation of agreed reform benchmarks. As of June 2026, Pakistan had received approximately US\$420 million under the facility, comprising US\$200 million after the first review and US\$220 million after the second review, leaving around US\$980 million available for future disbursement subject to continued reform progress. In this context, the federal CBT framework is not only a reporting mechanism but also a reform vehicle for scaling up climate budgeting across provinces, strengthening fiscal transparency, and improving the alignment of public finance with national climate policy priorities.

Despite significant progress in expenditure tracking, climate budget reporting, and climate-related revenue generation, an important governance gap remains. Pakistan has yet to establish a dedicated mechanism that directly links climate-related revenues, including Carbon Levy and Climate Support Levy proceeds, with clearly defined adaptation, mitigation, and disaster-risk financing priorities. Addressing this gap will be essential for translating climate fiscal reforms into measurable resilience outcomes.

The change in federal climate budget allocations between FY2024–25 and FY2025–26, presented in Table 2, should therefore not be interpreted only as a change in fiscal priorities. It also reflects methodological changes in the CBT framework, particularly the introduction of new expenditure groups such as subsidies in FY2025–26.

Table 2: Composition of Federal Climate Budget (Rs Billion)

Fiscal Year	Adaptation	Mitigation	Supporting Areas
2024–25	46.625	212.861	18.887
2025–26	85.435	603.000	28.331

Source: Budget in Brief (2024–25, 2025–26)

Table 2.1: Climate Related Revenue:

Climate-Related Revenue Instrument	FY2025–26 Status
Carbon Levy	Rs 2.5/litre on petrol, diesel and furnace oil
Climate Support Levy Collection (June 2026)	~Rs 37 billion
Petroleum Development Levy Collection (Apr 2024–Mar 2026)	~Rs 2.725 trillion

Climate-Tagged Current Expenditure	6.9%
Climate-Tagged Development Expenditure	8.2%
Climate-Responsive Subsidies	~50%

Source: Budget in Brief (2024–25, 2025–26)

The steep rise in mitigation expenditure in FY2025–26 was mainly influenced by the inclusion of green subsidies within the CBT framework. Out of Rs 587.3 billion earmarked for green subsidies, approximately Rs 529 billion is specified for energy-sector mitigation, with smaller allocations for adaptation in agriculture at Rs 22 billion and food at Rs 20 billion, as well as mitigation in industry at Rs 9 billion and transport at Rs 7.3 billion. This indicates that the expansion of classification coverage is a key determinant of changes in CBT outcomes, and that year-on-year increases in climate-tagged expenditure do not necessarily represent equivalent shifts in development expenditure priorities.¹²

¹² Government of Pakistan, Finance Division. (2025). *Budget in brief 2025–26*. <https://www.finance.gov.pk>

4. Provincial Climate Budget Analysis

4.1 Punjab

Allocation trends across sectors

The Punjab possesses the largest provincial development budget in Pakistan. It increased from PKR 842 billion in FY2024–25 to PKR 926 billion in FY2025–26 with projections exceeding PKR 1 trillion by FY 2026–27. Despite this fiscal expansion, climate expenditure remains a relatively small component of overall development spending. According to the Annual Development Programme (ADP), climate-specific interventions account for only approximately 3 per cent of the Punjab's total development budget, highlighting a significant gap between climate vulnerability and budgetary prioritization¹³.

Table 4.0: Punjab Development Budget Overview

Indicator	FY2024–25	FY2025–26
Total Development Budget	PKR 842 Billion	PKR 926 Billion
Social Sector Allocations	PKR 308 Billion+	PKR 308 Billion+
Infrastructure Allocations	PKR 271 Billion	PKR 271 Billion+
Climate-Tagged Share of Development Budget	No tagging	~3%

Focus on irrigation, agriculture, disaster response

The climate spending in the Punjab is mainly adaptation-based with high priority on water management, agriculture, and resilience to disasters. Irrigation allocations rise to PKR 28.38 billion due to the imperative of the sector in dealing with water shortage and climatic fluctuation¹⁴. This is especially important since agriculture uses more than 95% of freshwater and supports food security of the province¹⁵. On the same note, the expenditure on agriculture increases to PKR 71.06 billion, which underlines its centrality to the economic stability as well as climate-resilience. Nevertheless, the industry is very susceptible to climatic hazards, such as unpredictable rains, increasing temperatures, and water shortages. The capacity of disaster response is backed by allocations to emergency services including Rescue 1122, albeit with fairly low funding. Since Punjab has been affected by floods, droughts and heat waves on multiple occasions, it is important to enhance disaster preparedness¹⁶. Inclusion of larger investments in city development and water supply infrastructure also leads to climate resilience indirectly because it alleviates the effects of floods, heat stress, and water scarcity. Environment and Climate Change budget reflects a gradual growth of approximately 10 percent per year (PKR 10,000 million in FY 2024-25 to PKR 12,100 million in FY 2026-27). This implies long-term investment in climate and environmental issues. With the trend still intact, allocations are expected to rise to approximately PKR 13,310 million in FY 2027-28, and PKR 14,641 million in FY 2028-29 indicating that the sector will continue to improve.

¹³ Government of Pakistan. Punjab Provincial Climate Change Action Plan (2021).

¹⁴ Medium Term Development Framework (MTDF) 2024–27.

¹⁵ Government of Pakistan. Punjab Provincial Climate Change Action Plan (2021).

¹⁶ Government of Pakistan. Punjab Provincial Climate Change Action Plan (2021).

Gaps in mitigation spending

The major weakness of the Punjab climate budget is that it does not focus on mitigation.

The climate policy in the Punjab is developed in the whole-of-economy perspective, whereas the modern development expenditure is still highly centralized, which has a substantial implementation gap among the major priorities in mitigation and cross-sectoral priorities. Direct Environment and Climate Change allocations are not high compared to total expenditure, which implies that there has been less emphasis on emissions reduction. The proportion of spending that is mitigation-relevant is low even when forestry and other related industries are included. The ADP notes that climate-specific measures consume just approximately 3% of the development budget and emphasizes that it is structurally imbalanced between the development priorities and climate goals. Renewable energy, low-carbon transport, and the efficiency of industry are some of the critical areas of mitigation that receive a relatively low level of investment. Moreover, the energy sector investments are also small, and a lack of evidence shows a widespread shift to cleaner energy systems. It is especially alarming because energy, transport as well as industry are among the leading producers of greenhouse gases and are explicitly listed as mitigation priorities in provincial policy frameworks as per the Punjab Provincial Climate Change Action Plan.

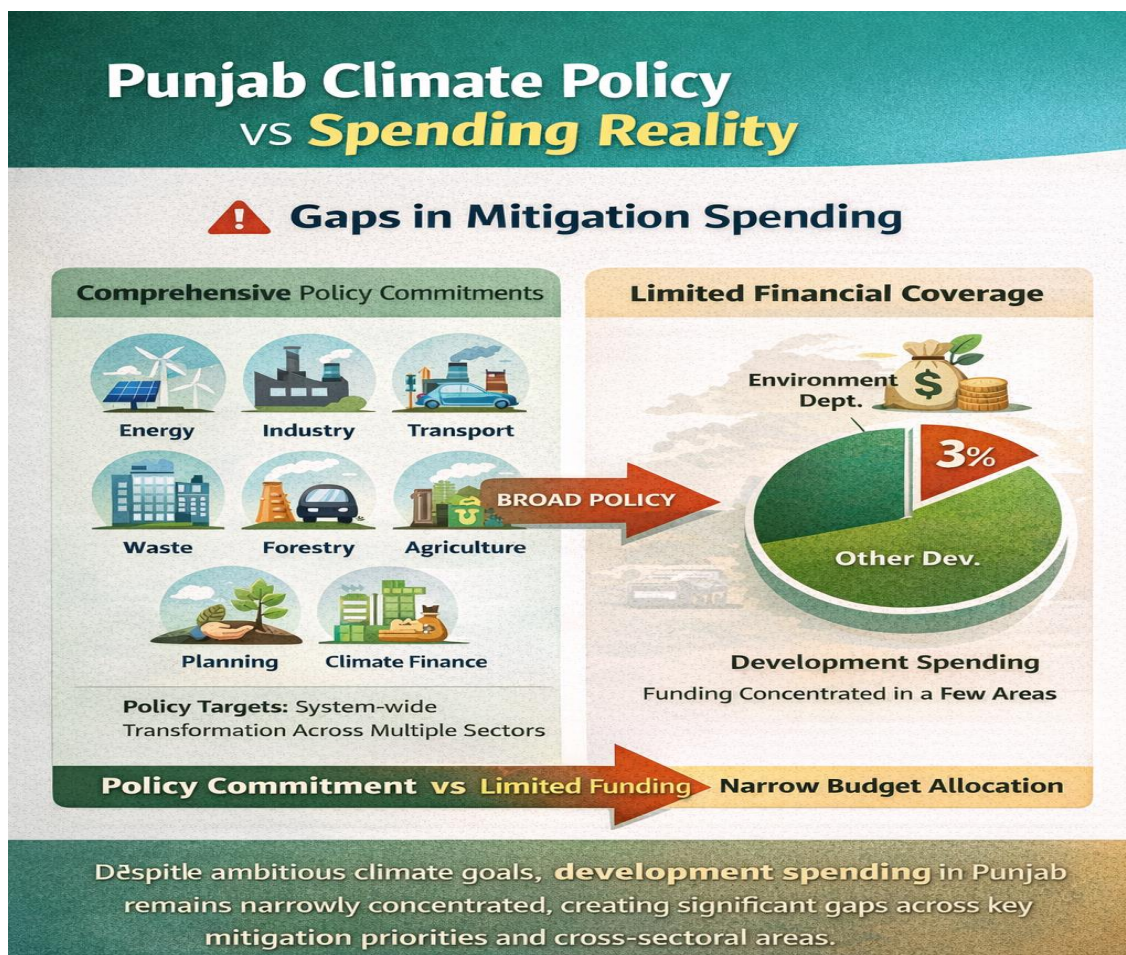


Figure 2: Punjab Climate Policy Vs Gaps in Mitigation Spending

4.2 Sindh

Sindh remains one of Pakistan's most climate-vulnerable provinces, facing recurrent floods, sea intrusion, cyclones, extreme rainfall events, urban flooding and rising temperatures. Consequently, the province's climate-related spending is heavily concentrated in adaptation and resilience-building sectors such as irrigation, water management, public health and disaster response. However, despite substantial investments in climate-sensitive sectors, environmental spending remains relatively small and historically suffers from low utilization rates. According to budget utilization analyses reported by daily *Dawn*, Sindh allocated approximately PKR 48.8 billion to environmental protection over a sixteen-year period but spent only around PKR 20.2 billion, reflecting an average utilization rate of approximately 41 per cent. Some environmental sub-departments reportedly utilized less than 10 per cent of their allocated budgets, highlighting significant implementation and governance challenges.¹⁷

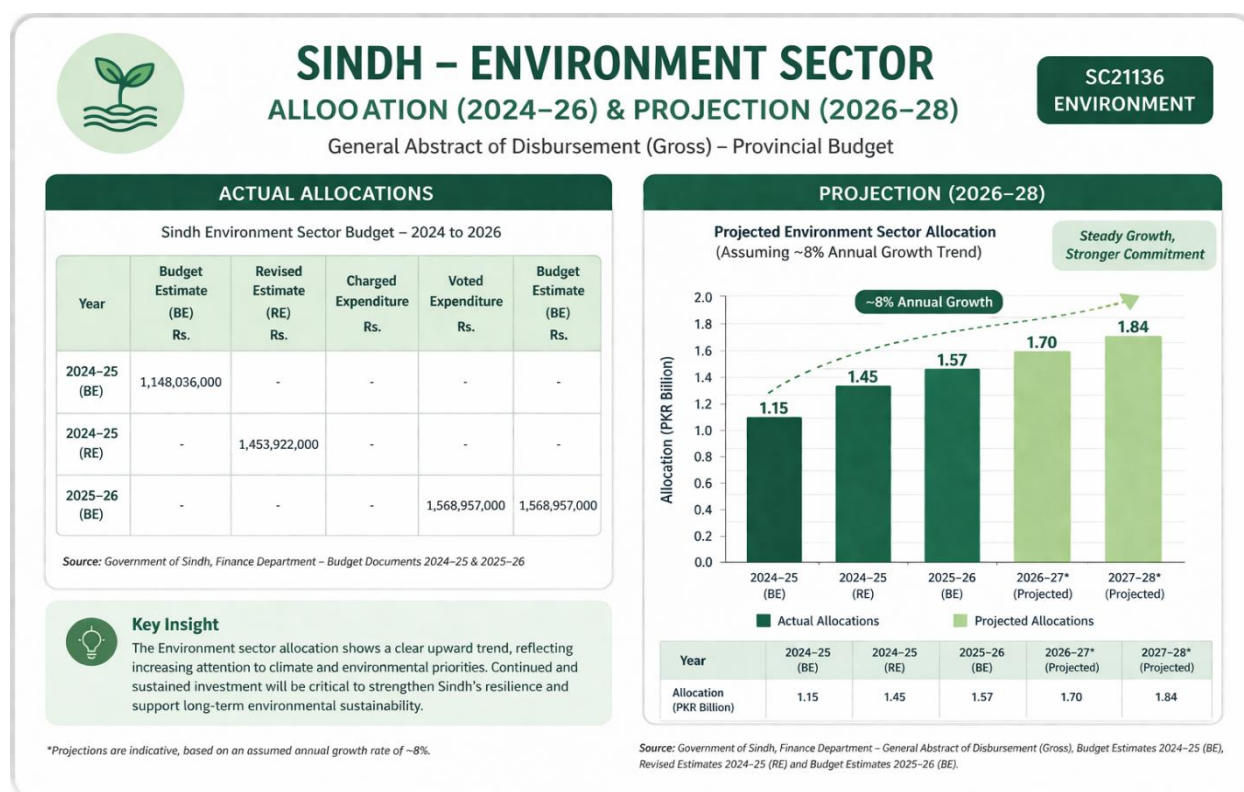


Figure 3. Sindh Environment Sector Allocations over 2024-2026

Unlike provinces that maintain larger dedicated environmental budgets, Sindh's climate investments are primarily embedded within broader development sectors. This reflects a strategy of mainstreaming adaptation through infrastructure, irrigation and local government spending rather than through dedicated climate finance mechanisms.

Table 4.1: Major Climate-Relevant Allocations in Sindh (FY2025–26)

Sector	Allocation (PKR Billion)	Climate Relevance
Irrigation	42.1	Flood control, drainage, coastal protection

¹⁷ Government of Sindh. Budget Estimates 2025–26, Finance Department.

Local Government	37.1	Urban resilience and municipal services
Transfers to Local Bodies	165.0	Flood mitigation, drainage and local infrastructure
Public Health Engineering	8.8	Water supply and climate resilience
Works & Services	18.7	Climate-resilient infrastructure
Environment Sector	1.57	Environmental protection and climate governance

Source: Sindh Finance Department.

Sindh's adaptation spending is particularly concentrated in coastal and urban resilience. Irrigation allocations increased from PKR 35.9 billion in FY 2024–25 to PKR 42.1 billion in FY 2025–26 to support flood protection infrastructure, drainage systems and resilience interventions in vulnerable coastal districts such as Thatta, Badin and Sujawal. These investments are critical given Sindh's exposure to sea-level rise, coastal erosion and recurrent flooding. Urban resilience is also supported through substantial allocations to local governments and municipal institutions. Transfers to local bodies reached PKR 165 billion in FY2025–26, while local government development allocations increased from PKR 32.8 billion to PKR 37.1 billion. These investments support drainage systems, municipal services, flood management and climate-resilient urban infrastructure across major cities, including Karachi, Hyderabad and Sukkur¹⁸. Despite significant investments in climate-sensitive sectors, direct environmental spending remains relatively low. Environment sector allocations increased from approximately PKR 1.15 billion in FY 2024–25 to PKR 1.57 billion in FY2025–26, remaining a very small proportion of total provincial expenditure. This indicates that climate resilience investments are largely dispersed across irrigation, local government, infrastructure and water-related sectors rather than being managed through a dedicated climate finance framework.

Weak tracking mechanisms

Despite these investments, a major limitation is the absence of a robust climate budget tagging and tracking system. Current financial reporting does not clearly distinguish between adaptation, mitigation, and general development expenditures. This weakens transparency and makes it difficult to assess the effectiveness and adequacy of climate-related spending. Strengthening climate budget tagging and aligning expenditures with climate policy frameworks is essential for improving accountability and strategic planning¹⁹. Sindh has already taken the first step towards the incorporation of climate considerations into the financial management of the people, but the monitoring of climate finance is still low profile and dispersed. Existing budgeting systems are based on traditional classifications that lack clear identification and tagging of climate-related spending in the sectors. As a result,

¹⁸ Government of Sindh. (2025). *Budget Estimates 2025–26: General Abstract of Disbursement (Gross)*. Finance Department, Government of Sindh.

¹⁹ UNDP. Climate Budget Tagging (CBT) Methodology Guidelines.

significant resilience investments especially in irrigation, urban infrastructure and local government are not methodically institutionalized in the climate finance system²⁰.

Institutional evaluations, such as the Environmental and Social Systems Assessment (ESSA) of Sindh Public Resources to Inclusive Development, reveal endemic data system, coordination and expenditure tracking failures, especially the lack of a single system to track climate-relevant spending. Equally, the Pakistan Economic Survey 2023-24 points out that spending on climate issues is frequently integrated into more comprehensive development spending, preventing transparency and evaluation of its impact.

The new policy discussion also highlights the necessity to enhance climate finance governance. Transparency International Pakistan and National Disaster Risk Management Fund analyses serve to explain the need to institutionalize climate budget tagging, strengthen monitoring and reporting systems, and better inter-department coordination to achieve more transparent and accountable climate spending.

4.3 Khyber Pakhtunkhwa (KP)

Forestry and nature-based solutions (e.g., afforestation)

Khyber Pakhtunkhwa has also made some significant achievements in applying nature-based solution to climate change, particularly in massive afforestation. This is indicative of public spending, which shows that the allocation in forestry is growing between the years 2024 to 2025 and 2025 to 2026 by PKR 3,125 million to PKR 4,945 million²¹. This gradual growth signifies that the province focusses on the importance of tree plantation and ecosystem rehabilitation as major climate interventions. Meanwhile, the share of forestry in the development budget is rather small, i.e. less than 1%, which indicates that the direction is appropriate, but the measure of investment is still low in relation to the magnitude of climate challenge²². Based on ADP implementation trends and revised estimates, overall development budget utilization in KP generally ranges between **65–75%**, meaning approximately **25–35% of allocations remain unspent or delayed**, particularly in multi-sectoral, environment, and resilience-related projects.

Table 4.2: Climate-Relevant Allocations in KP ADP (PKR Million)

Sector	2024-25 Allocation	2025-26 Allocation	Change (%)
Forestry	3,125	4,945	+58.2
Environment	67	93	+38.8
Relief & Rehabilitation/Disaster Management	3,000	3,200	+6.7
Total Climate-Relevant Spending	6,192	8,238	+33.0

²⁰ Government of Pakistan. (2024). Pakistan Economic Survey 2023–24: Climate Change Chapter. Ministry of Finance.

²¹ Government of Khyber Pakhtunkhwa, Finance Department (2025) *Annual Development Programme (ADP) 2024–25*. Peshawar: Government of Khyber Pakhtunkhwa. Available at: [Finance Department, Government of Khyber Pakhtunkhwa](#).

²² Government of Khyber Pakhtunkhwa (GoKP). (2025b). *Annual Development Programme (ADP) 2025–26*. Planning and Development Department.

Source: KP ADP 2024-25 and KP ADP 2025-26

Disaster Preparedness Spending

A review of climate-related public expenditure in Khyber Pakhtunkhwa (KP) through the Annual Development Programmes (ADP) 2024–25 and 2025–26 indicates a gradual increase in allocations to climate-sensitive sectors. Total spending on forestry, environment, and disaster-related sectors increased from approximately PKR 6.19 billion in FY 2024–25 to PKR 8.24 billion in FY 2025–26, primarily driven by expanded forestry investments and higher allocations for disaster management. However, budget allocations alone do not necessarily translate into effective climate action. Analysis of ADP implementation trends suggests that overall development budget utilization in KP generally ranges between 65–75%, implying that nearly one-quarter to one-third of allocated resources remain unspent or experience implementation delays. This utilization gap reflects persistent challenges related to procurement processes, project readiness, institutional coordination, and administrative capacity²³. Within climate-related expenditures, disaster management continues to absorb a substantial share of funding, with approximately PKR 3.2 billion allocated to Relief and Rehabilitation in FY2025–26. However, the composition of spending remains heavily skewed towards post-disaster response and recovery activities, which account for an estimated 70–80% of total disaster expenditures. In contrast, only around 20–30% is directed towards preventive and resilience-building measures such as early warning systems, risk reduction planning, ecosystem-based adaptation, and climate-resilient infrastructure. This pattern suggests that climate finance in KP remains largely reactive rather than anticipatory, limiting the province's ability to reduce long-term climate vulnerabilities despite growing budgetary allocations²⁴.

Table 4.3: KP Climate Finance Utilization and Spending Patterns

Indicator	Estimate
Average ADP Utilization Rate	65–75%
Estimated Unspent/Delayed Funds	25–35%
Share of Disaster Spending on Response & Recovery	70–80%
Share of Disaster Spending on Prevention & Preparedness	20–30%
Forestry Share in Total Development Budget	Less than 1%
Environment Sector Share in Development Budget	Less than 0.1%

Source: KP ADP documents, budget reports

Fragmentation across departments

The issue of fragmentation among departments is a very severe limitation to climate financing effectiveness in Khyber Pakhtunkhwa (KP). In the Annual Development Programme (ADP), climate-relevant spending is scattered throughout various areas such as forestry, environment, water, energy, and disaster management, without an overall coordination or tracking structure. The ADP 2024-25 evidence indicates that the environment sector was allocated a nominal

²³ Annual Development Programme (ADP) 2024–25.

²⁴ Annual Development Programme (ADP) 2025–26

amount of PKR 67.17 million. It is a negligible amount of the entire development budget, yet significantly larger amounts were given to infrastructure and multi-sectoral development²⁵. This allocation is indicative of structural imbalance in the priorities of public expenditure where climate-related activities are not singled out and coordinated, instead these are incorporated in the larger sectoral budgets. There is also a lack of a specific climate budget tagging mechanism, which also restricts the capacity of the government to monitor and compile spending on climate matters across departments. Consequently, the overall amount of climate finance is hard to measure and the degree to which it is consistent with policy goals like climate adaptation and resilience. This institutional fragmentation is compounded by implementation challenges, as sector-specific projects are executed independently, often leading to duplication of efforts, inefficiencies in resource allocation, and gaps in addressing cross-cutting climate risks. In addition, evidence from ADP implementation patterns suggests that overall fund utilization remains uneven, with approximately 65–75% of allocated resources effectively utilized, indicating partial absorption due to administrative and coordination constraints. The effectiveness of climate financing is further undermined by relatively low budget absorption rates. Despite increasing allocations, ADP implementation data suggest that only about 65–75% of approved development funds are typically utilized, leaving approximately 25–35% either delayed or unspent. This indicates that institutional and coordination bottlenecks are not only affecting the strategic targeting of climate investments but also constraining the actual deployment of climate finance on the ground.

4.4 Balochistan

Balochistan presents perhaps the most constrained climate finance landscape among Pakistan's provinces, despite facing some of the country's highest levels of climate vulnerability. Recurrent droughts, flash floods, water scarcity, desertification, and ecosystem degradation continue to threaten livelihoods across the province, yet fiscal limitations significantly restrict the government's ability to respond effectively. A major structural challenge is the province's dependence on federal transfers, which account for approximately 78% of total provincial receipts, leaving limited fiscal space for independently financing climate adaptation and resilience initiatives²⁶. Such structural dependence restrains fiscal autonomy and diminishes the capacity of the province to prioritize and scale up investments related to climate. Moreover, special climate budgets are still scarce and less a priority in the provincial budget. The developmental budget of Environment Department in FY 2024-25 was PKR 102.3 million whereas only PKR 17.88 million was used. It shows a gap of 83% in the implementation of it²⁷. Likewise, non-development spending on environment protection is still insignificant with respect to other areas, with spending PKR 909.65 million (budget estimates 2024-25) decreasing to PKR 723.69 million and slightly rising to PKR 862.09 million in 2025-26²⁸. These numbers highlight the fact that there was little focus on environmental management and climate-based expenditure in general fiscal planning.

A notable development in FY 2025-26 is the establishment of **Balochistan Climate Fund** with an initial allocation of PKR500 million. The creation of this dedicated financing instrument represents an important institutional step towards mobilizing resources for climate adaptation, mitigation, disaster preparedness, and environmental sustainability. However, the effectiveness of the fund will ultimately depend on implementation capacity, project pipelines,

²⁵ Annual Development Programme (ADP) 2024–25.

²⁶ Government of Balochistan (GoB). (2025a). *Annual Development Programme (ADP) 2024–25*

²⁷ Government of Balochistan (GoB). (2025a). *Annual Development Programme (ADP) 2024–25*

²⁸ Budget Documents 2024–25 and 2025–26 (Non-Development Expenditure by Function). Finance Department.

and the province's ability to leverage additional domestic and international climate finance. Given the province's history of low budget absorption, merely establishing a dedicated fund may not be sufficient unless accompanied by stronger planning, monitoring, and execution mechanisms.

Furthermore, the low allocations and poor utilization capacity is an indication of institutional and administrative limitations on a large-scale such as limited technical capacity, project implementation delays, and poor inter-departmental coordination. Without a specific climate budgeting or tracking system, climate spending is still scattered and concealed in larger sectoral spending, and it is hard to determine how effective or aligned it is to climate resilience targets. The fiscal reliance, lack of specific allocations, and implementation barriers characterize the climate financing environment in Balochistan, all contributing to the province being unable to cope with its disproportionately large climate risks. Enhancing fiscal abilities, better budget implementation, and the incorporation of more specific climate financing instruments will play a crucial role in improving resilience and making the use of government resources more efficient.

Table 4.4: Fiscal Context for Climate Financing in Balochistan

Indicator	Value
Share of Provincial Receipts from Federal Transfers	~78%
Share of Provincial Receipts from Own Sources	~22%
Environment Development Budget Utilization FY2024-25	17.5%
Environment Development Budget Under-utilization FY2024-25	82.5%
Initial Climate Fund Allocation FY2025-26	PKR 500 million

Source: Budget Analysis of Balochistan FY2025-26; Government of Balochistan Budget Documents.

4.5 Comparative Insights

A comparative evaluation of climate-related government spending in Punjab, Sindh, Khyber Pakhtunkhwa (KP) and Balochistan underlines the essential distinctions in the fiscal capability yet also demonstrates some shocking parallels in the manner in which provinces finance climate. All in all, the provinces with greater fiscal space like the Punjab and Sindh are more likely to spend a relatively higher amount of resources on the climate-related sectors. On the contrary, KP shows moderate amounts of allocations whereas Balochistan is considerably constrained by its low revenue base and its reliance on the federal transfers. Although these provinces vary in scale, the structure of the spending in all the provinces is similar, as the dominance of the sectors associated with adaptation (water, infrastructure, and disaster management) is high, and the mitigation is relatively underfunded. Mitigation even in KP has a relatively higher forestry investment (like in case of REDD+) but still this makes up a small portion of overall development expenditure.

The second trend that has been constant is the primary focus on disaster management as against preventive actions. In the provinces, much of the climate fund is spent on post disaster relief and recovery, but relatively small sums are spent on early warning, risk mitigation and climate resilience infrastructure or the anticipatory resilience approaches. This responsive strategy implies that the provinces are responding to climate shocks to a large extent, instead of preparing to face them in a systematic, systematic manner, a factor that can escalate the fiscal and social costs incurred in the long term. Meanwhile, one of the structural issues of all

the provinces is the lack of a standardized climate budgeting and monitoring system. Climate-related expenditures are distributed among several departments such as environment, forestry, water, energy and disaster management in the absence of a single mechanism that can be used to determine and track climate spending. This fragmentation lowers the level of transparency, makes an inter-provincial comparison difficult, and makes it difficult to determine the level at which the public resources are effectively addressing climate resilience.

Combining the evidence, there is an indication that climate-related allocations are slowly rising, but provincial climate financing is still adaptation-focused, reactionary, and institutionally disjointed. To overcome such challenges, more funding will be necessary, but it will also be necessary to change the focus towards preventive investment, better coordination between the different departments, and standardized climate budget tagging systems to make sure that the public resources are used more strategically and effectively.

Table 4.5. Shows the Comparative Analysis Fiscal Capacity vs Climate Need

Province	Climate Vulnerability	Fiscal Capacity
Punjab	Medium	High
Sindh	High	Medium–High
KP	High	Medium
Balochistan	Very High	Low

Table 4.6: Climate Finance Maturity across provinces.

Province	Climate Budgeting	Allocation Trend	Utilization Challenge
Punjab	Climate Budget Tagging adopted	Declining environment allocation	Moderate
Sindh	No formal CBT	Increasing allocation	Historical under-spending
KP	Sector-based climate spending	Increasing investment forestry	Moderate constraints absorption
Balochistan	Climate Fund introduced	Emerging finance climate	Severe constraints utilization) absorption (17.5%)

5. Critical Review of Climate Budgeting

Reactive vs proactive spending (focus on post-disaster relief)

Climate budgeting in Pakistan has shown greater predisposition towards reactive spending. Provincial governments focus on post-disaster relief and recovery rather than investing in resilience-building. The trend is alike in the four provinces though with a variation in the scale and financial capacity. In Khyber Pakhtunkhwa (KP), disaster-related expenditure is a big portion of climate-related expenditure. As an example, in ADP 2025-26, there was a budget of about PKR 3.2 billion in relief and rehabilitation where most of the budget is focused on post-disaster response, but not preventive actions like early warning systems and climate-resistant infrastructure²⁹. Although KP has achieved some milestones in mitigation by investing in forests, the entire disaster financing framework is more of response-based meaning that there is very little incorporation of proactive-based risk reduction measures³⁰.

This same trend is evident in Sindh where spending on climate-related matters is highly clustered in areas like irrigation, water management, and disaster management. Despite the efforts of the province to plan on climate resilience, including the involvement of climate finance, the significant portion of funds remain dedicated to flood response and recovery, especially after the repeated climate shocks. Preventive measures like urban flood control systems and early warning devices are still relatively underfunded in comparison to the magnitude of risk³¹. In the Punjab, climate spending is also reactive despite the relatively stronger fiscal capacity and a huge total development budget. Recommendable amounts of funds are channeled to infrastructure growth and recovery efforts in the case of post disasters, without much methodical incorporation of climate resilience in the process. Although these investments can be indirectly involved in adaptation, the lack of prioritization of preventative actions restricts the usefulness of these expenditures in mitigating climate risks in the long-term³².

Most acute is the situation in Balochistan, where the vulnerability of the climate is high, and fiscal space is limited. Spending on disasters is limited and is mostly reactive in nature. As an example, the province had planned to spend PKR 102.3 million on environment-related development in FY 2024-25, but it only spent PKR 17.88 million, exemplifying the limits in capacity and interest in proactive climate planning. Meanwhile, non-development spending puts more emphasis on the general population services and administrative support than environmental protection, which was allocated less than PKR 1,000 million, further illustrating the disregard of preventive climate spending³³.

This reactive bias in climate expenditure in all provinces is further enhanced by institutional and political economic aspects, such as the exigency of disaster response, scarce technical ability to plan long-term, and the conspicuity of relief measures versus preventive investments. Nonetheless, this strategy leads to recurring financial burdens with governments being forced

²⁹ Government of Khyber Pakhtunkhwa (GoKP). (2025a). *Annual Development Programme (ADP) 2024–25*.

³⁰ Government of Khyber Pakhtunkhwa (GoKP). (2025b). *Annual Development Programme (ADP) 2025–26*.

³¹ Government of Sindh. (2024). *Annual Development Programme and Budget Documents*.

³² Government of Punjab. (2024). *Annual Development Programme and Budget Documents*.

³³ Government of Balochistan (GoB). (2025b). *Budget Documents 2024–25 and 2025–26*.

to keep spending funds on recovery instead of mitigating the underlying risks. Enhancing proactive climate financing via risk reduction and early warning systems and resilient infrastructure is of paramount importance to transforming a response cycle to a resilience framework^{34 35}.

Misclassification of climate expenditures

In Pakistan, a long-term issue has been the mis-categorization and implication of climate-related spending under the wider sectoral budgets, which hides the actual magnitude and efficiency of climate funds. Without uniform tagging of climate budget, spendings pertinent to climate change are commonly hidden within other sectors like infrastructure, water, agriculture and energy, with no explicit identification or reporting. This leads to the overestimation and underestimation of climate finance, restricting transparency and accountability^{36 37}.

In Khyber Pakhtunkhwa (KP), although total allocations on ADP are over PKR 400 billion, there are only a few explicit identifiable environmental allocations. An example is in the environment sector where it was allocated PKR 67 million in FY 2024-25, compared to the much greater amounts to multi-sectoral development, water, and infrastructure³⁸. This shows that a significant part of climate-relevant spending is probably absorbed by other areas but is not formally monitored or categorized as climate finance. Consequently, the real contribution that public spending is making to the climate mitigation and adaptation goals is hard to measure.

The same trend is evident in the Punjab with the province controlling one of the biggest development budgets in the state with hundreds of billions of rupees per annum. Notwithstanding, the expenditure on climate is not explicitly defined and majority of the expenditures that could be relevant to climate like irrigation, urban development and infrastructure are recorded under broad sectoral groupings³⁹. Such a lack of disaggregation restricts the possibility of assessing the extent to which the provincial budget is indeed addressing climate resilience or low-carbon development.

In Sindh, despite growing awareness of climate change in policy, budgetary practices still manifest partial and shifting systems of classification. The expenditure on climate-related activities is largely focused on water, irrigation and disaster management, which are not always labeled and reported as climate-specific spending. This makes it difficult to keep track of progress and to match provincial spending with climate commitments, especially in terms of international climate finance reporting. The problem is the most acute in Balochistan where not only fiscal restrictions, but also institutional ones, play a role in the poor classification of climate spending. To illustrate, although PKR 102.3 million was spent on the development related to the environment in FY 202425, only PKR 17.88 million was used, and other climate-relevant expenditures are still incorporated in other areas without being explicitly identified. Moreover, there has been no major increase in non-development spending on environmental protection as the sum allocated to environmental protection is less than PKR 1,000 million as compared to substantially higher sums allocated to public services⁴⁰. This is not just a case of

³⁴ Javed, A., & Farooq, U. (2023). Climate budgeting and public finance management in Pakistan.

³⁵ World Bank. (2022). Pakistan Climate Public Expenditure and Institutional Review (CPEIR)

³⁶ World Bank. (2022). Pakistan Climate Public Expenditure and Institutional Review (CPEIR).

³⁷ Javed, A., & Farooq, U. (2023). Climate budgeting and public finance management in Pakistan.

³⁸ Government of Khyber Pakhtunkhwa (GoKP). (2025a). *Annual Development Programme (ADP) 2024–25*.

³⁹ Government of Punjab. (2024). Annual Development Programme and Budget Documents.

⁴⁰ Government of Balochistan (GoB). (2025a). *Annual Development Programme (ADP) 2024–25*.

underinvestment, but a lack of systematic monitoring of the expenditures associated with climate-related issues.

In all the provinces, there is no uniform climate budget tagging system, which leads to disjointed and in-transparency climate finance reporting. In the absence of defined classification, it is hard to evaluate the effectiveness of expenditures, make sure that they are in line with national climate policies, and to mobilize more resources. To overcome this problem, one needs to create a common climate budgeting framework with standard definitions, tagging methodologies and reporting systems to increase transparency, accountability and strategic distribution of government resources ⁴¹.

Weak integration with development planning (PSDP alignment issues)

A key weakness in Pakistan's climate budgeting framework is the limited integration of climate priorities into federal PSDP and provincial ADPs. Although climate-related spending exists across sectors such as forestry, irrigation, water, disaster management, and infrastructure, these investments are often planned and implemented in isolation rather than through a coordinated climate resilience strategy. Across provinces, climate finance remains heavily concentrated in adaptation and post-disaster response, while mitigation and long-term resilience receive comparatively limited attention. For example, KP increased forestry allocations from PKR 3.1 billion in FY 2024-25 to PKR 4.9 billion in FY 2025-26, yet these investments remain a small share of the overall ADP. Similarly, the Punjab and Sindh continue to prioritize large infrastructure and sectoral development projects without systematic climate screening, while Balochistan faces additional fiscal and institutional constraints that limit climate mainstreaming. The result is fragmented climate spending, weak alignment between budgets and climate policy objectives, and continued prioritization of short-term development and disaster recovery over long-term resilience-building and environmental governance.

⁴¹ World Bank. (2022). Pakistan Climate Public Expenditure and Institutional Review (CPEIR).

6. Climate Budget Governance in Pakistan

6.1. Institutional Architecture

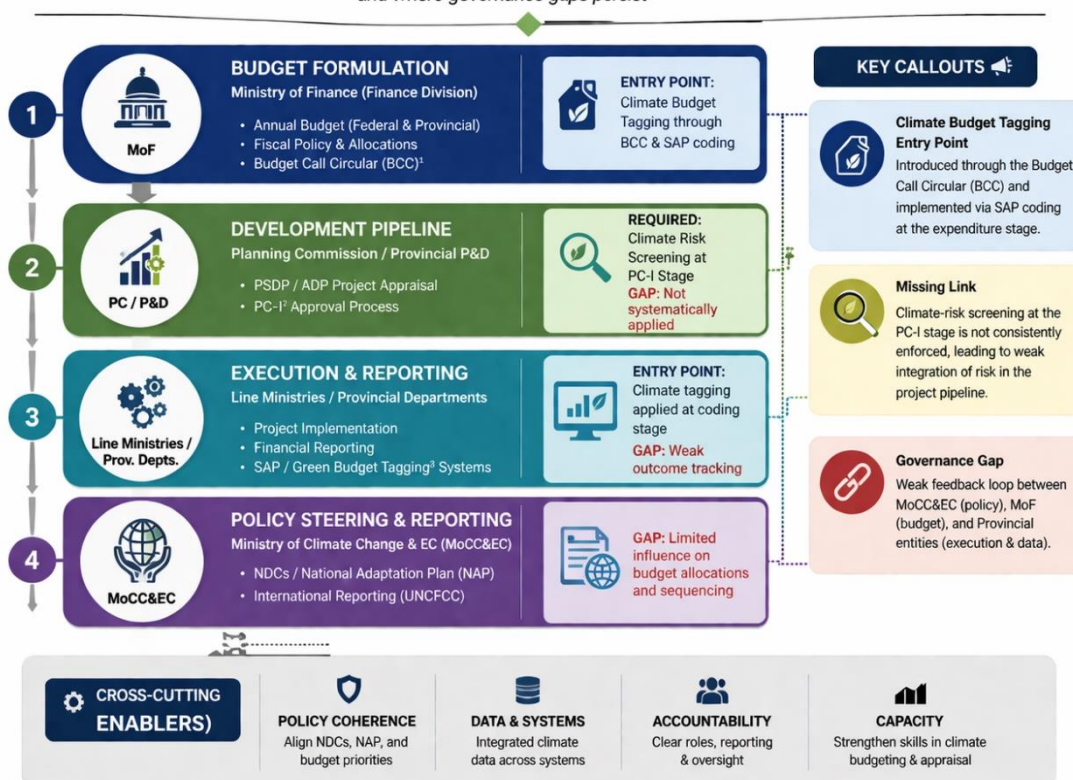
In Pakistan, climate budgeting lies at the intersection of three authorities:

1. Fiscal authority (Economic Affairs Division that controls the budget),
2. Policy authority (Ministry of Climate Change and Environmental Coordination that sets climate objectives), and
3. Planning authority (Ministry of Planning, Development and Special Initiatives that decides on and evaluates development projects).

Although recent reforms, through budget tagging, have clearly expanded visibility of climate-related spending, however institutional roles remain split across these three systems, namely budgeting, planning, and climate policy.

Institutional Flow of Climate Budget Governance in Pakistan

From budget formulation to policy steering: where climate is tagged, where risks should enter, and where governance gaps persist



1 Budget Call Circular (BCC): Annual guidance issued by the Ministry of Finance to federal and provincial departments on budget ceilings, priorities, and reporting formats. (Ministry of Finance, 2023).
 2 PC-I Project Concept-I, the standard project appraisal document required for PSDP/ADP approval. (Planning Commission, n.d.).
 3 SAP: Government financial management system used for budgeting, accounting, and reporting.

Note: The exact integration of climate tagging in SAP systems varies by province and is not consistently documented in public sources. This cannot be confirmed from available sources.

Source: Ministry of Finance, Government of Pakistan. (2023). Budget call circular. Planning Commission, Government of Pakistan. (n.d.). Guidelines for preparation of PC-I. Ministry of Climate Change & Environmental Coordination. (2021). National Adaptation Plan framework. International Monetary Fund. (2023). Pakistan: Staff report for the Article IV consultation.

Figure 4: Institutional Flow of Climate Budget Governance in Pakistan

Who Owns Climate Finance in Pakistan?

Pakistan’s climate budgeting challenge cannot be fully understood without examining the underlying institutional architecture governing public finance. Under the federal Rules of Business, the Ministry of Climate Change and Environmental Coordination is mandated to lead climate policy formulation, coordination, and international engagement. However, it does not possess authority over fiscal instruments, including budget allocation, external borrowing,

or climate finance mobilization. These functions are centralized within economic institutions such as the Ministry of Finance, Economic Affairs Division, and Planning Commission of Pakistan, which control resource flows, development planning, and engagement with international financial institutions.

This separation creates a structural disconnect between climate policy priorities and fiscal decision-making. While climate risks, adaptation needs, and mitigation pathways are identified within sectoral and environmental frameworks, their translation into budgetary allocations depends on the institutions that do not systematically integrate climate considerations into fiscal planning. As a result, climate-related expenditures remain fragmented, embedded within broader sectoral budgets, and weakly linked to measurable outcomes.

For provinces, this misalignment is further amplified. Following the 18th Constitutional Amendment, provinces bear primary responsibility of climate-sensitive sectors such as water, agriculture, and infrastructure. However, they operate within a fiscal system that is both resource-constrained and centrally influenced, with limited capacity to mobilize climate finance independently or adopt standardized climate budgeting frameworks. The absence of a unified federal climate finance architecture thus cascades into subnational fragmentation, weak coordination, and reactive expenditure patterns focused on post-disaster response rather than anticipatory resilience investments.

This institutional configuration explains a core finding of this study: climate budgeting in Pakistan is not merely a technical issue of tagging or classification, but a systemic governance challenge, where responsibility for climate action is not matched with fiscal authority.

6.2. Key Governance Gaps

The following matrix identifies principal gaps in governance of the climate budgeting system in Pakistan based on the budget documents data, IMF reforms on the RSFs, and World Bank analysis. Although climate budget tagging has enhanced significant visibility, the variances in classification, poor coordination, and ineffective tracking of performance remain as limiting features of effective translation to resilience outcomes. To transform expenditure tracking into climate-sensitive and outcome-focused public financial management, it is critical to address these gaps. One such argument is that although there are new attempts to incorporate climate factors in the development planning, little is known in terms of climate-based allocations being systematically incorporated or reported at the project level in Annual Development Plans (ADPs). Policy debates have mentioned indicative provisions (e.g., allocating a minor fraction (1%) of project budgets to climate-relevant elements) but these are not always operationalized and are not always transparently tracked in budget or project reports. This indicates a wider disconnect between proclaimed climate budgeting purpose and reality in practice in restricting the success of climate mainstreaming in state investment.

CLIMATE BUDGET GOVERNANCE GAPS IN PAKISTAN

Evidence from Budget Documents, IMF RSF, and World Bank Analysis

Climate budget tagging has improved visibility, but governance and PFM gaps limit impacts on resilience.

ISSUE	WHAT THE EVIDENCE SHOWS	PRACTICAL IMPLICATION FOR RESILIENCE OUTCOMES
 Absence of unified climate budget taxonomy	<ul style="list-style-type: none"> The Budget Call Circular (BCC) 2024–25 introduced 6 climate budget categories—Adaptation, Mitigation, Disaster Risk Management, Environmental Protection, Cross-cutting, and Enablers¹, no harmonized taxonomy exists. Provinces use different tagging approaches and sectoral groupings; no harmonized taxonomy exists. (Ministry of Finance, 2024; Provincial Budgets, 2024–25) 	 Inconsistent classification distorts comparisons, obscures true climate spending, and weakens priority-setting for adaptation.
 Weak federal–provincial coordination	<ul style="list-style-type: none"> Under the NFC Award, provinces receive ~57.5% of divisible resources, but climate objectives are not systematically aligned across tiers². IMF RSF Staff Report notes the need to strengthen “intergovernmental coordination on climate resilience” as prior action under the RSF³. (Ministry of Finance, 2023; IMF, 2024) 	 Fragmented planning and funding cause duplication, uneven investments, and missed opportunities for basin-wide and landscape resilience.
 Limited data transparency and reporting	<ul style="list-style-type: none"> Provincial budgets provide limited climate-tagged data; only the federal government publishes a Climate Budget Statement with the Annual Budget⁴. World Bank CCDR (2022) notes MoCC&EC’s limited analytical and data systems constraint tracking and reporting⁵. (Ministry of Finance, 2024; World Bank, 2022) 	 Low transparency reduces public oversight and makes it difficult to track whether spending matches climate risks and commitments.
 No performance-based climate budgeting	<ul style="list-style-type: none"> Budgets list climate-tagged amounts but rarely set outcomes or KPIs; links to results are weak. IMF RSF highlights the need for results-oriented climate budgeting and tracking of climate outcomes¹. (IMF, 2024; Ministry of Finance, 2024) 	 Spending is not linked to outcomes; resources may be used, but resilience gains remain limited and unmeasured.
 Climate not integrated into Medium-Term Budget Frameworks (MTBF)	<ul style="list-style-type: none"> MTBF practices focus on macro-fiscal ceilings; climate risks are not systematically modeled in ceilings or sector envelopes. IMF RSF reform measure calls for “better integration of climate risks into public investment and fiscal planning⁶”. (IMF, 2024; Ministry of Finance, 2024) 	 Budgets remain reactive to disasters instead of financing anticipatory investments that reduce future fiscal shocks.
 Weak M&E systems	<ul style="list-style-type: none"> Provincial ADP/PSDP guidelines require progress reporting, but climate indicators are rarely defined or tracked. CCDR (2022) notes weak M&E capacity within MoCC&EC and limited use of data for decision-making⁷. (Provincial PS/ADP Guidelines, 2024–25; World Bank, 2022) 	 Without outcome tracking, ineffective projects continue, and adaptive learning is not institutionalized.
 Limited audit of climate expenditures	<ul style="list-style-type: none"> Auditor General of Pakistan audits focus on financial compliance; there is no dedicated climate expenditure audit. Global good practice encourages green spending audits to verify additionality and results⁸. (Auditor General of Pakistan, 2023; OECD, 2021) 	 Risks of inefficiency, leakage, and misclassification remain high, reducing trust and the impact of climate finance.
CROSS-CUTTING CONSTRAINTS		
 Institutional capacity gaps at federal and provincial levels ⁹	 Fragmented data systems	 Siloed mandates across MoF, Planning, line ministries, and MoCC&EC
		 Limited fiscal space for upfront resilience investments

Figure 5: Key challenges around governance of climate budget at sub-national level

6.3. Public Financial Management (PFM) Challenges

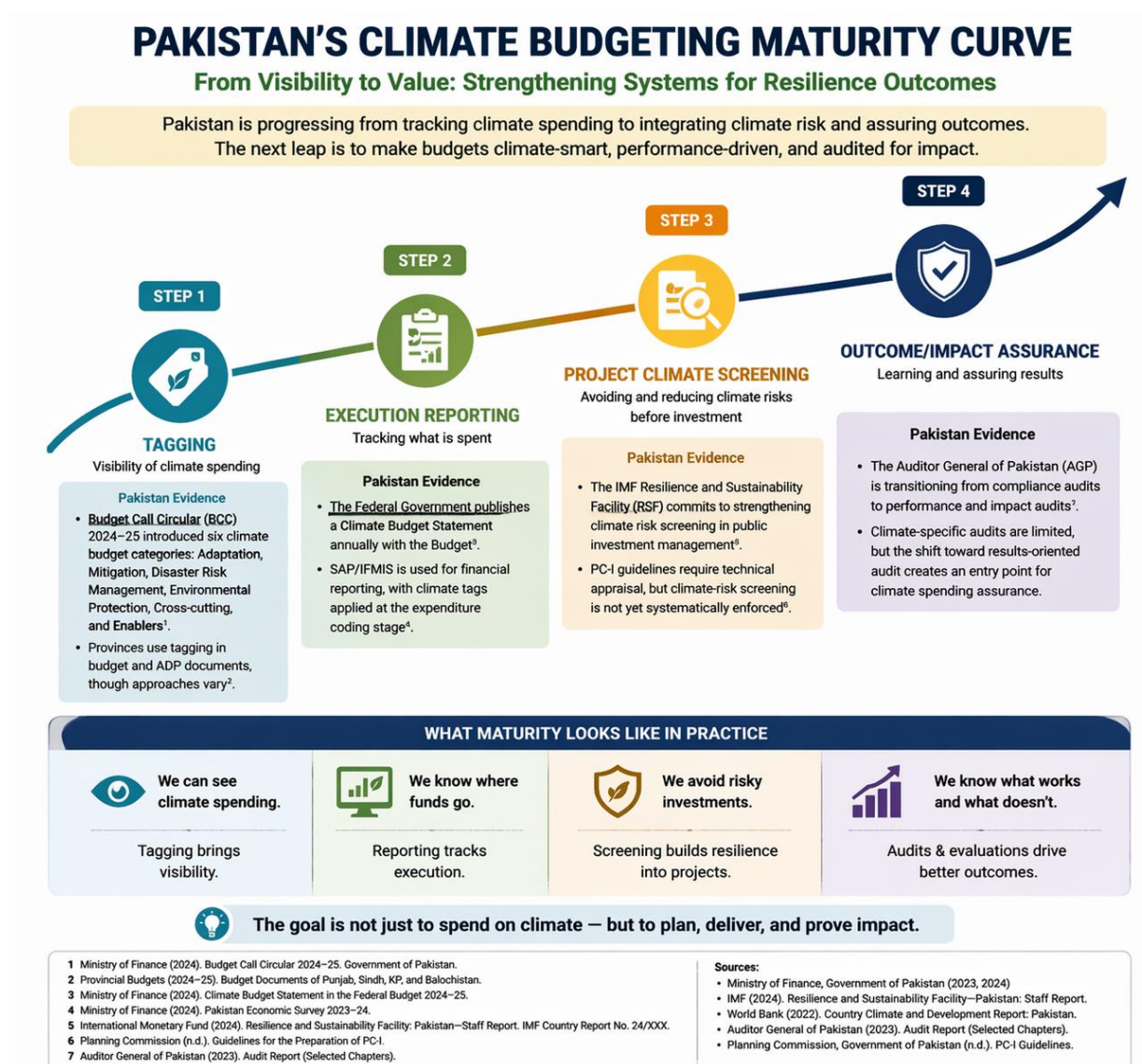


Figure 6: Pakistan's Climate Budget Maturity Curve

This maturity curve depicts how the climate budgeting system in Pakistan has evolved over the years since its inception as a simple expenditure tagging system to a system that governs financial outcomes. Although there is increased visibility and reporting in the current practices, there are still critical gaps of integrating climate risk into the project appraisal and providing impact via audit and evaluation. Moving up this curve is necessary to achieve climate spending to resilient outcomes.

7. Policy Recommendations

On the evaluation of provincial and national documents, it is advised that the process of enhancing climate budgeting in Pakistan needs to shift focus beyond expenditure monitoring to an integrated, outcome-based system of public financial management (PFM) integrating fiscal policy with climate resilience goals. These recommendations are based on the gaps that have been identified in the areas of classification, governance, coordination and financing and are organized in a way that facilitates both short-term reforms and the long-term institutional transformation.

7.1 Strengthening Climate Budget Systems

One of the core priorities is to institutionalize a standardized Climate Budget Tagging (CBT) framework in all provinces. Although the federal level has made some early gains, the lack of comparability through inconsistencies in the definitions, tagging methodologies, and reporting practices restricts policy usability. The federal government in association with the provincial finance and planning departments ought to design a country-wide harmonized CBT taxonomy with a clear guideline on what is classified as an adaptation, mitigation, disaster risk management and resilience expenditure.

This harmonization must be incorporated within the current budget systems especially the Integrated Financial Management Information System (IFMIS) and Budget Call Circular (BCC) to provide uniformity in application when formulating and implementing the budget. Moreover, provinces need to be assisted in terms of technical capacity-building programmes so that the accuracy of tagging can be enhanced, and the possibility of misclassification or underreporting could be minimized. The standardization will facilitate consolidation of climate spending on country level and give a valid foundation of fiscal planning and reporting internationally.

7.2 Improving Governance and Coordination

In Pakistan, the climate budgeting process is now limited due to a piecemeal institutional role in finance, planning and climate policy process. To support this, it should be ensured that a National Climate Budget Coordination Unit (NCBCU) is set up and based in the Ministry of Finance although with formal connections to the Planning Commission and the Ministry of Climate Change.

This unit would be the main platform for:

- Organizing climate-budget policies and reforms;
- Promoting the alignment of fiscal frameworks and climate strategies (e.g. NDCs);
- Observing the execution of PFM reforms related to climate.

Meanwhile, the federal-provincial coordination mechanisms should be enhanced. This involves making climate budgeting a regular agenda on intergovernmental fiscal forums and aligning provincial Annual Development Plans (ADPs) with national climate priorities. In addition, the distinct definition of roles and data-sharing guidelines will decrease duplication, enhance efficiency, and consistency of climate-related spending at different government levels.

7.3 Enhancing Transparency and Accountability

Enhancing transparency is essential to make climate allocations change into something relevant. The government needs to make it institutionalized to ensure that both federal and provincial governments publish annual Climate Budget Statements (CBS). These statements should disclose:

- Climate-tagged allocations and expenditures;

- Sectoral and functional breakdowns; and
- Trends over time.

Independent audit mechanisms should be launched to supplement reporting to determine the quality and effectiveness of climate spending. One of the roles played by the office of the Auditor General is to include climate expenditure audits as part of its routine performance audit system. Concurrently, the public disclosure channels must be enhanced to enable the stakeholders such as parliamentarians, civil societies, and development partners to monitor climate expenditure. Thus, a better transparency will make the accountability better, minimize inefficiencies, and create credibility in the climate finance architecture in Pakistan.

A multi-tiered climate budget accountability framework is important to detect leakages and ensure transparency for last-mile targets. This can be initiated using bottom-up approach where accountability starts at administrative level, then performance is assessed at line departments and project implementation departments, followed by audits conducted by third-party verifications for climate tagged projects. Moreover, there is a need for public disclosure of district-level climate spending. To complement reporting, independent audit mechanisms should be introduced to assess the quality and effectiveness of climate spending. The Auditor General's office can play a key role by incorporating climate expenditure audits into its regular performance audit framework. In parallel, public disclosure platforms should be strengthened to allow stakeholders, including parliamentarians, civil society, and development partners to track climate spending. Therefore, an enhanced transparency will improve accountability, reduce inefficiencies, and build credibility in Pakistan's climate finance architecture.

Tiered Accountability Framework for Climate Budgeting

A multi-tiered accountability system is essential to ensure climate-tagged expenditures are traceable, credible, and results-oriented.



Figure 7: Climate Budget Accountability Framework

7.4 Linking Budgets to Outcomes

In Pakistan, one of the critical loopholes in the existing system is the poor connection between budgetary allocations and quantifiable climate results. To mitigate this, the government ought

to come up with Key Performance Indicators (KPIs) on climate-related expenditure especially in adaptation and resilience. These could be indicators like:

- Climate resilience (e.g. flood-prone areas, water stress) diminished.
- Improvements in resilience of infrastructure and services
- Emission cutting where necessary.

The KPIs must be incorporated in the Medium-Term Budgetary Framework (MTBF) to make sure that climate factors are integrated into the multi-year financial planning as opposed to being an ad hoc spending. Moreover, the process by which climate risks are screened out should be an integral component of the project appraisal procedure, especially in large-scale public investments. The association of budget allocations with clearly determined outcome will also transform the input-based budgeting to performance- and results-based climate governance.

7.5 Leveraging Climate Finance

Considering the lack of fiscal space in Pakistan, it is essential to mobilize external and private financing to scale up investment in climate. On-going reforms by the IMF Resilience and Sustainability Facility (RSF) in the provinces and federal budgets should be aligned with climate tagging, fiscal transparency, and climate-aware management of the public investment. The government needs to encourage blended finance instruments, which will involve public funds and concessional and private capital to be crowded in. This includes:

- Public-Private Partnerships: Infrastructure that is resilient to climate change.
- Green bonds and Sustainability financing:
- Incentives to invest in renewable energy and resilience projects by the private sector.

More or less, development partners can develop a catalytic role by aligning their support with the government budget systems and offer technical support to build on the climate-PFM frameworks. This will involve a coordinated financing approach to increase mobilization of resources and at the same time make sure that it is in line with the national priorities.

7.6 Building Resilience Financing Mechanisms

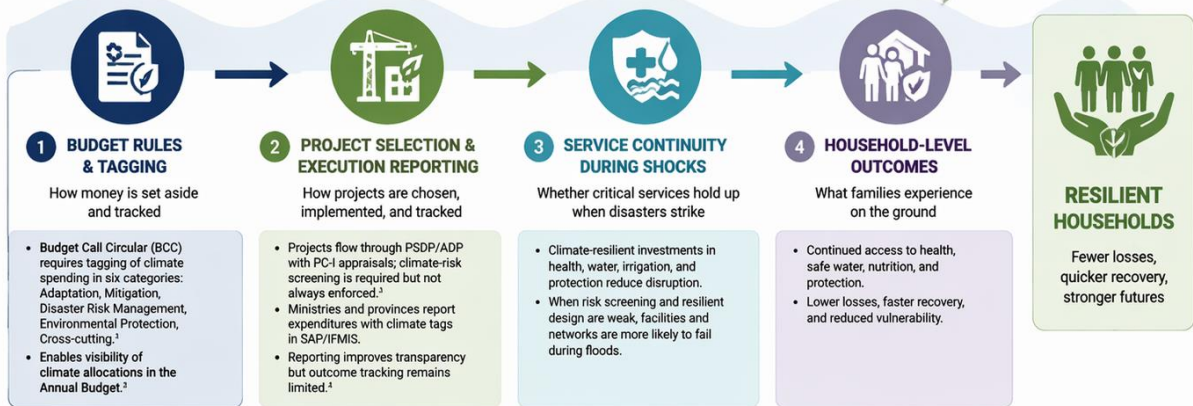
Pakistan's current reliance on ex-post financing, through budget reallocations and emergency borrowing highlights the need for a more proactive approach to disaster risk financing. At federal and provincial levels, the government ought to set special contingency funds that will facilitate quick response to climate shocks without affecting development expenditure. Simultaneously, the use of risk-layered financing instruments should be given priority. These include:

- Sovereign and subnational insurance schemes.
- Catastrophe bonds
- Contingent credit lines

These tools will be able to spread the risk more effectively and mitigate fiscal volatility linked to climate disasters. To this, it will be necessary to enhance collaboration with other institutions like the National Disaster Management Authority (NDMA) to incorporate financing mechanisms with broader disaster risk management plans. In the long-term, the shift to an anticipatory financing paradigm where funds are spent on the mitigation of risks and preparedness will be essential in improving resilience and minimizing the fiscal burdens in the long-term.

The impact pathway from climate budget rules to real-world outcomes during shocks

Stronger budget rules and tagging → better project selection & reporting → services that continue during shocks → resilient households with fewer losses and faster recovery.



EVIDENCE FROM THE 2025 FLOODS: WHEN SERVICES FAIL, FAMILIES SUFFER MOST

Record rains and floods in 2025 caused widespread damage to critical services, exposing the cost of weak climate-resilient investments.



EXPLAINER: When climate spending is well-tagged, projects are screened for risk, and reporting focuses on outcomes, services are more likely to continue during disasters—protecting lives and livelihoods. The 2025 floods show the high human and economic cost when these links are weak.

Sources: 1) Ministry of Finance (2024). Budget Call Circular 2024–25. 2) Ministry of Finance (2024). Climate Budget Statement in the Federal Budget 2024–25. 3) Planning Commission (n.d.). Guidelines for the Preparation of PC-I. 4) IMF (2024). Resilience and Sustainability Facility—Pakistan. Staff Report. 5) NDMA (2025). 2025 Flood Situation Report (July–September). 6) WHO (2025). Emergency Update on Floods in Pakistan. 7) UNICEF (2025). Pakistan Flood Response Update. 8) Government of Pakistan (2025). Press Information Department: Flood Damage Updates.

Figure 8: From climate budget towards strengthening resilience at the Last Mile

This impact pathway shows how climate budgeting decisions translate into real-world resilience outcomes, highlighting that weak tagging, screening, and reporting systems can disrupt essential services during shocks as evidenced by the widespread service failures observed during the 2025 floods.

Conclusion

Climate budgeting in Pakistan has evolved considerably in recent years, particularly through the institutionalization of Climate Budget Tagging (CBT), the integration of climate considerations into public financial management reforms and the support provided through the IMF Resilience and Sustainability Facility (RSF). These developments represent an important shift toward greater transparency and visibility of climate-related expenditures. However, the findings of this study demonstrate that Pakistan's climate budgeting system remains largely focused on tracking expenditures rather than ensuring that public resources translate into measurable climate resilience outcomes.

Across all provinces, climate spending remains heavily concentrated in adaptation and post-disaster response, while mitigation investments, anticipatory financing, and long-term resilience-building continue to receive comparatively limited attention. Provincial analysis further reveals substantial differences in fiscal capacity, institutional capability, and budget utilization. While Punjab and Sindh allocate larger resources to climate-relevant sectors, KP has demonstrated stronger emphasis on forestry and nature-based solutions, and Balochistan continues to face severe implementation and absorption constraints despite being among the most climate-vulnerable regions of the country. At the same time, fragmented institutional responsibilities, inconsistent climate expenditure classification, weak coordination mechanisms, and limited integration of climate considerations into development planning continue to undermine the effectiveness of climate finance.

The study, therefore, concludes that Pakistan's climate budgeting challenge is fundamentally a governance challenge rather than simply a financing challenge. Increasing allocations alone will not deliver resilience unless climate considerations are systematically embedded within planning, budgeting, implementation, monitoring, and evaluation systems. Future reforms should focus on harmonized climate budget tagging across provinces, climate-risk screening of public investments, outcome-based budgeting, enhanced transparency, and stronger accountability mechanisms. Most importantly, Pakistan should notify the dedicated Pakistan Climate Fund as per Pakistan's Climate Change Act 2017 that consolidates domestic climate-related revenues, including proceeds from the Carbon Levy, Climate Support Levy, international climate finance and development partner contributions. Such a fund would provide a transparent and accountable mechanism to channel resources toward adaptation, mitigation, disaster-risk reduction, and resilience-building investments at federal, provincial, and local levels. Without such institutional reforms, climate budgeting risks remain a reporting exercise rather than a transformative tool for strengthening resilience and delivering climate action at the last mile.

References

- Asian Development Bank. (2024). *ADB approves \$500 million loan to support climate and disaster resilience in Pakistan*. <https://www.adb.org/news/adb-approves-500-million-loan-support-climate-and-disaster-resilience-pakistan>
- Arab News. (2025). *Pakistan IMF climate financing developments*. <https://www.arabnews.com/node/2619617/pakistan>
- Auditor General of Pakistan. (2025). *Audit report on the accounts of climate change, environment, and disaster management of federal government (Audit Year 2024–25)*.
- Berchtold, C., Plana, E., Costa Saura, J., Kalapodis, N., Sakkas, G., Handmer, J., Linnerooth-Bayer, J., Scolobig, A., Tsaloukidis, J., Ballereau, D., Monet, J., Serra, M., & Garofalo, M. (2025). *Disaster risk management tipping points: Impacts of extreme wildfire events and the resulting need for layered disaster risk management solutions*. *International Journal of Disaster Risk Reduction*, 131, 105894. <https://doi.org/10.1016/j.ijdr.2025.105894>
- Boston University Global Development Policy Center. (2024, April 16). *How the IMF can strengthen the resilience and sustainability trust to promote a just global climate transition*. <https://www.bu.edu/gdp/2024/04/16/how-the-imf-can-strengthen-the-resilience-and-sustainability-trust-to-promote-a-just-global-climate-transition/>
- Boston University Global Development Policy Center. (2024, July 17). *Making sense of the IMF's interim review of the resilience and sustainability trust*. <https://www.bu.edu/gdp/2024/07/17/making-sense-of-the-imfs-interim-review-of-the-resilience-and-sustainability-trust/>
- Business Recorder. (2024). *Preparatory work on RSF under way: IMF*. <https://www.brecorder.com/news/40334053/preparatory-work-on-rsf-under-way-imf>
- Center for Global Development. (2023). *IMF lending under the resilience and sustainability trust: An initial assessment*. <https://www.cgdev.org/sites/default/files/imf-lending-under-resilience-and-sustainability-trust-initial-assessment.pdf>
- Council on Energy, Environment and Water. (2023). *Explained: IMF resilience and sustainability trust*. <https://www.ceew.in/gfc/quick-reads/explains/imf-resilience-trust>
- Digital Pakistan. (2025). *Pakistan unveils IMF-backed climate reform plan*. <https://digitalpakistan.pk/pakistan-unveils-imf-backed-climate-reform-plan/>
- Government of Balochistan. (2025a). *Annual Development Programme (ADP) 2024–25*. Planning and Development Department.
- Government of Balochistan. (2025b). *Budget documents 2024–25 and 2025–26 (non-development expenditure by function)*. Finance Department.
- Government of Balochistan, Finance Department. (2025). *Budget white paper FY 2025–26*.
- Government of Khyber Pakhtunkhwa. (2022). *Khyber Pakhtunkhwa climate change policy 2022*.
- Government of Khyber Pakhtunkhwa. (2025a). *Annual Development Programme (ADP) 2024–25*. Planning and Development Department.
- Government of Khyber Pakhtunkhwa. (2025b). *Annual Development Programme (ADP) 2025–26*. Planning and Development Department.
- Government of Pakistan. (2019). *Public Finance Management Act, 2019*.
- Government of Pakistan. (2021). *National Climate Change Policy 2021*.
- Government of Pakistan. (2021). *Pakistan updated nationally determined contributions (NDC) 2021*.
- Government of Pakistan Finance Division. (2024). *Annual budget statement 2024–25*.
- Government of Pakistan Finance Division. (2024). *Medium-term budget strategy paper FY2024–25 to FY2026*.

- Government of Pakistan Finance Division. (2025). *Annual budget statement FY2025–26*.
- Government of Pakistan Finance Division. (2025a). *Medium-term performance-based budget (Green Book) FY2025–26*.
- Government of Pakistan Finance Division. (2026). *Budget call circular (BCC) FY2026–27*.
- Government of Punjab. (2024). *Annual Development Programme (ADP) 2024–25 and budget documents*. Planning & Development Board / Finance Department.
- Government of Punjab. (2025). *Annual Development Programme (ADP) 2025–26 and budget documents*. Planning & Development Board / Finance Department.
- Government of Sindh. (2024). *Budget documents 2024–25 and Annual Development Programme*. Finance Department.
- Government of Sindh. (2025). *Budget documents 2025–26 (general abstract of disbursement)*. Finance Department.
- Hallegatte, S., Rentschler, J., & Rozenberg, J. (2020). *Lifelines: The resilient infrastructure opportunity*. World Bank. <https://www.worldbank.org/en/topic/infrastructure/publication/lifelines-the-resilient-infrastructure-opportunity>
- Institute of Development Studies. (2023). *Climate adaptation: Lessons and insights for governance, budgeting and accountability*.
- International Monetary Fund. (2023). *Resilience and sustainability facility (RSF)*. <https://www.imf.org/en/about/factsheets/sheets/2023/resilience-sustainability-facility-rsf>
- International Monetary Fund. (2025). *Climate budget tagging in Pakistan*. <https://blog-pfm.imf.org/en/pfmblog/2025/05/climate-budget-tagging-in-pakistan>
- International Monetary Fund. (2025). *Policy paper on the resilience and sustainability trust*. <https://www.imf.org/-/media/files/publications/pp/2025/english/ppea2025004.pdf>
- International Monetary Fund. (2025). *Pakistan: First review under the extended fund facility and request for arrangement under the resilience and sustainability facility (Country Report No. 25/109)*. <https://www.imf.org/en/-/media/files/publications/cr/2025/english/1pakea2025001-print-pdf.pdf>
- International Monetary Fund. (2025). *Pakistan: IMF completes second review of the extended arrangement under the EFF and first review of the arrangement under the RSF*. <https://www.imf.org/en/news/articles/2025/12/08/pr-25411-pakistan-imf-completes-2nd-rev-of-ext-arrange-eff-and-1st-rev-of-arrange-rsf>
- International Monetary Fund. (2025). *Resilience and sustainability trust*. <https://www.imf.org/en/topics/resilience-and-sustainability-trust>
- International Monetary Fund. (2026). *IMF working paper on resilience and sustainability trust*. <https://www.imf.org/-/media/files/publications/wp/2026/english/wpiea2026038-source-pdf.pdf>
- Javed, A., & Farooq, U. (2023). *Climate budgeting and public finance management in Pakistan*. *Journal of Development and Social Sciences*.
- Madhyamam Online. (2026). *Pakistan, IMF reach staff-level agreement for \$1.2 billion disbursement*. <https://madhyamamonline.com/india/pakistan-imf-reach-staff-level-agreement-for-12-billion-disbursement-1506659>
- Mettis Global. (2025). *Rewriting the climate script: Pakistan turning policy into progress*. <https://mettisglobal.news/Rewriting-the-climate-script-Pakistan-turning-policy-into-progress-57249>
- National Disaster Management Authority. (2025). *Monsoon 2025 final consolidated situation report*. <https://www.ndma.gov.pk/storage/sitreps/October2025/oztOSliYIDcY1OCXxsBV.pdf>

- National Disaster Management Authority. (2025). *National disaster risk reduction strategy*. <https://www.ndma.gov.pk/storage/plans/July2025/x1do0TGLbZH0sI0iQoIW.pdf>
- Organisation for Economic Co-operation and Development. (2021). *Green budgeting and public financial management*. <https://www.oecd.org/gov/budgeting/green-budgeting/>
- Planning Commission (Government of Pakistan). (2019). *Manual for development projects*.
- Planning & Development Board Punjab. (2024). Training on climate budget tagging and monitoring of development projects.
- Sustainable Development Policy Institute. (2025). *Pakistan climate policy update*. https://sdpi.org/9626/news_detail
- Tanner, T., & Allouche, J. (2017). Towards a new political economy of climate change and development. *Climate Policy*.
- United Nations Children’s Fund. (2025). *Pakistan floods 2025 update*. <https://www.unicef.org/media/174206/file/Pakistan-Floods-2025-Update-12-September-2025.pdf>
- United Nations Development Programme. (2023). *Climate finance and governance at the subnational level*. <https://www.undp.org/publications/climate-finance-governance-subnational-level>
- United Nations Framework Convention on Climate Change. (2025). *Pakistan NDC 3.0*.
- World Bank. (2012). *Making federalism work: The 18th Amendment*. <https://documents1.worldbank.org/curated/en/687281468057882110/pdf/871020NWPOBox30ing0Federalism0Work.pdf>
- World Bank. (2020). *World Bank announces \$300 million for Pakistan to build resilience to natural disasters and health emergencies*. <https://www.worldbank.org/en/news/press-release/2020/12/08/world-bank-announces-300-million-for-pakistan-to-build-resilience-to-natural-disasters-and-health-emergencies>
- World Bank. (2022). *Pakistan country climate and development report*. <https://www.worldbank.org/en/country/pakistan/publication/country-climate-development-report>
- World Bank. (2022). Pakistan climate public expenditure and institutional review (CPEIR).
- World Health Organization. (2025). *Health emergency situation report: Monsoon floods in Pakistan*. <https://www.emro.who.int/images/stories/pakistan/Health-Emergency-Situation-Report-Monsoon-Floods-9-September-2025.pdf>