



# PAKISTAN'S CLIMATE FINANCE LANDSCAPE:

## Bridging the Gap Between Commitments and Capacity

Ahmad Fraz

### 1. INTRODUCTION: SETTING THE CONTEXT

Pakistan stands on the frontline of the global climate crisis, where environment vulnerabilities are becoming a challenge. The devastating floods of year 2022 has displaced more than 33 million people and cause economic losses more than 30 billion USD<sup>1</sup>. Climate change presents a profound threat to ecosystems, human well-being, and the stability of the global economy. The climate challenge has become human as well as an economic reality as recurring heatwaves and droughts are threatening the agriculture, water, energy and food security.

It is worth mentioning that Pakistan is responsible for less than one percent of global greenhouse-gas emissions, but it is among the top ten climate-vulnerable countries in the world according to the Global Climate Risk Index 2023, due to floods, drought and cyclones. At COP 26 the government of Pakistan has committed to reduce emissions and strengthen adaptation by up to 50% by 2030, with 15% using country's own resources and 35% subject to the availability of international grant finance. Achieving carbon neutrality requires active participation from financial institutions, innovation-driven environmental systems, and aligned fiscal policies. But the question remains: how can Pakistan fund this transformation?

To translate the goals into realities requires sizeable funds. It all depends upon how Pakistan can effectively finance its response to climate change. Climate finance has become the central agenda for Pakistan's development, that refers to the flow of funds that will be used to mitigate and adapt the climate change.

<sup>1</sup> International Labour Organization (2022) reprot. Pakistan floods 2022: Post-Disaster Needs Assessment.

## 2. THE CLIMATE FINANCE LANDSCAPE IN PAKISTAN

Pakistan's climate-finance system is a mix of domestic efforts, international support, and emerging financial instruments.

### Domestic Sources:

Most climate-related spending flows through the Public Sector Development Programme (PSDP). These allocations are often hidden inside broader projects without proper climate tagging or monitoring. Federal and provincial governments finance irrigation efficiency, renewable energy, forestry and flood-protection schemes. But coordination between the Ministry of Climate Change (MoCC), the Planning Commission and provincial departments remains weak.

Private-sector engagement is quite low. Commercial banks and corporations rarely treat environmental investment as a business opportunity. Pakistan's financial markets are still learning to value sustainability. A few encouraging steps have been taken, for example, the State Bank's Green Banking Guidelines and renewable energy financing schemes have started to push banks to lend in this space.

### International Sources:

Pakistan receives support from multilateral and bilateral sources like the Green Climate Fund (GCF), Global Environment Facility (GEF), Asian Development Bank (ADB), World Bank, and the International Monetary Fund (IMF) via its Resilience & Sustainability Trust. For example, the World Bank approved a USD 213 million project to strengthen flood resilience. However, Pakistan's access to international finance remains modest. GCF has sanctioned projects worth approximately \$16 billion globally, yet Pakistan received a modest \$304 million, while comparable economies have considerably larger portfolios.

The document, submitted to the UNFCCC to the COP26 climate summit estimates that Pakistan will require over USD 101 billion by 2030 to meet its adaptation and mitigation needs. The recent report of Dr. Shamshad Akhtar the former finance minister, in collaboration with Memosh Khawas highlights that a massive climate financing gap

exists<sup>2</sup>. While the country requires 348 billion USD between 2023 to 2023 to confront the climate crisis. Yet current annual climate-related spending is between USD 1.4 to 2.0 billion annually. The report warns that this shortfall poses a serious threat to the country's economic stability and long-term sustainability.

## 3. GLOBAL AND REGIONAL COMPARISONS

Globally, climate-finance flows reached around USD 1.3 trillion in 2022, but less than 4% of that went to South Asia. India, for instance, has developed a comprehensive green-finance ecosystem including sovereign green bonds worth about USD 2 billion, a domestic carbon-market framework, and specialised green banks.

Bangladesh has operationalised a Climate Fiscal Framework and a Climate Change Trust Fund, which directly allocates money from the national budget to adaptation programmes. In contrast, Pakistan still lacks a clear national climate-finance strategy or a dedicated fund. Pakistan is still treating climate finance as project-based aid rather than a long-term development instrument.

## 4. GAPS AND BOTTLENECKS

Climate finance in Pakistan faces many institutional and financial barriers.

### Institutional Fragmentation:

Many agencies operate with overlapping mandates, resulting in duplication and lack of coherence. There is no unified national climate-finance coordination mechanism linking federal, provincial and local entities.

### Limited Absorptive Capacity:

Public institutions lack technical expertise to design bankable projects or meet international fiduciary standards. Pakistan's experience with the large post-disaster recovery packages after the 2022 floods highlights how needs assessments do not automatically translate into funded, implementable projects.

## Fiscal Constraints:

Pakistan's fiscal space is highly constrained, with debt-servicing and stabilization priorities consuming large parts of the budget. Climate investments often lose priority against immediate macro-fiscal demands.

## Private-Sector Hesitancy:

Without clear incentives, a green taxonomy or de-risking instruments, the private sector remains reluctant to engage in climate-related ventures.

## Poor Data and Tracking:

There is no national system to track climate-finance inflows and expenditures, making monitoring, gap-analysis and accountability difficult.

## Shariah-compliant green instruments:

The intersection of Islamic finance and green finance is gaining traction globally. "Islamic finance shares similar underlying principles as that of sustainable finance, i.e. financial stability and economic growth, poverty alleviation and wealth distribution, social inclusion as well as environmental preservation. This has therefore allowed for Islamic finance to capitalize on these similarities to become a natural vehicle to propagate the elements of green finance."<sup>3</sup>

Pakistan has the institutional base of Islamic banking sector, Shariah-compliant instruments to tap this niche, but has yet to scale its green Islamic finance instruments to match regional peers. From the Islamic-finance angle the lack of shariah-compliant green instruments and absence of a green-finance ecosystem (promoters, providers, coordinators, users) restricts the mobilisation of capital that might otherwise enter Pakistan's market.

## 5. OPPORTUNITIES AND EMERGING MECHANISMS

There is still a strong ray of hope. Pakistan can redesign its climate-finance architecture to attract both domestic and international investors and to channel Islamic-finance flows.

### Green Bonds and Sukuk:

Pakistan has experience issuing Islamic-finance instruments and sovereign sukuk. A natural near-term step is the introduction and scaling of green sukuk (Shariah-compliant green bonds) to attract institutional investors seeking ESG-compliant instruments. Regionally, India's sustainable-debt market reached cumulative aligned issuance of roughly USD 56 billion by end-2024, illustrating the potential scale available in South Asia if policy and market conditions are right.

### Carbon Markets and Climate Credits:

One of the most promising frontiers is carbon markets, where countries and firms earn climate credits for reducing or removing greenhouse-gas emissions. These credits can be traded or sold to countries or companies that need to offset emissions under global frameworks.

Under the Paris Agreement's Article 6, countries can cooperate through carbon-trading mechanisms. Internationally, several standards and agencies certify carbon credits: UNFCCC's CDM and Article 6 Mechanism; Verra (Verified Carbon Standard); Gold Standard Foundation; Climate Action Reserve; American Carbon Registry.

To earn carbon credits, Pakistan must register projects that verifiably reduce emissions. Such as renewable energy, reforestation, energy-efficiency, and waste-management projects with these agencies. Once verified, credits are issued and can be sold in voluntary or compliance markets.

### Where Pakistan Stands:

Pakistan remains struggling to tap the potential carbon markets. Under the carbon markets Article 6, so far Pakistan does not have any project. However, Pakistan currently has 18 voluntary

<sup>3</sup> Green Finance An Islamic Way to Rescue the Nature (2002), P & R Vol.3 Issue 2, Policy and Research PIDE.

carbon projects registered under Kyoto Protocol Clean Development Mechanism (CDM), while India has over 1,600 CDM projects and Vietnam over 250. The potential is enormous, especially in forestry, agriculture, waste and renewables.

Encouragingly, the Ministry of Climate Change has drafted a National Carbon Market Framework, designed to establish a domestic registry, streamline project approvals, and attract both local and international investors. After the implementation of this framework it can provide the institutional foundation for Pakistan to generate and trade verified carbon credits with global climate finance flows.

## How Pakistan Can Portray its Positive efforts:

Pakistan has already taken important steps toward addressing climate change, but not able to effectively communicate it to the world. For instance, the Living Indus Initiative is a big example of restoration of ecosystem, which was aimed to revive the natural environment of Indus Basin as well as to improve the lives of the communities that depend on it. Similarly, the Recharge Pakistan Project is helping replenish depleted aquifers by using excess flood's water and storing it underground. The Billion Tree Tsunami also an ambitious effort of reforestation that was aimed to improve biodiversity, reduce soil erosion, and capture carbon naturally.

Based on the above achievement, Pakistan should collaborate with the international carbon credit certification bodies such as Verra and Gold Standard and get early registration for these high impact projects. It would help Pakistan to get carbon credits that may help in attracting climate finance. By establishing a Carbon Credit registry for Pakistan would enhance transparency and traceability, and build the investor confidence in these green initiatives taken by the country.

By presenting these initiatives with evidence of transparency, measurable outcomes, and credible verification, Pakistan can reshape its global climate narrative. Instead of being seen only as a country at risk, it can position itself as one that is taking responsible, faith-aligned, and forward-looking actions to protect its people and the planet.

## 6. WHAT PAKISTAN HAS DONE AND WHAT IT MUST DO

Pakistan has taken positive initiative in the context of green economy. The National Climate Change Policy (2021) provides a framework for adaptation of sustainable agriculture, renewable energy and ecosystem restoration initiatives. The National Adaptation Plan is under process and on the financial side, State Bank has also issued guidelines for green banking. Meanwhile, the Ministry of Planning, Development and Special initiatives (MoPDSI) has begun integrating climate-indicators into PSDP appraisal forms under URAAN Pakistan 5 E's Framework. However, Pakistan still has to improve its institutional capacity and improve the coordination among different ministries that will help to create the opportunities for the private investment in green sector by providing financial incentives. It needs to,

- Establish a National Climate Finance Strategy that sets clear financing targets and defines institutional roles (MoCC, MoPD&SI, Finance Division).
- Create a Pakistan Climate Fund or Green Bank to pool domestic and international resources and offer concessional loans.
- Introduce green budgeting at federal and provincial levels to tag and track spending.
- Develop a climate-finance tracking system for transparency and accountability.
- Engage the private sector through guarantees, blended-finance and tax incentives.
- Strengthen research and data capacity to design projects that meet international funding standards.
- Foster partnerships with academia and local governments to make climate finance people-centred.
- Launch green sukuk / shariah-compliant green bonds, design frameworks aligned with Islamic finance and issue pilot projects for renewables and environment-friendly assets.
- Promote green equity for Shariah-compliant firms: allow tracker stocks and green-certified firms to raise capital in Pakistans stock market under Islamic-finance criteria.
- Establish an Islamic Green Finance Advisory Centre to help banks, corporates and funds develop compliant instruments, access global Islamic green capital and meet certification standards.

Pakistan must also bring a human face to its climate-finance story. It is not just about numbers; it is about the farmer in Sindh whose crops were destroyed by floods, the woman in Thar who walks miles for water, and the young engineer in Lahore who wants to innovate in renewable energy but lacks funding. Climate finance must connect to these real lives.

Dr. Ahmad Fraz is an Associate Professor at the Pakistan Institute of Development Economics. His expert areas include Financial Markets, Corporate Finance, and Financial integration.

