

Bridging Policy and Practice in Pakistan's Climate Finance and Green Taxonomy

1. Climate Risk and Financing Imperatives in Pakistan

Pakistan has been among the top ten most climate-vulnerable countries globally in the past decade. The catastrophic floods of 2022 alone brought losses with an economic cost of USD 30 billion and more than 33 million people to display the dire and repetitive effects of disasters caused by climate change.¹ Even the long-term Climate Risk Index showed that Pakistan is one of the 20 most affected states in the global south.² The magnitude of climate finance needs in the country is immense, with an approximate cost of USD 200 billion to ensure that its Nationally Determined Contributions (NDCs) are implemented, and around USD 348 billion is required to be achieved for climate-resilient development by the year 2030.¹

define environmentally sustainable economic activities in the form of the PGT, with assistance from the World Bank, creating a significant point of reference for investors and regulators and helping prevent greenwashing. The fact that NCFS is practically congruent with the PGT, which could establish the standards of environmental integrity,



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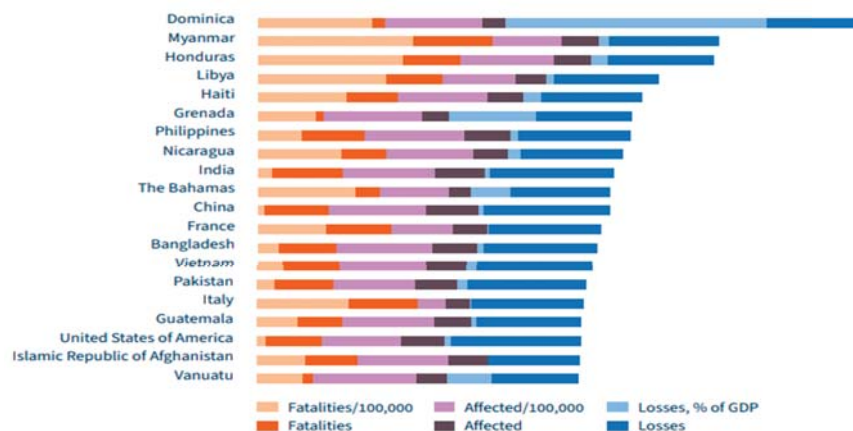


Figure 1: Climate Risk Index (1995-2024)

To make their way towards climate-compatible development, Pakistan has embraced two critical instruments, including the National Climate Finance Strategy (NCFS), which was implemented at the UN climate change Conference of the Parties (COP) 29, in Baku, Azerbaijan, in November 2024, and the Pakistan Green Taxonomy (PGT), announced in 2025. The NCFS is the blueprint for financing, where a plan to mobilize funds across the public, private, and international sectors is defined in order to mitigate and adapt to achieve the vision of Climate Resilience in Pakistan 2050. At the same time, a technically and science-based system was developed to

notwithstanding the structural and institutional bottlenecks that impede the complete operationalization of the PGT criteria, leaves a substantial gap between policy design and the quantifiable impact of investments.^{3,4}

2. NCFS and PGT Synergy and Conceptual Alignment

National Climate Finance Strategy (NCFS)

A systematic approach of the NCFS is based on three pillars, namely Domestic Resource Mobilization, International Climate Finance, and Innovative Financial Instruments, which provide the means to channel funds to the priority areas identified in the Nationally Determined Contributions (NDCs), including renewable energy development, Electric vehicle (EV) transition, resilient agriculture, and water infrastructure. The prominent strategic components of the NCFS highlight alignment with the government and the incorporation of climate finance into state budgets, indicating a plan to integrate climate requirements into the national financial system.³

Table 1: National Climate Finance Strategy (NCFS): Category and Elements³

Category	Elements	Description / Examples
Strategic Emphasis	Whole-of-government alignment	Coordination at the ministries, provinces, and reregulators
	Integration into public budgeting	Climate budget within federal and provincial budgets
	Protection of vulnerable groups	Target vulnerable populations and communities
	Private-sector engagement	Incorporates USD 50 million voluntary green investment commitment of OICCI
	National Climate Finance Portal	Digital system that manages flows, transparency, and investment matching
NCFS Strategic Pillars	Domestic Resource Mobilization	Public budgets, provincial planning, and public-private partnerships (PPP)
	International Climate Finance	Green Climate Fund, Adaptation fund, MDB support, and bilateral donors
	Innovative Financial Instruments	Green Sukuk, disaster and resilience bond, carbon credits and blended finance
	Monitoring & Evaluation	Three-level accountability and reporting via the finance portal

Pakistan Green Taxonomy (PGT)

The Pakistan Green Taxonomy serves as the technical integrity element that determines environmental sustainability levels. It ensures that its activities are indeed green, based on core principles, ecological objectives, and classification⁴.

The synergy can be seen, for instance, in the NCFS, which creates the need for capital and areas of interest (Energy, Transport, and Water). In contrast, PGT provides the integrity mechanism (SC, DNSH, Classification) to ensure the capital mobilized through the NCFS's innovative instruments is green and contributes to the long-term objectives of the NDCs. The two policies encourage a science-led, market-driven transition.

Table 2: Pakistan Green Taxonomy (PGT)- Category and Elements ⁴

Category	Elements	Description / Criteria
I. Core Principles (To Qualify)	Substantial Contribution (SC)	<ul style="list-style-type: none"> Activities must deliver measurable environmental benefits aligned with the objectives.
	Do No Significant Harm (DNSH)	<ul style="list-style-type: none"> Projects must avoid causing significant harm to any of the other five environmental objectives.
	Minimum Social Safeguards (MSS)	<ul style="list-style-type: none"> Compliance with national and international standards for labour rights, human rights, and community protection.
II. Environmental Objectives	6 Priority Areas	✓ 1. Climate change mitigation
		✓ 2. Climate change adaptation
		✓ 3. Water resource sustainability
		✓ 4. Biodiversity protection
		✓ 5. Pollution prevention
		✓ 6. Circular economy promotion
III. Traffic Light Classification	Green	<ul style="list-style-type: none"> Fully aligned with 1.5°C pathways. Examples: Solar/wind power, EV manufacturing.
	Amber (Transition)	<ul style="list-style-type: none"> Activities that offer significant short-term emission reductions but are not fully "Green." These have a "sunset" date (e.g., 2030). Examples: Energy-efficient steel/cement production, hybrid vehicles.
	Red	<ul style="list-style-type: none"> Activities deemed incompatible with climate objectives. Examples: Coal plants, diesel-based expansions.
IV. Priority Sectors	Key Sectors	➤ Energy (Renewables, efficiency, storage)
		➤ Manufacturing (Steel, cement, textiles, bricks)
		➤ Transport (EVs, public transit, rail)
		➤ Construction and buildings (Green building codes)
		➤ Water and Waste (Treatment, recycling)
		➤ ICT and data centres (Energy efficiency)

3. Policy Alignment and Implementation Gaps

Although there is conceptual harmony, operational constraints are severe in the performance of the NCFS and PGT in implementing their joint mandate. The inherent problem is not the quality of the structures, the poor implementation of their mechanisms.

Governance Fragmentation and Policy Incoherence

The responsibility for climate finance is divided among at least seven major bodies. The policy of climate change is set at the federal level, yet the fundamental acts of adaptation and mitigation, such as water resource management, agriculture, urban structures, and transport, are left to the provincial and local governments. The governance system of both the NCFS and the PGT is not only divided but also highly bureaucratic, and is mostly not aligned with political direction.

resulting in a ubiquitous top-down management frame. The strategy generates suspicion at the sub-national level and impedes the natural integration of climate objectives into provincial development planning (Public Sector Development Program - PSDP) and local governance frameworks. Thus, provinces can prioritize short-term political benefits over long-term, PGT-consistent projects for climate resilience.

- **Regulatory Overlap and Gaps:** The PGT should be construed and implemented in conjunction with prevailing environmental, sectoral, and financial laws. Different or conflicting rules on the SBP (as the financial promoter of the PGT) and the provincial Environmental Protection Agencies (EPAs) create regulatory uncertainty for financial institutions. For example, a green project that meets PGT standards may still face inconsistent provincial environmental approvals.⁵

Table 3: Key Institutions and Their Roles in Pakistan's Climate Finance Governance

Institution / Body	Primary Role in Climate Finance
Ministry of Climate Change (MoCC)	Acts as the national policy custodian for climate governance and climate finance strategy.
Ministry of Finance (MoF)	Exercises budgetary control, allocates, and incorporates climate factors in public finance.
State Bank of Pakistan (SBP)	Crafts and implements green banking standards, climate risk reporting standards, and sustainable finance standards.
Securities and Exchange Commission of Pakistan (SECP)	Manages sustainability and ESG reporting of corporate bodies and listing companies.
Economic Affairs Division (EAD)	Coordinates the international climate finance and oversees loans, grants, and donor relations.
National Disaster Management Authority (NDMA)	Leads resilience planning, disaster risk reduction (DRR), and climate-related emergency management.
Provincial Planning & Development Departments	In charge of project-level implementation, appraisal, and implementation of climate-related development initiatives.

The NCFS suggests coordination mechanisms, but without power, coordination is just empty talk. Projects that are undertaken in different ministries are usually similar, leading to duplication of the project, policies being at odds, and delays in executing the project. This kind of structural division is more likely to bring about policy incoherence and a vacuum in implementation:

- **Coordination Overload:** Climate action requires coordination across many institutions. The NCFS suggests several inter-agency committees, including the Steering Committee (Committee of Secretaries) and Provincial Technical Committees. Nevertheless, when there is no central institution with binding power over provincial budgets and sectoral departments, the committees are likely to degenerate into consultative forums, diminishing decision-making and causing turf wars⁴.
- **Top-Down Policy Syndrome:** Critics observe that climate policies, such as the NCFS, have been developed through the federal consultation process,

Technical Capacity and Data Deficiencies

PGT is a highly technical instrument, and the lack of specialized skills compromises its screening validity and the NCFS's responsibility. The provincial and district governments, as the last mile of project implementation, do not have adequately skilled human resources, green engineering, or environmental accounting to apply the technical thresholds of the PGT correctly in the face of technical challenges. Moreover, the NCFS has been based on the credibility of a three-tier accountability framework and a National Climate Finance Portal to attract innovative finance. Nonetheless, the monitoring systems in the public sector are not as transparent or reliable as the verifiable data on emissions reductions and expenditure tracking. The absence of strong data renders international investors who can benefit from the NCFS vulnerable to the prohibitively high risk of Pakistani climate projects.^{6,7}

Policy Coherence, Fiscal Instability, and Lack of Private Sector Contribution

Climate finance requires long-term policy stability that is lacking in Pakistan's unstable political economy.

- **Unpredictable Policy Signals:** A high turnover of regulatory reversals, including sudden changes to renewable energy tariffs or EV component import quotas, contradicts the purpose of the Green/Amber categories of the PGT and the NCFS's mobilization of private capital. It has also eroded investor confidence, making regulatory risk higher than the climate opportunity.
- **Absence of Incentives:** Although the private sector is showing interest in making PGT-aligned investments, it complains that the government is not providing any tangible support. More importantly, No Rewards to Compliance- no major tax breaks, special offerings of lines of credit, or blended-finance packages to go hand in hand with PGT alignment. This has created a high technical barrier and a low financial incentive, threatening to keep the green transition an elite project rather than an economy-wide change. The investors fear that the green label is cosmetic, lacking firm verification and effective regulators. This alienation threatens to turn the green transition into an elite, business-level effort- and not an economy-wide one⁶.

The operational discrepancy between the strategic objectives of the NCFS and the technical needs of the PGT can be summarized in the table below, which illustrates the specific institutional voids to be bridged^{5,6}.

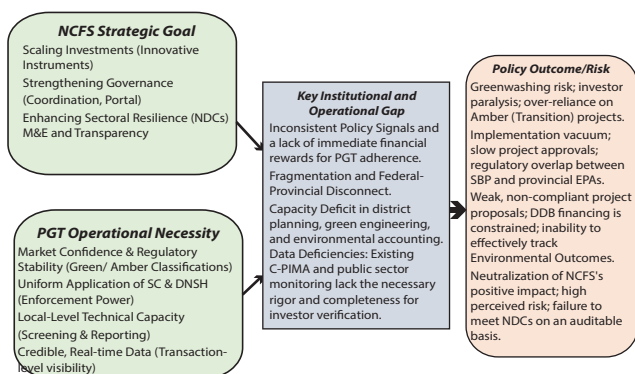


Figure 2: Analytical Framework of NCFS-PGT Misalignment and Policy Risk

4. Recommendations

The National Climate Finance Strategy and Green Taxonomy of Pakistan can be considered as a sound foundation for climate finance and development. The structures are not necessarily flawed, but are designed as whole systems facing a sequence of crucial governance and capacity challenges. The correspondence between NCFS and PGT is at present only aspirational rather than

operational. In an effort to fill this gap and to shift the focus of policy articulation and continued climate change, it is important to note that the following institutional reforms are required for immediate adoption in Pakistan:

- **Centralized Authority:** One entity that has the enforcement capacity to combine NCFS goals and PGT qualifications across all concerned ministries, the State Bank, and provincial governments.
- **Fiscal Integration:** Requirement of PC-1 and Public Sector Development Program (PSDP) appraisal systems to have DNSH, emissions thresholds, and green impact indicators as hard requirements.
- **Incentives:** Implement short-term, physical rewards, e.g., tax credits, concessional lines of credit, and preferential government procurement of investments that meet verifiable PGT-compatible status.
- **Capacity Building:** Establish specific technical units within provincial planning departments and train municipal authorities to incorporate PGT tools into district-level planning and to conduct proper project screening.
- **Credibility of Data:** Complete operationalization of the National Climate Finance Portal by providing transaction-level, verifiable disclosure systems and developing a procedure on how to accredit the third-party verifiers and auditors to enhance the credibility of green-labelling and reduce market doubts about greenwashing.

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Figure source:

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