

# Financing Climate Action in Pakistan

## Solutions and Way Forward

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## FINANCING A GREEN FUTURE

Climate change is the gravest challenge of our time and how fast and extensively it is transforming the world does not need to be substantiated. Earth's changing climate is a combination of natural variation and human impact. Natural processes driving Earth's long term climate variability do not explain the rapid change observed in recent decades with available evidence consistently pointing to the fact that human impacts are playing a much larger role in climate change particularly through industrial activities that have resulted in alarming carbon dioxide levels in the atmosphere. Climate change can lead to dire consequences such as rising sea levels, increase in frequency and

intensity of extreme weather events, worsening air and water quality, etc. warranting urgent measures to contain the greenhouse gas (GHG) emissions.

Momentum around climate change adaptation seems to be building, both in academic research and in political discourse. Decisions made now regarding infrastructure, research and finance will affect how climate impacts play out in the future; and it is clear that immediate and ambitious action is needed, not only to lower emissions but also to mitigate the impacts of climate change felt across the world now and by future generations.

Adaptation, particularly, the adaptation which is transformative rather than incremental, requires resources and financing. In 2019, total climate finance provided and mobilised by developed countries for developing countries was \$80 billion<sup>1</sup>, and current estimates indicate that the \$100 billion goal for 2020 was not met. This had prompted the UK, host of COP26 in 2021, to call for more funding from wealthy countries ahead of the conference. The United States has recently pledged to increase climate financing.

According to the Global Climate Risk Index, between 1998 and 2018, Pakistan is estimated to have lost nearly 10,000 lives to climate-related disasters and suffered losses amounting to \$4 billion from 152 extreme weather events in that period<sup>2</sup>. According to another estimate by the World Bank, 15% of the GDP of the Sindh province in Pakistan is lost every year to environmental damage and climate change, warranting disaster risk mitigation measures to be put in place on a priority basis.



## I. Climate Financing Ecosystem

Significant investments are needed to support the global transition to a low-carbon climate resilient future in line with the 2015 Paris Agreement. Financial instruments play a critical role in creating incentives and in triggering financial flows towards these investments.

Governments around the world have put various financial instruments in place to drive climate change mitigation, backed by funding from a variety of sources. The climate finance eco-system comprises:



i. Public and private sources of funds.

ii. Financial intermediaries which facilitate, access and manage coordination, collection, blending and disbursement of climate finance.

iii. Financial instruments that raise and/or deploy climate responsive investments.

1. Statement by the OECD Secretary-General on future levels of climate finance. (2021, October 25). OECD. Retrieved from <https://www.oecd.org/newsroom/statement-by-the>  
 2. International New York Times. (2020, September 26). The rising tide of climate disasters in Pakistan. Deccan Herald. <https://www.deccanherald.com/opinion/the-rising-tide-of-climate-disasters-in-pakistan-893234.html>

## PUBLIC AND PRIVATE SOURCES OF FUNDS

### A. International Public Finance Sources

**Multilateral Funds:** These support projects, policy processes and technical support for international cooperation. Examples: Green Climate Fund and the Least Developed Countries' Fund.

**Multilateral Development Banks:** The banks foster economic and social progress in developing countries by financing projects including adaptation measures.

**Example:** The World Bank, International Finance Corporation, Asian Development Bank, European Investment Bank and European Bank for Reconstruction and Development.

**Bilateral Cooperation:** The bilateral cooperation mechanism supports technical and financial exchange between two governments for implementation of policies, projects or specific measures, usually financed through bilateral development banks and national development organisations.

**Example:** the Nordic Development Fund and the European Union's Global Climate Change Alliance programme.

### B. Private Finance Sources

**Non-profit Organisations:** National and international foundations and NGOs may operate on a regional, national, or international scale and may not be limited to a domestic context.

**Market Debt:** The largest source of potential private finance for climate change adaptation measures stems from investment and financial lending operations.

**Example:** Green Bonds.



### C. Domestic Public Sources

**National Adaptation Funds:** Established by national or sub-national governments to financially or technically support adaptation actions. They are often part of a country strategy or development plan to drive policy implementation. Many national funds receive their resources from national (taxes, levies and fees, bonds, subsidies and ecological fiscal transfers) and international sources. Examples: Peoples Survival Fund in the Philippines.

## FINANCIAL INTERMEDIARIES IN CLIMATE FINANCE

The role of intermediaries in catalyzing climate finance is gaining recognition in global policy space. Intermediaries play a critical role in shaping climate change policy and implementing it, and building capacities of developing countries to achieve climate finance readiness, i.e. planning, accessing, innovating, delivering, and monitoring climate finance activities.

Intermediaries in the public domain include National and Multilateral Development Finance Institutions (DFIs), Governments, Bilateral DFIs, and State-Owned Enterprises. According to Global Landscape of Climate Finance (2021)<sup>3</sup>, public actors provided 51% (\$321 billion) of annual climate finance.

Intermediaries in the private domain include Commercial Financial Institutions, Corporations, and Households and Individuals. According to Global Landscape of Climate Finance (2021), private actors provided 49% (\$310 billion) of annual climate finance.

**Example:** Pakistan's National Disaster Risk Management Fund (NDRMF)<sup>4</sup> is a non-banking financial intermediary with a corporate not-for-profit structure set up in line with the objectives of the Paris Agreement on Climate Change 2015 and Sendai Framework for Disaster Risk Reduction 2015. This also corresponds to the country's DRR and Climate Change policies (2013) and other frameworks including SDGs commitments.

3. Climate Policy Initiative. (2021, December 14). Global Landscape of Climate Finance 2021. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>.

4. About Us NDRMF – National Disaster & Risk Management Fund. (n.d.). National Disaster Risk Management Fund. <https://www.ndrmf.pk/about-us/>

## FINANCIAL INSTRUMENTS

### A. Financial Instruments for Climate Change Mitigation and Adaptation

#### GRANTS

Grants Play a key role in multilateral and bilateral financing in climate and environmental space. Grants are normally provided for non-revenue generating activities in recipient countries, such as capacity building, knowledge management and some other ongoing programmes. Grants help in capitalising the financial mechanisms related to adaptation, forestry and environmental preservation.

**Sources:** Bilateral institutions and international financial institutions.

#### CONCESSIONAL FINANCE

**Concessional Finance** targets high-impact projects responding to globally significant development challenges from climate change mitigation and resilience to vaccine deployment, water sanitation and education.

**Example:** Malaysia's Green Technology Financing Scheme (GTFS) provides soft loans to users of green technologies in energy, water and waste management, buildings and transport sectors.

China's Clean Development Mechanism (CDM) Fund<sup>5</sup> provides concessional loans for industrial activities which generate actual emissions' reduction. The loans have a three-year tenure and an interest rate, 15% lower than the benchmark rate.

**Revolving Funds and refinancing schemes** offer contingent loans which are repaid to the funds and schemes as the project matures and generates income. Designed to invest in a portfolio of projects in anticipation of successful projects allowing for reflow to the funds and schemes, making them sustainable. The loan is fully or partially waived off and not repaid- if the projects remain unsuccessful.

**Example:** Bangladesh Bank has a revolving refinance scheme amounting to Taka 2 billion<sup>6</sup> from its own funds to broaden the financing avenue for green products such as solar energy, biogas plant and effluent treatment plants. Indian Renewable Energy Development Agency (IREDA) offers a refinancing scheme which allows as much as 30% of

the clean energy loans issued by commercial banks to be refinanced at 2%<sup>7</sup>, provided that the interest rate from the lending institution does not exceed 5% per annum.

#### MARKET - BASED FINANCE

**Debt for Climate Swap** provides predictable and additional finance for environmental projects, including projects leading to a reduction in GHG emissions in countries burdened by huge amounts of debt.

Debt for nature swap involves a bilateral or multilateral donor, or a private investor, or a non-governmental organisation, writing off a portion of a country's foreign debt (whether commercial, bilateral or multilateral) in exchange for the country's financing environmental or conservation projects using local funds. It involves only climate change adaptation and mitigation projects (Voluntary and are financed at no extra fiscal cost to the recipient government). The OECD has estimated that debt for nature swaps generated almost \$1.1 billion for conservation measures, in return for debt with face value volumes of almost \$ 3.6 billion from 1991 to 2003.

**Example:** In 1991, Poland restructured its bilateral debt with its Paris Club creditors, wherein the creditors cancelled 50% of their claims. In exchange for five creditors cancelling an additional 10% of their claims, Poland financed an EcoFund of \$474 million<sup>8</sup> with an equivalent amount of hard currency used to finance the projects which reduce transboundary air pollution, pollution in the Baltic Sea, lower GHG emissions, and protect the country's biodiversity.

**Debt Finance** provides debt facilities in the form of a project loan or credit line to reduce the costs of a project. They provide concessionary funds that may be blended with more expensive commercial funding, and offers longer term debt than the ones may be available in local financial markets. The debt allows for a range of debt amortisation and repayment schedules to customise debt service costs to project cash flows.

**Example:** The Chilean Economic Development Authority offers credit lines to Chilean banks for lending to renewable energy projects.

The Low-Carbon Agriculture Programme of the Brazilian Ministry of Agriculture provides debt finance for sustainable agricultural practices aiming to reduce emissions from the agriculture sector by up to 173 million metric tonnes of CO<sub>2</sub> equivalent (Mt CO<sub>2</sub>e) by 2020.

5. Overview--CDMFUND. (n.d.). China Clean Development Mechanism Fund. [https://en.cdmfund.org/Overview\\_Investment.html](https://en.cdmfund.org/Overview_Investment.html)

6. Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank. (2014, October 10). Bangladesh Bank. [https://www.bb.org.bd/pub/quaterly/greenbanking/greenbanking\\_octdec2014.pdf](https://www.bb.org.bd/pub/quaterly/greenbanking/greenbanking_octdec2014.pdf)

7. IREDA NCEF Refinance Scheme. (n.d.). Startup India. <https://www.startupindia.gov.in/content/sih/en/government-schemes/national-clean-energy-fund-Refinance.html>

8. Financial instruments used by governments for climate change mitigation. (2018). WWF. [https://wwfafrica.awsassets.panda.org/downloads/wwf\\_2018\\_financial\\_instruments\\_used\\_by\\_governments\\_for\\_climate\\_change\\_mitigation.pdf?26723/financial-instruments-used-by-governments-for-climate-change-mitigation](https://wwfafrica.awsassets.panda.org/downloads/wwf_2018_financial_instruments_used_by_governments_for_climate_change_mitigation.pdf?26723/financial-instruments-used-by-governments-for-climate-change-mitigation)



**Equity Finance** the governments that provide equity for climate change mitigation projects give a capital contribution without receiving any guarantee of repayment. In doing so, they acquire ownership of the project. Thus, equity financing constitutes a strong commitment.

**Example:** Japan's Green Fund makes equity and mezzanine investments up to 50% of the total equity amount with the objective of decreasing the debt to equity ratio, to facilitate loan financing for clean technologies.

Australia's Clean Energy Innovation Fund provides equity (along with debt) for clean energy projects seeking growth of capital or early stage capital as does China's Clean Development Mechanism (CDM) Fund.

**Thematic Bonds** are the fixed-income financial instruments issued with the aim of addressing environmental and social problems through debt-based solutions.

There are a variety of terms currently used to classify bonds and other debt issuances with environment, social, and governance (ESG) components.

**Green Bonds** were created to fund projects which have positive environmental outcomes, or which contribute to reduce impacts of climate change. The majority of them are green 'use-of-proceeds' or asset-linked bonds. The proceeds from these bonds are earmarked for green projects but are backed by the issuer's entire balance sheet. These bonds are aligned with the Green Bond Principles of the International Capital Market Association (ICMA).

Green bond taxonomies can indicate the sectors eligible for financing from bond proceeds and include renewable energy, renewable energy, energy efficiency, pollution prevention and control, urban and mass transit, circular economy adapted products, green buildings, and marine protection.

**Social Bonds** are the 'use-of-proceeds' bonds which raise funds for new and existing projects with positive social outcomes. Social project categories include affordable basic infrastructure, access to essential services, affordable housing, employment generation, food security, and socioeconomic advancement. The "use-of-proceeds" is ring-fenced.

**Sustainability Bonds** are the bonds wherein the proceeds will be exclusively applied to finance or refinance a combination of green and social projects. Sustainability bonds are usually aligned with the ICMA's Sustainable Bond Guidelines or the Sustainability Bond Principles. The "use-of-proceeds" is ring-fenced.

**Sustainability-Linked Bonds** are a variant of sustainability bonds where the financing or structuring of the bond's coupon rate is linked to the entity's achievement of set key performance indicators and environmental and/or ESG objectives, failing which the desired debt relief is eliminated as a penalty. They are aligned to the ICMA's Sustainability Bond principles. As this is a 'general purpose' debt instrument, the funds are paid into the debtor government's budget, so they can also be used for other funding needs to free up fiscal space, as only a portion of the total debt financing would be directed to climate and nature activities.

**Example:** According to Bloomberg, the value of green bonds issued in the first six months of 2021 exceeded the whole of 2020, at \$248.1 billion<sup>9</sup>. Pakistan through its Water and Power Development Authority (WAPDA) issued a \$500 million green bond in May 2021 in line with its framework of March 2021<sup>10</sup>. The proceeds will be used for renewable energy and climate change adaptation categories to finance or refinance hydropower or wind energy projects, and projects relating to technologies to control and prevent floods.

Total issuance of sovereign sustainability-labelled bonds, which promise to use their proceeds to finance sustainable development, reached \$71.5 billion in 2020<sup>11</sup>, with 17 nations having tapped this mode of funding. Many of these bonds were oversubscribed as investors aim to integrate ESG criteria across their portfolios and to take steps to align their portfolios with the goals laid out in the Paris Agreement. In the first half of 2021, issuance of sustainability bonds surged to \$90.4 billion<sup>12</sup>.

Less widespread but also fast-growing are sustainability-linked bonds. These set specific sustainability performance targets which increase the bond interest due if the beneficiary does not meet them. Targets might include the amount of recycled materials used in manufacturing by a certain date, or the share of renewable energy generated by a utility. This year<sup>13</sup>, \$40 billion have been launched, compared to \$9bn in the same period last year. Social bonds, which raise money to promote positive social outcomes, tripled in value this year compared to the first half of 2020<sup>14</sup>.

9. Bio Market Insights. (2021, August 10). Green Bonds Popular In Post-pandemic Recovery. <https://biomarketinsights.com/green-bonds-popular-in-post-pandemic-recovery/>

10. Pakistan issued first green bond. (2021). Green Finance Platform. <https://www.greenfinanceplatform.org/policies-and-regulations/pakistan-issued-first-green-bond>

11. Stewart, F., & Power, S. (n.d.). Linking sovereign debt with climate and nature targets. forestLAB. <https://forestlab.partners/perspective/perspective-01/linking-sovereign-debt-with-climate-and-nature-targets>

12. Bio Market Insights. (2021, August 10). Green Bonds Popular In Post-pandemic Recovery. <https://biomarketinsights.com/green-bonds-popular-in-post-pandemic-recovery/>

13. Willige, A. (2021, July 30). Why green bonds are beating all expectations in the post-pandemic recovery. World Economic Forum. <https://www.weforum.org/agenda/2021/07/green-sustainability-bonds-beat-expectations/>

## B. Insurance Solutions for Disaster Impact Mitigation

**Parametric risk insurance** uses environmental measurements, such as wind speed or the amount of rainfall, to trigger an immediate payout, thereby reducing the risks of climate change.

Unlike traditional indemnity insurance, parametric insurance does not price premiums and payouts according to the assessed damage to specific insured assets. Rather, parametric instruments model is 'damage-based' on environmental benchmarks; and is tracked by weather stations, satellites, and other data collection tools to approximate actual damages and issue payouts when these benchmarks are met.

**Example:** Caribbean Catastrophe Risk Insurance Facility (CCRIF), a multi-country parametric risk pool, issued immediate payouts when Hurricane Tomas hit several Caribbean countries and caused severe damages across Barbados, St. Lucia, and St. Vincent. The CCRIF successfully disbursed 50 percent of the obligated funds in seven days after the storm and provided the remaining balance in 14 days after the disaster<sup>15</sup>.

**Catastrophe bonds**, or CAT bonds, allow insurance companies to transfer the risk of natural disasters covered by their policies to investors for a price. The money raised with these bonds is set aside to cover potential losses. If the triggers mentioned in the contract are met, the insurer gets to use the money to offset what it has paid out to policyholders. In that case, it no longer has to repay the holders of the bond, who can lose their investment - albeit having collected interest payments along the way. If the



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natural disasters covered by the bond do not occur, the investors get their money back in full when the bond matures, usually in three to five years.

## C. Other Instruments/Mechanisms

**Carbon offsets fund** specific projects that either lower carbon emissions, or sequester carbon, meaning they take some carbon out of the atmosphere and store it. Some common examples of projects include reforestation, building renewable energy, and waste and landfill management. Reforestation in particular is one of the most popular types of projects to produce carbon offsets. Carbon offsets are granted to project owners, who sell them to third parties like companies that want to balance the carbon they put into the atmosphere by paying to remove carbon from somewhere else.



15. Ogden, P., Bovarnick, B., & Hoshijima, Y. (2015, August). Key Principles for Climate-Related Risk Insurance. Center for American Progress. <https://cdn.americanprogress.org/wp-content/uploads/2015/08/26131302/ClimateRiskInsurance-report.pdf>



## II. Pakistan's Climate Finance Gap

Pakistan is vulnerable to the effects of climate change which has occurred due to rapid industrialisation with substantial geopolitical consequences. As things stand, the country is already experiencing the effects of climate change in the form of droughts, flooding, melting glaciers, and more. According to the HSBC's 2018 Global Research Report<sup>16</sup> ranking 67 countries based on their vulnerability to climate change, Pakistan has been ranked in top ten of the countries most vulnerable to climate change. However, the Global Climate Index 2021 based on 2019 data ranks Pakistan in top 20 countries<sup>17</sup>.

Pakistan is one of the first countries in South Asia to have formulated a dedicated Ministry of Climate Change and has a National Climate Change Policy since 2012, demonstrating the country's commitment to counter the adversities of climate change. Being a signatory to the Paris Agreement 2015, Pakistan had aligned its Nationally Determined Contributions (NDCs) with the country's economic and sustainable development vision with a target to reduce 20% of the projected emissions for 2030 that require approximately \$40 billion<sup>18</sup>.

Pakistan's updated NDCs reveal substantially enhanced ambition as compared to its first pledges after the Paris Agreement. In Pakistan's first NDCs, submitted in 2016, the Government of Pakistan had

### PAKISTAN UPDATED NATIONALLY DETERMINED CONTRIBUTIONS 2021



Source: Pakistan: Updated NDCs, 2021



projected a whopping 300% growth in greenhouse gas (GHG) emissions between 2015 and 2030 based on a Gross Domestic Product (GDP) growth rate of 9% and increased reliance on fossil fuels. At that time, Pakistan intended to reduce up to 20% of its projected GHG emissions by 2030, subject to the availability of international grants.

In contrast, Pakistan's updated NDC sets a cumulative conditional target of an overall 50% reduction of its projected emissions between 2015 and 2030, with a 15% reduction using the country's own resources, and an additional 35% subject to international financial support.

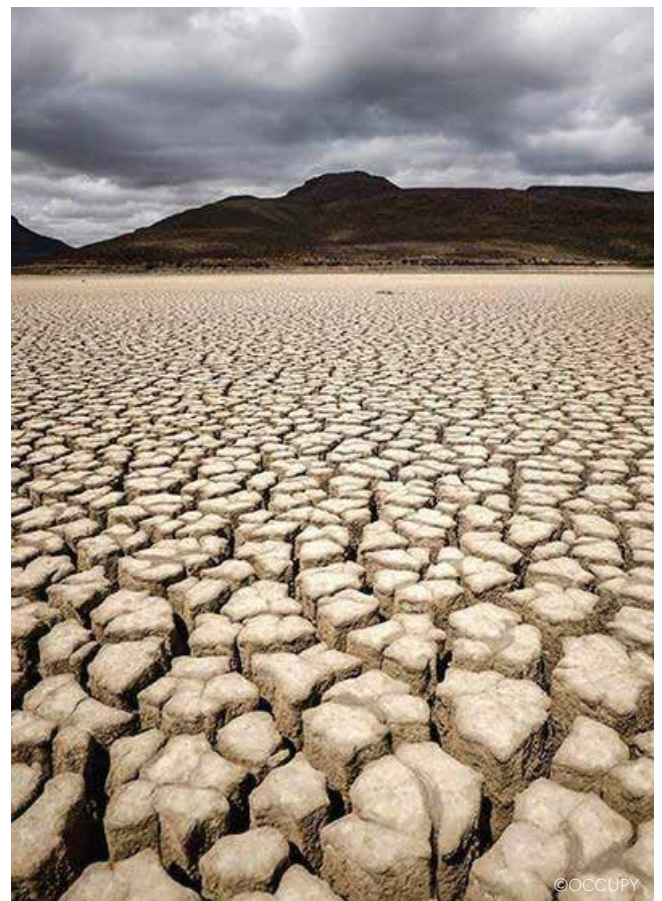
This reduction in emissions is set to be achieved through an improved energy mix, green transportation, and a pledge not to build new coal power plants and a ban on use of imported coal for energy generation. The commitment also hinges on a massive tree plantation project called the Ten Billion Tree Tsunami Programme (TBTP), now in its third year, with the government banking on its future success in carbon sequestering. Pakistan's NDC projects that the TBTP will add 500 MtCO<sub>2</sub>e to the global carbon 'sink' by 2040, if implemented fully.



Ambitious mitigation actions and afforestation are at the heart of Pakistan's Nationally Determined Contributions presented to COP26, but political continuity and climate finance are vital for implementation. Financing will be a

critical element in Pakistan's climate action journey. According to the NDC 2021, Pakistan's energy transition alone will require \$101 billion by 2030, plus an additional \$65 billion by 2040<sup>19</sup>, given the costs involved in completing in-progress renewable energy projects, building additional hydropower capacity and improving transmission lines, and phasing out coal. The tree plantation programme is estimated to cost \$800 million per year; and for now, this expense will be met from Pakistan's national resources, as an annual unconditional contribution. However, this is a major assumption unless continued financing mechanisms are put in place.

Further adaptation actions include the Protected Areas Initiative which entails expanding the coverage of protected areas from 12 to 15% of the total land area by 2023, at an estimated cost of Rs. 3.9 billion<sup>20</sup>. The Recharge Pakistan Programme, which is about building resilience to climate change through ecosystem-based adaptation for integrated flood risk management, requires an investment of \$150 million for deployment of climate resilient infrastructure.



16. .Paun, A., Chan, W., & Acton, L. (2018, April 4). Fragile Planet: Scoring climate risks around the world. HSBC. <https://www.sustainablefinance.hsbc.com/carbon-transition/fragile-planet>

17. Global Climate Risk Index. (n.d.). German Watch. [https://www.germanwatch.org/sites/germanwatch.org/files/2021-01/crri-2021\\_map\\_raking\\_2019.jpg](https://www.germanwatch.org/sites/germanwatch.org/files/2021-01/crri-2021_map_raking_2019.jpg)

18. Pakistan Updated Nationally Determined Contributions 2021. (2021). UNFCCC. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Pakistan%20First/Pakistan%20Updated%20NDC%202021.pdf>

19. Ibid

20. Ibid



### III. Prospects For Pakistan

The Government of Pakistan in its NDCs has outlined the need for greater investment towards green infrastructure to achieve its climate change commitments and sustainable development.

#### CONCESSIONAL FINANCE

Pakistan can meet its climate action goals through concessional finance i.e. below market rate finance provided by major financial institutions such as development banks and multilateral funds. For instance, concessional finance can be applied as grants, funding technical assistance to prepare policies for decarbonisation in Pakistan. However, access to concessional climate finance for Pakistan remains a challenge.

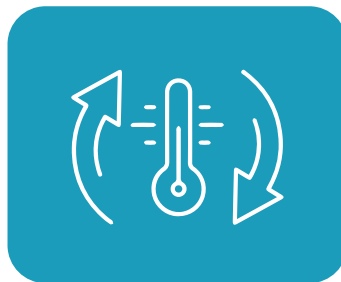


#### MARKET-BASED FINANCIAL INSTRUMENTS



##### Green Bond

The incorporation of green bonds as a standard practice in finance and its greater application and issuance can very well help Pakistan in executing its commitments towards a timely response to climate change. Green bond is effectively a 'use-of-proceeds' bond in which the proceeds are earmarked for green projects. In case of Pakistan, if the Ten Billion Tree Tsunami Programme is chosen as an eligible green project, the entire proceeds of the green bond shall be earmarked towards successful completion of this project. The Government of Pakistan shall not have any leeway in spending the proceeds for any other economic purpose.



##### Debt-for-Climate Swap

Debt-for-climate swap is a variant of debt-for-nature swaps which are financial mechanisms that allow portions of a developing country's foreign debt to be forgiven, in exchange for commitments to invest in biodiversity conservation and environmental policy measures. Debt-for-nature swap is essentially a bespoke deal, limiting its scalability. Furthermore, the funds for conservation are held in the trust which monitors the use of proceeds. Consequently, such an arrangement may not be very beneficial in case of Pakistan where the use of proceeds is restricted to conservation targets.



##### Nature Performance Bond

Nature performance bond is a sustainability-linked financing instrument that links debt payments to predetermined nature-based targets. This 'pay-for-performance' instrument incentivises the issuer to achieve positive outcomes through an improvement in debt terms via a reduction in coupon and the potential for a principal adjustment on full delivery of the targeted nature/climate outcomes. Nature performance bonds do not impose any restriction on the use of proceeds, thereby extending spending autonomy to the Government of Pakistan to utilise the funds for any economic purpose, but tied to delivering the outcomes.

## THE CASE FOR A NATURE PERFORMANCE BOND IN PAKISTAN

The Government of Pakistan, in an endeavor to pay heed to increasing international focus on environmental issues and fulfill its NDCs made at the COP26, may consider issuing a Nature Performance Bond (NPB). The NPB can be based on the Ten Billion Tree Tsunami Programme with sustainable performance targets linked to it. The programme will be underpinned by regular reporting of results together with independent review and verification. Since the proceeds from the NPB are not ring-fenced, the Government of Pakistan shall have the autonomy to utilise the funds for any purpose including budgetary support or refinancing maturing debt, in which

case the net debt stock of Pakistan would remain unchanged. The NPB would reward speeding up of the tree plantation programme while also supporting a set of secondary development indicators such as rural employment and community participation, avoiding any conditionality often imposed on sovereigns in exchange of financial support.

The NPB will be floated in the international capital markets with potential subscribers being private ESG investors. It will be structured in a manner so as to ensure full payment of coupon to the investors while any debt relief, subject to meeting the performance targets, may be borne by the development partners through grant/credit relief to the issuer, i.e. the Government of Pakistan.



NPBs can be beneficial for Pakistan in the following ways:

- Support short-term economic recovery.
- Can lead to debt-restructuring since the NPB structure offers a mechanism to obtain debt relief.
- Application of proceeds to achieve environmental

objectives including those on biodiversity and climate change as well as critical economic and social goals over the short, medium, and long term.

- Contribution to improved nature and climate outcomes, such as restoration of degraded forest and other landscapes, wetland management, or species' conservation and recovery.

## FINANCING FOR DISASTER RISK MITIGATION

Disasters place countries on lower long-term growth trajectories, push vulnerable communities deeper into poverty, and force adjustments in both short and longer-term development targets and goals. They can place significant fiscal strain on governments, businesses, and individual households, particularly if financial preparedness arrangements are limited, necessitating the

need for disaster risk management.

### Parametric Insurance

Notwithstanding the importance of Pakistan's agriculture sector for the economy of the country, very few disaster-related insurance solutions are currently available. Agriculture insurance has an important role to play in managing disaster risk, in particular pertaining to extreme weather events. Well-designed and executed agricultural insurance programmes can rapidly deliver claims, creating incentives for investment, protecting food security, increasing farmers' resilience to weather

shocks, enhancing access to credit, and reducing the cost of credit. In Pakistan, a parametric agriculture insurance pilot sponsored by the Pakistan Microfinance Investment has been implemented, triggering interest in this type of insurance among insurers and development partners.

### Catastrophe Bonds

The glaciers in the Himalayas and the Karakoram in northern Pakistan are melting at an accelerated pace. If the emission trends and temperature rises continue unabated, the result will be catastrophic, leading to landslides, heavy flooding, dam bursts and soil erosion. In anticipation of potential disasters, the Government of Pakistan can consider issuing catastrophe bonds to manage risks associated with such catastrophic events.



### Carbon Offsets

In its ambitious efforts toward afforestation through the Ten Billion Tree Tsunami Programme, Pakistan expects significant carbon sequestration which can potentially be sold to third parties as carbon credits, earning substantial income for the country. Moreover, in Pakistan, alternative and renewable energy projects have the prospects for development as carbon offsetting initiatives.

## IV. Is Pakistan Ready for Thematic Bonds?

### COMMITMENT TO SUSTAINABLE DEVELOPMENT

Pakistan affirmed its commitment to the 2030 Agenda for Sustainable Development by adopting the Sustainable Development Goals (SDGs) as its own national development agenda through a unanimous National Assembly Resolution in 2016. Since then, the country has made considerable progress by mainstreaming these goals in national policies and strategies and developing an institutional framework for SDGs implementation in Pakistan at federal and provincial levels.

Established under UNDP and the Government of Pakistan's National SDGs Initiative programme, the SDG Support Units help create an enabling environment for the implementation of the 2030 Agenda. The Units are housed in the Ministry of Planning, Development & Special Initiatives, and the Provincial Planning Departments. The programme is based on the UN Development Group's tool for Mainstreaming, Acceleration and Policy Support (MAPS) for SDGs.

### INSTITUTIONAL CAPACITY

#### Public Financial Management

Pakistan has extensive legislative and institutional structures for public financial management. There has been significant progress in reforming the public financial management systems with implementation of financial accounting and budgeting system and introduction of mid-term budgetary framework. In a relatively recent timeframe, supported by the key development partners including ADB and the World Bank, the government has (2018–2027) to address the risks and system inefficiencies.

The Public Expenditure and Financial Accountability (PEFA) framework is a methodology for assessing and reporting on the strengths and weaknesses of public financial management (PFM) performance. The outcome of the performance assessment, the PEFA report, provides the basis for dialogue on PFM reform strategies and priorities.



The summary of key performance indicators is tabulated below:

Performance Indicator	Strong	Moderate	Weak
Classification of budget	X		
Comprehensiveness of information in budget documentation	X		
Public access to key fiscal information		X	
Aggregate revenue out-turn compared to originally approved budget		X	
Orderliness and participation in the annual budget process	X		
Effectiveness in collection of tax payments			X
Transparency, competition and complaints mechanism in procurement			X
Timeliness and regularity of accounts reconciliation			X
Legislative scrutiny of external audit reports			X
Proportion of aid which is managed by use of national procedures			X
Predictability of Direct Budget Support	X		

It will be beneficial for Pakistan to conduct Public Expenditure and Financial Accountability (PEFA) for a latest picture on key performance indicators.

### Climate Change Readiness

Recognising that the emissions originating from deforestation and forest degradation are a considerable source of GHG in many developing countries and that the conservation of forests provides multiple social, environmental, and economic benefits, the United Nations Framework Convention on Climate Change (UNFCCC) has decided to create a mechanism to incentivise actions to prevent forest loss and encourage forest conservation.

The Reducing Emissions from Deforestation and Forest Degradation (REDD+) with the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries is a concept adopted by the parties to the UNFCCC as a forest-based climate change mitigation approach. The Government of Pakistan is a party to the UNFCCC and therefore, the Ministry of Climate Change has been assigned to implement REDD+ activities in Pakistan in collaboration with the forest departments to mitigate

climate change through reducing carbon emissions from forestry sector. While addressing forest degradation and deforestation, the REDD+ activities through sustainable forest management contribute to livelihoods, income generation, and employment. At the environmental level, it will contribute towards carbon sequestration and water, soil, and biodiversity conservation.

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## DEBT SUSTAINABILITY

### Overall Profile of Public Debt

According to the debt bulletin by the finance ministry's Debt Policy Coordination Office, Pakistan's gross public debt was just about PKR 40 trillion as of June 2021, about one-third external and two-thirds domestic. As of March 2021, domestic debt was recorded at PKR 25,552 billion, registering an increase of PKR 2,270 billion during first nine months of current fiscal year. Permanent debt constituted 62% of domestic debt portfolio and stood at Rs. 15,882 billion. Floating debt was recorded at PKR 6,000 billion constituting 24% of total domestic debt portfolio while unfunded debt constituted 14% of the portfolio with PKR 3,652 billion<sup>21</sup>. Domestic debt is mostly accounted for by Pakistan Investment Bonds, Treasury Bills, and the National Savings Scheme. Average time to maturity of domestic debt is 4.1 years.

### External Debt

External public debt was recorded at \$81.6 billion at the end of March 2021 with further increase of around \$3.6 billion during first nine months of the current fiscal year. Average time to maturity of external debt is 7 years. External debt, neatly summarised in the pie chart below, is mostly accounted for by multilateral lenders (the World Bank, International Monetary Fund, Asian Development Bank), bilateral lenders (Paris Club), and commercial lenders.

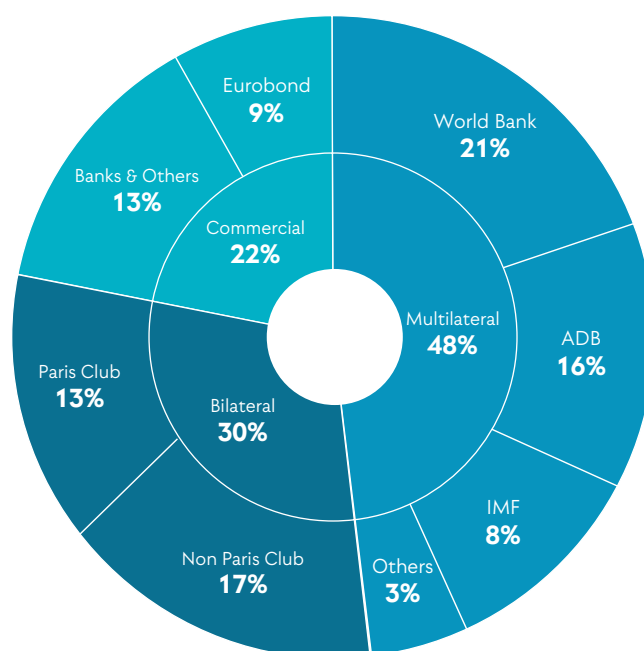
### Public Debt Sustainability



## Economic Growth

Economy of Pakistan rebounded strongly in FY2021 and posted growth of 3.9 percent which is not only substantially higher than the previous two years (-0.47 and 2.08 percent in FY2020 and FY2019 respectively) but also surpassed the target (2.1 percent for FY2021)<sup>22</sup>. Despite strict fiscal constraints, timely and appropriate policy measures taken by the government resulted in a V-Shaped economic recovery. As per IMF's projections, economic growth is projected to grow to 4% in 2022. Higher economic growth in the medium term is expected to create more fiscal space for the government to service its debt expenditures.

### Composition of External Public Debt - End June 2021



### Interest rates

Pakistan remained in negative real interest rate territory in 2021 with inflation at 8.9% surpassing the interest rate at 7%. Post-pandemic economic recovery poses risk of inflation, signaling higher interest rates going forward. Rising interest rates will drive up cost of debt putting strain on budget and lowering economic growth. Consequently, in the FY2022 budget, an amount of PKR 3.06 trillion<sup>23</sup> has been earmarked for debt servicing, which constitutes 36% of total budget expenditure. Of this amount, PKR 2.76 trillion will go toward servicing domestic debt.

21. Pakistan Economic Survey 2021. (2021). Government of Pakistan. [http://www.finance.gov.pk/survey\\_2021.html](http://www.finance.gov.pk/survey_2021.html)

22. Ibid

23. Federal Budget 2021–22. (2021). Government of Pakistan. [http://www.finance.gov.pk/budget/Budget\\_2021\\_22/6\\_Budget\\_in\\_Brief\\_English\\_2021\\_22.pdf](http://www.finance.gov.pk/budget/Budget_2021_22/6_Budget_in_Brief_English_2021_22.pdf)

## Primary fiscal deficit

The fiscal deficit for FY2020 was recorded at 8.1% of GDP against 9% of GDP recorded in FY2019. The fiscal accounts came under significant pressure during the fourth quarter of FY2020 due to COVID-19 related expenditures. Despite significant challenges due to additional expenditures to combat the negative impact of COVID-19, the government's fiscal consolidation efforts contributed in maintaining fiscal discipline, increasing revenues and controlling expenditures, resulting in improved fiscal performance in the first nine months of FY2021. The fiscal deficit was contained at 3.5 percent of GDP during July-March FY2021 against 4.1 percent of GDP in the same period of last year<sup>24</sup>. The primary balance posted a surplus of PKR 451.8 billion during July-March, FY2021 against the surplus of PKR 193.5 billion in the same period last year. Cumulative fiscal consolidation of 3.3% of GDP is being eyed by the authorities to improve debt sustainability. This improvement is envisaged to come primarily, reverse order come from the revenue side as tax revenues are expected to increase by 3.3 percent of GDP by FY2023.

## Exchange rate

Pursuant to adoption of market-based exchange rate regime, the nation has fared well in terms of higher remittances leading to reduction in current account deficit. The transition towards the market based flexible exchange rate regime helped retain competitiveness in external trade. However, since the public debt portfolio constitutes over 30% of external debt, it is significantly exposed to exchange rate risk. Consequently, in the event of a significant depreciation of the Pakistan rupee with respect to the US dollar, increases in outstanding debt stock and the costs of debt servicing could cause fiscal stress.

## External Debt Sustainability

The external account improved significantly during tenure of the incumbent government. In 2019-20, Current Account Deficit (CAD) stood at \$4.4 billion. The lower CAD significantly reduced the country's need to arrange external financing. The external sector continued to strengthen resulting in the cumulative

current account balance recording a surplus of USD 0.8 billion during July 2020 - April 2021. This turnaround was supported by an improvement in the trade balance and surge in remittances. However, lately, external pressures have started to emerge: a widening of the current account deficit (\$5.5 billion as at December 2021), depreciation pressures on the exchange rate mainly reflect the compound effects of the stronger economic activity, an expansionary macroeconomic policy mix, and higher international commodity prices.

Although, Pakistan's capacity to repay its obligations on external debts remains adequate, the sustainability of debt will continue to hinge upon the prospects of maintaining sufficient fiscal buffers and macroeconomic stability.

## Government Commitment to Debt Sustainability

The Medium-Term Debt Management Strategy (MTDS) of Pakistan reflects the optimum combination of borrowing from various sources keeping in view the trade-off between cost and risks.

Over the medium-term, the government's objective is to reduce its 'Gross Financing Needs (GFN)' through various measures mainly including:

1. better cash flow management through a treasury single account;
2. lengthening of maturities in the domestic market keeping in view cost and risks trade-off;
3. developing regular Islamic based lending programme; and
4. availing maximum available concessional external financing from bilateral and multilateral development partners to benefit from concessional terms and conditions.

Pakistan's strategy to reduce its debt burden to a sustainable level includes commitment to run primary surpluses, maintain low and stable inflation, promote measures which support higher long-term economic growth and follow an exchange rate regime based on economic fundamentals. With narrower fiscal deficit, public debt is projected to enter a firm downward path while the government's efforts to improve maturity structure will enhance public debt sustainability.

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24. Pakistan Economic Survey 2021. (2021). Government of Pakistan. [http://www.finance.gov.pk/survey\\_2021.html](http://www.finance.gov.pk/survey_2021.html)



## V. Partnership Development



In 2021, UNDP on the request of the Government of Pakistan convened and facilitated policy stakeholders dialogue on exploring "Nature Performance Bonds"- a viable instrument to accelerate nature capital restoration action in the country. Under its umbrella Financing for Development initiative, UNDP in partnership with the Ministry of Finance and support of development partners and the private sector has established an SDGs Investments Project Development Facility. The facility will play a key role to catalyze and structure innovative financial tools such as bonds (green/SDG/blue/sukuk), and blended financing etc., and restructure carefully selected strategic projects into a commercial viable

propositions for development financing and impact investments. Structuring climate financing opportunities for Pakistan is a top priority of the facility to address the twin crisis of swelling sovereign debt and rampant biodiversity in the country.

Irrespective of the instrument deemed fit by the Government of Pakistan, the UNDP through its facility, relationship management, partnership building and convening power can facilitate the authorities in reaching out to development partners, private sector, and international capital market investors for successful execution of the chosen financing options.

## VI. The Way Forward for Climate Financing in Pakistan

Pakistan's national vision for climate change is aligned with national development plan and sectoral priorities. Pakistan so far has a limited access to international climate finance whereas Pakistan's financial needs remain high given the country's vulnerability to climate change and capital-intensive transition to decarbonise economy. Aiming to achieve SDGs and NDCs as a party to, and in compliance with the Paris Agreement under the UNFCCC, Pakistan must explore market and non-market based approaches for enhanced access to a diversified pool of international funding sources.

With a strong commitment towards sustainable development, debt sustainability endorsed by IMF, and a

dedicated political will to realise the vision of a sustainable, low carbon, and climate- resilient Pakistan, it is a high time that the GoP accelerates efforts toward exploring the policy options stipulated herein. The UNDP is fully committed to extend maximum support to GoP and leverage its network in building the requisite partnerships for successfully achieving climate-oriented outcomes.

Some suggested policy actions that the Government of Pakistan may consider in an endeavor to pave the way for gaining access to international climate finance are outlined below:

## Legislative Support for the National Development Plan (NDP):

The NDP of Pakistan is not backed by a strong legislative support; there is no specific Act or legislation on the NDP exposing it to a political risk. The incumbent government may or may not see the NDCs with the same vision, potentially lead them lower in the ladder of priorities. This makes it imperative for the NDP to be backed by the legislative support which will make it binding on all future governments.

## Formulate Sustainable Finance Framework:

Creation of a sustainable finance framework would allow the GoP to issue green, social and sustainability bonds. Such a framework will provide guidance on identifying eligible projects, expenditures, share best practices on setting up required systems to implement the framework and put in place third party review provisions.

## Improve Public Financial Management Performance:

With a view to improving its public financial management performance, the GoP must address the deficiencies highlighted in the Public Expenditure and Financial Assessment (PEFA) carried out for Pakistan. These include i) effectiveness in collection of tax payments; ii) effectiveness of internal audit; iii) competition, value for money, and controls in procurement; iv) timeliness and regularity of accounts' reconciliation; v) legislative scrutiny of external audit report; and vi) stock and monitoring of expenditure payment arrears. Additionally, the following measures should be integrated:

- Generate climate-aligned revenues;
- Establish a regulatory and enabling regime for private sector investments;
- Strengthen and revive Climate Budget Tagging;
- Expand climate finance integration in various sectors;
- Integrate carbon pricing and fossil fuel subsidies.

## Public Investment Management Assessment:

The GoP must consider having its infrastructure governance assessed through Public Investment Management Assessment (PIMA) which is a comprehensive framework developed by IMF to assess

infrastructure governance practices for countries at all levels of economic development. Strong infrastructure governance helps improve efficiency of public investment, thereby supporting economic growth and fiscal sustainability. The PIMA covers a qualitative assessment of three cross-cutting factors which impact overall effectiveness of public investment management: i) legal and regulatory framework; ii) staff capacity; and iii) IT systems.

## FATF Action Plan:

Pakistan is currently in the Financial Action Task Force (FATF) grey list. The authorities have made substantial progress by satisfactorily completing 26 out of 27 items in their AML/CFT action plan; and this has been recognised by the FATF in its latest meetings. Being in the FATF grey list has not had direct consequences on Pakistan's borrowing ability from the IMF although its economic consequences could include higher costs of borrowing from the international capital markets. As a result, the Government of Pakistan should place greater emphasis on addressing deficient action items highlighted by FATF Mutual Evaluation Report.



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