Private Adaptation Finance

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Building the Future: Pathways for Adaptation Focused Impact Investment in Pakistan

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List of Abbreviations

ACAP Fund	Acumen Climate Action Pakistan Fund
ADB	Asian Development Bank
AFD	Agence Française de Développement
AIFs	Alternative Investment Funds
AIIB	Asian Infrastructure Investment Bank
AKDN	Aga Khan Development Network
AP	Accelerate Prosperity
ARC	African Risk Capacity
ARFF	Agricultural Risk Finance Facility
BII	British International Investment
CIFPAK	Climate Investment Fund for Pakistan
COP	Conference of Parties
CSR	Corporate Social Responsibility
DEG	Deutsche Investitions- und Entwicklungsgesellschaft (German Investment and Development Com-pany)
DFC	U.S. International Development Finance Corporation
DFI	Development Finance Institution
DRF	Disaster Risk Financing
ECC	Economic Coordination Committee
EIB	European Investment Bank
EIRRs	Economic Internal Rates of Return
EMDEs	Emerging and Developing Economies
ESG	Environmental, Social and Governance
ESMS	Environmental & Social Management System
EU	European Union
FBR	Federal Board of Revenue
FCDO	Foreign, Commonwealth and Development Office
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (Dutch Development Bank)
FX	Foreign Exchange
GCF	Green Climate Fund
GDP	Gross Domestic Product
GIIN	Global Impact Investing Network, Inc.
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Development Cooperation)
GoP	Government of Pakistan
GP	General Partner
HBL	Habib Bank Limited
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IMM	Impact Measurement and Management
IoT	Internet of Things
IPP	Independent Power Producer
IRR	Internal Rate of Return
IsDB	Islamic Development Bank
JICA	Japan International Cooperation Agency
KfW	Kreditbank für Wiederaufbau (German Development Bank)
KP	Khyber Pakhtunkhwa
KPI	Key Performance Indicator
LP	Limited Partner
MDB	Multilateral Development Bank
MFI	Microfinance Institution
MoCC&EC	Ministry of Climate Change and Environmental Coordination
MoF	Ministry of Finance
MRV	Measurement, Reporting, and Verification systems
MSMEs	Micro, Small, and Medium Enterprises
NAP	National Adaptation Plan
NbS	Nature-based Solutions
NCGCL	National Credit Guarantee Company Limited
NCQG	New Collective Quantified Goal
NDRMF	National Disaster Risk Management Fund
NDC	Nationally Determined Contributions
NPB	Nature Performance Bonds
NRDC	Natural Resources Defense Council
NRSP	National Rural Support Programme
OECD	Organisation for Economic Co-operation and Development
PAC	Pakistan Agriculture Coalition
PCGC	Pakistan Credit Guarantee Company
PE	Private Equity
PES	Payments for Ecosystem Services
PKR	Pakistani Rupee
PPP	Public Private Partnerships
P3A	Public–Private Partnership Authority
REITs	Real Estate Investment Trusts
SBP	State Bank of Pakistan
SDC	Swiss Agency for Development and Cooperation
SECP	Securities and Exchange Commission of Pakistan
SGBs	Small and Growing Businesses
SLLs	Sustainability-Linked Loans
SMEs	Small and Medium-sized Enterprise
SOFR	Secured Overnight Financing Rate
SPAREC	Sustainable Processing of Agrofood Residues
TA	Technical Assistance
TCX	The Currency Exchange Fund
UK	United Kingdom
USAID	United States Agency for International Development
USD	United States Dollar
VC	Venture Capital
WAPDA	Water and Power Development Authority
WRAP	Water Resource Accountability in Pakistan
WRI	World Resources Institute
WWF	World Wildlife Fund

Executive Summary

Pakistan stands at a pivotal moment in its development trajectory. A young population, rising climate pressures, and mounting stresses across agriculture, water systems, urban infrastructure, ecosystems, and disaster management are converging to reshape economic and social resilience. As climate shocks intensify and resource competition grows, **adaptation is moving from a policy preference to a central development priority**. Pakistan's National Adaptation Plan (NAP) 2023 estimates a climate investment need of USD 348 billion by 2030, of which USD 152 billion relates directly to adaptation, while annual climate finance currently averages just USD 2.3 billion, leaving a significant financing gap.

Although adaptation is the central focus of this report, it is examined within the wider climate finance landscape, recognising that mitigation commitments, sovereign financing conditions, and institutional investment trends all shape the availability, structure, and cost of capital for resilience. While the country has set nationally determined contribution (NDC) targets of 17% unconditional and 33% conditional emission reduction by 2035 in its NDC 3.0, **the impact investing market needed to realise these targets is nascent, concentrated, and largely DFI and donor-anchored**. Fewer than ten consistently active investors manage a significant share of current deployments, and **institutional investors remain largely absent from private markets owing to structural constraints such as the lack of a mature fund regime, the absence of tax-efficient vehicles, and shallow capital market depth**. Private capital remains limited not for lack of demand, but because **long-term investment is undermined by Pakistani Rupee (PKR) volatility and depreciation, the absence of affordable hedging options, and risk-adjusted returns** that remain insufficient to compensate for these risks**.** At the enterprise level, the adaptation finance gap is reflected in the challenges faced by **Micro, Small and Medium-Sized Enterprises (MSMEs),** which are central to delivering adaptation solutions and services and require **risk-tolerant, patient and local currency capital to scale.** Weak investment readiness, limited aggregation models, and high transaction costs relative to deal size continue to impede deployable deal flow and reinforce reliance on short-term, collateral-heavy lending.

Against this backdrop, **this report examines Pakistan's impact investing landscape through an adaptation lens.** It maps capital flows, identifies systemic and adaptation-specific barriers limiting private investment, reviews existing financial instruments and emerging models and outlines practical pathways to **mobilise private capital for policymakers, regulators, investors, financiers, development partners, philanthropies, and MSMEs through policy reform, blended finance, ecosystem strengthening, and pipeline development**. The analysis draws **on desk research, stakeholder interviews, a targeted survey, and an in-person multi-stakeholder consultation** (including international and local public and private financiers, representatives from government, industry, startups and business associations), held in September 2025, and establishes a baseline for understanding Pakistan's current impact investment landscape.

Despite the challenges, signs of progress are emerging. Development finance institutions, multilateral development banks, and development partners are piloting adaptation-focused and blended structures. Guarantees, blended finance facilities, sustainability-linked loans, gender bonds, and insurance-backed models are beginning to channel capital toward the "missing middle", demonstrating that targeted de-risking can mobilise private investment even under challenging macroeconomic conditions. The report elaborates upon several such case studies and makes a few **targeted recommendations that can move Pakistan from fragmented pilots to a scalable, investment-ready market.** These actions include: **modernising policy and regulatory frameworks; expanding blended finance mechanisms and local currency risk-sharing tools; strengthening project preparation systems and MSME readiness; and building ecosystem capacity across fund managers, intermediaries, and data systems**. Together, they can create clearer pathways for private sector engagement and improve alignment between national adaptation priorities and capital mobilisation. Pakistan has the foundations of a vibrant adaptation finance ecosystem with clear national policy direction, early blended finance models, and strong entrepreneurial energy. Through coordinated action and sustained commitment, the country has the opportunity to convert climate vulnerability into climate opportunity, mobilising private capital to protect livelihoods, strengthen resilience, and drive inclusive climate-aligned growth.

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Chapter 1: Introduction

Pakistan stands at a critical juncture in balancing its development ambitions with climate and social resilience. **This report adopts an adaptation-first lens, assessing how private capital can fill the funding gap to reduce climate vulnerability and build resilience while meeting development goals.** With a population exceeding 250 million[1] and a median age of 20.6 years, it is the world's fifth-most populous country and one of the youngest.[2] The demographic profile magnifies both exposure to climate shocks and the potential scale for adaptation-oriented jobs and services. Agriculture is not only the second-highest contributor to the GDP (22.9%) and employer to over 37% of the workforce[3] – about 70% of Pakistan's exports are directly or indirectly derived from agriculture. This underscores the vulnerability of livelihoods to climate shocks and the magnitude of losses the country stands to incur.

Pakistan was the most climate-affected country in 2022[4], and continues **to be ranked among the top 10 most climate-vulnerable countries globally**[5], as evidenced through recurring floods over the past three years. Weak macroeconomic conditions are exacerbated by escalating natural hazards. The increasing burden of climate-related losses can directly put pressure on public finances, particularly in Emerging and Developing Economies (EMDEs). Potential impacts include the costs of post-disaster recovery following extreme events and reduction in tax revenues.[6] Developing countries with higher exposure to climate vulnerability exhibit, on average, a 1.174% higher cost of debt,[7] adding USD 62 billion in extra financing costs to Vulnerable20 (V20) economies between 1996 and 2016.[8] Pakistan faces comparable risk premiums. After the devastating floods of 2022[9], the 2025 floods have taken 1,000+ lives, displaced 2.5 million people and affected 2.2 million hectares of cropland[10], highlighting the scale of adaptation needs. Further, it is estimated to have increased the national poverty rate by 3.7- 4.0 percentage points, pushing additional 8.4 to 9.1 million people into poverty[11], decelerating Pakistan's progress towards the Agenda 2030's pivotal goal to end extreme poverty. Such climate losses translate into near-term demand for early warning systems, disaster risk reduction, resilient agriculture, urban drainage and cooling, resilient water security, and risk financing mechanisms. This report therefore prioritises investable opportunities in climate-smart agriculture, water management, urban infrastructure resilience, and disaster management.

At the same time, **climate-related investment needs are far greater than current flows suggest**. Pakistan's National Adaptation Plan estimates that nearly USD 348 billion will be required by 2030, of which USD 152 billion relates directly to adaptation and resilience[12]. Yet, international and domestic climate finance mobilised averages only USD 2.3 billion during the period of 2018-2021, leaving a financing gap of up to 16 times the current level of adaptation spending.[13] Regional comparisons underscore this shortfall: Pakistan has consistently attracted lower international public adaptation finance than India and Bangladesh[14], and a meagre 5% is sourced through private domestic investors despite facing equal or higher vulnerability[15].

This report triangulates and supplements secondary research with primary data collected through stakeholder consultations, surveys, and interviews. The interviews underscored that while the demand for adaptation solutions is evident across agriculture, water, urban infrastructure resilience, and disaster management, the pipeline of small and medium-sized enterprises (SMEs) able to meet investor requirements remains thin. This reflects persistent challenges of scale, investment readiness, and access to risk information, which will be explored in subsequent chapters. Addressing this gap requires not only mobilising new pools of capital, but also enhancing technical assistance and data systems that allow enterprises to demonstrate measurable resilience impact. This report therefore situates investable opportunities against these quantified needs and highlights where private capital can most credibly contribute to resilience outcomes.

Against this backdrop, **impact investment offers a pathway to mobilise private capital for national priorities, linking financial returns with measurable social and environmental outcomes**. Adaptation finance refers to capital flows that reduce vulnerability and strengthen resilience across sectors such as agriculture, water, urban systems, and disaster preparedness. **This report uses adaptation finance as the central lens** through which impact investment opportunities are assessed.

1 World Bank Group (2024) World Bank Data

2 United Nations, Department of Economic and Social Affairs (2024) Data Portal Population Division

3 FAO (2023) Pakistan at a Glance

4 German Watch (2025) Climate Risk Index 2026

5 UNFCCC (2024) Leveraging Post-Disaster Needs Assessments (PDNA) to inform recovery of agri-food systems in Pakistan

6 OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

7 Oxford Open Economics, Volume 4, 2025, odaf003, Climate vulnerability and the cost of debt

8 Global Center on Adaptation and SOAS (2020) Macrofinancial Risks in Climate Vulnerable Developing Countries and the Role of the IMF

9 The Government of Pakistan, Asian Development Bank, European Union, United Nations Development Programme, World Bank (2022) The Pakistan Post-Disaster Needs Assessment - The 2022 floods submerged a third of the country, affected 33 million people, displaced 8 million and caused losses and damages of more ~USD 30 billion.

10 UN News (2025) The needs are huge': Pakistan reels from floods as millions left homeless and World Health Organization Pakistan (2025) Health Emergency: Situation Report # 9

11 The Government of Pakistan, Asian Development Bank, European Union, United Nations Development Programme, World Bank (2022) The Pakistan Post-Disaster Needs Assessment - The 2022 floods submerged a third of the country, affected 33 million people, displaced 8 million and caused losses and damages of more ~USD 30 billion.

12 Government of Pakistan (2023) National Adaptation Plan

13 United Nations Pakistan (2024) UN Common Country Analysis (CCA) 2024 Update: Climate Financing and Policy Recommendations

14 Ibid. During the period of 2017– 2021, within the South Asia region India received the highest absolute adaptation finance (USD7.5 billion) followed by Bangladesh (USD4.3 billion) and Pakistan (USD2.3 billion).

15 Ibid

1.1 Objectives and Scope of the Study

This diagnostic study maps **Pakistan's private impact investing ecosystem comprehensively, providing a baseline reference for investors, policymakers, development partners, and ecosystem builders**. It is designed to inform impact investment initiatives and investors, especially local capital providers that are looking to deploy capital towards Pakistan's climate adaptation and resilience, and to provide actionable, stakeholder-specific recommendations that can mobilise domestic and international private capital.

The **scope of the study** therefore is to:

Identify key actors across the impact capital ecosystem on the supply, demand, and intermediation sides and clarify their respective mandates and roles

Analyse instruments in use and capital flows, including ticket sizes, pricing, and typical terms across different instruments

Map the impact investment landscape, with an explicit focus on adaptation finance, highlighting both supply side actors such as DFIs, banks, and funds, the providers of de-risking instruments such as guarantees and insurance, and the demand side, namely enterprises providing adaptation solutions

Identify the key challenges and constraints to mobilise private capital, distinguishing between systemic and adaptation-specific barriers

Highlight emerging trends and opportunities for scaling private investment, with climate adaptation and resilience as cross-cutting themes

Recommend actions to strengthen the ecosystem and mobilise capital, with short-, medium- and long-term sequencing and clear allocation of responsibilities among regulators, DFIs, private investors, and technical assistance providers

The study also responds to stakeholder priorities identified through consultation and targeted interviews. Participants emphasised the need for actionable recommendations addressing Pakistan's most immediate constraints, which has informed the analytical scope and the sequencing of reforms proposed in subsequent chapters.

Approaches to Impact Investment

Impact investments are investments made with the intention to generate positive, measurable social and environmental impact alongside financial return. They can be made in both emerging and developed markets, targeting returns from below market to market rate depending on investor objectives. Core characteristics include intentionality, an expectation of financial return, applicability across asset classes such as equity, debt, and real assets, and a commitment to impact measurement. These elements ensure both accountability and the credibility of impact investing as a practice.[16] In Pakistan, these approaches have been applied in sectors such as microfinance, renewable energy, and agriculture, but remain underdeveloped in areas such as education, health, and other adaptation sectors (e.g. water management, infrastructure, or disaster risk financing and insurance). Expanding these approaches to adaptation, i.e., initiatives reducing losses from or exposure to climate risks, requires greater emphasis on instruments that can address perceived risks and pipeline gaps.

Research Questions

The study is guided by four core research questions, which reflect Pakistan's evolving investment context:

Box 1: Key Research Questions Driving the Study

1. Who are the principal stakeholders in Pakistan's impact investment ecosystem, including investors, intermediar-ies, and enterprises, and which sectors and regions are they prioritising for climate adaptation and resilience?
2. What types of capital and financial instruments are currently being deployed, and how do investors balance fi-nancial return expectations with adaptation and impact objectives?
3. What are the main systemic and adaptation-specific barriers hindering the growth of impact investment in Paki-stan, including regulatory, financial, market, and social challenges?
4. What strategies, policy reforms, and ecosystem interventions can most effectively unlock new opportunities, de-risk investments, and catalyse private capital into adaptation-focused business models?

Box 1. Guiding Research Questions

[16] OECD (2019) Social Impact Investment: The Impact Imperative for Sustainable Development

1.2 Research Process

This study adopts a **mixed methods approach**, selected for three principal reasons. *First*, the scarcity and fragmentation of national data on impact investment in Pakistan makes it necessary to draw on diverse public sources. This gap is particularly acute in adaptation finance, where official tracking remains limited and private flows are often under-reported. *Second*, because the ecosystem encompasses DFIs, commercial and microfinance banks, and early-stage funds, a desk-based review alone would be insufficient to capture essential details such as pricing, investment sizes, pipeline quality, and operational norms. *Third*, pipeline visibility is especially constrained for SMEs, many of which operate at sub scale or lack the documentation required by investors. For these reasons, direct engagement with market participants through consultation and interviews was prioritised, with desk research used to validate and contextualise findings against recent transactions, policy developments, and market disclosures. Primary data collection was conducted under Chatham House Rules, and no respondent has been quoted in this report.

The methodological design combines a desk review of global benchmarks and national sources with structured key informant interviews, a targeted online survey, and an in-person consultation. On 17 September 2025, a high-level consultation convened decision makers from financial institutions, investment funds, philanthropic actors, and ecosystem partners across Pakistan. Participants included development finance institutions, commercial banks, microfinance institutions, funds, intermediaries, and enterprises. Insights gathered during this session have fed directly into the study. This integrated design enables triangulation and cross-verification of evidence, producing a holistic picture of Pakistan's impact investment landscape.

Limitations and assumptions

While the research design allows for triangulation and broad coverage, data constraints remain. Publicly available information on impact investing in Pakistan is fragmented, often outdated, and inconsistent across actors, particularly in distinguishing adaptation from mitigation and in capturing private capital flows. The secondary data captured herein is believed to be the latest and best available information at the time of research. In addition, the interview sample, though diverse, is not statistically representative, coverage is stronger in urban centres than in remote areas, and differences in reporting standards across countries limit the precision of regional comparisons.

1.3 Report Structure

The report is organised into five chapters, as outlined in Figure 1. Each chapter integrates insights from the primary research process, with references to recurring themes identified through interviews and the online survey. This ensures that the analysis and recommendations remain grounded in current market realities.

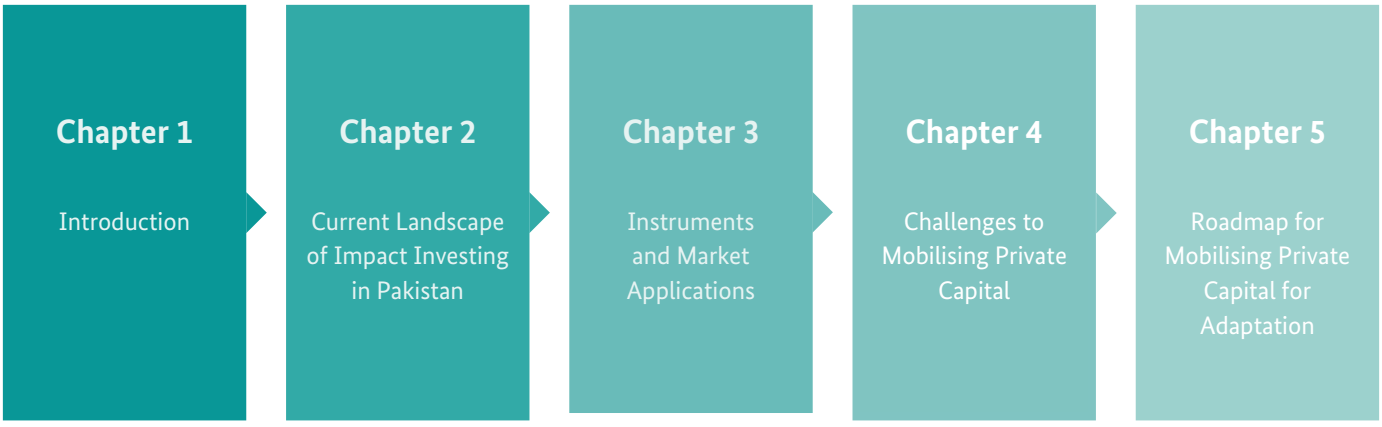

Figure 1: Report Structure

Chapter 2: Current landscape of impact investing in Pakistan

2.1 Overview

In Pakistan, the impact investment landscape remains at an early stage of development, characterised by **limited institutional participation, a narrow investor base, and a small set of pioneering intermediaries**. While the past few years have brought greater visibility and institutional interest, activity is still characterised by small-scale, donor-linked initiatives rather than a fully formed market. DFIs, multilateral development banks (MDBs), catalytic donor facilities, local guarantors, and microfinance institutions (MFIs) continue to anchor the ecosystem. A small number of venture capital and early-stage funds operate in the country, with several more in formation but few yet at financial close. The most active domestic venture capital funds include Sarmayacar[17], Fatima Gobi Ventures[18], and Indus Valley Capital[19], which anchor early-stage transactions and provide a modest foundation for local intermediation. These funds, while active, remain limited in scale and rely heavily on foreign Limited Partner (LPs), reflecting broader structural constraints, including the absence of a formalised local General Partner GP–LP regime under Securities and Exchange Commission of Pakistan (SECP) regulation. Licensed impact-focused asset managers are still absent, and broader market infrastructure, such as fund administration, secondary market platforms, and specialised intermediaries, remains underdeveloped. Domestic fund management capacity is therefore constrained, with few locally domiciled vehicles capable of absorbing institutional capital at scale.

Consultations conducted for this assessment confirmed that Pakistan's impact investment landscape is perceived as **compact, donor-dependent, and constrained by a lack of demonstration transactions**. Fewer than ten consistently active investors manage the bulk of activity, with total assets under management estimated at under USD 120 million[20], mostly concentrated in **blended debt facilities, risk-sharing programmes, and gender-focused funds**. Stakeholders noted that progress has been "horizontal", with repeated use of similar instruments, rather than "vertical" through new fund entrants or institutional investors. Domestic venture capital remains particularly limited, totalling approximately USD 70 million[21] across the three active venture capital funds (Sarmayacar, Fatima Gobi Ventures, and Indus Valley Capital), and **institutional investors continue to favour low-risk government securities over private-sector credit**.

[17] Sarmayacar (2025) About Us

[18] Fatima Gobi Ventures (2025) About Us

[19] Indus Valley Capital (2025) About Us

[20] Primary data provided by stakeholders during consultations and interviews

[21] Primary data provided by stakeholders during consultations and interviews

The story is not that different in climate adaptation finance in Pakistan. Pakistan is one of the most climate-vulnerable countries in the world. Year after year, floods, for instance, are taking enormous human and economic toll. And yet, adaptation finance has not kept pace with the scale of need. This challenge is not unique to Pakistan. Globally, adaptation accounts for just 5% of climate finance.[22] The new collective quantified goal for climate finance (NCQG) agreed during COP29 calls for at least USD 300 billion per year to finance both mitigation and adaptation, in developing countries, by 2035[23], but does not itself fix a quantified subtarget for adaptation finance, although COP30 decisions and political declarations pressed for a significantly higher share and better tracking of adaptation support within this goal.

The estimated adaptation finance needs of developing countries range from USD 310 billion to USD 365 billion per year by 2035, while international public adaptation finance flows from developed to developing countries amounted to USD 26 billion in 2023.[24] This makes the estimated adaptation finance gap now USD 284–339 billion per year until 2035, with needs that are 12–14 times as much as current finance flows.[25] This is despite the fact that there is compelling evidence supporting the economic, environmental, and social benefits of investing in adaptation. Many adaptation investments deliver benefit-cost ratios of 2:1 to 10:1[26] or even 12:1[27] in some cases. Yet adaptation is receiving only a fraction of the needed financing, especially from the private sector.

At the policy level, Pakistan's new NDC 3.0 2025[28] has put Pakistan on the path of voluntary emission reduction of 33% unconditionally and 17% conditionally by 2025. The country's National Adaptation Plan (NAP) 2023[29] frames **adaptation as a whole-economy investment agenda.** It identifies six priority pillars that double as investable themes for private capital: **the agriculture and water nexus, urban resilience, nature and natural capital, disaster risk management, human capital, and gender, youth and social inclusion.** The plan also sets out implementation pathways, including institutional arrangements, monitoring and evaluation, and financing options such as budget tagging, public-private partnerships (PPPs) and innovative instruments. These pillars provide clear signposts for aligning blended and commercial finance with national priorities.

Despite the strategic direction set by the NAP, Pakistan's adaptation finance gap remains immense. Of the USD 348 billion in climate investment required between 2023 and 2030, the adaptation finance need amounts to USD 152 billion,[30] underscoring the magnitude of the financing shortfall. This gap reflects **both scarcity of investable, well-prepared projects and enterprises on the demand side, and a thin supply of risk-tolerant, professionally managed capital on the supply side,** including flexible debt, blended finance, and partial guarantee instruments that lower early-stage risk. Many enterprises remain under-scaled or under-capitalised, while the limited number of local fund managers face structural barriers such as scarce exits and short track records, constraining the broader growth of private intermediation. Equity remains limited and green bonds are discussed but rarely issued, while philanthropic and catalytic capital are used selectively to de-risk early projects. One of the key takeaways of the stakeholder consultation and interviews held during September and October 2025 was that, **without accessible local currency guarantees, blended finance facilities, or trained local intermediaries, risk-adjusted returns in adaptation sectors remain insufficient to attract mainstream investors**.

[22] Global Centre on Adaptation and Climate Policy Initiative (2024) State and Trends in Climate Adaptation Finance 2024

[23] UNFCCC (2024) COP29 UN Climate Conference Agrees to Triple Finance to Developing Countries, Protecting Lives and Livelihoods and UNEP (2025) Adaptation Gap Report: Running on Empty

[24] UNEP (2025) Adaptation Gap Report: Running on Empty

[25] Ibid

[26] Global Commission on Adaptation (2019) Adapt Now: A Global Call for Leadership on Climate Resilience and World Resources Institute (2025) Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach

[27] UNDRR, Standard Chartered, and KPMG (2024) The Guide for Adaptation and Resilience Finance

[28] UNFCCC (2025) Pakistan's Third Nationally determined Contribution (NDC3.0)

[29] Government of Pakistan (2023) National Adaptation Plan

[30] Ibid

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Although the market remains nascent, **diversification is beginning to take shape**. While debt remains the primary financing instrument, guarantees, blended finance, sustainability-linked loans, gender bonds, and insurance-backed models are emerging. DFIs, MDBs, and development partners have launched targeted vehicles such as the UK-IFC Climate Investment Fund for Pakistan (CIFPAK)[31], InfraZamin Pakistan[32], and Acumen's Climate Adaptation (ACAP) Fund[33] to mobilise private capital through blended structures, guarantees, and first-loss tranches. Together, these instruments are gradually building the architecture for an investable ecosystem, signalling an early but important shift from concessional dependence toward market-aligned, locally intermediated capital for climate resilience. During COP30, ten MDBs, including the World Bank Group, the African Development Bank, the Islamic Development Bank, European Bank for Reconstruction and Development and European Investment Bank, announced a pledge of USD 185 billion by 2030 towards adaptation and emission reduction projects in developing countries, from which Pakistan could stand to benefit.[34]

The OECD proposes a practical route to scale built on three mutually reinforcing pillars: better data and capacity, stronger domestic enabling policies, and more accessible, catalytic international support, including the strategic use of blended finance to crowd in private investment.[35] During primary data collection, stakeholders in Pakistan echoed this logic, identifying the same triad of data, policy coherence and de-risking instruments as prerequisites for growth.

2.2 Stakeholder Map of the Ecosystem

The institutional landscape covers regulators, financiers, domestic banks, catalytic facilities, DFIs & MDBs, venture and equity funds, insurers, and innovation platforms as provided below in Table 1.

[31] FCDO (2024) Climate Investment Fund for Pakistan (CIFPAK)

[32] Infrazamin Pakistan (2025) Pakistan's first 'AAA' rated, fully Guaranteed 'Gender Bond'

[33] Acumen (2024) $90M commitment for Pakistan Agribusiness Climate Adaptation

[34] Bloomberg (2025) Development Banks Aim to Hit USD185 Billion for Climate

[35] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

Actor Type	Key Institutions	Mandate / Role
Policy Makers & Regulators	Ministry of Finance; Planning Commission; Securities and Exchange Commission of Pakistan (SECP); State Bank of Pakistan (SBP); Federal Board of Revenue (FBR); Provincial Finance Departments	Set macro-policy direction, regulate financial markets, and develop enabling frameworks such as the Green Taxonomy, concessional refinance schemes, and disclosure guidelines for climate-aligned finance. Primary consulta-tions highlighted that the legal recognition of social enterprise models and GP–LP fund struc-tures are expected to strengthen regulatory clarity and attract institutional investors.
Public Investment & PPP Units	Public-Private Partnership (PPP) Authority (P3A); Sindh PPP Unit; Punjab PPP Authority; provincial line departments	Prepare, procure, and oversee PPP pipelines; coordinate project preparation and viability funding for resilience and service delivery pro-jects aligned with national and provincial priori-ties. During primary data collection, practition-ers emphasised that PPP units require stronger transaction advisory and project preparation capacity to originate bankable projects.
Development Finance Institutions (DFIs) & Multilateral Banks (MDBs)	International Finance Corporation (IFC); World Bank Group; Asian Development Bank (ADB); Asian Infrastructure Invest-ment Bank (AIIB); Islamic Development Bank (IsDB); German Development Bank (KfW) / German Investment and Develop-ment Company (DEG); Dutch Development Bank (FMO); Proparco; U.S. International Development Finance Corporation (DFC); European Investment Bank (EIB); Swed-fund; Green Climate Fund (GCF)	Provide long-term capital, guarantees, and technical assistance to catalyse private invest-ment in adaptation, infrastructure, inclusion, and sustainable enterprise growth. These insti-tutions apply their mandates by anchoring blended finance vehicles, providing risk transfer mechanisms, and supporting the enabling environment needed to expand private invest-ment into adaptation and resilience.
Bilateral Donors and TA Agencies	Foreign, Commonwealth & Development Office (FCDO); German Development Cooperation (GIZ); Agence Française de Développement (AFD); SNV (Netherlands Development Organisation); Swiss Agency for Development and Cooperation (SDC); Japan International Cooperation Agency (JICA)	Bilateral development banks lend finance and take part in risk-sharing such as KfW which offers concessional loans/guarantees. Technical assistance implementers such as GIZ provide advisory and capacity building.
Philanthropy & Corporate Foundations	Coca-Cola Foundation; GSK Foundation; IKEA Foundation; Laudes Foundation; Engro; Al-Falah Foundation; other corporate CSR foundations; mission-driven philanthropies	Provide grant funding and catalytic co-financing for community resilience, nature-based solutions, and social protection. These institutions also support pilots, technical assistance, and ecosystem-strengthening initiatives that help de-risk adaptation investments and expand pipelines in vulnerable communities.
Domestic Financial Institutions	Commercial banks including Habib Bank Limited (HBL); Bank Alfalah; Soneri Bank; JS Bank; Bank of Punjab; Meezan Bank; Zarai Taraqiati Bank Limited (ZTBL)	Channel commercial and SME lending, increasingly through risk-sharing arrangements and sustainability-linked loans aligned with national adaptation priorities.
Guarantee & Credit-Enhancement Platforms	InfraZamin Pakistan; Pakistan Credit Guarantee Company (PCGC)	Offer local currency guarantees and partial-risk cover to crowd in private investors for social and climate-linked transactions. These platforms are complemented by discussions on a national adaptation insurance pool and expansion of refinance windows, both identified by primary research respondents as priority reforms.

Actor Type	Key Institutions	Mandate / Role
Microfinance Institutions (MFIs)	Kashf Foundation; Khushhali Microfinance Bank; National Rural Support Programme (NRSP); Akhuwat; Apna Microfinance Bank	Extend finance to low-income households and women-led microenterprises, integrating micro-insurance and gender-responsive credit models.
Funds & Intermediaries	Sarmayacar; Fatima Gobi Ventures; Indus Valley Capital; Acumen; Accelerate Prosperity; i2i Ventures	Provide seed and growth capital, incubation support, and investment-readiness services for impact-oriented SMEs and start-ups. Respondents noted the need for catalytic funding to strengthen these intermediaries' deal-sourcing and monitoring capacity.
Impact investment & Technical Assistance Entities	Karandaaz Pakistan	Support SME and digital finance infrastructure, payments systems, and data innovation, and since 2022 has expanded into climate-aligned SME financing through its GreenFin Innovations window.
Advisory & Research Firms	Bridge Factor; Deloitte; Pricewaterhouse Coopers; Ernst & Young; KPMG; Delphos; Optimus; IQ Capital; Hagler Bailly	Support project preparation, PPP structuring, and investment advisory services for resilience-oriented projects.
Industry Platforms & Non-Profits	Pakistan Agriculture Coalition (PAC); relevant business and producer associations; chambers	Aggregate private-sector voices, surface pipeline opportunities, and convene value-chain partnerships relevant to adaptation and resilience.
Insurers & Risk-Transfer Providers	Salaam Takaful; TPL Insurance; Pak-Reinsurance; Pula; State Life insurance Company	Develop parametric and index-based insurance products for farmers and SMEs to manage climate and disaster risks, often in partnership with agri-input distributors and banks.

Table 1: Stakeholder Map: Pakistan's Impact Investment Ecosystem

The stakeholder landscape shows an ecosystem still anchored by DFIs and MDBs, with domestic banks and MFIs acting as the primary intermediaries for smaller enterprises. Guarantee platforms such as InfraZamin are beginning to localise risk mitigation, while early-stage funds and innovation platforms like Karandaaz are building the connective tissue between capital, data, and enterprise readiness. Philanthropic actors add flexible resources for pilots and community-level resilience. Taken together, these actors mark the gradual emergence of a mixed-capital system where public, private, and philanthropic finance increasingly intersect to support adaptation and inclusive growth.

Consultation feedback emphasised that **while several strong institutions are operating, they do so in silos. Local intermediaries often depend on external liquidity, while global DFIs depend on intermediaries to reach smaller borrowers, creating duplication rather than scale**. Respondents pointed to Accelerate Prosperity's[36] blended concessional approach and InfraZamin's social bond guarantees[37] as promising models to bridge this divide, though both remain limited in scope.

The GCF is an important actor in Pakistan's climate finance ecosystem, providing concessional and blended capital that can be aligned with national adaptation priorities. Pakistan accesses GCF resources through a mix of national and international accredited entities, including JS Bank, the country's first private sector bank accredited to the GCF, and the NRSP through its direct access channel, as well as international accredited entities such as UNDP and the ADB that implement programmes in Pakistan. These institutions are positioned to design and implement GCF-supported climate resilience initiatives, from ecosystem-based flood management and climate-smart agriculture to community-focused adaptation, and to mobilise private-sector investment through de-risking instruments, concessional credit lines and early-stage project development support in the adaptation space.

[36] Accelerate Prosperity (2025) About Us

[37] Infrazamin Pakistan (2025) Pakistan's first 'AAA' rated, fully Guaranteed 'Gender Bond'

Box 2: Accelerate Prosperity

Accelerate Prosperity **(AP)**[38] is an Aga Khan Development Network (AKDN)-backed enterprise-growth platform operating across Pakistan, Tajikistan, the Kyrgyz Republic and Afghanistan, blending firm-level investment readiness with catalytic capital for small and growing businesses (SGBs). **AP's model pairs hands-on coaching, market linkages and due-diligence support with flexible "patient debt"** designed for thin-file, early-stage firms whose cash flows don't fit bank credit boxes; terms typically include grace periods and lighter covenants to crowd in later investors. This capital-plus-TA bundle is underpinned by an Environmental & Social Management System (ESMS) tailored with KfW, aligning portfolio companies to international environmental and social standards and de-risking for co-investors. The result is a pipeline intermediary with a deliberate emphasis on women and youth into investable propositions across priority themes such as green economy, health tech, manufacturing and ecotourism.

At ecosystem level, **AP has demonstrably mobilised follow-on capital and employment at scale**: As of its latest published footprint, AP reports USD 15.34 million deployed, USD 53.53 million leveraged, 7,687 full-time jobs created/sustained, 648 businesses financed, and 10,459 ventures supported[39], **evidence that "capital-with-capability" models can unlock private investment even in fragile markets**. Regionally, AP's investor-connect and acceleration work (e.g. Pakistan Venture Connect) shows >500 businesses financed through innovative instruments, ~USD 11.5 million provided directly and ~USD 35.7 million in external finance raised, with 4,500 businesses supported. Beyond firm-level results, the EU-funded AP-Asia programme expands this pipeline logic across borders by seeding angel networks, export linkages and alumni communities, and by co-financing with the Aga Khan Foundation to widen deal flow into underserved provinces and secondary cities. For Pakistan's impact investment market, AP functions as a credible origination and de-risking partner, sometimes standing as a lone funder to Pakistan's ecosystem alongside Karandaaz, standardising environmental and social safeguards (ESG) improving bankability, and connecting early-stage impact SMEs to blended and commercial capital at scale.

In Pakistan, AP mainly deploys patient debt with lenient terms tailored to SMEs, and it is building out loan management infrastructure to scale a lending portfolio. Program decks and roll-ups show AP's financing has largely **comprised debt and convertible/quasi-equity tickets, typically local currency and multi-year, while pairing capital with TA and market linkages to improve bankability**. The equity hesitancy is also structural. Industry bodies and regulators have flagged tax frictions that stack obligations along the equity chain, including corporate income tax of around 29 percent, dividend withholding taxes that can reach 15 percent or higher, super-tax layers, and capital gains treatment. This configuration can result in de facto multiple taxation of private equity and venture-capital flows in the absence of pass-through status. The Pakistan Business Council has also warned that the removal of pass-through treatment leads to multiple taxation of profits and gains, which is a key reason why risk capital demands higher returns that are difficult to achieve in a low-exit market.

Set beside Karandaaz Pakistan, the contrast is instructive. Karandaaz Capital's mandate leans toward wholesale structured credit and equity-linked capital for SMEs (including risk participation and direct investments), and it has recently added gender- and climate-focused MSME lines with DFI partners like Proparco, which are broadening the supply of structured debt and equity-linked instruments in the ecosystem. AP's niche is earlier-stage in underserved geographies with a heavier reliance on patient debt plus hands-on investment readiness; Karandaaz sits later in the pipeline with larger tickets and balance-sheet solutions that can absorb bank risk appetites. In a market where equity returns are pressured by few exits and tax drag, AP's debt-dominant model helps ventures bridge bankability. Together, they are complementary rungs on Pakistan's impact investment ladder, with AP seeding investable pipelines with debt and TA and Karandaaz deepening capital pools through wholesale credit and equity-linked growth capital. Nonetheless, both are still operating against macro headwinds of low exit activity and an equity tax architecture that investors describe as distortionary.

Box 2 Example - Finance Mobilisation by Accelerate Prosperity (AP)

Mapping Pakistan's actors against the National Adaptation Plan's six pillars[40] clarifies who finances what in practice. **DFIs and MDBs are best placed to lead large, long-tenor investments in urban systems and water. Local currency guarantees and domestic banks are suited to working capital and asset finance for small and medium sized enterprises. Technical assistance platforms and project preparation facilities are needed to originate, screen and structure pipelines.**

This mirrors the OECD's three pillar approach[41], where improved information and capacity, coherent domestic policy, and international de-risking combine to mobilise private adaptation capital.

[38] Accelerate Prosperity (2025) About Us

[39] Accelerate Prosperity (2025) Impact Footprint

[40] Government of Pakistan (2023) National Adaptation Plan

[41] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

2.3 Active Themes and Sectors

Pakistan's adaptation-relevant investments remain concentrated in inclusive finance, yet diversification is now visible across five domains, namely: (1) inclusive and gender responsive finance, (2) agriculture and water resilience, (3) urban resilience and infrastructure, (4) disaster-risk financing and microinsurance, and (5) nature-based and blue carbon solutions. A new generation of blended finance platforms, notably the UK–IFC Climate Investment Fund for Pakistan (CIFPAK)[42], and local guarantors such as InfraZamin Pakistan[43], are creating space for private capital to participate in resilience. Together with risk-sharing facilities led by DFIs and provincial adaptation programmes, these mechanisms signal a gradual deepening of Pakistan's adaptation-finance ecosystem. Platforms such as Karandaaz and Accelerate Prosperity are acting as intermediaries between donors and early-stage enterprises, combining technical assistance and concessional finance to help smaller businesses reach investment readiness.

Across both consultations and survey responses, agriculture and food systems emerged as a frequently cited priority for impact capital, followed by water resilience and urban resilience. Respondents noted that **these sectors not only address climate risk but also offer scalable entry points for small and medium enterprises**. Stakeholders consistently linked adaptation potential with commercially viable models, including cold chains, efficient irrigation, agri-insurance, and waste-to-resource systems, indicating growing investor appetite if risk instruments can be strengthened.

To translate this diversification into investable outcomes, each sectoral theme below concludes with a concise set of priority actions drawn from literature review, the September 2025 consultation, and the October 2025 online survey. These actions outline where private and blended capital can most credibly accelerate adaptation impact in Pakistan.

A. Inclusive and Gender-Responsive Finance

Inclusive finance remains the most mature channel for adaptation-linked investment in Pakistan. Microfinance banks and institutions, such as Kashf[44], Khushhali[45], NRSP Microfinance Bank[46], and Akhuwat[47], leverage DFI-supported debt and guarantee facilities to extend outreach into underserved segments. Risk-sharing arrangements with Standard Chartered, and British International Investment (BII)[48] could absorb up to half of portfolio credit risk, enabling on-lending in local currency to SMEs and women-led enterprises. The recent International Swaps and Derivatives Association (ISDA) agreement between IFC and SBP will enable IFC to manage currency risks more effectively and increase its investments in Pakistani rupees.[49] In one notable instance, by providing a full guarantee, the PKR 2.5 billion InfraZamin Gender Bond[50] attracted domestic institutional investors to a labelled local currency instrument, indicating willingness to participate under principal protection.

The **gender lens is increasingly treated as a strategic entry point for adaptation finance**. Empirical evidence suggests that gender-diverse leadership improves resilience, operational performance, and adoption of climate-smart practices.[51] Dedicated facilities such as **Karandaaz GreenFin Innovations**[52] and **Accelerate Prosperity**[53] channel patient and flexible debt to women entrepreneurs and climate tech ventures, thereby expanding and filtering the investable pipeline. Since the 2022 and more recent 2025 floods, inclusive-finance instruments have gained strategic prominence in national policy frameworks, including the State Bank's Green Taxonomy and SECP's ESG disclosure guidelines for listed companies. Karandaaz's GreenFin programme supporting women-led projects and InfraZamin's Gender Bond represent early wins rather than mainstream adoption, yet they illustrate how gender-responsive and climate-aligned lending is beginning to converge.

Oxford's South Asia review 2024[54] finds that equity and localisation are material to outcomes. Programmes that embed women and community institutions in design and delivery, use locally led adaptation principles, and channel resources through decentralised mechanisms tend to be more durable and investable. This evidence supports giving priority to gender responsive and locally led pipelines within blended facilities in Pakistan.

B. Agriculture and Water Resilience

Agriculture and water remain the anchor sectors of Pakistan's adaptation agenda. Evidence suggests that globally, the economic internal rates of return (EIRRs) in sustainable agriculture is 27.2% on average, underscoring its economic rationale.[55] Respondents consistently **highlighted climate-smart agriculture, irrigation efficiency, and storage infrastructure as adaptation priority areas requiring concessional and blended capital**. The BII–Habib Bank Limited facility allocates half its portfolio to smallholders through risk-sharing and bundled insurance products.[56] Provincial programmes including Water Resource Accountability in Pakistan

[42] FCDO (2024) Climate Investment Fund for Pakistan (CIFPAK)

[43] Infrazamin Pakistan (2025) Pakistan's first 'AAA' rated, fully Guaranteed 'Gender Bond'

[44] Kashf (2025) About Us

[45] Khushhali Bank (2025) About Us

[46] NRSP Bank (2025) About Us

[47] Akhuwat (2025) About Us

[48] BII (2023) Standard Chartered and British International Investment sign USD40 million Risk-Participation Agreement

[49] IFC (2025) IFC and the State Bank of Pakistan Sign Agreement to Strengthen Local Currency Lending in Pakistan

[50] Infrazamin Pakistan (2025) InfraZamin Pakistan, Kashf Foundation and Arif Habib Limited launch Pakistan's first 'AAA' rated, PKR 2.5 billion, fully Guaranteed 'Gender Bond' for bond capital market investors

[51] International Monetary Fund Working Paper (2024) Gender Diversity and Corporate Resilience to Climate Change: Evidence from Greenfield Investments and International Finance Corporation (2024) Gender-Responsive Climate Governance and the Role of Women Leaders

[52] Karandaaz (2025) About Us

[53] Accelerate Prosperity (2025) About Us

[54] Oxford Policy Management and UK International Development (2024) Climate Adaptation Projects in South Asia: A Review

[55] WRI (2025) Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach

[56] BII (2025) BII and HBL announced and signed a USD75m 'From Bank to Farmer' facility

(WRAP)[57] and Recharge Pakistan[58] embed adaptation at basin scale. CIFPAK's technical-assistance window focuses on these same sectors, supporting Sindh's PPP Unit in structuring bankable, climate-resilient projects.

However, the **regulatory framework required to support these priorities continues to lag**. The Insurance Ordinance 2000 and The Microinsurance Rules 2014[59] constrain micro-insurance scale-up, with efforts underway to revise the insurance ordinance and associated rules. Nevertheless, pilots by Pula[60] and Salaam Takaful[61] are bundling index-based insurance with credit and inputs, with agri-input firms (e.g. Syngenta) acting as distribution partners rather than insurers. Acumen's ACAP Fund targets value chains in aquaculture and livestock with a 31% first-loss GCF tranche.[62] The largest national insurer, State Life Insurance,[63] along with Pakistan-Reinsurance[64] is also collaborating with the State Bank to re-design crop loan insurance schemes and add a climate resilience angle.

The OECD highlights **specific private entry points in climate smart agriculture and water, notably risk transfer and insurance, digital advisory and decision tools, and efficient irrigation, which become investable when paired with guarantees, concessional tranches, and results-based payments**.[65] These instruments align with current pilots in Pakistan's cotton and rice belts and can be standardised to scale through local banks and aggregators.

Based on the online survey and stakeholder consultations, and the broader analysis conducted for this study, the following priorities could accelerate private investment in this sector:

- Expanding blended finance facilities to enable banks and non-bank institutions to provide longer-term PKR credit to smallholders and agri-SMEs, combining concessional first-loss tranches with portfolio guarantees to offset high borrowing costs and collateral requirements.
- Scaling bundled financial products that integrate climate-smart inputs, irrigation technology, and micro-insurance, supported by targeted premium subsidies and risk-sharing arrangements.
- Strengthening data and actuarial baselines for index and parametric insurance, prioritising digitised weather and yield records to reduce basis risk and improve underwriting quality.

[57] FCDO (2025) Water Resource Accountability in Pakistan (WRAP)

[58] WWF Pakistan (2025) Recharge Pakistan

[59] UNDP Insurance and Risk Finance Facility (2024) Inclusive insurance and Risk Financing in Pakistan: Snapshot and Way Forward 2024; The Insurance Ordinance 2000; The Microinsurance Rules 2014

[60] Pula Advisors (2025) About Us

[61] Salaam Takaful (2025) About Us

[62] GCF (2024) Acumen Climate Action Pakistan Fund

[63] State Life Insurance Corporation of Pakistan (2025) About Us

[64] Pakistan Reinsurance Company (2025) About Us

[65] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

C. Urban Resilience and Infrastructure

Urban adaptation is emerging as a priority as climate shocks intensify. Resilient cities including water supply, sanitation and waste management deliver strong socio-economic returns, with recent global evidence reporting average EIRRs of 22.9% for adaptation investments in resilient cities and 19.4% for adaptation investments in water supply and sanitation.[66] In Pakistan, **MDBs lead investment in drainage, sanitation and flood protection, though project pipelines remain donor-driven**. Sindh's PPP Unit has shown clear appetite for resilient urban projects but requires stronger feasibility and transaction preparation support.

CIFPAK and InfraZamin provide viable pathways to crowd in private capital. InfraZamin can guarantee municipal or utility-backed PKR issuances, while CIFPAK's blended structure is designed to prepare and de-risk such transactions. Together they cater to Pakistan's "missing middle" in adaptation finance, i.e., projects too small for sovereign lending yet too large or risky for commercial banks.

Survey participants ranked urban resilience among the leading adaptation priorities and identified guarantees and risk-sharing facilities as instruments of particular relevance to local investors. The OECD highlights urban adaptation as an emerging private investment frontier, with project aggregation and sustainability-linked debt offering clear entry points for domestic capital.[67]

The following priorities could accelerate private investment in this sector:

- Leveraging InfraZamin guarantees to issue municipal and utility-style PKR bonds that finance drainage, cooling, and circular economy infrastructure, linking returns to verified adaptation outcomes.
- Establishing a dedicated project preparation facility to convert climate resilience concepts into bankable assets, addressing what stakeholders identified as a market gap.
- Adopting sustainability-linked and resilience-linked financing structures tied to measurable metrics, such as reduced water-logging, improved drainage, or energy savings to attract institutional investors seeking outcome-based performance.

Often fiscal policies can strengthen incentives for investing in adaptation through a policy framework that allows for the implementation of taxes or charges on externalities that hinder investment in adaptation. For example, the city of Philadelphia has introduced a stormwater fee based on impermeable surface area, which provides an incentive to replace paved areas with green spaces. Tax credits and rebates can be used to encourage retrofitting and investment in research and development.[68]

D. Disaster Risk Financing and Micro-Insurance

Pakistan's repeated exposure to floods and droughts is driving innovation in disaster-risk financing. Pakistan now has an approved Disaster Risk Financing (DRF) strategy, layering risks between impact and frequency and the work is underway through ADB and Global Shield to provide premium financing as part of government subsidy support. DFIs promote sovereign-contingent credit, while insurers such as Pula and Salaam Takaful are piloting parametric products for smallholders. The National Disaster & Risk Management Fund (NDRMF)[69] already has a National-Catastrophe (NatCat) model. Agri-input firms (e.g. Syngenta) participate mainly as distribution partners in bundled products rather than as insurers. The economic case for fiscal and enterprise-level resilience remains to be replicated in Pakistan. The EIRR for disaster risk management globally averages at 35.9%, the second highest in adaptation investment sub-sectors, after health services.[70] Regulatory reform and concessional premium support remain prerequisites for scale.

For disaster risk financing and early warning, OECD[71] analysis indicates that public co-funding of data systems and initial premium support is often required at the outset, followed by a transition to private capacity as evidence accumulates. This sequencing could further inform the design of Pakistan's parametric pilots and sovereign or sub-sovereign risk pools, ensuring that subsidies are time-bound and targeted while private underwriting grows over time.

Survey respondents identified DRF and insurance as important adaptation priorities, noting that partial guarantees and blended finance mechanisms could help expand access for SMEs and households. The OECD[72] further notes that multi-tiered systems of combining sovereign facilities with private-layer insurance and digital distribution offer the most efficient route to crowd in private capital.

The following priorities could accelerate private investment in this sector:

- Scaling sovereign-contingent credit facilities complemented by provincial and household-level parametric products.
- Expanding blended DRF facilities that pair concessional capital with portfolio guarantees, enabling local insurers and MFIs to underwrite index-based products at affordable premiums.
- Integrating early-warning and risk-data systems with DRF mechanisms to reduce basis risk and claim ratios.
- Developing a public–private adaptation and insurance pool to aggregate reinsurance capacity and standardise coverage for SMEs and micro-borrowers.

[66] WRI (2025) Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach

[67] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

[68] Ibid

[69] National Disaster & Risk Management Fund (2025) About Us

[70] WRI (2025) Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach

[71] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

[72] Ibid

E. Nature-Based and Blue-Carbon Solutions

Projects such as Recharge Pakistan and coastal mangrove restoration[73] **illustrate early momentum in ecosystem-based adaptation**. CIFPAK's technical assistance arm and IFC's diagnostics are building baselines for nature-based investment, while provincial governments pilot watershed and rangeland rehabilitation. Survey participants ranked nature-based and ecosystem solutions among key adaptation priorities, highlighting the need for pooled investment vehicles and blended capital to aggregate smaller projects.

Investors remain cautious because carbon gains can be reversed or shift emissions elsewhere. To build confidence and scale investments, clear measurement, reporting and verification (MRV) standards and Article 6 frameworks are needed. Through Pakistan's Policy Guidelines on Carbon Markets, the work on Article 6 framework as well as setting up of credible registry is already underway. Pakistan has approved a national Carbon Market Policy Guidelines (2024),[74] issued draft Carbon Market Rules (2025)[75] providing for a national carbon registry and Article 6 authorisation procedures, and has granted its first Article 6 approvals, with ongoing SPAR6C-supported readiness and capacity building to operationalise MRV and registry functions. International benchmarks suggest that well-designed forestry and nature-based solutions can generate an average EIRR of 39.5% globally.[76]

The OECD[77] emphasises that credible baselines, consistent monitoring, and transparent reporting are prerequisites for attracting institutional investors to NbS portfolios, while early concessional support is often required to demonstrate replicable business models. NbS is more durable when co-designed with local communities and institutions and backed by explicit revenue mechanisms, for example water tariffs, ecotourism receipts or value chain premiums.[78]

The following priorities could accelerate private investment in this sector:

- Establishing standardised monitoring frameworks and baselines to strengthen the credibility of NbS projects in voluntary and compliance markets.
- Providing concessional technical assistance and blended finance for mangrove restoration, watershed protection, and ecosystem-based adaptation.
- Creating pooled investment vehicles modelled on regional green funds to aggregate smaller NbS projects into investable portfolios.
- Developing a national adaptation or insurance pool recognising NbS as eligible assets, linking restoration outcomes to parametric-finance triggers.

2.4 Notable Programmes and Facilities

Pakistan's impact investment landscape is increasingly defined by a set of catalytic programmes that blend concessional, development, and private capital to expand finance for climate adaptation and inclusion. These facilities do more than provide funding; they test new financial structures, demonstrate proof of concept for private participation, and help shape a pipeline of bankable, resilience-linked projects. Collectively, they mark a decisive shift from traditional grant-driven projects toward market-based investment platforms capable of mobilising institutional capital.

The most prominent of these vehicles is the Climate Investment Fund for Pakistan (CIFPAK), a landmark collaboration between IFC, FCDO, and the Government of Pakistan. Designed as a dedicated blended finance platform for adaptation, it seeks to crowd in both development finance and commercial investors by absorbing early-stage risk through a first-loss structure and technical assistance window. CIFPAK represents Pakistan's first country-specific adaptation facility at scale and serves as a blueprint for future blended structures across South Asia.

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[73] WWF (2025) Recharge Pakistan

[74] Pakistan Policy Guidelines for Trading in Carbon Markets

[75] Pakistan Carbon Market Rules (2025)

[76] WRI (2025) Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach

[77] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

[78] National Institute of Health (2020) Understanding the Value and Limits of Nature-Based Solutions to Climate Change and Other Global Challenges

Box 3: CIFPAK – A blended finance platform to mobilise private capital

UK–IFC blended adaptation facility, CIFPAK, was introduced in 2024 and is running through 2031, as a partnership between the Government of Pakistan, IFC, and the UK's Foreign, Commonwealth and Development Office (FCDO). It is designed to prepare bankable transactions, de-risk capital market instruments, and mobilise both development finance and private investment, with a total programme envelope of approximately GBP 108 million. CIFPAK targets priority adaptation sectors such as agriculture, water management, resilient infrastructure, and climate-linked financial services. Its mobilisation target is ambitious: for every pound of concessional finance, two pounds from development finance institutions and three pounds from private investors are expected to follow. This makes CIFPAK the largest single-country adaptation facility, underscoring both the scale of ambition in Pakistan and the intent to crowd in additional capital at an indicative mobilisation ratio of 1:5.[79]

The programme is structured around two components: GBP 90 million for direct investment managed by IFC, encompassing management fees and transaction preparation costs, and GBP 15 million for technical assistance and enabling environment support implemented with Boston Consulting Group. The facility has concessional capital occupying the first-loss position and uses risk-sharing instruments and guarantees to address early-stage risks and support the preparation of bankable adaptation projects. The technical assistance window focuses on project preparation and capacity building, particularly in Sindh's agricultural and water sectors, where pilot projects are being structured with provincial PPP units. By absorbing early-stage risks and strengthening the pipeline of adaptation-oriented investments, CIFPAK aims to demonstrate that adaptation-focused investments can be both financially viable and developmentally additional and to provide a platform for scaling private capital participation in resilience initiatives in line with national adaptation priorities. Its first transaction, a GBP 10 million equity investment in a sustainable aviation fuel company in Punjab, mobilised more than GBP 115 million from IFC, ADB, and private investors, illustrating CIFPAK's catalytic role in de-risking innovative, first-of-their-kind adaptation investments in Pakistan.

Box 3. CIFPAK Overview and Objectives

Beyond blended finance, ecosystem-based approaches are gaining traction as public-private models for resilience. Recharge Pakistan, operating in the Indus Basin, exemplifies how adaptation programming is expanding beyond infrastructure toward integrated landscape restoration and water-management solutions. With backing from the Green Climate Fund, WWF Pakistan and corporate partners, it demonstrates how ecological rehabilitation, community livelihoods and climate risk reduction can be financed together.

[79] FCDO (2024) Climate Investment Fund for Pakistan (CIFPAK)

[80] WWF (2024) Historic Recharge Pakistan project launched to tackle floods and build climate resilience and WWF Pakistan (2025) Recharge Pakistan

Box 4: Recharge Pakistan - An ecosystem-based adaptation programme

Recharge Pakistan[80], a national ecosystem-based adaptation programme operating in the Indus Basin, was designed to restore wetlands, forests, and natural water flows over some 14,000 hectares. It intends to support groundwater recharge, reduce flood risks, and stabilise rural livelihoods. The programme is backed by a USD 77.8 million, seven-year investment from the Green Climate Fund, the Coca Cola Foundation, WWF Pakistan, and local government partners, making it one of the largest climate adaptation investments in Pakistan's history.

Using Ecosystem-based Adaptation (EbA) and green infrastructure, the project seeks to regulate water flow in the Indus Basin by restoring wetlands and forests, rehabilitating natural water channels, and introducing community-led climate-smart practices that align development with ecological resilience. Primarily designed to slow run-off, hold floodwater, and prevent overflow into agricultural and community lands, Recharge Pakistan serves as a scalable model for nature-based climate resilience by producing evidence, tools, and best practices for future adaptation planning. Its EbA and green infrastructure interventions are expected to reduce flood extent by 50,800 hectares, capture 20 million m^3 of water, and replenish 1,600 million litres of soil infiltration water through watershed management.

Core interventions of the programme include:

1. **Demonstrating the effectiveness of EbA and green infrastructure**: The project will restore 14,215 hectares of degraded forests and wetlands in Dera Ismail Khan, rehabilitate 34 km of water flow paths in the Ramak Watershed and Manchar Lake, and construct 127 green infrastructure interventions across DI Khan, Ramak, Manchar, and Chakar Lehri watersheds. These measures slow, absorb, and redirect floodwaters, reducing disaster risks while improving biodiversity, water retention, and soil health, ultimately decreasing flooding across more than 50,000 hectares of land.
2. **Creating an enabling environment for climate action**: Recharge Pakistan is strengthening policy systems by embedding NbS, EbA, and green infrastructure into national and provincial planning frameworks, including the National Water Policy, National Adaptation Plan, and Provincial Adaptation Plans. By anchoring these methods in scientifically grounded procedures, the project supports long-term climate-smart governance and investment planning that complements traditional grey infrastructure.
3. **Enhancing community resilience in the Indus Basin**: Working directly with farmers and local enterprises, the project promotes climate-resilient agricultural practices, diversified income streams, and sustainable resource use. By reducing pressure on ecosystems and providing alternatives to unsustainable land and water practices, Recharge Pakistan strengthens the long-term resilience of communities across the basin.

Box 4. Recharge Pakistan

At the intersection of financial inclusion and adaptation, the BII–Habib Bank Limited (HBL) Agriculture Finance Stack illustrates how risk-sharing and bundled insurance can deliver capital directly to smallholders, a population segment at the frontlines of climate shocks. The model connects international financiers, domestic banks and microfinance institutions through a common risk-participation framework, effectively extending adaptation finance through existing banking channels rather than stand-alone donor programmes.

Box 5: BII–HBL: From Bank to Farmer[81]

In Another promising adaptation financing model in Pakistan is the agriculture finance stack, linking commercial banks, MFIs, and smallholder farmers through structured capital and risk sharing. Under the USD 75 million facility, HBL will allocate 50% of the capital to smallholder farmers (those farming < 12.5 acres), while the remainder is channelled to broader agribusiness actors.

The funds will support both working capital (≈ 85%) (e.g. inputs, seed, land prep) and capex (≈ 15%) (machinery, tools), with roughly 20% of the facility earmarked for climate finance eligible investments, such as water-efficient irrigation systems.

Risk-sharing arrangements with development institutions reduce downside exposure for HBL, increasing the bank's confidence to disburse PKR-denominated credit in agriculture. Meanwhile, pilot efforts by insurers like Pula and Salaam Takaful provide a template for bundling credit with index- or yield-based insurance.

The stack simultaneously delivers capital and risk mitigation to farmers in climate-vulnerable zones. By combining subsidised funding, optional insurance, and targeted climate clauses, this model shows how coordinated financing structures can help scale adaptation finance while safeguarding farmer livelihoods under stress.

Box 5. BII & HBL Partnership

[81] BII and HBL announced and signed a USD75m 'From Bank to Farmer' facility on 10 March 2025; HBL describes it as a climate-resilience/agri lending facility with rollout to smallholders and agribusinesses.


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Together, these three initiatives capture the emerging architecture of Pakistan's impact investment market. **CIFPAK demonstrates how blended finance structures can mobilise private capital at scale; Recharge Pakistan illustrates how ecosystem-based approaches can translate resilience objectives into measurable outcomes; and the BII–HBL facility offers a replicable model for directing finance to smallholders through established banking channels**. Each applies risk-sharing, local currency participation, and robust monitoring frameworks to demonstrate financial viability alongside development impact. As these models mature, they mark a shift from fragmented projects to scalable financing structures, establishing the foundations of an investable, nationally aligned adaptation finance market that is deepening where institutional capacity and policy alignment are strongest, and gradually extending into higher-vulnerability regions.

2.5 Geographic Footprint

Impact investment activity in Pakistan is unevenly distributed, reflecting the interplay between financial sector depth, economic density, inclusion, and climate vulnerability. Adaptation-linked transactions and pilots remain concentrated in Punjab and Sindh, where banking penetration, donor presence, and institutional capacity create natural entry points for blended and guarantee finance. Punjab hosts several flagship initiatives: the CIFPAK facility's first investment in sustainable aviation fuel, the BII–HBL smallholder finance stack, and multiple micro-insurance pilots operating across the agribusiness corridor between North and South Punjab. These efforts are underpinned by mature financial institutions and robust credit infrastructure, allowing blended and risk-sharing instruments to reach scale.

Sindh has emerged as a parallel anchor. Its active Public-Private Partnership Unit, coupled with the maturity and robustness of Karachi's capital markets, has attracted concessional capital and technical assistance for donors as well as private sector focused projects for the water, sanitation as well as urban resilience sectors in Karachi and Hyderabad. CIFPAK's technical assistance window is supporting transaction preparation in these sectors, strengthening sub-national readiness.

In both Khyber Pakhtunkhwa (KP) and Balochistan, adaptation finance activity remains predominantly donor driven. Beyond the Recharge Pakistan programme, interventions consist mainly of pilot projects, such as solar irrigation schemes, small-scale microfinance, and early ecosystem restoration efforts, and predominantly funded by multilaterals, highlighting the need for locally owned financing mechanisms and provincial implementation capacity. In KP, Recharge Pakistan integrates flood-risk reduction and ecosystem restoration across the Indus and Kabul river systems, demonstrating that alignment between provincial adaptation plans and national priorities can attract blended support when execution capacity is credible.

Balochistan, by contrast, is the most underserved province despite acute drought and water scarcity pressures. Limited financial intermediation, low project readiness, and high perceived risk have restricted inflows to a handful of solar irrigation and microfinance pilots. Sustained investment at scale will require dedicated risk-sharing facilities, aggregation models, and inter-provincial partnerships to pool and standardise bankable projects.

Across urban centres, notably Karachi, Lahore, Islamabad, and Faisalabad, the adaptation finance market is beginning to take shape. InfraZamin's Gender Bond and prospective municipal PPP issuances illustrate how local currency instruments can mobilise domestic institutional investors when backed by credible governance, transparent data, and principal protection.

Overall, Pakistan's geographic footprint reveals both concentration and opportunity. Punjab and Sindh dominate transaction volume due to institutional maturity, yet the next frontier lies in extending tested models such as guarantee-backed SME lending, municipal resilience bonds, and blended projects, into high-vulnerability provinces and secondary cities. Progress will depend on strengthening provincial planning capacity, deploying local currency guarantees, and standardising project preparation pipelines to crowd in private capital nationwide.

2.6 Conclusion

Pakistan's impact investment market is entering a formative phase. DFIs and blended finance vehicles such as CIFPAK, InfraZamin, and ACAP are laying the foundations for private participation, while domestic banks and microfinance institutions are emerging as key intermediaries. Yet **the market remains constrained by limited local fund management capacity, scarce exits, and a narrow pipeline of investable, adaptation-relevant projects.** Early models in inclusive finance, agriculture, and industrial efficiency show that local currency guarantees, first loss structures, and sustainability-linked terms can convert resilience outcomes into bankable propositions. **The immediate priority is disciplined replication and scale**: standardising transaction structures, expanding geographic reach into high-vulnerability provinces and secondary cities, and strengthening local intermediaries so that discrete pilots evolve into a coherent, investable market system.

Chapter 3: Instruments and Market Applications

3.1 Overview and Scope

Pakistan's impact investment market is organised around a small set of instruments that can translate concessional intent into investable transactions. This chapter focuses on **instrument mechanics, return expectations, and market application**. It also clarifies practical sequencing, what to use first, for whom, and under which risk conditions, so instruments move firms along a realistic capital continuum. It also explains **how debt, guarantees, blended finance, equity, insurance/risk-transfer, PPPs, aggregation, and Payments for Ecosystem Services (PES) can be matched to enterprise maturity and sector risk.** Interviews and the survey indicate strong near-term relevance for partial guarantees, PKR-denominated debt, and blended windows, with equity and insurance used selectively for adaptation-relevant businesses.

Box 6: Financing Instruments for Adaptation: Lessons from Pakistan's Investment Gap

Pakistan's adaptation finance needs far exceed current flows, but the binding constraint is not only scale; it is the mix and design of instruments. Current flows are dominated by sovereign concessional debt, with limited use of guarantees, local currency credit lines, or risk transfer instruments capable of mobilising private capital at enterprise level. In particular, **instruments that reduce loss severity for lenders (guarantees) and duration/currency risk for borrowers (PKR tenor extension, basic hedging) are scarcely available.**

The instrument gap is most acute for MSMEs delivering climate-smart agriculture, water services, and urban resilience solutions. Consultations confirm that ventures seeking between USD 250k and 2 million struggle to access patient equity, quasi equity, revenue linked finance, and subordinated debt, while partial risk guarantees and first loss anchors are scarce. In this context, currency and tenor mismatches persist: Adaptation revenues are overwhelmingly denominated in PKR, yet long dated local currency finance and affordable hedging remain largely unavailable, deterring both domestic lenders and international investors. **A practical near-term remedy is a dedicated PKR hedging window paired with tenor extension, so that borrower cash flows, currency exposure, and instrument duration are aligned ex ante.**

Peer markets point to feasible mechanics. **Kenya and Bangladesh have scaled parametric and microinsurance through premium support and blended microfinance platforms, while India has used domestic green bond incentives, credit enhancement, and fund-of-funds structures to crowd in private investors**. These approaches share a common logic of risk sharing, local currency intermediation, and aggregation vehicles that reduce transaction costs and improve investability. Global evidence reinforces this case. The benefit-to-cost ratios are above 10 to 1 for well-designed adaptation projects, with implied internal rates of return (IRRs) of 20-27% once avoided losses are accounted for.[82] The OECD[83] further highlights **guarantees, dedicated credit lines, parametric insurance with premium support, and results-based finance as among the most effective instruments for mobilising private capital in frontier markets**, yet Pakistan has deployed only a handful of such pilots to date. Instruments that embed independent MRV reduce information asymmetry and can lower required returns for private investors.

The current financing gap is therefore defined by three structural constraints: finance concentrated in sovereign channels, an absence of enterprise-level risk sharing tools such as guarantees, first loss capital and local currency facilities, and a thin intermediation base of credible fund managers and aggregators that raises transaction costs and limits blended vehicle scale up. Addressing these constraints requires a coherent suite of instruments rather than isolated pilots. **Blended finance facilities that combine concessional first-loss tranches with private co-investment can de-risk SME and project investments; credit enhancement and guarantees can lower perceived risk for banks and institutional investors while unlocking longer-tenor rupee lending; resilience-linked bonds and insurance products can connect financial returns to measurable adaptation outcomes; and local currency debt and equity vehicles can mitigate exchange rate exposure and attract domestic savings**. Together, these mechanisms form the foundation for shifting Pakistan's adaptation finance architecture from donor led programmes toward sustainable, market-based investment flows, complementing existing initiatives.

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[82] Global Commission on Adaptation (2019) Adapt Now: A Global Call for Leadership on Climate Resilience and World Resources Institute (2025) Strengthening the Investment Case for Climate Adaptation: A Triple Dividend Approach

[83] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

Box 6. Adaptation Finance Instruments

Stakeholders repeatedly stressed that adaptation-oriented transactions in Pakistan are not only limited by a lack of project ideas, but also by the structure of available finance. Both local and international investors view blended first-loss tranches and partial guarantees as indispensable for scaling impact capital. Several consultations underscored that Pakistan's foreign exchange volatility, combined with the absence of affordable hedging, continues to deter long-term equity and debt commitments.

3.2 Instruments Mix

Debt and guarantees: Debt remains the cornerstone of adaptation and impact finance in Pakistan, anchoring both sovereign programs and private sector flows. Most international investors channel USD-denominated debt through multilateral or bilateral facilities, while domestic banks provide PKR-denominated credit to MSMEs and microfinance institutions. Yet conventional loans and bonds are ill-suited to smaller adaptation ventures that are driven by non-conventional business models and offer innovative products but lack collateral or stable cash flows specially in their early years of operation. Large, structured projects can access funding, but MSMEs and community-level initiatives remain confined to short-term working capital. **To bridge this gap, blended finance and risk-sharing mechanisms are emerging as the most effective instruments for adaptation finance.**

Consultation insights underscored that concessional and blended debt models have demonstrated the highest conversion rates, while pure equity transactions remain rare. Partial guarantees and risk-sharing facilities, especially those modelled on InfraZamin and Standard Chartered partnerships, are viewed as among the most catalytic innovations in recent years.

Sovereign and DFI-backed lending still dominate, reflecting fiscal constraints and limited private credit access. In 2023, multilateral development banks channelled around USD 25 billion globally for adaptation through project and policy loans,[84] a model mirrored in Pakistan across flood management, irrigation, and resilience data systems. Pakistan's USD 500 million, 10-year WAPDA green bond signalled international appetite for labelled debt but also revealed market fragility: As sovereign stress mounted, yields rose into the mid-teens and prices declined sharply. This underscored the need for credit enhancement, guarantees, and local currency hedging to stabilise investor confidence. Labelled-debt markets thus remain nascent but promising; macro stability and blended support will be essential to scale them.

Microfinance institutions such as Kashf and Khushhali remain vital conduits for channelling adaptation capital to women-led and rural enterprises. Pakistan's debt architecture will continue to anchor adaptation finance, but its reach will remain narrow without broader use of co-guarantees, blended credit enhancement, and PKR-denominated structures to crowd in domestic banks and extend adaptation finance to enterprise and household levels. Surveys highlighted bundled products (credit + parametric cover) as the fastest path to prudent scale in climate-exposed districts.

Blended finance and technical assistance: Blended finance mechanisms have become central to mobilising private adaptation investment by addressing **three persistent frictions: uncertain cash flows, macro and currency risk, and a weak early-stage pipeline.**

A leading model is the unfunded risk participation facility developed by Standard Chartered and BII,[85] which supports longer tenor PKR-denominated lending, mitigating foreign exchange (FX) exposure and thereby enabling credit access for enterprises that fall outside conventional commercial risk parameters. Concessional and first-loss tranches further offset currency and credit risks, especially for women-led SMEs and early-stage adaptation enterprises. Local currency guarantees and blended facilities provide practical solutions to extend tenors and mitigate FX risk, given PKR borrowing costs in the low to high teens and USD borrowing at Secured Overnight Financing Rate (SOFR)[86] + 3.5–5.0 percent. Comparable facilities in Kenya and Bangladesh have lengthened SME lending horizons and achieved higher per-capita adaptation flows.[87]

Grants and technical assistance complement these instruments by funding feasibility studies, project preparation, and enterprise readiness. Many climate-related deals in Pakistan incorporated donor grants, underscoring ongoing reliance on catalytic capital. Survey respondents prioritised TA for cash flow tracking, basic unit economics, and adaptation KPI design over generic accelerator content.

Credit enhancement and insurance: Credit-enhancement platforms, notably InfraZamin Pakistan, **provide a domestic mechanism for de-risking private investments.** Its Gender Bond, financed women's micro-enterprises, school upgrades, and climate-resilient housing in flood-affected areas demonstrating how local guarantees can mobilise institutional capital for adaptation. The model is replicable across sectors such as water resilience, sanitation, and disaster preparedness, offering a scalable template for inclusive finance.

Insurance and risk-transfer instruments are emerging as complementary tools. Parametric and index-based products offered by Pula, Salaam Takaful, and TPL Insurance aim to **stabilise farm incomes and protect lender portfolios from climate shocks.** Uptake remains constrained by limited data and affordability, and early-stage support through premium subsidies and reinsurance backing[88] is essential for commercial viability.

Bundling insurance with credit has proven effective in stabilising household and SME cash flows after climate shocks, protecting repayment capacity. Yet without blended premium facilities or regulatory reform, demand remains confined to loan-linked products.

[84] European Investment Bank (2023) Joint Report on Multilateral Development Banks' Climate Finance

[85] BII (2023) Standard Chartered and British International Investment sign USD40 million Risk-Participation Agreement

[86] Federal Reserve Bank of New York (2025) Secured Overnight Financing Rate Data The secured overnight financing rate (SOFR) is a rate that reflects the cost of borrowing overnight, backed by U.S. Treasury securities in the repo market. The rate is based on actual transactions, making it a risk-free, secured rate indicative of market conditions (Investopedia).

[87] UNEP (2024) Adaptation Gap Report: Come Hell and High Water

[88] FCDO (2024) Climate Investment Fund for Pakistan (CIFPAK)

Emerging instruments and enablers: Beyond traditional debt and guarantees, new instruments are evolving to guide future adaptation finance. These include the Sustainable Finance Framework for sovereign labelled issuance, Pakistan's Green Taxonomy, and proposed carbon pricing frameworks. Innovative concepts such as nature performance bonds and blue bonds remain at pilot stage but could expand access to private capital. Leadership sits with the Ministry of Finance (MoF) for sovereign issuance, Ministry of Climate Change and Environmental Coordination (MoCC&EC) (with MoF/SBP) for the Green Taxonomy, and MoCC&EC for carbon market rules (including Article 6 and the national registry); NPBs and blue bonds remain at exploratory and pilot stage under the Government of Pakistan (GoP) with development partners.

Investor feedback consistently emphasises that **future appetite will depend on credible monitoring, transparent reporting, and robust taxonomies**. Global evidence confirms that standardisation, through adaptation taxonomies and blended finance frameworks, remains key to unlocking sustained private participation.[89] **At the global level, several recent initiatives aim to strengthen transparency in monitoring, impact tracking, taxonomies, and commonly accepted standards.** At COP30, countries agreed on a shortlist of adaptation indicators and the launch of the world's first global adaptation scorecard to track adaptation finance flows from public, private, and international sources and the measurable adaptation outcomes.[90] MDBs launched a Nature Finance framework consisting of Common Principles for Tracking Nature Finance and a Practitioner's Guide to Results Metrics providing standardised metrics and governance transparency.

These standards translate into a clearer investor pathway for forest carbon, ecosystem credits and resilience-linked bonds.[91] The Principles for Taxonomy Interoperability, launched by partners in the Taxonomy Roadmap Initiative, provide guidance to support sustainable finance taxonomy developers and policymakers in creating, governing and implementing taxonomies helping financial and non-financial institutions apply these taxonomies in decisions on environmentally and socially sustainable investment[92] For Pakistan, these global initiatives provide a valuable foundation for enhancing disclosure standards, improving the credibility of adaptation projects, and ensuring that domestic pipelines meet the requirements of international investors and finance institutions.

3.3 Impact Investment Options

Pakistan's adaptation and impact finance market is gradually expanding through guarantees, blended facilities, and local currency credit. For enterprises, instrument choice depends on ticket size, tenor, and PKR-based revenues, while for investors, risk-sharing and standardisation remain essential to deploy capital efficiently. High structuring and transaction costs on smaller deals underline the need for simple aggregation vehicles, such as pooled irrigation or resilience-housing portfolios, to achieve scale and attract institutional investors. Table 2 summarises the key instruments, outlining who provides them, how firms use them, and why they matter for mobilising adaptation capital in Pakistan.

[89] UNEP (2024) Adaptation Gap Report: Come Hell and High Water

[90] UNEP-FI (2025) Why adaptation finance is moving up the climate finance agenda — and how financial institutions can engage at COP30 and List of Indicators

[91] World Bank (2025) MDB Common Principles for Tracking Nature Finance

[92] UNEP-FI (2025) New resource provides guiding principles for development of credible, comparable sustainable finance frameworks to help mobilize capital

Option	Description	Potential relevance to the impact investment landscape
International climate finance	MDBs and DFIs (e.g. World Bank, IFC, ADB, GCF) provide sovereign and semi-sovereign concessional loans, grants, credit enhancement, dedicated credit lines, and blended vehicles for large-scale resilience in water, flood protection, urban systems, and nature-based solutions.	Supplies risk-tolerant capital at scale where domestic markets are thin and FX volatility is high; often an entry point to make adaptation projects investable and scalable.
National government transfers	Federal-to-provincial development budgets (Pakistan's Public Sector Development Programme / Annual Development Programmes), social protection (e.g. Benazir Income Support Programme), and earmarked funds (e.g. NDRMF), including contingent lines for disaster response and contributions to climate facilities.	Signal priorities, co-finance alongside MDB/DFI loans, and crowd in blended facilities via counterpart funding or guarantees; also anchor sovereign-linked labelled instruments.
Commercial banks and other FIs	Domestic banks lend mainly to government securities; where they do lend into climate-relevant sectors it is via project finance and SME credit supported by risk-sharing or unfunded risk participation with IFC, BII, and Standard Chartered.	With guarantees or concessional refinance, banks can extend PKR lending for climate-smart agriculture, renewable energy, and adaptation-oriented SMEs; deep client networks enable embedded products (e.g. bundled crop insurance, Sustainability-Linked Loans (SLL)-style terms).
Institutional investors	Pensions, insurers, and asset managers hold mostly government papers due to regulation, product scarcity, and risk aversion.	Long-dated liabilities suit infrastructure and social bonds; with credit enhancement and transparent KPIs they can back PKR issuances for water, sanitation, health, and disaster resilience.
Corporates	Export-oriented firms in textiles, leather, agribusiness, and/or cement seek finance for efficiency, water conservation, and resilience; some invest in value chain or community resilience.	Compliance pressures create a pipeline of adaptation-aligned projects with clear return pathways and measurable performance indicators.
Microfinance institutions	Kashf, Khushhali, NRSP and peers reach rural households, women-led enterprises, and micro/small businesses.	Direct channels to climate-vulnerable populations; transparent outreach data strengthen the case for labelled PKR issuance and guarantee-backed debt.
Equity financing	Scarce risk capital beyond Independent Power Producer (IPP)-linked energy; early-stage VC covers tech-enabled models with limited adaptation focus; missing middle cheques of USD 250K – 2 million remain underserved.	Unlocks innovation for climate-smart agriculture, resilience tech, and early-stage ventures; best paired with incubation and concessional first-loss coverage to reach scale.
Debt financing	Sovereign and DFI loans dominate large adaptation infrastructure; private debt most active in contracted energy and bankable assets.	Remains the backbone; guarantees and risk-sharing can extend PKR credit to SMEs, MFIs, and community projects; sustainability-linked terms can tie pricing to resilience outcomes.
Guarantees	InfraZamin provides PKR guarantees (e.g. fully guaranteed PKR 2.5 billion Kashf Gender Bond); DFIs deploy partial guarantees and unfunded risk participation with banks.	Unlock domestic savings and catalyse bank lending by reducing loss severity, extending tenor, and enabling labelled PKR issuance for social and climate outcomes.
Grants/subsidies	Fund feasibility, community engagement, MRV, and pilots; material share of early stage deals historically.	Essential for proof-of-concept, pipeline preparation, and impact measurement; crowd in debt/equity once models and data mature.

Insurance and risk transfer	Pilots of index and parametric covers with banks (e.g. HBL, Bank of Punjab) and insurers (e.g. TPL Insurance) alongside reinsurers; distribution via agri-input firms (e.g. Syngenta); parametric/ contingent instruments at sovereign level.	Protects smallholder incomes and stabilises lender portfolios; at sovereign level, parametric/contingent instruments reduce fiscal volatility and sustain investment post-disaster.
Public–private partnerships (PPP)	Emerging in water, drainage, sanitation, and flood protection with MDB support for viability gap funding, partial risk guarantees, and concessional tranches.	Align public objectives with private delivery; practical vehicle to blend sovereign support, DFI guarantees, and private capital into adaptation assets.
Aggregation models	Bundle small, standardised projects or loans (e.g. farmer irrigation upgrades, micro-insurance) into investable portfolios; may use securitisation.	Tackles the transaction size bottleneck and de-risks concentration; creates scale for lenders and labelled bond investors.
Blended finance	Concessional layers (first-loss equity/sub-debt), guarantees, and embedded TA alongside commercial capital; exemplified by CIFPAK (2024-2031).	Addresses high perceived risk and weak bankability; standardises structures for SMEs, urban resilience, and nature-based solutions; builds credibility for labelled PKR instruments.
Payment for ecosystem services (PES)	Early watershed and mangrove pilots link upstream management to downstream risk reduction; potential Article 6 and voluntary carbon pathways.	Monetises avoided losses and co-benefits, opening long-term revenues for communities and project developers; a bridge between domestic corporates and global carbon markets.

Table 2: Overview of impact investment options in Pakistan
Source: Authors' analysis; survey framing used to distinguish local and international sources, intermediaries, and instruments.

These instruments show how Pakistan's adaptation finance market is gradually shifting from fragmented, donor-driven projects toward blended, risk-shared, and local currency solutions that can mobilise private capital at scale. Guarantees, concessional layers, and technical assistance remain the most effective enablers, while emerging mechanisms such as PPPs, aggregation platforms, and PES can translate small, isolated projects into investable, outcome-linked portfolios. **A practical next step is to standardise documentation and due-diligence processes, including term sheets, KPI definitions, and verification protocols, to shorten time-to-close and make transactions more repeatable for financiers and investors alike.**

3.4 MSMEs' Access and the Capital Continuum

Despite the variety in available instruments, the system remains shallow. Deal sizes rarely match MSME needs and exits are limited, and the innovative pilots are too small to shift the market. **The issue here is not innovation, it is scale. Pakistan needs to deepen and mainstream these instruments to improve MSMEs' access to capital.**

Building the Pipeline: MSME Readiness and Market Demand

Demand for adaptation investment is strong across *agriculture, water, and urban services*, sectors ranked highest in both national policy and the stakeholder survey. Yet only a fraction of enterprises is investment ready. MSMEs that deliver irrigation upgrades, climate-smart inputs, or resilience analytics operate at sub-scale, rely on grant support, and rarely maintain audited accounts. **Typical ticket sizes fall between USD 250k and 2 million, a "missing middle" that is considered too small for DFIs, too risky for banks, and beyond MFI limits.**

Survey evidence confirms this pattern: many local investors cite collateral demands and high PKR rates as binding constraints, and a substantial share point to the absence of flexible, blended debt as a key barrier. Female-led enterprises face the steepest hurdles; only one-fifth of respondents reported gender-responsive credit products or pipeline development support. Successful pilots, such as InfraZamin's Gender Bond and blended credit lines under the CIFPAK programme, show that targeted technical assistance and readiness grants can move MSMEs from grant dependency to investability.

Ultimately, the constraint is not lack of demand but lack of "bankable readiness": **Most MSMEs require incubation, cash-flow modelling, and pipeline aggregation before they can absorb private finance at scale.** A project development window dedicated to feasibility, permitting, and ESG baselines was cited during stakeholder consultation and interviews as a critical missing piece to unlock near-term deal flow.

MSMEs' Instruments Use and Cost Implications

For adaptation-oriented MSMEs in Pakistan, the practical path to cheaper, longer-dated capital is to make risk underwritable at bank desks. Borrowing costs are high: PKR loans typically price between 13 and 19 percent (KIBOR + 2.0-7.0 percent),[93] while USD facilities

[93] KIBOR = Karachi Interbank Offered Rate. Margins are indicative and reset per facility terms. Illustration (as of October 2025): if 6-month

hover around SOFR + 3.5–5.0 percent, and maturities are short, often just 12–24 months, backed by heavy collateral. The way forward is to shift part of the loss exposure and cash flow volatility off the company's balance sheet, enabling lenders to safely lengthen tenors and tighten margins. **Consultations highlighted the need for credit assessment approaches that recognise resilience benefits,** such as reduced climate loss exposure or improved water efficiency, as core components of enterprise risk profiles, enabling lenders to move beyond rigid collateral and cash-flow requirements.

A portfolio guarantee of roughly 30-50%, paired with a modest concessional or first-loss layer, helps lenders absorb a portion of expected losses and improve recovery prospects. This risk transfer gives banks room to extend maturities into the three-to-seven-year range, ease collateral requirements, and trim risk premiums, especially when combined with PKR lending to avoid FX mismatch, outcome-linked pricing such as rate step-downs tied to verified adaptation KPIs and bundled parametric or index insurance that stabilises repayments after climate shocks. On the capital provider side, interviews indicated that when anchoring blended vehicles, some DFIs and MDBs set concessional hurdle rates for catalytic equity or junior capital as low as 3.0–4.0 percent, and in some cases zero percent, to crowd in private limited partners. For borrowers, these blended structures can translate into effective pricing relief of around 3.0–5.0 percent compared with plain-vanilla PKR loans, alongside more predictable repayment terms.

The following examples illustrate how blended and risk-sharing instruments could operate in practice. A Sindh-based SME providing irrigation services, for instance, could refinance short-term bank lines into a three-to-five-year PKR facility if its loan were partially guaranteed (say, 30-40%) through a risk-sharing arrangement. The guarantee would primarily benefit the lender by reducing expected losses, while the enterprise would indirectly gain through lower collateral requirements, slightly narrower margins, and an extended repayment period, with performance step-downs linked to hectares under efficient irrigation or cubic metres of water saved.

Similarly, a Karachi micro-utility upgrading flood drainage systems could structure its capital expenditure with a first-loss tranche and unfunded risk participation, enabling banks to extend amortisation and align repayment schedules with municipal payment cycles. Agribusiness cooperatives that combine parametric insurance (for drought or flood triggers) with working capital loans could protect cash flow aftershocks, reducing default risk and sustaining access to future credit. Women-led or rural enterprises might also employ guarantee-backed PKR issuance, as demonstrated by the Gender Bond, or bank risk-sharing lines to attract both institutional investors and local lenders on terms that maintain solvency, liquidity, and investability, while lenders gain confidence through shared risk and verified resilience outcomes. Where feasible, community-level aggregation (e.g. clusters of pressurised irrigation upgrades) can drop per-deal transaction costs and accelerate verification.

KIBOR is 11.19%, then an all-in price of KIBOR + 400 bps equals 11.19 + 4.00% = 15.19%

Instrument or Structure	Impact on the Enterprise
Partial portfolio guarantee (30–50%) via DFI or guarantor	Extends loan tenor and lowers collateral requirements, allowing adaptation-relevant MSMEs, such as water-efficient farms or flood-resistant housing firms, to invest and repay sustainably.
First-loss or concessional tranche within blended facility	Reduces perceived risk for lenders and narrows the cost of capital, making debt service more sustainable.
Outcome-linked KPIs (e.g. hectares under efficient irrigation, cubic metres of water conserved, resilient housing units built)	Aligns pricing with verified adaptation outcomes through sustainability-linked loan step-downs, rewarding measurable resilience performance.
Bundled parametric or index insurance (for droughts, floods, or heat events)	Provides rapid liquidity after climate shocks, maintaining cash flow, protecting employment, and avoiding defaults that would otherwise follow extreme events.
Cash-flow sculpting (e.g. grace periods) and local currency structuring	Matches repayments to seasonal or climate-sensitive income cycles and shields operations from exchange rate shocks, preserving solvency during recovery periods.

Figure 2: Financial instruments and their impact on enterprises

The Capital Continuum: How Enterprises Grow into the Market

Adaptation-oriented MSMEs move along a capital continuum as their business models mature, revenues stabilise, and risks become easier to price. In Pakistan, where early-stage firms operate with limited buffers and volatile income, access to the right type of capital at each stage is often more decisive than price alone.

At the proof-of-concept stage, grants and technical assistance remain indispensable. Small enterprises piloting irrigation efficiency technologies, climate data platforms, or community drainage systems rely on donor or accelerator funding to design prototypes, secure regulatory clearance, and validate impact. These catalytic funds buy time to demonstrate commercial viability before external debt becomes realistic. Without such early support, promising adaptation solutions remain trapped in project form, unable to evolve into investable businesses.

As firms begin to generate steady revenues, they enter the growth phase, which is where blended debt and risk-sharing facilities become transformative. Partial guarantees and first-loss tranches enable banks to extend PKR loans with longer maturities, while parametric insurance cushions cash flow after climate shocks. For these enterprises, finance begins to serve expansion rather than survival: from purchasing efficient machinery, scaling irrigation networks, or meeting adaptation-linked performance standards demanded by supply-chain buyers.

At maturity, companies with established track records can access sustainability-linked loans or guarantee-backed PKR bonds. These products link borrowing costs directly to verified performance, rewarding measurable outcomes such as water savings, flood resilience, or improved resource efficiency. Over time, successful borrowers build credit histories strong enough to access institutional investors through pooled vehicles or direct issuance, gradually reducing reliance on concessional capital. Respondents signalled strongest appetite for simple SLL structures with two to three auditable KPIs and clear step-down schedules, rather than complex, multi-metric scorecards.

For enterprises, this continuum marks the progression from subsistence to scale: Each layer of capital lengthens their financial horizon, strengthens resilience, and lowers the probability of collapse after-shocks. For investors and policymakers, it underscores that **creating investable adaptation markets depends on nurturing firms through every rung of this ladder, not merely financing the largest or most bankable projects**.

Pakistan's adaptation finance market has the outlines of a functional investment architecture, but scale depends on how well instruments are sequenced along the enterprise growth path. Debt, guarantees, and blended finance remain the core drivers, while equity, insurance, PPPs, and PES provide targeted depth for sectors with higher risk or indirect revenues. MSMEs move along a capital continuum, from grants and incubation to risk-shared PKR lending and sustainability-linked issuance, each stage lengthening maturities, easing collateral, and aligning costs with verified adaptation outcomes. **What enables this progression are the mechanics that make risk underwritable: local currency lending, partial guarantees, first-loss layers, parametric insurance, and results-linked pricing.** Yet finance alone is insufficient; readiness support, gender-responsive design, and standardised taxonomies are equally critical to convert pilots into repeatable, bankable portfolios. Chapter 4 examines why these instruments have not yet mobilised private capital at scale, tracing the macro, institutional, and regulatory barriers that still keep adaptation finance in Pakistan from moving beyond demonstration.

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Chapter 4: Challenges to Mobilising Private Capital

Pakistan's young demographics, deep development needs, and rising urgency for climate adaptation present both compelling demand and distinctive opportunities for impact investment. Yet, the mobilisation of private capital has not kept pace with the country's needs, constrained by persistent structural and market barriers. Having outlined Pakistan's financing needs and the instruments currently deployed to meet them, this chapter turns to the challenges that continue to limit the scale and effectiveness of impact capital in Pakistan.

Despite growing interest from public and private actors, Pakistan's impact investing landscape remains shallow, with adaptation finance representing only a narrow subset within it. The limited scale of private participation reflects structural barriers that continue to deter investors, rather than a shortage of viable demand. A recurring message across consultations with investors and ecosystem actors is that Pakistan is not short of viable ideas or demand for impact capital; it is constrained by a combination of structural, institutional, and market-level barriers that inhibit the flow of private investment. **These barriers cut across five interlinked dimensions that shape the country's impact and adaptation finance landscape.**

First, **macroeconomic instability and currency volatility** are the most immediate deterrents to sustained private investment. Recurrent depreciation, high inflation, and the absence of viable hedging mechanisms have eroded international investor confidence, underscoring the importance of developing deeper, more resilient local currency financing markets.

Second, **shallow capital markets continue to constrain risk-taking and capital recycling**. Most domestic savings are absorbed by government securities, leaving limited appetite for private-sector instruments. Weak fund management capacity, few equity exits, and the absence of a supportive GP–LP framework further restrict professional intermediation. Banks favour short-term, collateral-heavy lending, and the result is a persistent financing gap for the "missing middle" enterprises that are too large for microfinance yet too small for institutional capital.

Third, the **pipeline of investment-ready enterprises remains thin**. Many small and medium-sized adaptation businesses are under-capitalised, grant-dependent, or lack the technical and financial preparation needed to attract investors. In several cases, business models generate modest or delayed returns, making them harder to align with commercial investment criteria. High transaction costs on small deals and limited project development support further weaken deal flow.

Fourth, **regulatory and policy bottlenecks** amplify these constraints. The absence of a clear framework for private and impact fund registration, combined with inefficient tax treatment, outdated insurance regulation, and protracted approval processes for foreign capital, continue to deter innovation and institutional participation. These structural frictions erode market confidence and prevent the emergence of a predictable, investor-friendly environment for adaptation finance.

Finally, **ecosystem gaps in climate and impact finance** compound these challenges. Pakistan's adaptation and insurance markets remain small and fragmented, with shallow risk sharing mechanisms. Local fund managers and intermediaries require stronger capacity to meet international ESG, disclosure, and impact management standards, the very capabilities increasingly prioritised by global investors. Similar capacity gaps among enterprises seeking capital further constrain their ability to attract investment. These weaknesses also reinforce gender and inclusion gaps, excluding many women- and youth-led businesses from access to finance.

The challenges are not unique to Pakistan, but they are more intense, which drives investor caution. They are elaborated below supplemented with first-person accounts reflecting experiences of navigating impact investment in climate adaptation in Pakistan.

4.1 Macroeconomic Instability & Currency Risk

Macroeconomic instability remains among the biggest barriers to scaling impact investment in Pakistan, with currency risk at its core. Persistent volatility of the PKR, combined with the absence of affordable and accessible hedging instruments, has steadily undermined investor confidence. Over the past decade, the economy has experienced repeated cycles of depreciation, from the 2018 balance-of-payments crisis to the 2022–23 IMF stabilisation programme and the inflationary surge in 2024.[94] As of mid-2025, analysts project a further weakening of the PKR, with depreciation expected to average between 7-8% annually.[95] Across consultations and interviews, investors consistently described foreign-exchange exposure as the "first-order barrier" to scaling adaptation and impact capital in Pakistan.

Most international investors in Pakistan operate with USD balance sheets, which exposes local borrowers to foreign exchange risk when revenues are denominated in PKR. This challenge is particularly acute for adaptation projects, where revenue streams, such as payments for agricultural services, or water management, are almost entirely in local currency. In the absence of viable hedging instruments, this mismatch has become a defining deterrent to private investment in adaptation, especially for projects requiring long-term, PKR-denominated finance. While facilities such as the Currency Exchange Fund (TCX) technically offer PKR coverage, their limited capacity, short tenors, and high cost (estimated at around 12%) render them impractical for most impact ventures.[96] Long-tenor hedging is therefore effectively unavailable at scale. **Blended solutions, including concessional tranches, guarantees or first-loss capital[97] could help absorb part of this currency-related risk**

[94] Phenomenal World Jafri, J (2024) Structural Dependence: Exchange Rate Depreciation and Public Debt in Pakistan

[95] The Express Tribune (2025) Fitch projects rupee to fall to Rs295 by mid2026

[96] TCX Fund (2025) About the Fund

[97] Convergence (2025) State of Blended Finance 2025

and make early transactions commercially viable, until a credible domestic hedging market emerges.

The implications of the foreign exchange risk are significant for adaptation finance. The inability to manage foreign exchange exposure discourages international investors from engaging in long-term local currency projects and restricts domestic enterprises from accessing affordable capital. Interview insights underscored that adaptation projects typically require patient capital with tenors of 10–15 years, yet available financial instruments, such as six-month forward contracts or other short-term hedging facilities, offer limited and costly coverage. This pronounced tenor mismatch leaves most adaptation ventures reliant on concessional or grant-based finance rather than scalable private investment.

The challenge is further compounded by policy and institutional constraints. Cross-currency swaps and hedging facilities require central bank approvals, which are often delayed or restricted, limiting the ability of investors to manage exposure effectively. **Pakistan also lacks a functioning market for affordable, liquid risk management instruments**. Without such infrastructure, foreign General Partners often opt to domicile funds in offshore jurisdictions such as Abu Dhabi or Singapore, where regulatory and convertibility risks are lower.

4.2 Shallow Capital Markets

Pakistan's capital markets remain shallow, with limited exits and a domestic savings pool concentrated in sovereign paper, reflecting a strong preference for liquid, low-risk instruments over private markets. This structure limits the flow of both equity and debt into real-economy, impact-oriented sectors such as adaptation. While government securities dominate local portfolios because of their liquidity, yield, and perceived safety, private equity and credit instruments remain marginal, reducing the depth of capital available for enterprise growth and climate-aligned investment.

A further constraint lies in the behaviour of domestic institutional investors, pension funds (e.g. Employees' Old-Age Benefits Institution), insurance companies (such as State Life, Jubilee Insurance Company, EFU Insurance Company, Adamjee, TPL, Salaam Takaful), and asset managers or mutual funds, whose portfolios remain mainly invested in sovereign debt. On the equity side, local investors have limited exposure to private funds, partly due to the illiquidity of such assets and partly because few credible GPs or intermediaries exist through which to invest. **This lack of investable vehicles reinforces the preference for sovereign instruments, perpetuating a cycle of low diversification and shallow intermediation**. On the debt side, this preference for liquid, high-yield government securities crowds out lending to the private sector. International investors face similar barriers on the equity side: Weak fund manager capacity, limited exit pathways, and few demonstrated transactions constrain their ability to commit long-term capital, and these are compounded by currency risk, regulatory uncertainty, and capital repatriation constraints.[98] Together, these factors result in a narrow intermediation base that channels few resources into high-impact and adaptation-aligned ventures.

One of the defining bottlenecks in Pakistan's impact investment landscape is the **absence of appropriate equity financing structures for the "missing middle" enterprises that are larger than microfinance clients but do not fall within the transaction size, and risk appetite, of most institutional investors.** These companies often require patient capital in the range of USD 250k – 2 million, an investment bracket too small for large DFIs yet too large for angel or grant-based funding. The result is a persistent risk-continuum gap: Early equity is scarce, and without it, enterprises struggle to grow to be able to access debt once they mature and cash flows stabilise. **For adaptation and low-carbon projects, this gap is particularly binding, as their longer gestation periods and uncertain revenue models make them less compatible with short-term commercial lending.** Experience of similarly placed regions offers potential models for aggregation. In Africa, holding company structures such as Africa Eats pool SME equity into diversified vehicles that provide patient capital.[99] In Southeast Asia, regional blended funds anchored by MDBs have combined early-stage equity with catalytic risk-sharing instruments.[100] Pakistan has yet to institutionalise such models, leaving its missing middle underserved.

Institutional conservatism is reinforced by regulatory and informational gaps. Limited fund governance capacity, outdated insurance regulation, and weak disclosure practices inhibit diversification into new asset classes. In contrast, peer markets demonstrate how targeted reforms can mobilise domestic savings into impact-aligned investment. In Nigeria, pension funds have invested in InfraCredit-backed local currency bonds financing infrastructure and social assets.[101] In South Africa, regulatory amendments have enabled pension funds to allocate part of their portfolios to impact and infrastructure funds.[102] Pakistan is yet to put in place similar measures to facilitate impact investment by pension funds.

Survey and consultation insights corroborate these findings. Both domestic and international respondents cited limited exit pathways, illiquidity, and weak fund management capacity as some of the primary deterrents to private participation.

[98] Capital repatriation risk refers to restrictions or delays in converting PKR proceeds to foreign currency and transferring funds offshore, sometimes subject to central bank approvals.

[99] Africa Eats (2024) How it Works

[100] SIPET (2025) Southeast Asia Information Platform for Energy Transition

[101] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

[102] Pensions World South Africa (2025) Trustees, how much do you know about infrastructure as an asset class

4.3 Underdeveloped Pipeline

Few investment-ready adaptation projects are available in the country; many MSMEs are sub-scale, grant-dependent, have weak fiduciary structures and lack audited accounts. This weak investment pipeline reflects both structural barriers and capacity-related gaps across the ecosystem. High transaction costs on small deals persist, aggregation vehicles are very limited, and project preparation support (feasibility, permits, engineering design, environmental and social safeguards baselines) is underfunded. As a result, early-stage adaptation enterprises struggle to convert promising concepts into investable propositions, leaving a shallow deal flow for investors. Insurance, disaster risk, and other resilience-linked financial products remain nascent, while MRV systems are still at an early stage of development. Enterprises also highlighted concerns around intellectual property protection, noting that weak safeguarding mechanisms discourage innovation and limit the commercialisation of adaptation technologies.

Survey insights confirmed that enterprises most frequently requested project development funding for feasibility studies and permits, followed by investment readiness support tailored to adaptation, particularly for cash flow tracking, resilience indicators, and unit economics.

4.4 Regulatory and Policy Barriers

Alongside macroeconomic volatility and weak intermediation, **regulatory and taxation barriers represent persistent deterrents to impact investment.** The Insurance Ordinance (2000)[103] remains outdated and does not incorporate international best practices such as IFRS-17[104] disclosures and risk-based capital frameworks. **Overall, the regulatory framework has not been substantively updated since 1994 and continues to lack actuarial and reinsurance depth.** Even where pilots exist, for example, microinsurance bundled with credit, uptake has been low due to affordability constraints and lack of awareness. Interview feedback highlighted that without premium subsidies or concessional support, demand for climate risk insurance products remains minimal.

Tax and fund structuring rules create additional hurdles. Stakeholder feedback indicated that Pakistan's PE/VC licensing regime does not allow for tax pass-through benefits, in contrast to structures available for Real Estate Investment Trusts (REITs) and mutual funds. Globally, PE/VC structures often benefit from 15-20% tax advantages, which significantly increase limited partner appetite. In Pakistan, by contrast, fund managers face a system where capital is taxed two or even three times, which discourages both domestic and foreign LPs from committing capital. These inefficiencies mirror global evidence showing that **unclear tax and disclosure regimes undermine investor participation in adaptation and blended finance.**[105]

Legal ambiguities further undermine investor confidence. **The Companies Act 2017[106] does not explicitly recognise GP–LP relationships, leaving PE/VC funds to operate under unclear regulatory frameworks.** Although the SECP issued private fund regulations in 2020, grey areas persist, forcing managers into unit trust formats that are tax-inefficient and structurally inflexible. Consultation participants noted that these inconsistencies often push investors to domicile vehicles offshore, in jurisdictions with clearer tax and arbitration regimes. Operational bottlenecks also deter foreign participation: Opening a bank account can take several months, and approvals for foreign ownership frequently involve multiple layers of clearance, adding cost and delay. **Such procedural frictions increase transaction costs and reduce Pakistan's competitiveness as an investment destination.**

Collateralisation and lending practices remain a severe constraint for SGBs. Most banks demand 100% collateralisation, with many cases of over-collateralisation, effectively shutting out MSMEs. Non-bank financial companies, which are often positioned as alternatives, charge prohibitively high rates, making them unsuitable for impact-aligned enterprises that typically operate with thinner margins. Guarantee facilities established to ease these constraints have seen limited uptake and remain concentrated among larger sponsors with proven credit histories and established cash flows.

4.5 Adaptation Ecosystem Gaps

Pakistan's climate and impact finance ecosystem remains fragmented, with limited intermediation capacity, weak coordination among financial actors, and uneven access to adaptation-relevant products. As a result, adaptation-linked insurance, fund management, and gender-responsive financing remain nascent and require targeted strengthening.

Weak Adaptation and Insurance Ecosystem

Despite Pakistan's acute climate vulnerability, from recurrent floods to droughts and heatwaves, the adaptation finance and insurance markets remain small, fragmented, and largely donor dependent. This weakens both the resilience of vulnerable populations and the bankability of climate-aligned projects, limiting private participation in long-term risk-sharing mechanisms.

The insurance sector remains concentrated among a handful of conglomerates and public providers, with few products designed for smallholders or MSMEs. Innovative pilots such as weather-indexed crop insurance by Pula, HBL, and TPL Insurance, and Salaam Takaful's bundled crop products with Syngenta demonstrate potential, but coverage remains minimal, reaching only a few farmers in a country of millions of smallholders. Without scale, actuarial data, or premium support mechanisms, such projects cannot achieve commercial viability or attract sustained private investment.

The absence of a structured adaptation and insurance ecosystem creates a dual constraint: On the demand side, vulnerable communities and enterprises lack affordable instruments to transfer risk;

[103] The Insurance Ordinance 2000

[104] IFRS (2025) IFRS 17 Insurance Contracts

[105] Network for Greening the Financial System (2023) Scaling Up Blended Finance for Climate Mitigation and Adaptation in Emerging Market and Developing Economies (EMDEs) and UNEP, University of Oxford and Green Fiscal Policy Network (2025) Enabling Adaptation: Sustainable Fiscal Policies for Climate Resilient Development and Infrastructure

[106] The Companies Act 2017

on the supply side, insurers and investors face inadequate regulation, limited reinsurance depth, and weak public co-investment. **Consequently, adaptation finance remains reliant on concessional and pilot funding rather than scalable market mechanisms.** Global evidence shows that inclusive insurance can expand adaptation finance access when supported by blended risk facilities and enabling regulation.[107]

Fund Management Ecosystem

A second and equally structural barrier lies in the thin and underdeveloped fund management ecosystem. Only a small number of local intermediaries operate at professional standards, limiting the ability to mobilise and deploy institutional capital effectively. Interviews and consultations highlighted that international investors remain hesitant in the absence of credible local partners or GPs capable of managing smaller-ticket blended funds.

Private equity in Pakistan continues to face limited exits, weak governance, and poor historical returns, deterring new entrants. This aligns with broader adaptation finance patterns, where weak local intermediation capacity constrains pipeline conversion and delays the development of blended vehicles.[108] Without credible fund managers, blended facilities struggle to anchor locally, and institutional investors remain reluctant to allocate to domestically domiciled funds.

The challenge is not only quantitative but qualitative. **Local fund managers often lack technical expertise in climate finance, ESG integration, and impact measurement, skills now essential to meet global LP expectations**. Even when domiciled in Pakistan, funds face regulatory uncertainty around GP–LP structures, tax treatment, and licensing, creating a cycle where small funds remain high-risk, undercapitalised, and unable to professionalise.

Gender and Social Inclusion

Despite progress in inclusive finance, persistent gender and social disparities continue to limit access to adaptation and impact capital. **Women-led enterprises, youth entrepreneurs, and marginalised communities often face higher collateral requirements, shorter loan tenors, and limited access to investor networks**.

This exclusion is reinforced by urban-centric investment ecosystems and limited outreach to rural and women-led enterprises, leaving many climate-smart and community-based innovations outside the investable pipeline. Without targeted capacity building and dedicated capital pools, high-impact women- and youth-led adaptation ventures remain overlooked.

[107] UNEP (2024) Adaptation Gap Report: Come Hell and High Water

[108] UNEP (2024) Adaptation Report: Come Hell and High Water

Chapter 5: Roadmap for Mobilising Private Capital for Adaptation

The preceding chapters mapped Pakistan's adaptation finance needs, reviewed the capital types and instruments currently in play, and examined the barriers that constrain scale and effectiveness. Building on this diagnostic, the current chapter translates those insights into actionable recommendations to unlock private capital for adaptation and impact investment in Pakistan.

While Pakistan's impact investment landscape faces structural challenges, these are surmountable with focused policy action, institutional strengthening, and catalytic public-private collaboration. Investors remain interested in the adaptation and impact space, but seek clearer risk sharing mechanisms, predictable regulation, and credible local intermediation. International experience shows that strategic reforms can mobilise private finance for resilience, inclusion, and sustainable growth.

Accordingly, this chapter focuses on **four priority areas that together form the foundation of a credible impact finance architecture:** (i) modernising policy and regulatory enablers; (ii) scaling blended finance and guarantee mechanisms; (iii) strengthening pipeline development and MSME readiness; and (iv) building ecosystem capacity through fund manager development, collaboration platforms, and inclusion frameworks. Each recommendation is grounded in investor feedback and informed by proven models from comparable emerging markets.

5.1 Policy & Regulatory Enablers

Pakistan's regulatory and taxation frameworks remain one of the most cited barriers to scaling impact and adaptation finance. The Private Fund Regulations (2015, amended 2020)[109] created the foundation for private equity and venture capital funds, yet the system remains fragmented, procedurally rigid, and tax inefficient. Persistent gaps, such as the absence of tax pass-through treatment, lack of legal recognition for GP–LP structures, and slow fund registration processes, have discouraged both domestic and international investors, pushing many funds to domicile in jurisdictions such as Abu Dhabi or Singapore.

A. Strengthen Fund Regulation and Tax Treatment

Private funds in Pakistan currently lack the tax pass-through status enjoyed by REITs and mutual funds, resulting in double, or in some cases triple, taxation at both fund and investor levels. This structure erodes returns and is consistently cited by LPs as a deterrent to Pakistan-domiciled vehicles.

Aligning the Income Tax Ordinance with international practice to enable pass-through treatment for SECP-regulated private funds would ensure taxation occurs only at the investor level and enhance fund competitiveness. Comparative frameworks such as India's Category I and II Alternative Investment Funds (AIFs)[110], and South Africa's Section 12J of the Income Tax, 1962[111], provide clear precedents for such treatment.

[109] The Private Fund Regulations (2015, amended 2020)

[110] Securities and Exchange Board of India SEBI (Alternative Investment Funds) Regulations, 2012

[111] South African Revenue Service (2024) Venture Capital Companies and Income Tax Act 1962

Without GP–LP recognition, fund managers are pushed into inefficient, tax-heavy structures unfamiliar to global LPs. **Formal recognition of GP–LP partnerships as permissible formats would align Pakistan with international norms and attract institutional investors accustomed to such structures**.

Fund registration in Pakistan remains slow and process-heavy, involving multiple approvals, vetting of deeds, and SECP notification as a "Notified Entity". These administrative bottlenecks can delay fund launches by several months.
Introducing a risk-based fast-track approval mechanism for eligible funds, similar to Singapore's Variable Capital Company model[112], would enhance efficiency and predictability.

B. Define and Enable Impact and Blended Finance Vehicles

While the Private Fund Regulations 2020 amendments[113] introduced categories such as PE, VC, and SME funds, impact funds remain nominally recognised but lack operational guidance. **Issuing SECP guidelines to define impact and climate funds, covering ESG reporting, blended structuring, and impact measurement, would provide the clarity needed to attract concessional and commercial investors alike.** Established benchmarks such as IFC Performance Standards[114], the EU Sustainable Finance Disclosure Regulation (SFDR)[115], and GIIN's IRIS+ metrics[116] offer models ready for adoption.

SECP regulations also limit private funds to domestic assets unless separate foreign investment approval is obtained, increasing concentration risk for LPs and constraining diversification. **Allowing funds to allocate a capped portion of assets (for instance, up to 30%) abroad without case-by-case approval would enhance portfolio flexibility and align Pakistan with regional practices** including those in Malaysia and Singapore, where regulatory frameworks grant fund managers greater managerial discretion for foreign portfolio diversification within an overall ceiling.

C. Update the Insurance and Climate Risk Finance Framework

This section covers risk-layering instruments that manage climate shocks. Pakistan's Insurance Ordinance (2000)[117] and associated SECP rules remain outdated, failing to recognise parametric instruments, adaptation-linked products, or capital incentives for insurers investing in green assets. **Updating the insurance framework to recognise parametric products as legitimate insurance contracts, offer capital relief for adaptation-linked investments, and clarify rules for blended impact and climate funds would create the foundation for scale**. At the same time, it is crucial to understand if the provision of certain financial incentives can lead to maladaptation or simply discourage development that is resilient to climate change. Financial disincentives can take the form of subsidies and tax breaks, such as subsidised flood insurance, which may reduce the perception of need for resilience building in a flood-prone area.[118]

Taken together, these reforms would establish the regulatory foundation for a credible impact investment ecosystem. By aligning Pakistan's tax, fund, and insurance frameworks with international norms, the country can reduce transaction costs, attract institutional investors, and create the enabling environment needed for blended and private capital to flow into adaptation and resilience sectors.

5.2 Blended Finance & Guarantees

Pakistan's experience and global practice both confirm that blended finance remains a practical pathway to mobilise adaptation and impact capital at scale. The country's market constraints, particularly currency volatility, shallow local capital markets, and limited risk appetite among domestic investors, require purpose-built mechanisms that combine public guarantees, donor concessionality, and private co-investment.

A. Establish Affordable Currency Hedging and Risk-Sharing Facilities

Currency volatility remains a consistently cited deterrent to foreign private investment in Pakistan. Most international investors operate with USD balance sheets; the resulting FX risk is therefore transferred to local borrowers whose cash flows are in PKR; this is particularly problematic for adaptation businesses that depend on local currency revenues. Because practical, long-tenor PKR hedges are scarce or expensive and often limited in capacity, the mismatch persists and erodes project returns. Without targeted solutions to manage this borrower-side FX exposure, long-dated investment in adaptation will remain constrained.

Global experience offers replicable models. The Currency Exchange Fund (TCX)[119], created by European DFIs, provides hedging for frontier currencies where capacity allows, though tenor and pricing can be binding constraints. InfraCredit Nigeria[120], similarly, offers local currency guarantees underpinned by DFI backstops, while Pakistan's own National Credit Guarantee Company Limited (NCGCL) could play a comparable role if appropriately capitalised and mandated to share currency and duration risk alongside lenders and investors.

[112] Accounting and Corporate Regulatory Authority of Singapore (2020) Variable Capital Company (VCC)

[113] SECP, The Private Fund Regulations (2015, amended 2020)

[114] IFC (2012) IFC's Performance Standards on Environmental and Social Sustainability

[115] European Union (2019) Sustainable Finance Disclosure Regulation (SFDR)

[116] GIIN (2025) IRIS+ Catalog of Metrics

[117] SECP, The Private Fund Regulations (2015, amended 2020)

[118] The World Bank Group and the Global Facility for Disaster Reduction and Recovery (GFDRR) (2022) Enabling Private Investment in Climate Adaptation & Resilience

[119] TCX Fund (2025) About the Fund

[120] PIDG (2025) InfraCredit Nigeria: Enabling Infrastructure Projects to Be More Bankable

For Pakistan, a two-pronged approach could include:

2. **PKR Hedging Window:** Establish a dedicated, government- and DFI-backed facility, potentially anchored within NCGCL, to offer forward cover, swaps, or options with extended tenors and transparent pricing to match PKR revenue projects. The window would prioritise adaptation sectors and standardise documentation, with co-capitalisation from DFIs, donors, and government guarantees and early participation from institutions such as Karandaaz.
3. **Integrated Risk-Sharing Structures:** Scale existing DFI on-lending facilities (for example, BII and IFC with Standard Chartered and HBL) to incorporate partial FX-loss sharing and tenor extension features, so currency shocks are allocated across banks, DFIs, and investors rather than borne solely by MSMEs.

By enabling PKR-denominated lending, adaptation projects and SMEs could access affordable, long-term capital aligned with their revenue profiles, while investors would gain confidence through predictable exposure and capped risk. Over time, such mechanisms could help shift Pakistan's domestic markets from short-term lending to sustainable long duration instruments.

B. Bridge the Equity "Missing Middle"

A structural gap persists for enterprises too large for microfinance yet too small for DFIs or private capital. This financing void leaves many promising ventures stranded despite development potential. **A dedicated Equity "Missing Middle" Facility could help close this gap**. Global examples such as Africa Eats[121], which pools SME equity through a holding company model, and ADB Ventures' blended co-investment approach in Southeast Asia[122], demonstrate workable templates for Pakistan.

Consultations in Islamabad underscored that guarantees and concessional debt alone are insufficient to mobilise private capital. Many adaptation businesses **require early, risk-absorbing equity to validate business models and stabilise cash flows before debt becomes viable**. In this context, blended vehicles that pair equity and quasi-equity with targeted return enhancements and risk-sharing features can sequence capital more effectively and crowd in private participation as enterprises mature.

The facility could feature:

1. **Blended Capital Structure:** A first-loss or concessional equity layer provided by government, donors, and DFIs to de-risk private co-investors and address FX and early-stage exposure. Karandaaz's Green Fin[123] and innovation challenge fund[124] form a replicable foundation.
2. **Targeted Ticket Sizes:** Focus on USD 250k – 2 million equity investments in climate-aligned SMEs, which is precisely the segment underserved by both microfinance institutions and DFIs.

By unlocking early equity, SMEs could strengthen their balance sheets, become eligible for debt finance, and scale operations in key adaptation sectors. **This would create a financing ladder enabling enterprises to graduate from concessional equity to mainstream private equity or DFI capital**.

C. Scale Adaptation Finance and Insurance through Public-Private Partnerships

Pakistan's climate vulnerability makes adaptation-linked finance and insurance an immediate priority. Yet the insurance framework remains outdated, actuarial and reinsurance capacity limited, and current pilots, such as Pula's weather-indexed crop insurance or Salaam Takaful's bundled products, operate at sub-scale. Without structural reform, adaptation finance will remain dependent on grants rather than private capital.

Three avenues stand out:

1. **Sovereign-Supported Parametric Insurance Pools:** Develop a national risk insurance pool under the proposed ADB-funded Disaster Solidarity Fund, with Ministry of Finance and NDRMF participation. Comparable markets offer useful models. Africa's sovereign-backed parametric insurance pools, such as the African Risk Capacity (ARC),[125] and Southeast Asia's Agricultural Risk Finance Facility (ARFF)[126] illustrate that sovereign risk pooling can crowd in private insurers and reinsurers while providing ex-ante liquidity for extreme events.
2. **Bundled Microinsurance with Credit and Inputs:** Integrate insurance into existing credit and input channels. Pula's partnerships with HBL and Bank of Punjab, and Salaam Takaful's bundled crop insurance with Syngenta, show that linking insurance to lending or input purchases drives uptake. The GoP and SECP could standardise bundling within concessional credit lines (e.g. SBP's agriculture finance schemes), complemented by premium support for women and smallholders.
3. **Adaptation Finance Facility:** Establish a blended facility, potentially led by SBP and MoF, and focused on MSME-scale adaptation projects with long payback periods (e.g. water efficiency, resilient infrastructure). The Green Climate Fund's Private Sector Facility[127] provides a precedent for structuring such blended vehicles. This facility could co-finance climate-smart investments through concessional first-loss tranches, crowding in private lenders and DFIs.

[121] Africa Eats (2024) How it Works

[122] ADB (2020) ADB Ventures Investment Fund 1

[123] Karandaaz (2025) GreenFin

[124] Karandaaz (2025) Innovation Challenge Fund

[125] Climate Policy Initiative (2024) Case Study: African Risk Capacity

[126] Southeast Asia Disaster Risk Insurance Facility (2025) SEADRIF, FAO, and Six ASEAN Countries Agree to Explore the Southeast Asia Agricultural Risk Finance Facility

[127] GCF (2019) Green Climate Fund's Private Sector Facility

Finally, **expanding Sharia-compliant[128] adaptation finance (mudaraba, musharaka, ijarah)** in northern and climate-vulnerable regions of Pakistan could mobilise untapped liquidity from Islamic financial institutions, a reform area highlighted by both consultations and survey respondents.

Together, these blended and risk-sharing mechanisms would help de-risk private investment, lower financing costs, and strengthen the pipeline of adaptation-relevant projects. **By combining public guarantees, concessional anchors, and institutional partnerships, Pakistan could crowd in private capital for climate resilience at scale, moving from pilot transactions to a sustained market for adaptation finance**.

5.3 Pipeline Development & MSME Readiness

Pakistan's adaptation investment pipeline is constrained by sub-scale, grant-dependent MSMEs and chronically underfunded project preparation support, preventing adaptation priorities from becoming bankable investments. Project preparation facilities that combine grants for early-stage feasibility and design with concessional or blended finance are among the most effective tools for advancing adaptation projects from concept to bankable stage.[129] Yet, the project preparation windows in Pakistan's adaptation sectors, especially water management, agriculture, and resilient infrastructure, remain highly fragmented, with minimal private sector participation.[130]

Redefining investment readiness for adaptation MSMEs will be critical. Current standards often require a three-year operating history, audited accounts, and transaction sizes above a certain threshold, excluding most early-stage adaptation ventures. Introducing flexible readiness criteria that recognise feasibility stage, resilience-linked projects in the USD 250k – 2 million range would align better with the realities of Pakistan's MSME landscape and assess adaptation investments on resilience outcomes rather than short-term profitability. Survey data indicate a strong preference among respondents for technical assistance, incubation, and project preparation support over traditional investment facilitation. This aligns with the secondary information which stresses the **need for patient, iterative readiness support that helps adaptation MSMEs articulate measurable resilience impacts and risk mitigation value**.[131]

Participants emphasised the need for a phased approach: **"start local, prove, then scale"**. This approach suggests that small, locally financed adaptation pilots can validate business models, strengthen investor confidence, and create proof-of-concept pathways for blended or commercial expansion. Dedicated project preparation facilities, potentially hosted within institutions such as NDRMF or Karandaaz, could co-finance feasibility, permitting, and concept design, bridging the gap between promising concepts and investable propositions.

Finally, **investment-readiness and incubation programmes can adopt explicit gender- and youth-responsive design**, targeting women- and youth-led firms in climate-vulnerable regions to expand the pipeline and ensure inclusive access to adaptation finance. Integrating 2X-aligned gender standards[132] and youth-focused technical assistance into readiness programmes would also respond to growing investor demand for inclusive, measurable impact.

By strengthening early-stage project development capacity, aligning readiness standards with adaptation realities, and embedding inclusion as a core design principle, Pakistan can convert its growing pool of adaptation ideas into a predictable pipeline of bankable, investable opportunities. However, realising this potential will depend on a stronger ecosystem of fund managers, accelerators, and intermediaries capable of structuring, aggregating, and stewarding these opportunities, the focus of the next section 5.4.

5.4 Ecosystem Strengthening

A recurring constraint is the absence of professional, trusted fund managers able to mobilise, structure, and deploy impact capital. Limited exits, weak returns, and a shortage of credible GPs managing smaller tickets have stifled the growth of domestic intermediation. Only a handful of venture and growth funds have emerged over the past decade, leaving Pakistan unable to convert investor interest into deployment. This gap has direct implications for adaptation finance: Without capable intermediaries, blended and concessional capital cannot transition into scalable, private investment vehicles or reach enterprises effectively.

The solution also lies in systematically building fund management capacity. Global practitioners underscore that combining technical support with anchor capital is key to seeding credible intermediaries. In India, the SIDBI Fund of Funds for Startups[133] has helped incubate a pipeline of local venture and impact funds, while in Africa, the African Private Equity & Venture Capital Association[134] plays a central role in capacity building, advocacy, and industry research across the continent. These institutions illustrate how structural support in addition to capital can professionalise fund management and rebuild investor confidence in frontier markets.

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[128] Corporate Finance Institute (2025) Islamic Finance

Mudaraba means profit-and-loss sharing partnership agreement where one partner (financier) provides the capital to another partner (labour provider) who is responsible for the management and investment of the capital.

Musharaka is a form of a joint venture where all partners contribute capital and share the profit and loss on a pro-rata basis.

Ijarah is a financing arrangement where the lessor leases the property to the lessee in exchange for a stream of rental and purchase payments, ending with the transfer of property ownership to the lessee.

[129] OECD (2025) Scaling Finance and Investment for Climate Adaptation: Input paper for the G20 Sustainable Finance Working Group

[130] FCDO (2024) Climate Investment Fund for Pakistan (CIFPAK)

[131] Ibid

[132] 2X Challenge (2025) 2X Criteria Reference Guide

[133] SIDBI (2025) Fund of Funds for Start-ups (FFS)

[134] AVCA (2025) African Private Equity and Venture Capital Association

Three actions are proposed:

1. **Fund Manager Development Programme:** SECP, in partnership with DFIs and platforms such as Karandaaz, could establish a structured accreditation and training programme for emerging fund managers. Training can place emphasis on governance, ESG integration, impact measurement, and LP reporting in order to institutionalise professional standards and create investable intermediaries.
2. **Fund-of-funds Mechanism:** A blended fund-of-funds facility, capitalised by government, DFIs, and philanthropic anchors, could provide early commitments to first- and second-time fund managers. By taking initial risk, such a facility would catalyse institutional investment and expand Pakistan's intermediation base.
3. **Transparency and Disclosure Standards:** Standardised reporting templates and harmonised ESG and impact metrics, aligned with IFRS S1 and S2 standards adopted by SECP, IFC Performance Standards, the 2X Challenge, and GIIN's IRIS+, would strengthen governance credibility, enhance comparability, and rebuild trust among DFIs and impact investors.

Together, these measures would generate a multiplier effect: aggregating pipelines, providing early equity to SMEs, and creating blended instruments that absorb risk for local and global co-investors. As intermediary capacity expands, MSMEs could graduate from concessional funding to mainstream private capital. Survey respondents consistently underscored the value of pairing local fund managers with DFIs to strengthen origination and due diligence capacity.

Strengthening Collaboration and Capacity Platforms

Pakistan's impact and adaptation finance ecosystem remains fragmented, with multiple actors operating in isolation. Investors face difficulty identifying viable opportunities, while SMEs lack structured support to meet investment criteria. Financial institutions and regulators also have limited familiarity with adaptation-linked business models. Existing platforms, such as Ignite, NICs, Karandaaz, and InfraZamin, offer useful entry points but remain underutilised for market coordination. Stakeholder consultations also pointed to the potential role of academic institutions, such as Habib University, FAST National University of Computer and Emerging Sciences (FAST), and the Institute of Business Administration Karachi (IBA Karachi). as partners in entrepreneurship training, applied research, and early-stage project development. Stronger collaboration with such institutions could help expand the pipeline of adaptation-aligned enterprises. Strengthened ecosystem governance and shared data could further increase adaptation investment flows by lowering transaction costs and aligning incentives.

Five actions could improve coordination and knowledge exchange:

1. **Adaptation Finance Practitioners Forum:** Establish a quarterly coordination mechanism bringing together DFIs, banks, venture funds, accelerators, regulators, and policymakers to share lessons, align on pipeline opportunities, and co-design blended finance models. Such a forum would reduce duplication and foster a coherent national narrative on adaptation investment. This is best suited for development partners, such as GIZ or FCDO, to take the momentum forward on adaptation finance.
2. **Standardised Trainings and Toolkits:** Develop modular toolkits on investment readiness, business model development, and adaptation finance metrics, aligned with international benchmarks such as IFC Performance Standards, IRIS+, and the 2X Challenge. These tools would improve the quality and comparability of SME proposals and strengthen intermediary due diligence.
3. **Sectoral Working Groups:** Create thematic working groups in priority adaptation sectors, climate-smart agriculture, water resilience, renewable energy, and the circular economy, to identify sector-specific bottlenecks and scale tested business models.
4. **Digital Repository:** Establish a national data repository capturing live deal flow, case studies, and performance metrics to enhance transparency and investor visibility. Standardised indicators aligned with GIIN IRIS+[135] and IFRS S1/S2[136] would improve consistency and confidence.
5. **Regional Peer Learning:** Forge partnerships with regional networks in other markets such as Bangladesh, India, and Africa to exchange lessons on SME support, blended finance, and policy frameworks. Regular dialogues and knowledge notes could accelerate adaptation of successful models to Pakistan's context.

Finally, **gender and inclusion must remain core to ecosystem design**. Global evidence underscores the economic and resilience benefits of inclusion. **Women-led MSMEs strengthen community resilience and align closely with investor demand for labelled, impact-oriented instruments**.[137] Embedding 2X-aligned and gender-responsive criteria into blended finance vehicles, alongside guarantee-backed lending for women-led MSMEs, could help crowd in private capital and expand resilience-oriented finance. Consultations underscored that women-led enterprises and rural SMEs are critical entry points for blended capital. Embedding gender-responsive pipelines and inclusion standards not only enhances social outcomes but also strengthens adaptation effectiveness and investor appeal for labelled instruments.

By strengthening fund management, improving coordination, and institutionalising knowledge exchange, Pakistan can evolve from a fragmented impact finance landscape to a coherent, investable ecosystem capable of mobilising private capital for adaptation at scale.

[135] GIIN (2025) IRIS+ Catalog of Metrics

[136] IFRS (2025) IFRS S1 and S2

[137] UNDP Insurance and Risk Finance Facility and Generali (2025) Building the Resilience of Women-led MSMEs in Asia; Heritage Financial (2023) The Undeniable Connection between Female CEOs and Stock Prices; Women's Digital Financial Inclusion Advocacy Hub (2024) Advancing Women-Led MSMEs through Digital Financial Inclusion

Conclusion

Pakistan's impact investing landscape for climate adaptation remains in an early yet consequential phase. A small number of DFIs, blended finance initiatives, domestic banks, and intermediaries form the core of the current ecosystem, anchoring a market where private participation is still limited but where early demonstrations show viable pathways for scale. Across the analysis, a consistent theme emerges: **adaptation needs far exceed available finance, yet targeted risk sharing, local currency solutions, and capacity building efforts are beginning to convert resilience priorities into investable models.**

An adaptation-first perspective threads through the report. Pakistan's NAP 2023 and NDC 3.0 provide clear national direction, but private investment continues to lag relative to quantified needs. **The ecosystem remains shaped by DFIs, MDBs, donors, and a handful of early-stage funds, with domestic banks and MFIs acting as primary conduits** to enterprises. While these actors have delivered a set of promising pilots, such as CIFPAK, InfraZamin-backed guarantees, the BII–HBL smallholder finance stack, and emerging nature-based initiatives, the market has yet to transition from isolated demonstrations to a coherent financing architecture capable of mobilising private capital at scale.

The report highlights that **Pakistan's binding constraints are structural as much as financial**. Currency risk, shallow capital markets, regulatory and tax frictions, limited fund management capacity, and fragmented project preparation support all limit private sector appetite for long-dated, adaptation-aligned investments. On the demand side, MSMEs often lack feasibility funding, readiness support, and verifiable data, particularly in high-vulnerability, low-capacity regions where adaptation needs are most acute. These challenges are interdependent, reinforcing a cycle in which promising adaptation businesses struggle to raise funding.

Looking ahead, the roadmap presented in Chapter 5 highlights four priorities that could progressively shift Pakistan from a pilot-driven environment to a more mature and investable adaptation-finance ecosystem: **modernising policy and regulatory frameworks; scaling blended finance and guarantee mechanisms to address currency, tenor, and early-stage risk; strengthening project preparation systems and MSME readiness; and building ecosystem capacity through fund manager development, coordination platforms, and standardised adaptation metrics.** Together, these actions form an integrated foundation for mobilising Pakistan private capital for resilience at scale. Progress will depend not only on new instruments but also on institutional alignment and predictable policy signals.

Pakistan now stands at an inflection point. With consolidation of early successes, strengthened local intermediation, and sustained policy commitment, the country can progressively close its adaptation finance gap, aligning private investment with national resilience priorities in ways that are commercially viable, socially inclusive, and responsive to a rapidly changing climate.

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Annex I: Glossary

Term / Abbreviation	Meaning
Adaptation	Adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices and structures to moderate potential damages or to benefit from opportunities associated with climate change.
Adaptation Finance	Capital mobilised to reduce vulnerability and build resilience, including through facilities, guarantees, insurance, and investment in SMEs.
Adaptation gap	The emerging gap between adaptation needs and available finance. In Pakistan, new blended facilities like CIFPAK are beginning to close this gap.
Baseline	A reference point describing existing conditions or capacities (e.g. vulnerability baseline, risk baseline, adaptation baseline), used to measure change or assess additional adaptation needs.
Blended Finance	The use of concessional capital from public or philanthropic sources to mobilise private investment into climate or social impact projects.
CIFPAK	A GBP 90 million blended adaptation finance facility running through 2031 and supported by FCDO and IFC that prepares bankable deals, de-risks capital market instruments, and mobilises DFIs and private investors.
Debt Financing	Loans provided by MDBs, DFIs, and commercial banks (sovereign, concessional, semi-concessional, or private) that dominate Pakistan's impact and adaptation finance. Includes commercial loans, syndicated loans, infrastructure debt, and climate bonds.
DFI (Development Finance Institution)	Government-backed financial institutions that provide risk-tolerant capital to stimulate private investment in developing countries. Examples active in Pakistan include IFC, ADB, FMO, and BII.
Equity Financing	Provision of risk-bearing capital that can unlock innovation in climate-smart agriculture, resilience technologies, and early-stage enterprises. In Pakistan, volumes are small and concentrated in early-stage funds.
Equity "Missing Middle"	The financing gap faced by SMEs needing investments between microfinance-level loans and large private equity, typically USD 250k – 2 million.
ESG (Environmental, Social and Governance)	Standards used by investors to assess the sustainability and ethical impact of an investment.
Exposure	The nature and degree to which a system is exposed to significant climatic variations.
FCDO (Foreign, Commonwealth and Development Office)	The UK government department that funds international development and foreign aid, including climate finance initiatives in Pakistan.
FX (Foreign Exchange) Risk	Currency volatility and convertibility risk that creates uncertainty for investors and constrain long-term capital flows.
Gender Bond	A debt instrument dedicated to financing projects that promote gender equality and women's economic empowerment. Pakistan's Kashf Foundation Gender Bond was a landmark issue.
Grants / Subsidies	Non-repayable capital used to support feasibility studies, proof-of-concept projects, monitoring systems, and pilot interventions that would otherwise be too risky for commercial funding.
Guarantees	Credit enhancements that assure repayment of part or all of a loan in case of default, used to unlock domestic savings and catalyse lending into higher-risk sectors such as SMEs and smallholder agriculture.
Hazard	A physically defined climate event with potential to cause harm, such as drought, flood, storm, or long-term shifts in climate variables.
IFC (International Finance Corporation)	A member of the World Bank Group that invests in private sector projects in developing countries.

Impact Investment	Impact investments are investments made with the intention to generate positive, measurable social or environmental impact alongside a financial return.
Impact Measurement and Management (IMM)	The practice of measuring, monitoring, and managing the outcomes of investments, including social, environmental, and financial dimensions.
InfraZamin Pakistan	A credit enhancement company that provides PKR-denominated guarantees for infrastructure, social, and climate projects, enabling domestic investors to buy labelled social and climate instruments.
Insurance and Risk Transfer	Financial products that reduce vulnerability to climate risks, such as index-based crop insurance, weather-indexed products, and bundled micro-insurance.
IoT (Internet of Things) Solutions	Digital technologies for monitoring and managing resources, such as IoT-enabled water monitoring systems.
IPP (Independent Power Producer)	A private entity that owns and operates power plants and sells electricity to utilities and consumers, often under long-term contracts.
MDB (Multilateral Development Bank)	International financial institutions such as the World Bank and Asian Development Bank that provide concessional and non-concessional loans and guarantees.
MFI (Microfinance Institution)	A financial institution that provides small loans and related services to low-income households or microenterprises.
NAP (National Adaptation Plan)	NAPs are a tool under the UNFCCC for countries to outline how they will adapt to climate change in the medium and long term. Pakistan's NAP sets adaptation priorities in sectors such as water, agriculture, disaster risk financing, and urban resilience, guiding concessional and private flows.
NDRMF (National Disaster Risk Management Fund)	A government-administered fund that channels resources for disaster preparedness and climate resilience projects.
Parametric Insurance	Insurance that pays out when a specific climate parameter (such as rainfall or temperature) crosses a predefined threshold, rather than after proof of actual loss.
Resilience	The capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment.
Risk (Climate-Related)	The result of the interaction of climate hazards with the properties of exposed systems, combining event likelihood and consequences.
SGBs (Small and Growing Businesses)	Enterprises that typically fall into the "missing middle" category, often requiring patient and flexible capital to scale.
SECP (Securities and Exchange Commission of Pakistan)	The regulator for corporate governance and capital markets, piloting ESG disclosure frameworks and enabling impact investment.
SME (Small and Medium-Sized Enterprises)	Businesses that employ a limited workforce and fall under revenue thresholds. In Pakistan, SMEs make up more than 90 percent of businesses and are central to adaptation.
Sustainability-Linked Instruments	Debt instruments where repayment terms or pricing are linked to sustainability or adaptation performance indicators, such as water savings.
TA (Technical Assistance)	Non-financial support such as training, advisory services, and diagnostics that strengthen the capacity of SMEs, intermediaries, or regulators.
UNFCCC (United Nations Framework Convention on Climate Change)	The international treaty under which climate change negotiations and frameworks, including the Adaptation Policy Framework, are developed.
VC (Venture Capital)	Equity financing for early-stage, high-growth businesses. VC activity is growing in Pakistan, though adaptation-specific VC remains limited.
Vulnerability	The degree to which a system is susceptible to harm due to climate-related stress, and its ability to cope, recover, or adapt.

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Registered offices Bonn and Eschborn, Germany

NDC Assist II – Component Private Adaptation Finance
Friedrich-Ebert-Allee 32 + 36
53113 Bonn, Germany
Phone +49 228 4460 4216
denise.engel@giz.de
www.adaptationcommunity.net/private-sector-adaptation

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Authors Sara Lemniei, SLK Capital and Khurram Lalani, Resources Future

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