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Climate Adaptation Innovation and Learning White Paper

CLOSING THE INVESTABILITY GAP

Prepared By The Global Adaptation and Resilience Investment Working Group

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Acknowledgments

This paper draws on the experience and insights of investors and practitioners working to advance climate adaptation and resilience. We thank everyone who generously contributed their time, expertise, and perspectives to the research, review, and production of this publication.

Research and authorship

This paper was researched and written by Sara Shoff, Lori Collins, Eleanor Keohane, and Dan Xu of GARI, drawing on interviews, case studies, and findings from the Climate Adaptation Innovation Learning (CAIL) Community of Practice. We also thank Community of Practice participants whose discussions and shared experience informed the analysis.

Interview and case-study contributors

We gratefully acknowledge the following individuals for contributing interviews, insights, and draft reviews featured in the case studies: Gwendolyn Zorn and Hussein Sefian, Acre Impact Capital; Sarah Bieber, Acumen; Ben Warren, Adaptation Asia; Ade Jimoh, Beth Foster-Chao and Alli O’Connell, Autodesk Foundation; Maelis Carraro, The Catalyst Fund; Sandrine Henton, EG Capital; Kiette Tucker, Factor E; Lucía Gaitán Sánchez, GAWA Capital; Gabby Culver, Scott Onder, Natalie Vergara, and Toffene Kama, Prosper Global Ventures; Jay Koh, The Lightsmith Group; and Simon Dent, Outrigger Impact.

We also thank the following interviewees, whose perspectives informed the paper’s broader analysis and findings: Matt Kaczmarek and Chris Weber, BlackRock; Genevieve Edens, WaterEquity; Lizzie Merrill, Ground Up Investing; Amaka Okechukwu Opara, WEAV Capital; Lizzie Teague, Root Capital; Tyler Karahalios, Delta40; Seema Chaturvedi, AWE Funds; and David Longdon, Equator VC.

Review and feedback

We thank Anais L. Barisani and colleagues at UNIDO; Cristina Soreanu and colleagues at Climate KIC; Jamil Wyne, Hazelwood Network; Sana Kapadia, Heading for Change; and Tom Kerr, World Bank Group, for their thoughtful review and substantive feedback on earlier drafts.

Editorial, technical, and design support

We thank Isaiah Oliver, Amanda Lonsdale, and Benjamin Ritter of Magnitude Global Finance for their editorial and technical support. Isaiah led the copy editing, technical writing, and editorial production, with technical input and review support from Amanda and Benjamin. Graphic design and layout were provided by Anna Kuipers, an independent graphic designer subcontracted by Magnitude Global Finance.

Project support

This publication was developed through the CAIL initiative, with funding from the Global Environment Facility (GEF) and implementation by the United Nations Industrial Development Organization (UNIDO).

The authors are responsible for the final text. Participation in interviews or review does not imply endorsement of all findings or recommendations.



Crops grown under Iyris treated greenhouse, an Equator VC portfolio company

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Executive Summary

Investing in climate adaptation is not a niche investment category. It does not need a new asset class, a new theory of value, or a new set of instruments. It needs the disciplined application of tools investors already understand — blended capital structures, risk-appropriate financing, patient and flexible capital, and technical assistance — across well understood sectors including agriculture, infrastructure, financial services, insurance, water, energy, and technology. The investment opportunity is neither speculative nor theoretical. Asset managers are already demonstrating how established financial mechanisms can be applied successfully to businesses and assets responding to the physical impacts of climate change.

Climate resilience is an investment lens — a way of evaluating familiar sectors and strategies in a world where climate risk is no longer a background assumption but a material market condition. The investors making the most progress are rarely chasing a new category. They are applying rigorous financial discipline to identify where climate change is already shaping demand, assess whether businesses can respond with commercially viable solutions, match capital to the business model and market, and build the evidence required for credible investment decisions.

There is real friction, however, holding back adaptation finance. This includes enterprises responding to growing demand but not yet ready to absorb conventional capital; financing structures that do not match how businesses generate cash; risks assessed using thin data and limited benchmarks; foreign-exchange, tenor, collateral, and transaction-size constraints; and catalytic capital that fund managers describe as scarce and increasingly difficult to secure. More surprisingly, the language of “adaptation and resilience” can sometimes complicate fundraising even when the underlying sector, customer need, and commercial proposition are familiar. The opportunity is real, and credible financing strategies are already being deployed. Scaling those strategies requires addressing specific, identifiable constraints — not waiting for the market to reinvent itself.

The evidence examined in this white paper suggests that these points of friction are best understood as an **investability gap**: the distance between existing demand for an adaptation solution and an opportunity that is sufficiently developed, appropriately financed, and situated within a market where investment can occur. The findings are based on a diverse set of interviews, case studies, and discussions with investment funds and other market participants conducted by the Global Adaptation and Resilience Investment (GARI) Working Group through the Climate Adaptation Innovation Learning program between 2024 and 2026 (see Appendix B for more details about methodology).

Closing the adaptation and resilience investability gap requires more than increasing the amount of capital allocated for adaptation. There are four conditions required to increase investability:

1. Growing demand and a viable commercial proposition. Climate impacts are creating demand for products and services, and an enterprise has a credible way to serve customers and convert that demand into revenue or another commercially relevant benefit.



2. An investment-ready enterprise or pipeline. The enterprise or transaction has the management capacity, operating model, evidence, distribution, governance, and preparation needed to absorb capital and execute successfully.



3. Capital suited to the market, stage, and business model. The instrument, ticket size, tenor, currency, collateral requirements, flexibility, and return expectations reflect how the opportunity operates and generates cash.



4. A market context in which investment can occur. Policy, regulation, infrastructure, intermediaries, domestic financial institutions, and broader capital-market conditions allow viable opportunities to receive investment and reach scale.



To close the gap, these four conditions need to see progress in tandem and require action by more than just private investors. Different actors influence different parts of the market, and the relevant constraint may change as an enterprise, fund, or transaction develops. Not every adaptation need can or should become a private investment. Public and philanthropic funding remains essential for public goods, market development, and resilience benefits that cannot be commercially captured. Because climate impacts, access to assets, and decision-making power are unevenly distributed, impact-oriented investors must also examine who experiences the risk, who can access and afford the solution, and which groups may be absent from conventional market analysis.

The role of blended finance

Blended finance is a central strategy for closing the investability gap in emerging and frontier markets. It cannot create underlying demand or make an unviable business model commercially sound. Where demand and a credible commercial proposition exist, however, it can be critical to converting that opportunity into an investable transaction and helping shape the market.

In the cases examined for this white paper, catalytic, concessional, philanthropic, and

commercial capital are combined with technical assistance and other forms of support to:

- Finance pilots, preparation, and evidence generation
- Strengthen enterprises and develop investable pipelines
- Allocate risks to actors better positioned to bear them
- Provide patient, flexible, junior, or local-currency capital
- Address tenor, collateral, affordability, and transaction-size constraints
- Support aggregation, intermediation, and market development
- Connect enterprises and funds with follow-on, growth, refinancing, or institutional capital

These functions are not fundamentally new to adaptation. Many of the barriers identified — including foreign-exchange volatility, small transaction sizes, high transaction costs, limited collateral, scarce risk capital, and shallow domestic financial markets — are established features of investing in emerging and frontier markets. Adaptation can intensify them because solutions may be newer, cash-flow histories may be more nascent, benefits may take longer to demonstrate, and part of the value created may accrue beyond the direct customer.

Blended finance adds the most value when it addresses a clearly identified constraint. Its purpose is not simply to improve returns or reduce risk indiscriminately, but to finance activities, bear risks, or accommodate timelines that commercial investors cannot take on independently.

Cross-cutting findings

The evidence supports five broader conclusions.

First, climate-shaped demand is already present. Investors are responding to changing customer, corporate, financial-institution, and government needs as climate impacts become more widely spread and intensified.

Second, commercial potential does not automatically produce an investable pipeline. Fund managers, accelerators, venture builders, technical-assistance providers, philanthropies, development institutions, and local intermediaries play complementary roles in preparing opportunities and supporting their growth.

Third, there is no single “missing middle.” Capital gaps recur at multiple transitions: between grants and seed investment, pilots and commercialization, early-stage and growth capital, working capital and longer-term finance, and initial investment and refinancing or exit.

Fourth, scale depends on local context and institutional fit. Similar opportunities may require different structures depending on currency, regulation, transaction size, domestic financial institutions, and investor requirements.

Fifth, the evidence does not establish that adaptation investments systematically generate higher returns or lower risk. Individual cases demonstrate plausible ways in which resilience can protect revenue, reduce disruption, increase productivity, secure inputs, or lower losses. Whether these benefits consistently translate into stronger financial performance remains an important hypothesis to test.

Priorities for closing the investability gap

The findings point to five priorities:

- 1 Diagnose the constraint before designing the solution.** Determine whether an opportunity is limited by demand, commercial viability, enterprise readiness, capital terms, or wider market conditions. Use gender and power analysis where relevant to identify underserved customers, adoption barriers, and risks of exclusion that could limit scale or value creation.
- 2 Use blended finance to address a named constraint.** Match grants, guarantees, catalytic capital, flexible instruments, local-currency finance, aggregation, or other support to the barrier preventing an otherwise viable opportunity from attracting investment.
- 3 Fund the functions that create and sustain an investable pipeline.** Distinguish among pre-investment preparation, post-investment enterprise support, and ecosystem-level market development, and identify how each function will be financed.

- 4 Design pathways across capital stages.** Connect specialized funds and support providers across the transitions from pilot to commercialization, growth, refinancing, institutional capital, and exit.

- 5 Build evidence that supports real decisions.** Strengthen comparable financial and operating data while maintaining proportionate evidence of adaptation relevance, contribution, and integrity.

The effectiveness of blended finance cannot be judged solely by the amount of commercial capital mobilized into an initial transaction. In less-developed markets, blended finance can build pipelines, strengthen intermediaries, generate evidence, establish transaction histories, and enable enterprises to reach the stage at which commercial capital can participate.

The next phase of the market is therefore less about proving that adaptation is an investment opportunity in the abstract. It is about building the systems — and deploying blended finance with sufficient precision — that allow investors to see viable opportunities, act on those opportunities, and then replicate proven models.



Section 1

Introduction

The size of the adaptation finance gap does not show where private capital can invest. The more useful frame is an investability gap: the distance between existing climate-shaped demand and an opportunity that is sufficiently developed, appropriately financed, and situated within a market where investment can occur. Closing that gap depends on four conditions moving together.

Climate change is no longer only a future risk to be modeled. It is a present market condition. Heat, drought, flooding, wildfire, sea-level rise, and changing weather patterns are already altering demand, disrupting supply chains, reducing labor productivity, increasing insurance costs, and changing the infrastructure, products, and services that households, businesses, and governments need.¹

For investors, this creates two related considerations. The first is to understand and manage physical climate risk in existing portfolios. The second is to recognize and finance the businesses, infrastructure, technologies, financial products, and services that enable economies to function and prosper under changing climate conditions. The investment community has made meaningful progress on the first. The second is now becoming a distinct source of value creation. Understanding how climate impacts and access to solutions differ across customer and worker groups can reveal overlooked demand, improve product design, and strengthen the durability of value creation.

Climate adaptation is best understood as an investment lens, not a standalone asset class. It can be applied across established sectors and investment strategies, including agriculture, water, healthcare, construction, industrial equipment, insurance, logistics, financial services, digital technologies, infrastructure, venture capital, private credit, and public equities. Within this broader market, investors may develop specialized adaptation products, vehicles, or investable categories, but the underlying opportunities remain embedded across the economy. GARI's earlier public-markets analysis identified 827 publicly traded companies providing climate adaptation solutions globally, including 231 listed in emerging and developing countries.²

Many private companies and investment funds examined through the Climate Adaptation Innovation Learning program likewise did not begin with an adaptation label. They began with concrete customer problems: unreliable water, crop losses, heat exposure, supply-chain disruption, insufficient insurance, vulnerable infrastructure, or lack of working capital for enterprises serving climate-exposed communities.³

Throughout this paper, investing in climate adaptation refers to investment in businesses, assets, products, and services that enable people, economies, and natural systems to adjust to climate impacts. Adaptation finance refers more broadly to the public, concessional, philanthropic, and private financial flows that support adaptation. Climate resilience describes the capacity or outcome these investments seek to strengthen. The phrase “adaptation and resilience” is retained in official names, quoted terminology, and source titles.

1.1 From a finance gap to an investability gap

Much of the adaptation finance debate begins with the size of the funding gap and then asks how private capital can fill it. The gap is undeniably large. UNEP estimates that developing countries will require up to USD 365 billion annually for adaptation by 2035, compared with only USD 26 billion in international public adaptation finance in 2023.⁴ But the difference between estimated needs and current financial flows does not, by itself, indicate which needs can be commercially financed, where existing demand can support an investable business model, or what prevents otherwise viable opportunities from reaching investors.

¹ United Nations Environment Programme (UNEP), *Adaptation Gap Report 2025*; World Bank, *Rising to the Challenge: Success Stories and Strategies for Achieving Climate Adaptation and Resilience* (2024).

² Global Adaptation & Resilience Investment Working Group (GARI), *The Unavoidable Opportunity: Investing in the Growing Market for Climate Resilience Solutions* (2024).

³ Global Adaptation & Resilience Investment Working Group (GARI), *The Unavoidable Opportunity: Investing in the Growing Market for Climate Resilience Solutions* (2024).

⁴ UNEP, *Adaptation Gap Report 2025*, Executive Summary.

The distinction between financing needs and investability is essential. Private debt or equity may supply upfront finance for an infrastructure asset, business, or household investment, but that capital must ultimately be repaid through customer revenue, a public budget, user charges, cost savings, or another source of funding. A privately financed seawall may still be funded by taxpayers. A household loan for resilience equipment may still be funded by a climate-vulnerable family. Mobilizing private capital without identifying a sustainable and equitable source of repayment can narrow the financing gap on paper while leaving the underlying funding problem unchanged.

The private sector's role is not to create this demand. Its role is to identify where climate change is already altering market needs and determine whether businesses can respond with commercially viable products and services. In some cases, governments, philanthropies, or development institutions may make latent demand more visible through procurement, standards, outcome payments, or other market signals. These interventions are relevant where a clear social or economic need exists but has not yet translated into a commercial market. They are not a prerequisite for every adaptation investment.

The more useful frame is an **investability gap**: the distance between existing climate-shaped demand and an opportunity that is sufficiently developed, appropriately financed, and situated within a market where investment can occur.

Climate need alone does not create a commercial opportunity. An adaptation investment requires demand for a product or service and a business model capable of translating some of the value created — such as new revenue, cost savings, productivity growth, protected margins, or reduced disruption — into a viable commercial proposition. The total value of adaptation may be much broader, accruing to communities, governments, ecosystems, workers, insurers, and supply chains. Where that value cannot support revenue or repayment, public or philanthropic funding may remain the appropriate solution.

Four related conditions shape whether an opportunity becomes investable:

- **Growing demand and a viable commercial proposition.** Climate impacts are creating demand for products or services, and an enterprise has a credible way to reach customers and convert that demand into sustainable revenue or another commercially relevant benefit. 
- **An investment-ready enterprise or pipeline.** The enterprise or transaction has the management capacity, governance, operating model, financial readiness, distribution, and preparation needed to absorb capital and execute successfully. 
- **Capital suited to the market, stage, and business model.** The available instrument, ticket size, tenor, currency, collateral requirements, flexibility, and return expectations reflect how the enterprise or project operates and generates cash. 
- **A market context in which investment can occur.** The surrounding policy, regulatory, institutional, infrastructure, and capital-market conditions allow viable opportunities to receive investment and reach scale. 

To close the gap, these four conditions need to see progress in tandem; they are not a set of responsibilities assigned to private investors. Investors assess some through ordinary commercial and financial diligence, while others are influenced by enterprises, fund managers, accelerators, development institutions, philanthropies, governments, regulators, and domestic financial institutions. The relevant constraint may also change as an enterprise or transaction develops. Not every adaptation need can or should satisfy all four conditions or become a private investment.

The conditions required for investability are interdependent, but they are not all financial. Blended finance cannot create underlying demand or make an unviable product commercially viable. Where demand and a credible commercial proposition exist, however, it can be critical to converting that opportunity into an investable transaction.

Concessional, catalytic, and commercial capital can be combined with technical assistance and other support to improve enterprise readiness, allocate risks appropriately, accommodate longer timelines, address currency and ticket-size constraints, and strengthen the market infrastructure needed for investment to occur.

This distinction is especially important in Least Developed Countries (LDCs) and Small Island Developing States (SIDS). These markets face acute climate exposure alongside foreign-exchange volatility, sovereign and political risk, shallow domestic capital markets, small transaction sizes, high transaction costs, and limited institutional capacity. Adaptation did not create these barriers; it inherits them and may intensify their consequences.

At the same time, LDCs and SIDS present opportunities — not simply collections of risks. Climate change is increasing demand for agricultural productivity, water security, cooling, insurance, risk analytics, financial inclusion, resilient infrastructure, and reliable essential services. Strategies that begin only with vulnerability can miss the businesses already responding to that demand. Strategies that begin only with commercial opportunity can overlook affordability, fiscal constraints, public-good needs, and the limits of private finance. A credible investability analysis must hold both realities at once.

Evidence and adaptation integrity

Evidence cuts across all four conditions but serves two distinct purposes. Financial and operating information — including revenue, cash flow, credit performance, repayment, losses, follow-on investment, and exits — supports ordinary investment diligence. Adaptation frameworks and measurement approaches serve a different function: they help investors identify the vulnerability addressed, assess the resilience pathway, manage maladaptation risks, and respond to limited partner (LP) or development finance institution (DFI) allocation and reporting requirements.

These tools can make an existing adaptation mandate more actionable and accountable, but the evidence does not establish that measurement or taxonomy development creates commercial investor demand. Nor does it yet establish that adaptation investments systematically generate higher returns or lower risk. The relationship between resilience characteristics and financial performance remains an important hypothesis to test through longer-term, comparable evidence.

1.2 The question this paper addresses

This paper draws on learning generated between 2024 and 2026 through the Climate Adaptation Innovation Learning program, financed by the Global Environment Facility (GEF) and implemented by UNIDO Climate Tech Innovation in partnership with Climate KIC, GARI, and United Nations Environment Programme Finance Initiative (UNEP FI). It draws primarily on interviews, case studies, and discussions with investment funds and other market participants.

The paper addresses the following learning question:

How can blended finance and institutional innovation address the constraints that prevent existing demand for adaptation solutions from becoming investable opportunities, particularly in emerging and frontier markets?

The evidence points to a more specific answer than “mobilize more capital.”

Investment becomes possible when climate-shaped demand supports a viable commercial proposition; enterprises and transactions are sufficiently prepared; capital is suited to the stage, business model, and market; and wider conditions allow investment to occur and reach scale. Where the commercial foundation exists, blended finance is often the mechanism that connects these conditions — financing preparation, allocating risks, adapting capital to the opportunity, and supporting market functions that commercial investors are not positioned to fund alone.

The evidence base reflects direct input from a diverse group of market participants, primarily investment funds and related investment platforms operating across emerging and frontier markets. Several of the vehicles examined remain in fundraising or early deployment. The market actors engaged cannot be considered a statistically representative sample. The research considers the implications for LDCs and SIDS, but direct evidence from investment strategies focused on those markets is limited. Quantitative results reported through the case studies are self-reported. Section 1.3, below, introduces the cases analyzed for this white paper.

Section 2 examines the adaptation finance gap, the four conditions that shape investability, and the role blended finance can play across those conditions. Section 3 considers the financial structures, institutional innovations, and investment approaches being used to address specific constraints, including catalytic capital, technical assistance, risk-sharing, and connections to later-stage capital. Section 4 tests those findings against eleven case studies and the broader interview evidence, with full profiles provided in Appendix A. Section 5 sets out priorities for closing the investability gap, for both public- and private-sector actors. Appendix B describes the research methodology and limitations.

1.3 An overview of the cases in this study

The chart on the next page (Figure 1) presents the cases featured in this white paper. The diversity of market functions shows that the models considered are complementary. A venture-building organization, a private-credit fund, and an infrastructure-debt strategy may all support investing in adaptation, but they work with different enterprises, transaction sizes, stages, and investor requirements. Their relevance is best understood through the specific market function they perform, not through whether they share an adaptation label.

Across these different models, investability rarely results from a single instrument or intervention. Fund managers combine capital, technical assistance, enterprise support, risk-sharing, and market knowledge to address multiple constraints at once. Blended finance is especially visible in the riskiest geographies, where enterprises are early in their development, transactions are small or costly to assess, local-currency capital is limited, or commercial investors cannot yet accommodate the relevant risk and time horizon.



Credit: Prosper Global

Figure 1. Cases featured in this study.

CASE	PRIMARY MARKET FUNCTION	PART OF THE INVESTABILITY GAP ADDRESSED
Catalyst Fund	Early-stage venture investment and enterprise development	Helps young companies demonstrate commercial potential and progress from grant- or pilot-stage support toward institutional venture investment
Prosper Global Ventures (formerly Mercy Corps Ventures)	Early-stage investment, pilots, and evidence generation	Supports companies responding to demonstrated demand where available capital does not yet match their stage, geography, or growth trajectory
The Lightsmith Group	Growth investment and institutional capital mobilization	Connects established resilience businesses and technologies with larger pools of equity, credit, and institutional capital
Acumen	Patient investment across different stages of enterprise development	Addresses gaps in early and growth capital while exploring pathways for companies and investors to move across financing stages
Factor[e]	Venture building and technology commercialization	Helps technologies and business models reach markets where commercial potential exists but local deployment and distribution remain difficult
EG Capital	Private credit and flexible growth finance	Addresses limited working capital, expensive or short-tenor local debt, currency constraints, and the financing needs of established SMEs
Autodesk Foundation	Flexible philanthropic and catalytic capital	Supports early validation, enterprise capacity, and impact-oriented models that may not yet fit conventional investment requirements
GAWA Capital / Kuali Fund	Investment through local financial institutions and enterprises	Uses local intermediation and technical assistance to reach smaller businesses, financial institutions, and climate-exposed communities
Outrigger Impact	Project origination, aggregation, and investment preparation	Develops and aggregates opportunities in smaller and island markets that may be individually too small or insufficiently prepared for larger investors
Adaptation Asia / Panra Fund	Investment in adaptation-oriented agriculture and related outcomes	Connects commercially viable agricultural models with capital while exploring additional value associated with environmental and resilience outcomes
Acre Impact Capital	Infrastructure credit and institutional risk allocation	Uses established infrastructure and export-credit approaches to connect emerging-market projects with institutional investors



Section 2

The Growing Market for Climate Resilience

The market for climate resilient products, services, and assets is growing, but three distinct problems are hindering progress: too little capital, capital on the wrong terms, and capital reaching the wrong places. Evidence from fund managers grounds each investability condition in real market barriers, from thin data to foreign-exchange risk to limited institutional capacity.

The adaptation finance gap is large, but the size of the gap alone does not reveal where private investment is possible or what prevents capital from moving. Investability depends on four related conditions: existing demand and a viable commercial proposition; an investment-ready enterprise or pipeline; capital suited to the market, stage, and business model; and a market context in which investment can occur. These conditions help distinguish constraints that investors can address directly, such as demand assessment, commercial due diligence, and enterprise support, from those requiring action by governments, development institutions, philanthropies, ecosystem builders, and other market actors. Within this framework, blended finance is a central enabling strategy: it does not replace commercial fundamentals, but it can address the readiness, capital-structure, and market constraints that prevent viable opportunities from attracting investment.

2.1 A large gap with three dimensions

The headline adaptation finance gap is often presented as a single number. In practice, it has at least three dimensions: volume, terms, and allocation.



The volume gap is the most visible. UNEP's estimated annual need of USD 310 billion to USD 365 billion by 2035 is roughly twelve to fourteen times the USD 26 billion in international public adaptation finance recorded in 2023.¹

Low-income countries received less than 10 percent of all climate finance provided and mobilized by developed countries between 2016 and 2022, even though their populations are among the least able to absorb climate losses.² The Least Developed Countries Fund — the only global fund dedicated specifically to helping LDCs adapt — had financed 423 projects and programs with nearly USD 2.1 billion in grants as of June 30, 2024. That cumulative contribution is important, but it is small relative to the annual scale of need.³

¹ UNEP, *Adaptation Gap Report 2025*.

² WRI, "Adaptation Finance: 10 Key Questions, Answered" (2025).

³ Global Environment Facility, "Least Developed Countries Fund" (2023), reporting portfolio data through June 30, 2024.

The terms gap concerns the form in which finance arrives and whether it strengthens or undermines long-term resilience. SIDS offer a clear illustration. Climate Policy Initiative estimates that 39 SIDS received just over USD 2 billion per year in international public adaptation finance in 2021–2022, against assessed annual needs of approximately USD 12 billion. Forty-four percent of those flows arrived as debt, despite tight fiscal conditions in many island economies.⁴ Capital that increases debt vulnerability or places unaffordable repayment obligations on households may finance an adaptation asset without making the wider system more resilient.

The Pacific experience makes the mismatch more concrete. Pacific SIDS are estimated to require approximately USD 2.3 billion to USD 2.5 billion annually by 2030 to implement identified adaptation priorities. Yet private finance accounts for only around 10 percent of climate finance reaching SIDS. This is not evidence that private capital has no role — only that much of the need concerns public goods — coastal protection, water security, resilient health systems, disaster preparedness, and community resilience — for which grants and highly concessional finance remain the appropriate foundation.⁵

The allocation gap concerns who receives finance. Ten SIDS received 67 percent of tracked adaptation flows, and CPI found no significant correlation between those flows and climate vulnerability as measured by ND-GAIN scores.⁶ Access frequently depends on the ability to prepare proposals, generate data, navigate approval processes, and structure projects — capabilities that may be weakest where climate exposure and institutional constraints are greatest. Adaptation priorities may be clear in national plans but remain disconnected from investment-ready entities, transactions, and procurement pathways.

⁴ CPI, *State and Trends of Climate Adaptation Finance in Small Island Developing States* (2025).

⁵ Kunal Singh, *Making Climate Finance Work for the Pacific: Strengthening Access, Absorption and Delivery* (COP31 Discussion Paper, prepared as Regional Climate Finance Access Network Advisor at the Pacific Community, July 2026), especially pp. 3–11 and 13–17.

⁶ Singh, *Making Climate Finance Work for the Pacific*.

Recent research on SIDS' access to the Green Climate Fund identifies a further structural problem: many climate-finance systems implicitly equate larger programs with better value for money. That assumption disadvantages small states, where aggregate project values may be lower even when per-capita needs, avoided losses, and climate-justice claims are exceptionally high. The implication is not simply that SIDS need more help navigating existing requirements. The design of access systems, appraisal criteria, and transaction processes must also recognize the costs and benefits of operating at smaller scales.⁷

These three gaps show why adaptation finance cannot be increased simply by adding capital to an unchanged system.

Volume matters, but so do the terms on which capital is provided, the markets and institutions through which it is deployed, and the mechanisms used to reach smaller or less familiar opportunities. They also show why the adaptation finance gap and the investability gap are related but not interchangeable. The first describes the difference between financial needs and flows. The second identifies the conditions that allow some of those needs to secure private capital investment — and explains why others remain publicly or philanthropically funded.

2.2 Four conditions that shape investability

The conditions that shape investment in adaptation are not entirely unique to climate resilience. Many are familiar barriers to investment in emerging, frontier, and small-island markets. Adaptation businesses inherit those constraints and may face additional challenges associated with diffuse benefits, locally specific solutions, long time horizons, affordability, and the difficulty of valuing outcomes that are most visible when disruption is avoided.

The four conditions below provide a practical way to diagnose where the investability gap occurs. They do not imply that private investors are responsible for creating every

condition. Different actors influence different parts of the market, and the relevant constraint may change as an enterprise, project, or investment strategy develops.

Blended finance interacts differently with each of the four conditions shaping investability. It cannot substitute for existing demand or a viable commercial proposition. It can help enterprises demonstrate and respond to that demand by financing pilots, evidence generation, business-model refinement, and early commercialization. It can directly address mismatches between available capital/ risk-adjusted return expectations and an opportunity's stage, cash flows, currency, risk profile, and time horizon. It can also support intermediaries, technical assistance, aggregation, and other market functions that make investment possible. Its value lies not in making every adaptation need investable, but in advancing individual transactions while also helping to shape the market for adaptation-focused goods and services more broadly.



Condition 1: Growing demand and a viable commercial proposition



Climate need is not the same as commercial demand. A population may urgently require flood protection, heat preparedness, water security, or disaster-response capacity without having the ability to pay for those services through a private transaction. Conversely, climate change may already be altering customer behavior, corporate expenditure, insurance needs, or government procurement in ways that support a commercial market.

⁷ Pia Treichel, Michai Robertson, Emily Wilkinson, and Jack Corbett, "Scale and Access to the Green Climate Fund: Big Challenges for Small Island Developing States," *Global Environmental Change* 89 (2024): 102943, <https://doi.org/10.1016/j.gloenvcha.2024.102943>.

The first investability condition is therefore whether an enterprise can respond to existing climate-shaped demand with a viable product, service, and business model. Demand may come from:

- Consumers seeking products that protect livelihoods, health, homes, or access to essential services
- Businesses seeking to reduce disruption, secure inputs, maintain productivity, protect assets, or respond to customer requirements
- Financial institutions and insurers seeking better risk information, lower losses, or new products for climate-exposed customers
- Governments procuring goods and services needed to maintain public infrastructure and essential functions

For the enterprises that make up most of the evidence in this paper, the source of repayment is generally a customer purchasing a product or service, rather than a separate public payer or infrastructure offtaker. The relevant questions are whether customers are willing and able to pay, whether the solution reaches them through an effective distribution model, and whether the enterprise can convert demand into sustainable revenue growth.

The value created by adaptation may be broader than the value captured by the enterprise. Benefits can include reduced public expenditure, more resilient communities, protected ecosystems, stronger supply chains, improved health, and reduced insurance losses. These benefits may be economically significant even when they do not generate revenue for the company providing the solution. Commercial investability depends on whether a sufficient portion of that value can be captured through revenue, cost savings, increased productivity, protected margins, reduced disruption, procurement, or another financial benefit.

This distinction is important because not every adaptation need can or should be converted into a private investment.

Public early-warning systems, coastal protection, public-health preparedness, social protection, and some forms of ecosystem restoration produce diffuse benefits and may appropriately remain grant- or publicly funded. Other interventions may sit in a hybrid space in which private

finance supports a business or asset while public or philanthropic resources fund affordability, access, preparation, or benefits that cannot be commercially captured.

Investors are not generally responsible for creating demand where none exists. Their role is to identify how climate conditions are already affecting markets and assess whether an enterprise has a credible way to serve growing demand in the short term. Governments, philanthropies, corporates, and development institutions may make existing or latent demand more visible through procurement, purchasing commitments, standards, outcome payments, prizes, or other pull mechanisms. These interventions can be valuable where a genuine need exists but has not yet translated into a workable market. They are not required for every adaptation product or service.

Condition 2: An investment-ready enterprise or pipeline



Existing demand does not automatically produce an investable enterprise.

A business may offer a relevant solution but still lack the management, governance, financial controls, distribution, product readiness, or transaction preparation required to absorb capital and execute successfully.

These are ordinary considerations in investment diligence, not requirements unique to adaptation. Investors evaluating an adaptation-related enterprise still need to determine whether the product works, customers will buy it, the management team can execute, the financial model is credible, and the investment can generate returns consistent with the mandate. Climate relevance does not replace commercial discipline.

The investability gap emerges when promising companies and projects cannot reach that threshold because the surrounding ecosystem does not provide sufficient early-stage capital and support. In many emerging and frontier markets, pre-seed and seed capital is limited, transaction sizes are too small for institutional investors, and the cost of preparing or diligencing an investment may be high relative to its value. Accelerators, venture builders, technical-assistance providers, project-preparation facilities, local intermediaries, and philanthropic funders therefore play an important role in developing the future pipeline.

This support can take several forms:

- Early grants, pilots, or product testing that establish proof of concept and customer demand
- Business-model development, market research, and distribution support
- Financial-management, governance, and operational capacity
- Engineering, feasibility, legal, and transaction-preparation work
- Evidence generation that supports commercial diligence or adaptation accountability
- Post-investment support that helps companies execute, grow, and prepare for follow-on capital
- Ecosystem-level coordination, demonstration, learning, and intermediary development

The different TA functions should not be collapsed into a single category of technical assistance. Pre-investment support helps create an investable pipeline. Post-investment support helps portfolio companies perform and scale. Ecosystem-level support addresses constraints that extend beyond the capacity or mandate of any one company or fund.

Fund managers may participate actively in this process through origination, transaction structuring, board roles, management support, networks, market access, public-partner capacity, and co-investor mobilization. But not every investor can or should build an upstream market. Responsibility is distributed among enterprises, investors, accelerators, philanthropies, development institutions, technical-assistance providers, and other ecosystem builders.



Credit: Prosper Global

Condition 3: Capital suited to the market, stage, and business model



An enterprise can have demonstrated and growing demand, a credible business model, and have the capacity to receive private investment, but still be unable to secure capital on workable terms. The available finance may be too expensive, too short term, too large, too small, denominated in the wrong currency, overly dependent on collateral, or structured around repayment expectations that do not match how the business generates cash.

Market-level barriers include:

- Foreign-exchange volatility and limited access to local-currency finance
- High collateral requirements and personal guarantees
- Short-tenor or high-cost debt
- Limited early-stage and junior risk capital
- Small deal sizes and high transaction costs
- Limited working capital
- Shallow pools of growth and follow-on capital
- Long or uncertain exit timelines
- Limited liquidity and refinancing pathways

Interviews with fund managers reinforce that these are not abstract concerns. Catalyst Fund, for example, observed that much pre-seed investment in its markets still comes from grants because equity and debt investors are unwilling to take on the combination of regional and early-stage risk. Prosper Global Ventures similarly found that demonstrated demand can coexist with financing that is poorly matched to the enterprise's stage and trajectory. Acumen highlighted lending terms that can require collateral worth several times the value of a loan or personal guarantees that are unrealistic for many entrepreneurs.⁸

These constraints are not exclusive to adaptation. They are established features of investing in emerging and frontier markets, and blended finance is needed in many of the same ways it has long been used in those markets. Public, philanthropic, and concessional capital can help address specific risk, return, affordability, currency, tenor,

⁸ GARI/Climate Adaptation Innovation Learning program interviews with Catalyst Fund and Prosper Global Ventures (2026).

liquidity, or transaction-cost constraints that prevent otherwise viable opportunities from attracting appropriate finance. Adaptation can intensify the investability challenge already existing in emerging and frontier markets because many solutions are newer, their benefits may take longer to demonstrate, and part of the value they create may accrue beyond the direct customer. The case for blended finance is therefore central, but its underlying functions are not fundamentally new.

Different constraints require different responses. A guarantee may address a risk that a commercial investor cannot bear, but it cannot create customer revenue for a pure public good. Junior capital may improve the risk profile of a senior tranche, but it cannot make an unprepared enterprise investment ready. A local-currency facility may protect borrowers from foreign-exchange risk, but it cannot solve weak distribution or limited customer demand. Technical assistance can strengthen a company or project, but it cannot resolve an unaffordable repayment obligation.

The relevant design question is not simply whether the investment uses debt or equity. Seniority, repayment priority, tenor, flexibility, currency, collateral, and loss-bearing position determine how risk and return are allocated. Debt and equity may work together within the same capital structure, and either can be structured in ways that are more or less appropriate for the underlying business.

The availability of capital also changes across an enterprise's development. Gaps can emerge between grants and seed investment, between seed and venture capital, between early commercialization and growth, between working capital and long-term finance, and between sub-investment-grade opportunities and institutional mandates. Follow-on, refinancing, and exit capital represent additional transitions. No single vehicle or instrument closes the full continuum.

Blended finance is most effective when it begins with a named constraint and uses support proportionate to that constraint. Where demand and a viable commercial proposition exist, it can be critical to improving the fit between an opportunity and available capital. It cannot compensate indefinitely for absent demand, a weak business model, or an enterprise that is not ready to absorb investment.

Condition 4: A market context in which investment can occur



Individual companies and transactions operate within broader market conditions. Macroeconomic stability, foreign-exchange availability, sovereign risk, financial regulation, domestic capital-market depth, public policy, procurement systems, infrastructure, and the availability of local intermediaries all influence whether viable enterprises receive investment and whether successful models can scale.

In LDCs and SIDS, these conditions can be particularly constraining:

- Small and dispersed markets may produce lower aggregate transaction values and higher per-transaction costs.
- Domestic financial institutions may have limited liquidity, risk appetite, or familiarity with new technologies.
- Governments may have constrained fiscal space and limited administrative capacity.
- Investors may face few comparable transactions, limited exit routes, and regulations that restrict institutional participation in unfamiliar or sub-investment-grade assets.

The Pacific experience suggests a useful distinction among *structural*, *supply-side*, and *demand-side barriers*. Structural barriers arise from the characteristics of small and dispersed economies. Supply-side barriers are created by the finance architecture itself: fragmented funds, different application and reporting systems, rigid access modalities, reliance on intermediaries, and allocation criteria that may not reflect vulnerability. Demand-side barriers concern the limited time, fiscal room, and administrative capacity available to navigate those systems. These categories interact. A proliferation of funding windows can appear to expand supply while increasing the burden on the same small group of national officials responsible for policy, proposal development, implementation, and reporting.⁹

⁹ Kunal Singh, Making Climate Finance Work for the Pacific: Strengthening Access, Absorption and Delivery (COP31 Discussion Paper, prepared as Regional Climate Finance Access Network Advisor at the Pacific Community, July 2026), especially pp. 3–11 and 13–17.

Private investors respond to the conditions underlying investability but generally do not control them.

They can share evidence, participate in market-building initiatives, partner with local institutions, advocate for reforms, and design products that work within local market realities. Responsibility for the wider enabling environment is distributed across governments, regulators, development finance institutions, philanthropies, domestic banks and institutional investors, corporates, and other market actors.

Domestic capital is particularly important.

Local banks, pension funds, insurers, corporates, and other financial institutions may have greater familiarity with local customers, currency, regulation, and operating conditions. Their participation can reduce foreign-exchange exposure, strengthen origination and distribution, and create longer-term pathways for refinancing and scale. Yet these institutions may require guarantees, credit enhancement, aggregation, regulatory changes, or new forms of collaboration before they can participate.

National adaptation plans, public standards, infrastructure policy, and procurement can also influence the market by clarifying priorities and making demand more legible. However, the evidence examined for this paper emphasizes more strongly the importance of investment structures, enterprise development, and market intermediation than of policy alignment. The role of policy is therefore treated as an important market condition rather than as a fully tested finding about which reforms are most effective.

2.3 Where private capital can realistically play

Private capital has an important role in the resilience economy, but it is not suited to every adaptation need.

McKinsey's analysis of 20 established adaptation measures offers a useful boundary for where commercial capital fits: more than half of estimated costs relate to actions individuals and companies can undertake themselves (the segment most suited to commercial capital), approximately 30 percent relate to public goods (better suited to public or philanthropic funding),

and the remainder sit in a hybrid zone.¹⁰ Commercial capital is therefore most naturally suited to enterprise- and asset-level solutions with identifiable customers, revenue, cost savings, or procurement mechanisms. Public and concessional capital remains central for non-commercial priorities, for hybrid solutions in which commercially captured value does not reflect the full resilience benefit, and for the market infrastructure that allows commercial opportunities to emerge. Blended finance is particularly relevant in the latter two areas, where different sources of capital can fund different functions and bear different risks.

The Climate Resilience Investments in Solutions Principles (CRISP), developed by GARI alongside its own earlier report, *The Unavoidable Opportunity*, provide a practical framework for identifying where this enterprise opportunity exists.¹¹ CRISP was designed for use across sectors, geographies, asset classes, and stages of company growth. Rather than defining adaptation as a discrete industry or prescribing a fixed list of eligible technologies, it asks whether a company provides a technology, product, service, or practice that enables others to prepare for, prevent, respond to, or recover from climate shocks and stresses.

CRISP distinguishes between companies for which adaptation solutions represent a significant part of the business and companies that offer adaptation solutions through one product or business line. Both can contribute to resilience. This distinction expands the investable universe beyond "pure-play" adaptation companies and recognizes that investors can help existing businesses identify, develop, and scale the adaptation potential within their broader operations.

The framework guides investors through three related questions:

- **Does the offering advance adaptation or resilience?** The company's offering may directly prevent or reduce physical climate risks and their adverse effects on people, nature, assets, or economic activity. It may also address systemic barriers by improving the information, technology, capacity, or financing available to others.

¹⁰ McKinsey Global Institute, *Advancing Adaptation: Mapping Costs from Cooling to Coastal Defenses* (2025).

¹¹ Global Adaptation & Resilience Investment Working Group (GARI), *Climate Resilience Investments in Solutions Principles (CRISP)* (2024); GARI, *The Unavoidable Opportunity: Investing in the Growing Market for Climate Resilience Solutions* (2024).

- **Is the solution credible and unlikely to cause harm?** Investors consider potential maladaptation, consistency with local regulations and strategies, emissions implications, environmental and social safeguards, and the company's capacity to manage physical climate and ESG risks.
- **Can the adaptation contribution be evaluated through the investment cycle?** The framework encourages investors to assess the significance of adaptation solutions within the business, define appropriate qualitative or quantitative indicators, incorporate relevant expectations into investment agreements, and monitor results through portfolio management and exit.

CRISP and related approaches support investment identification, diligence, and accountability. Their value is in helping investors with an existing mandate or interest identify relevant opportunities, maintain adaptation integrity, respond to limited-partner requirements, and communicate the resilience contribution of an investment.

This allows external market positioning and internal adaptation accountability to serve different purposes. A fund or enterprise may communicate its commercial proposition through familiar sector language — agriculture, water, financial services, infrastructure, cooling, health, or logistics — without leading with adaptation terminology. Internally, however, investors should still determine which climate vulnerability is being addressed, how the product or service contributes to resilience, whether that contribution is material and credible, and whether the investment creates maladaptation or other unintended risks.

Applying CRISP to public-market data for The Unavoidable Opportunity identified more than 800 publicly traded companies providing climate-resilience solutions.¹² It does not mean that every company identified is equally material as an adaptation investment or that adaptation characteristics have yet been shown to generate systematically higher returns.

The evidence synthesized in Section 4 and documented in Appendix A shows the same pattern in private markets. Catalyst Fund

applies an adaptation lens across fintech, sustainable livelihoods, and climate-smart essential services. Prosper Global Ventures combines adaptive agriculture, climate finance, fintech, and other climate-smart technologies. Lightsmith's portfolio spans water, food systems, geospatial intelligence, supply-chain analytics, and catastrophe-risk modeling. These strategies show that private capital can play where a resilience need is connected to a customer, a viable business model, and an appropriate investment structure — even when the company does not describe itself as an adaptation business.¹³

2.4 Opportunity follows climate-shaped demand

An investment lens is useful only if it helps investors identify where demand is changing. Lightsmith describes this as the near horizon: climate effects will eventually touch the entire economy, but investment opportunity is most actionable where those effects are already changing behavior, expenditure, or operating requirements in specific sectors and regions.¹⁴

This is a different starting point from a taxonomy-first approach. Taxonomies and frameworks are valuable for consistency and integrity, but a transaction begins with a customer and a use case. A farmer adopts an irrigation or advisory product to protect yields and income. A lender uses climate data to understand repayment risk. A factory invests in cooling or water efficiency to protect production. A municipality procures resilient infrastructure to maintain essential services. An insurer invests in analytics or risk reduction to reduce claims exposure and expand coverage. In each case, the adaptation outcome is connected to a financial driver that the investor can evaluate.

The connection is often indirect. An enterprise may strengthen resilience through a product that also improves productivity, reduces costs, expands access, or stabilizes revenue. This does not weaken the adaptation thesis. It often explains why the opportunity is commercially viable.

¹² Global Adaptation & Resilience Investment Working Group (GARI), Climate Resilience Investments in Solutions Principles (CRISP) (2024); GARI, The Unavoidable Opportunity: Investing in the Growing Market for Climate Resilience Solutions (2024).

¹³ GARI/Climate Adaptation Innovation Learning interviews with Catalyst Fund, Prosper Global Ventures, and The Lightsmith Group (2026).

¹⁴ GARI/Climate Adaptation Innovation Learning platform interview with The Lightsmith Group (2026).

Investors should therefore assess two related propositions: adaptation relevance and commercial viability. The first

question is whether the product or service addresses a material climate vulnerability and makes a credible contribution to resilience. The second is whether customers value the resulting benefit sufficiently to support a sustainable business model. The first establishes adaptation relevance and integrity. The second establishes the commercial proposition.

This distinction also helps avoid overclaiming the financial benefits of resilience. Individual cases suggest that adaptation solutions can protect earnings, reduce downtime, secure inputs, increase productivity, or limit losses. The available evidence does not yet establish that companies or assets providing adaptation solutions consistently generate higher returns or lower risk than comparable investments. That remains a hypothesis to test through longer-term evidence on revenue, repayment, defaults, losses, follow-on investment, exits, and adaptation outcomes.

2.5 Five implications that challenge common assumptions

The evidence challenges several assumptions that can obscure where the investability gap actually occurs:

Climate resilience is not a single sector or asset class.

It is primarily an investment lens applied across established sectors and investment strategies, including venture capital, private credit, growth equity, infrastructure, and public equities. Specialized adaptation products and vehicles may emerge within this broader market, but investors do not need to wait for a dedicated adaptation allocation before identifying relevant opportunities.

The primary constraint is not always an absence of demand.

In many of the markets examined, consumers, businesses, financial institutions, and governments already need products and services that respond to climate-related disruption. The binding constraint is often the difficulty of connecting that demand with enterprises capable of serving it and



Credit: Prosper Global

capital suited to how those enterprises develop. This does not mean that every adaptation need supports a commercial market; many public-good and affordability needs will appropriately remain publicly or philanthropically funded.

Investing in adaptation does not require entirely new financial instruments.

The funds examined use familiar forms of equity, credit, guarantees, junior and senior capital, working-capital finance, and technical-assistance support. Blended finance remains important, but largely for familiar reasons: stage, tenor, currency, collateral, affordability, transaction costs, and risk allocation can prevent viable opportunities in emerging and frontier markets from attracting appropriate capital.

Not every investability constraint is a risk problem.

Guarantees, first-loss capital, and other de-risking instruments are useful where risk allocation is the binding constraint. They are less relevant where the primary barrier is enterprise readiness, small transaction size, limited distribution, inadequate working capital, absent revenue, or a lack of follow-on investors. Effective intervention begins by diagnosing the specific constraint rather than assuming that concessionality is always the answer.

The missing middle is not one gap, and no single vehicle closes it.

Capital gaps recur between grants and seed investment, seed and venture capital, early commercialization and growth, working capital and long-term finance, and initial investment and refinancing or exit. Different funds and institutions can bridge different transitions. Integrated capital platforms may help coordinate support across stages, but they are one emerging approach rather than a universal solution.



[“Scale and access to the Green Climate Fund: Big challenges for small island developing States”](#)



Section 3

Making Adaptation Investable

Blended finance is what allows the investability conditions introduced in Section 2 to be met in emerging and frontier markets — and its role is most consequential in LDCs and SIDS, where thin domestic capital markets, currency volatility, and small transaction sizes make conventional capital least willing to enter first.



3.1 Blended Finance as Market Infrastructure

Blended finance is a central strategy for investing in adaptation in emerging and frontier markets, particularly where a commercially viable opportunity faces a specific barrier involving risk, tenor, currency, affordability, preparation, transaction costs, or stage of development. Blended finance pairs catalytic capital, such as concessional and higher-risk financing, with market rate financing to build a market for the private sector. Tools include concessional capital such as philanthropy or other first-loss layers, guarantees, junior equity, and technical assistance. Each method is uniquely suited for different funds and markets to make investment in climate adaptation more attractive to private capital.

In 2025, multilateral development banks provided climate financing of USD 163 billion, including a significant volume of guarantees and other catalytic capital, helping mobilize private capital of up to USD 116 billion.¹ This underscores the critical role of catalytic capital in attracting private investment, which is the focus of this section. Blended finance provides capital structures for de-risking private capital and tools to address other investability gaps such as, on the demand side, pipeline development and product readiness.

Concessional capital provides for a spectrum of risk appetite at different layers and stages.

Catalytic public or philanthropic capital is needed to mitigate risk and enhance returns so that private capital will follow.

This critical funding approach is a blend of impact-first capital paired with market-rate capital from impact funds, corporates and other private actors. On average, each dollar of concessional capital in blended finance transactions has mobilized about four dollars of commercially priced capital, of which just under half has come from private investors, although adaptation has generally achieved lower mobilization ratios. The practical sequence for funds is to secure the catalytic anchor before commercial close, budget technical assistance as core infrastructure, and stage the investment raise from catalytic to DFI funding and finally commercial capital.

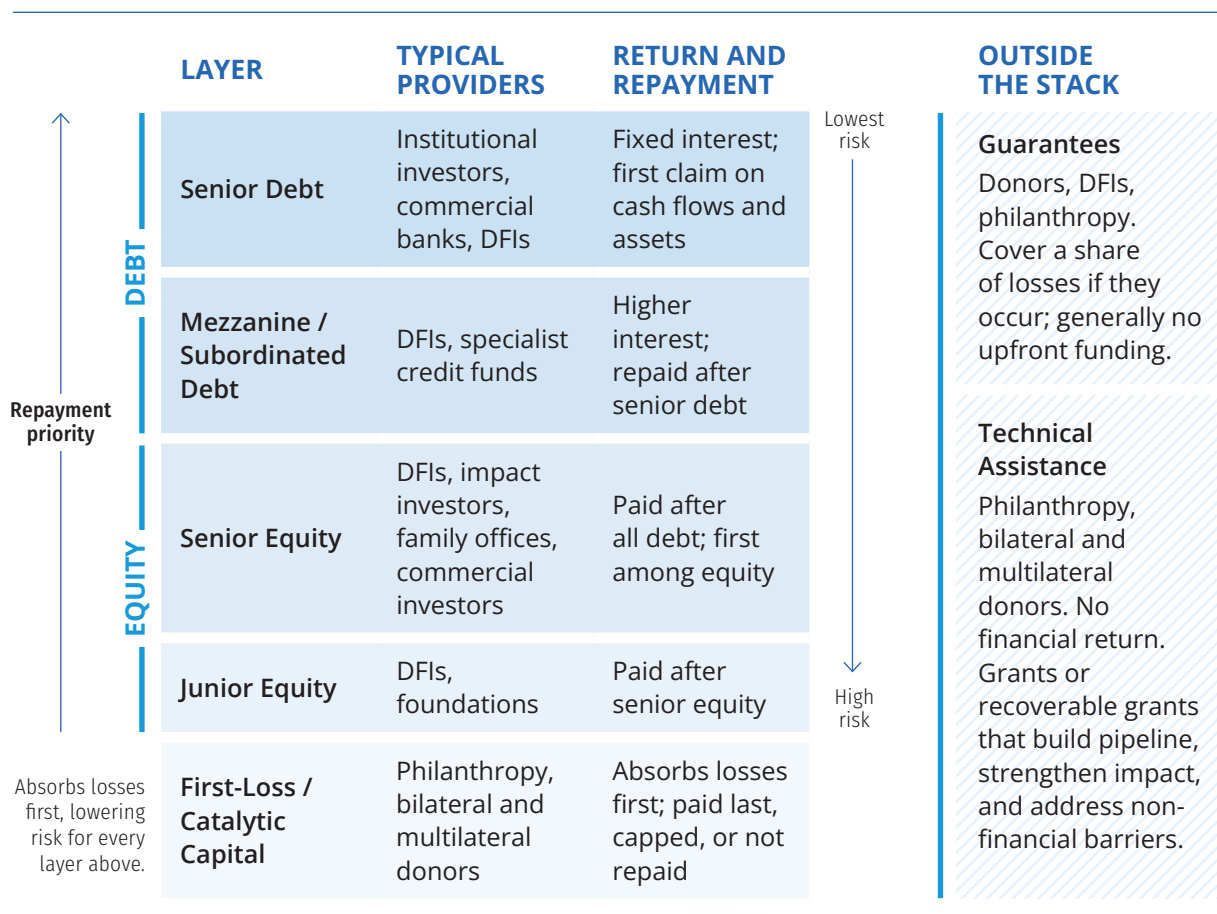
¹ 2025 Joint MDB Climate Finance Report (July 2026). European Investment Bank (EIB).

Examples from the Climate Adaptation Innovation Learning platform research show a range of structures (Figure 3). For example, Prosper Global Ventures layers first-loss capital from philanthropic funders, donor-advised funds and climate foundations; then

junior equity with a capped rate of return from foundations and DFIs; and finally market rate capital from DFIs, family offices, corporates and sovereign wealth funds with a grant-funded technical assistance (TA) facility alongside for post-investment support.

Figure 2. How Different Risk Appetites Combine in a Blended Finance Capital Stack

Generalized order of seniority

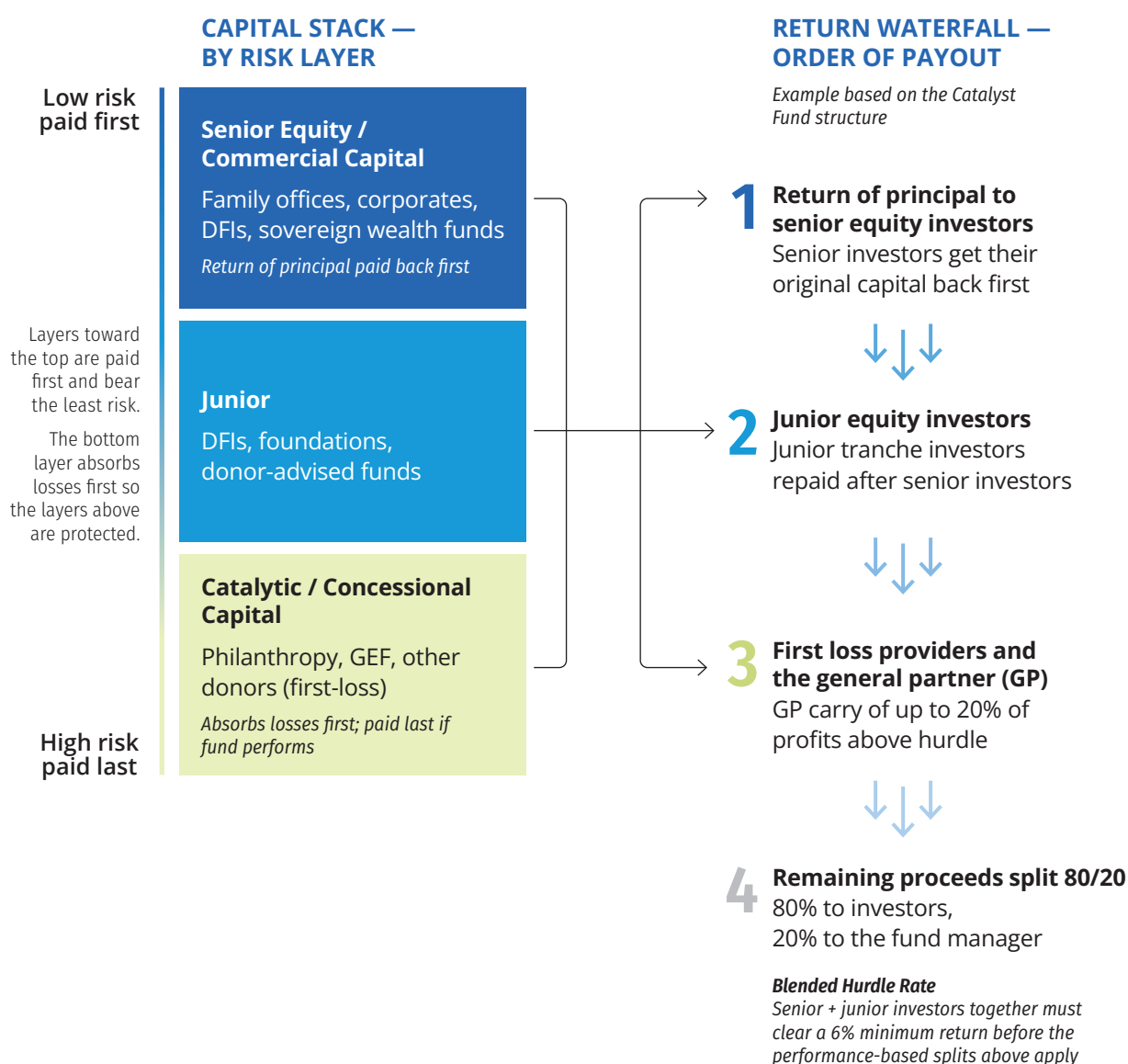


Few investment funds use every layer and, generally, fewer layers and a simpler structure are strongly preferred. Each layer matches a different investor's risk appetite. Lenders are repaid before equity holders, and within each group senior layers are paid first. Catalytic capital (including junior tranches), guarantees, and technical assistance make the senior layers investable.

Examples from this paper: the Catalyst Fund uses tiered equity (see Figure 3); the Kualu Fund pairs first-loss equity with concessional debt; and the EG-Economic Empowerment Fund adds a first-loss guarantee beneath its senior investors.

Figure 3. Illustrative Blended Finance Equity Fund Structure

Capital stack (risk layering) + return waterfall (payout order)



Downside Protection

If losses occur, catalytic capital at the bottom of the stack absorbs them first — shielding senior investors and improving their risk-adjusted return.

Upside Participation

If the fund performs well, catalytic investors are not just protected on the downside — they also share in returns above the 6% hurdle, alongside senior capital.

Figure 4. Blended finance tools and examples from the cases.

BLENDING FINANCE TOOL	EXAMPLE	STRUCTURE
Philanthropic funding	Ground Up Investing Prosper Global Ventures (formerly Mercy Corps Ventures)	Stacks philanthropic capital, capital preservation funds and subordinated debt Foundations interested in program related investment (PRI) or donor-advised funds
Anchor funding	Acumen: Acumen Resilient Agriculture Fund (ARAF) and Trellis funds	Green Climate Fund anchors the first-loss (junior) tranche – as the anchor, GCF support helps unlock additional junior and senior investments
First loss layer	GAWA	First-loss tranche underwritten by Green Climate Fund, European Union and COFIDES (Spanish DFI)
Junior equity	EG Capital Lightsmith Group	Junior equity layered beneath a senior commercial equity tranche
Subordinated debt	Lightsmith Group	Established (GEF-approved, 2025) an integrated investment platform Systemic Capital for Adaptation Localization and Expansion (SCALE) with both equity and debt to address use of capital needs simultaneously
Guarantees	Catalyst EG Capital	Guarantee to protect target returns for senior equity investors Finalizing a fund-level guarantee
Technical assistance	Prosper Global Ventures (formerly Mercy Corps Ventures)	Innovation & Scaling Lab: pre-investment pilots generate evidence and pipeline Venture Lab: post-investment growth support supports impact and growth

Early-stage innovation often depends on philanthropic capital as an initial catalyst. Development stage funding is often critical to seed new projects and ideas, before evidence can attract private capital. This leaves a funding gap for early-stage solutions, where an investment in a pre-seed stage company could take three to five years before the company reaches profitability and eight to twelve years to find an exit. This timeline drives the need for a longer-term capital stack, which may be difficult for investment funds to attract at scale. Ideally investors align follow-on fund managers and institutional investors that can be more flexible with capital, providing larger amounts of money, offering multi-year commitments, and imposing fewer constraints.

Climate Fund Managers helps projects get off the ground with one of the largest blended finance facilities that supports water, waste, and oceans infrastructure projects in emerging markets. The fund, Climate Investor Two, was formed in partnership with Dutch Fund for Climate and Development (DFCD) and the European Commission and is supported by a mix of development finance institutions, multilateral finance institutions, banks, and other commercial investors worldwide. The fund helps provide development stage funding from public-sector donors, which helps mobilize private-sector capital for the higher-risk construction stages.²

² <https://climatefundmanagers.com/funds/#ci2>

Commercial investors can be attracted for development stages by layering in first-loss capital.

Kuali Fund, managed by GAWA Capital, has a first-loss tranche underwritten by the Green Climate Fund alongside the European Union and the Spanish development institution COFIDES. GAWA's most recent funds use a blended structure, and tie their carried interest to impact performance across the capital stack, sometimes writing climate covenants into contracts. Newer first-time managers take a similar approach, layering senior commercial capital over junior and first-loss tranches, and design the concessional layer to be catalytic and time-limited, as a proof of concept intended to demonstrate viability, rather than to subsidize the asset class in perpetuity. Factor[e] uses grants and repayable grants (zero-interest loans) to cover operating costs or to take equity positions in companies. The terms of the repayable grants typically allow for the investment to be written off if an exit is achieved within a predefined lifetime, but the principal can be recycled if an exit later occurs.

Blended funds can also be debt-focused.

GAIA Climate Loan Fund provides long-term loans to climate adaptation and mitigation projects by combining public and private money to lower risk for commercial investors. The fund includes a junior tranche funded by public and concessional impact partners like the Green Climate Fund and FinDev Canada to absorb initial losses, which helps attract major commercial and institutional investors like MUFG Bank with reduced risk for the senior tranche. The fund also provides dedicated technical assistance and foreign exchange mechanisms to enable local currency lending, overcoming a persistent barrier to adaptation financing.

The investment case gets proven with middle layer capital.

The Lightsmith Group uses commercial investments to prove out the case that there are investable opportunities that generate market returns. Lightsmith's Climate Resilience Partners Fund (CRAFT) is a USD 186 million fund that has two parallel junior layers of capital in the fund. Several investors (Nordic Development Fund, Luxembourg Government, Rockefeller Foundation) subordinated their return of capital, part of their preferred interest, and some of their upside to senior capital. Junior capital is designed to create a greater pool of capital by crowding in and incentivizing senior capital that was seeking commercial

returns into the capital structure. At final close, the GCF also joined the fund to catalyze some additional capital into the fund as a parallel 25% junior capital layer.

The Infrastructure Resilience

Development Fund (IRDF) provides a related model specifically designed to attract insurance capital at scale. Developed with BlackRock's Global Infrastructure Partners and insurers including AXA, Swiss Re, and Zurich, the fund uses catalytic capital from IFC and PIDG to enhance the credit quality of a portfolio of non-investment-grade emerging-market infrastructure debt. The credit enhancement is intended to bring the portfolio to an average investment-grade risk profile, enabling insurers to invest at market-rate returns while directing substantially larger pools of private capital toward resilient infrastructure. The structure demonstrates the leverage catalytic capital can provide with relatively scarce public, and development finance to unlock the much deeper pools of institutional capital held by insurers.



"To have a very specific focus in a very specific region on a very specific sector... you have to sacrifice scale in order to do it. Big strategic investors who can provide the scale of capital we need...are looking for global diversification. They're looking for market-rate returns."

— BlackRock interview

Scaling up requires both debt and equity.

Lightsmith has extended its innovation to an integrated investment platform (SCALE) that provides both equity and debt to address both capital needs simultaneously. The mechanism utilizes a full menu of credit, equity, and TA instruments. SCALE blends commercial capital with subordinated debt, guarantees, and technical assistance to de-risk investments and mobilize private capital into emerging markets. Meanwhile, BlackRock and IFC have teamed up to create the Emerging Asia Infrastructure Credit Fund, a blended finance debt fund focused on emerging markets in Asia. The structure includes senior capital, mezzanine capital, subordinated debt, and junior tranches with IFC proposing up to USD 50 million of anchor capital.³

³ <https://business.inquirer.net/592012/ph-to-benefit-from-blackrock-ifc-backed-infra-credit-fund>

Debt can be expensive and companies are often over-leveraged. However, a debt vehicle has a specific repayment timeframe, collateral, loss-bearing position, and return expectation, while the return and liquidity for equity is less certain. Yet the equity layer is key to build transformational businesses that change systems. To meet that need, Acumen was created to be that first equity check. Catalyst Fund has also been successful with equity investments. Catalyst has three tranches for investors, two junior tranches that are catalytic and one senior tranche for more commercial investors. In the senior tranche, Catalyst has high net worth individuals, family offices, corporate foundations, and DFIs. These catalytic tranches help absorb the risk that returns are lower than expected.

Later stage investments can be supported with guarantees. In addition to the capital stack examples provided above, USD 11 billion of the USD 163 billion in funding from multilateral development banks (MDBs) was in the form of guarantees, including both adaptation and mitigation.⁴ While guarantees can be used at any stage of investment, this tool often comes in later stages, after projects are off the ground and moving into project financing. In 2025 IFC established the Catalytic First Loss Guarantee (CFLG) Facility and in July 2026 announced its first major agreement with Ipak Yuli Bank in Uzbekistan to expand local currency lending to MSMEs, with a full guarantee on the first-loss tranche.

Risk is not the only investability constraint that blended finance addresses.

Not all funding constraints are fundamentally a risk problem, and therefore not every investability gap should be addressed through de-risking or concessional investment capital. Some opportunities lack demand or a viable payer; others lack enterprise capacity, sufficient transaction size, appropriate evidence, project preparation, or an investable business model.

Technical assistance (TA) funding can provide support for pipeline development, capacity building, or ecosystem infrastructure. For example, Prosper Global Venture Lab develops pipelines by helping companies build the evidence base to raise commercial capital. The Lab designs, launches, and funds first-of-a-kind climate and financial resilience pilots to generate the evidence a technology needs to attract capital. Then their Venture Platform provides hands-on post-investment support for business growth across the portfolio. Likewise, Lightsmith's CRAFT used TA funding for project preparation and market-level entry analysis to bring in technology as soon as possible and transfer technologies to low-income countries and SIDS.

A technical assistance sidecar is also a tool at Acumen. TA funding often comes with a board seat, governance role and an advisory role, which is helpful for both business skills and fundraising. TA support is available on demand (although not always structured as a grant) so when the investee has a need, the company can approach the funder and say, "Can you help finance this new CRM? Or we need a CFO," and the TA funding can support the specific need.



An illustration of how a blended fund structure works shows how each layer takes a designated risk or return. In the Catalyst Fund structure, the investment layers work like this:

Catalyst has a hurdle investment return rate, such that the senior investors and junior investors together get a preferred-return threshold of 6%. Senior equity investors receive their principal back first, then junior A and B investors, *pari passu*. Then other junior equity and the general partners are paid out, with the fund manager receiving up to 20% and the remainder of the proceeds split 80/20. Catalyst provides downward risk protection to senior limited partners due to this catalytic concessional capital that helps protect the senior investors if losses occur. At the same time, if the fund does well, the catalytic investors participate in the upside.

⁴ 2025 Joint MDB Climate Finance Report (July 2026). European Investment Bank (EIB).

Spotlights:

- EG Capital demonstrates how a modest catalytic anchor and a credible manager can crowd in commercial and domestic capital to a category with no track record. EG Capital mobilized roughly 80% private capital at its first close, of which about half was from African local investors, mostly family offices.
- GAWA Capital shows that catalytic anchors are won on manager credibility as much as on structure, by attributing its access to scarce first-loss capital to the track record of its predecessor fund and to its accredited-entity partnership with COFIDES, reinforced by an impact-linked carry.
- Prosper Global Ventures illustrates how catalytic funding provides a market signal of confidence in the fund, which development finance institutions (DFIs) can then follow. The sequencing was catalytic capital that got the fund to first close and into the market, then the fund stayed open for institutional investors to complete diligence, using catalytic capital to drive commercial capital commitments.

Implications, opportunities, and remaining gaps.

The blended structures ease the high capital costs with concessionary capital that attracts private investors, while lowering the cost for borrowers or investees. However, several investors describe concessional capital as scarce and shrinking. Convergence reports that adaptation attracted only about USD 1.2 billion of the USD 18.3 billion of climate blended finance in 2023 and that adaptation deals mobilize less private capital per concessional dollar (roughly two-to-one) than mitigation.⁵ The same structural shortfall is evident across frontier regions: in Southeast Asia, just 12% of climate finance targets adaptation and barely 2% comes from private capital.⁶ While some appetite for adaptation and resilience (A&R) exists from regional corporates and governments, these actors generally lack the appropriate financial instruments or experience or don't understand the adaptation technology sector.

⁵ Convergence, *State of Blended Finance 2024: Climate Edition* (2024).

⁶ <https://ieefa.org/resources/scaling-adaptation-finance-southeast-asia>, UNDRR



Photo Courtesy of Pula

Funding for working capital is a specific gap. Most companies in emerging markets lack access to working capital or have access at very high levels of collateral or cost of capital. Companies find themselves “handing over all of their worth to the bank to prove that they can pay these loans” according to Acumen, which is evaluating better alternatives with more reasonable terms.

Cultivating more early-stage innovation and investment in the earliest and riskiest stages of innovation will support the growth of thousands of climate tech companies over time. In some cases, this funding will continue to depend on grants or public funding. Robust early-stage investing ecosystems with pre-seed and angel investments in startups will help more companies get off the ground. Over time, those startups will grow to attract and absorb capital at a much larger scale, providing value to both investors and communities.

Key takeaways for investment funds

- Treat the catalytic anchor as the cornerstone of the structure and secure it before commercial close.
- Budget and raise technical assistance in parallel with investment capital to build the pipeline and supporting infrastructure.
- Plan for the long term with a layered capital structure and identified follow-on funders as risk decreases.



“PH to benefit from BlackRock, IFC-backed infra credit fund”



3.2 Institutional Innovation

Funds are innovating to match risk appetite with new capital structures and to create ecosystems that address investability gaps in early-stage innovation. Innovations include adaptation-focused debt funds, resilience-linked insurance structures, flexible ticket sizing, local-currency approaches, ecosystem-building models and pipeline accelerators to reach markets and enterprises that conventional vehicles cannot.

Innovative capital structures for risk allocation:

- **Adaptation-focused, flexible debt funds.** EG Capital provides five-to-seven-year private credit where local banks offer only short-tenor money at 20–40% rates, financing the capital expenditure of climate-exposed SMEs.
- **Revenue-based financing.** Revenue-based financing is used to access capital in exchange for a percentage of future revenues, sized to seasonal and cyclical cash flows, and give enterprises equity-like upside without conventional equity risk. This financing can be blended with DFI or donor concessional capital.
- **Resilience-linked insurance.** Insurers are helping design new structures with the recognition that funding resilience is markedly cheaper than paying claims later. For example, EG Capital is building a liquidity-and-maturity facility listed in Nairobi which is backed by a commercial bank and the European Commission that lets pension funds and insurers participate without a ten-year lock-up.
- **Local-currency lending.** Currency risk can be addressed with programs that lend or accept repayment in local currency. For example, EG Capital lends in dollars to regionally diversified firms as a natural hedge while hedging local-currency borrowers, and draws roughly half its capital from domestic sources.
- **Results-based financing.** This emerging mechanism centers around payment structure, rather than risk transfer, and it de-risks the outcomes, not the capital. A growing number of funds are engineering new revenue streams from mitigation outcomes, monetizing measured environmental gains.⁷ Adaptation outcomes are not as established or consistent as mitigation, where GHG emission reductions are the primary outcome across a diversity of investments, so the goal is to provide incentives for specific measurable outcomes that matter to the donor or investor.⁸

⁷ <https://climataalk.org/2025/09/15/results-based-climate-financing-rewarding-real-climate-action/>

⁸ <https://www.climatefinancelab.org/news/adaptation-finance-six-key-steps/>

Ecosystem support to reach markets and enterprises that conventional vehicles cannot:

- **Pipeline accelerators.** Pipeline accelerators help uncover new business opportunities and develop product readiness and investable business models. For example, Prosper Global Ventures runs a Venture Lab that builds the missing evidence base for adaptation technologies. The Adaptation Innovation Lab launched by the Hazelwood Network helps early-stage entrepreneurs in emerging markets build and scale climate resilience solutions.
- **Technical assistance.** These grant-funded programs may focus on evidence generation, demonstration effects, coordination, learning, and ecosystem partnerships that improve the enabling environment for climate finance. For example, GAWA Capital runs a technical-assistance arm aimed at the market, convening smallholders, financial institutions, insurers, and technology providers with partners such as Consultative Group to Assist the Poor (CGAP), a think tank focused on financial inclusion research and policy, and TechnoServe, which focuses on poverty alleviation. Technical assistance may serve an individual organization or target systemic bottlenecks that extend beyond the mandate or capacity of any individual institution.
- **Tech brokering.** Factor[e] uses flexible concessional capital for a practice known as “tech brokering,” where they support technology to go to market in areas like Sub-Saharan Africa to create outsized impact. This is an example of innovative ecosystem-building deploying blended finance.



Photo Courtesy of Pala

Enterprise support for early-stage innovation:

- **Pull finance.** In these incentive models funders offer rewards for successfully delivering a predefined result to create market demand and encourage innovation. For example, pull finance can incentivize producers to quickly design and take to market new solutions for a specific need. The types of mechanisms include an advance market commitment, prizes and challenges, and Results-Based Financing. For example, Instiglio is launching the Pull Finance Initiative for Climate Adaptation in the Caribbean. By collaborating with donors and the private sector, the Instiglio initiative will contribute to the evidence base on climate adaptation technologies in SIDS and pave the way for more effective climate finance. Adaptation Asia's Panra fund for agriculture has a related strategy with plans to monetize measured environmental and biodiversity outcomes to build new revenue streams, operating through a voluntary outcome-credit market.
- **Recycling capital and unlocking idle pools.** Acumen has an institutional innovation aimed squarely at exits: development banks using grant capital to build a pipeline and then buying out early investors as businesses de-risk. Dutch Entrepreneurial Development Bank (FMO) is deploying grant capital to incubate businesses so that early risk-takers are repaid and their capital recycles into the next group of young companies.⁹
- **Untapped capital pools.** Acumen also flags a large untapped pool: roughly USD 326 billion in United States donor-advised funds (DAFs), which policy or incentives could unlock. Prosper Global Ventures identifies a different untapped pool. In the markets where it invests, corporates and governments already have demand for adaptation solutions and the balance-sheet liquidity to pay for them, but no vehicle to channel that liquidity into the early-stage ventures building those solutions. Bringing corporates in as limited partners is one route: firms whose supply chains are already climate-exposed have both the capital and the commercial self-interest to fund the ventures building resilience into them. This is the investability gap in its most literal form, with capital and need sitting in the same market and nothing to connect them.

- **Flexible ticket sizing.** Impact-driven companies are often too small to finance and, as a result, lose traction early on. It is often not feasible or efficient for fund managers to make small investments; development finance institutions rarely write checks below USD 5–10 million (see Figure 5).¹⁰ Ground Up Investing observes that at the earliest stage it is transaction cost, not the cost of capital, that is prohibitive, especially for smaller investments.
- **Transaction pooling.** Pooling transactions into larger funds can help reach smaller companies. The IRDF debt fund developed by BlackRock highlights the persistent tension between scale and impact. Highly targeted strategies can deliver more concentrated resilience outcomes, but narrowing investments by geography, sectors, and impact can limit the investable pipeline. Large insurers, by contrast, need sufficient volume and global diversification to deploy capital efficiently. Mobilizing institutional capital therefore requires balancing targeted adaptation impact with the scale, diversification, credit quality, and returns required by large asset owners.

Implications and opportunities. Funds need to build multi-instrument capability, reduce transaction costs with aggregation and portfolio construction, and pursue accelerator and ecosystem partnerships to create the pipeline upstream. This should be supported with an impact-measurement system with common definitions.

Yet the standard ten-year fund is too short for businesses that mature over ten to twenty years. Emerging secondary funds and evergreen structures are institutional responses still taking shape. Experience increasingly points beyond the single fund toward a continuum of capital, in which aligned pre-seed, growth, private-equity and debt vehicles let enterprises graduate across stages rather than stall at the pre-seed glut or the growth-stage bottleneck. This calls for an integrated adaptation platform across equity, credit, and technical assistance, consciously modeled on the green banks of climate mitigation. A permanent, multi-stage vehicle unconstrained by the ten-year horizon is, in several managers' view, the form the market ultimately requires.

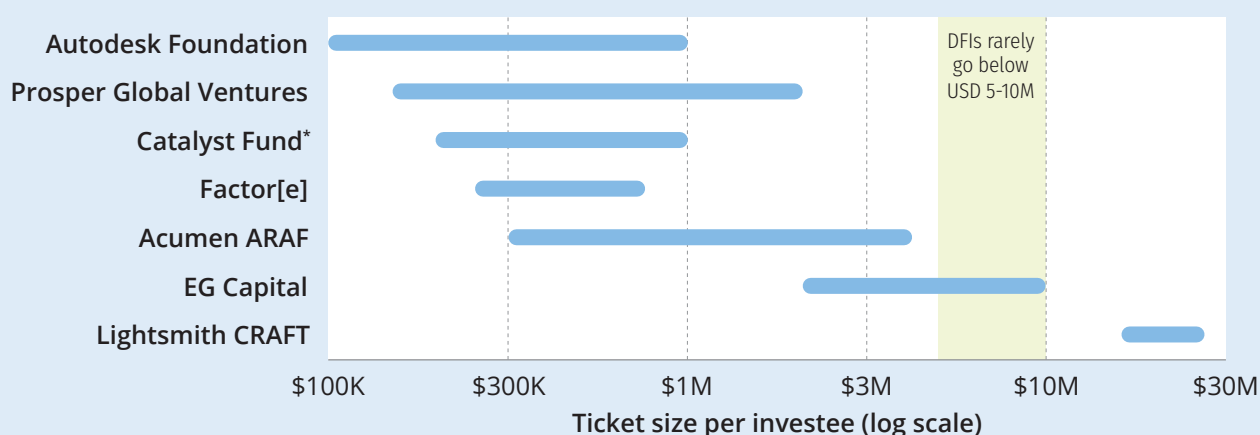
Key takeaways for investment funds

- Consider multi-instrument capability including debt, equity, working capital, and insurance-linked structures, reflecting the diverse financing needs of the growing adaptation and resilience market.
- Reduce transaction costs through aggregation and portfolio approaches; right-size ticket sizes to fit the fund's adaptation thesis.
- Mobilize local currency and domestic institutions, and design liquidity routes (secondaries, evergreen) that fit ten-to-twenty-year horizons.



"Breaking barriers to foster a new wave of entrepreneurs"

Figure 5. Funds as the bridge to small-ticket adaptation investment



¹⁰ OECD, *Blended Finance in the Least Developed Countries*.



3.3 Moving Beyond Risk Toward Value Creation

The most consequential theme in the Community of Practice is a shift from framing adaptation as risk mitigation to framing it as value creation: resilience that protects earnings, secures supply chains, lowers insurance exposure, and raises productivity is a commercial growth opportunity, not merely a hedge to ultimately make adaptation investable.

Resilience is a pragmatic growth opportunity, not only part of risk management. Value is created by enabling real businesses to continue operating and growing through climate stress. Mainstream market analysis now sizes the market for climate adaptation solutions as a trillion-dollar opportunity growing at more than 20% a year, and the operative question has shifted from whether resilience averts downside to where, on the near horizon, climate impact is already driving the demand and behavior change that create investable upside.

The funds translate that thesis into concrete channels of value. On operational resilience and earnings protection, EG Capital's thesis

is that every business must "asset-proof" its operations. For example, a Zambian agri-processor, cut to a few operating hours a day by the worst drought in two decades and facing two years of impaired results, financed its own solar facility to keep running. Adaptation served as protection of EBITDA and continuity, funded as ordinary capital expenditure.

On supply-chain continuity, EG ensures its capital reaches the farmers who supply its investees, reducing the procurement risk that would otherwise threaten the processor. On reduced insurance exposure, EG reports that insurers are co-designing its facility precisely because investing in resilience is roughly a quarter cheaper than paying out for the damage later.

On productivity gains, Ground Up Investing points to drip irrigation that turns subsistence farming into a year-round business, GAWA to technologies that move farmers out of a subsistence cycle into profitability, and EG to the productivity lost to heat stress that its human-capital investments address. Prosper Global Ventures points to tropical weather forecasting, flood-data analytics, climate insurance, and credit-enabled solar where the resilience benefit and the commercial product are the same thing. Customers pay for the adaptation outcome, which is why Prosper Global Ventures' Lab invests in proving the value where evidence is still missing.

Implications and opportunities. Funds should underwrite the business case rather than attempt to price a public good or avoided loss. We will never know the counterfactual — the climate disaster that did not happen. However, benefits such as avoided downtime, protected margins, secured inputs, lower claims, and higher yields can clearly contribute to a business case to attract commercial capital.

Thus, the field should lead with the business case and growth story rather than the loss it is trying to prevent.

The same reframing indicates how the field may over-price risk. For example, Acumen argues that much of the risk premium demanded of African markets reflects a pricing problem as much as an actual-risk problem: without a continental rating agency, investors struggle to price risk accurately, which can lead to more de-risking being demanded than the underlying performance would suggest — even as Acumen's climate portfolio has repaid reliably.

Measurement is a persistent gap. Acumen cannot easily price avoided loss. Ground Up Investing struggles to evidence the catalytic “alpha” of entering early. Both point to the need for shared vulnerability and adaptation metrics. The field is now building this infrastructure with dedicated adaptation taxonomies and investment-principle frameworks, parallel impact-measurement systems, and embedded climate technology that quantifies outcomes such as soil health and crop coverage. In-house diligence tools can surface adaptation value in companies that rarely self-identify as resilience businesses.

Public-good resilience for roads, drainage, and coastal defense sits largely outside the private, revenue-based value logic and is less featured in private-sector funds. A value-capture model for these types of public infrastructure investments has yet to be found. The monetization of measured outcomes through environmental and biodiversity credits hints at one possible route, but these markets are small, remain voluntary and, if not scaled carefully, could exacerbate inequities.

Key takeaways for investment funds

- Underwrite the commercial case for resilience, such as business continuity, protected margins, secured inputs, lower claims, higher yields.
- Lead with the growth opportunity, not avoided-loss framing, when engaging commercial investors and corporates.
- Invest in shared impact and vulnerability metrics so the value created can be priced, reported, and rewarded.



Photo Courtesy of Prosper Global



3.4 Gender as Market Intelligence

Gender is not an ancillary impact screen for investment in climate adaptation. It is a source of market intelligence, a way to identify overlooked businesses and customers, and a discipline for designing products, workforces, supply chains, and financing structures that perform under climate stress. The strongest approaches move beyond counting women in ownership or leadership and integrate an intersectional gender lens across strategy, sourcing, due diligence, investment decisions, portfolio support, and measurement. This makes adaptation more inclusive while also strengthening investability.

Climate vulnerability stems not only from exposure to physical hazards but from unequal access to land, finance, information, technology, mobility, and decision-making. The IPCC identifies gender as one determinant of vulnerability and adaptive capacity, alongside income, age, ethnicity, and other social factors.¹¹ World Bank research in rural Sub-Saharan Africa finds that women face greater barriers to adopting climate-smart agriculture, purchasing weather insurance, and diversifying income.¹² For investors, these conditions affect who can buy and use a product, whether supply chains recover after a shock, and whether an enterprise can recruit and retain the workers it needs.

¹¹ Intergovernmental Panel on Climate Change (IPCC). 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II contribution to the Sixth Assessment Report, Technical Summary and Chapter 18. <https://www.ipcc.ch/report/ar6/wg2/>

¹² World Bank, Africa Gender Innovation Lab. 2025. Women and Climate Adaptation in Rural Sub-Saharan Africa: Constraints and Research Priorities. <https://openknowledge.worldbank.org/entities/publication/eefc27a2-cd54-44bb-a9b3-256efa73786f>

Women as agents of change and sources of investment insight. Heading for Change argues that women should be recognized across the full value chain — as capital allocators, entrepreneurs, executives, workers, suppliers, customers, and household financial decision-makers — rather than only as vulnerable beneficiaries.^{13 14} This broader lens can reveal underserved demand and financing gaps. IFC reports that only 7% of venture capital in emerging markets and 10% of global climate-tech investment reaches women-led businesses.¹⁵ Yet the opportunity extends beyond women founders to product design, job quality and safety, procurement, distribution, and customer access. These mechanisms must be tested in the relevant sector and geography; gender inclusion should not be assumed to improve returns automatically.

¹³ Heading for Change. 2025. Climate and Gender Due Diligence Questionnaire, in the Heading for Change Investment Toolkit. <https://www.headingforchange.org/headingforchange-tools>

¹⁴ Heading for Change. “Investment Strategy: An Integrated Climate and Gender Lens.” <https://www.headingforchange.org/hfc-investment-strategy-1>

¹⁵ International Finance Corporation (IFC). “She Wins Climate: Accelerating Women-Led Innovation and Investment.” <https://www.ifc.org/en/what-we-do/sector-expertise/gender/gender-inclusive-climate-investment/she-wins-climate>

From a screen to an investment process.

Heading for Change's toolkit applies an integrated climate-and-gender lens through an Investment Guide, due-diligence questionnaire, scorecard, and portfolio-construction tool.¹⁶ The 2X Criteria provide a complementary standard covering entrepreneurship and ownership, leadership, employment, supply chains, products and services, and portfolio performance.¹⁷ In practice, funds can define the gendered climate problem at the thesis stage; assess who experiences the hazard, uses and pays for the solution, and controls productive assets during diligence; document material risks and opportunities in investment committee decisions; and translate priorities into proportionate action plans, covenants, incentives, or technical assistance. Measurement should focus on changes tied to the thesis — such as access, job quality, safety, income or adaptive capacity — rather than maximizing the number of indicators.^{18,19}

Evidence from the Community of Practice.

²⁰ WEAV Capital (Women's Enterprise Acceleration Vehicle) screens every investment through both gender-smart and climate-smart criteria. GAWA Capital reports that roughly 70% of its investees align with the 2X Challenge, uses a dedicated gender questionnaire and incorporates gender action plans into investment terms. GAWA also declined an otherwise inclusive microfinance opportunity because its core product financed diesel motorcycles, demonstrating that a gender outcome does not compensate for a weak climate thesis.

¹⁶ Heading for Change. 2025. "Launching the Heading for Change Investment Toolkit"; and Heading for Change Tools. <https://www.headingforchange.org/news-blog/hfc-investment-toolkit-launch>

¹⁷ 2X Challenge. 2025. 2X Criteria Reference Guide (updated September 2025). <https://www.2xchallenge.org/s/2025-2X-Criteria-Reference-Guide.pdf>

¹⁸ UN Women. 2022. Gender-Lens Investing in Climate and Disaster Risk Finance: Step-by-Step Guidance for Investors. https://wrd.unwomen.org/sites/default/files/2022-09/InsuResi_GenderLens_220919-2.pdf

¹⁹ 2X Challenge, CDC Group and Global Impact Investing Network. 2020. How to Measure the Gender Impact of Investments: Using the 2X Challenge Indicators in Alignment with IRIS+. <https://www.2xchallenge.org/press-news/2020/03/16/cdc-group-gi-in-and-the-2x-challenge-create-aligned-gender-impact-metrics-in-major-boost-to-advance-womens-economic-empowerment-and-gender-equality>

²⁰ Climate Adaptation Innovation Learning Community of Practice primary interviews with WEAV Capital, GAWA Capital, EG Capital, Ground Up Investing, Acumen, and Mercy Corps Ventures.

Other managers interviewed through the Climate Adaptation Innovation Learning platform reach women and climate-exposed communities through microfinance institutions, cooperatives, smallholder supply chains, inclusive finance, green skills, and worker-facing technologies.

The delivery model is often as important as the investee's ownership.

GAWA reaches women and base-of-the-pyramid enterprises through microfinance institutions and cooperatives. EG Capital and Ground Up Investing work through processors, smallholders and rural communities, where farmer resilience also protects enterprise supply chains. Acumen emphasizes localized value creation, green skills, and worker technology, while youth employment remains part of Prosper Global Ventures' inclusive-finance and climate portfolios. These examples widen the analysis from who leads a company to how capital, products and operating practices affect women's ability to withstand climate shocks and participate in the value created.

Sector-specific value creation. A generic commitment becomes useful when translated into the business model. In agriculture, unequal access to land, collateral, extension services, inputs, and insurance can shape distribution, underwriting, and customer adoption.²¹ In mobility and logistics, scheduling, sanitation, personal safety and exposure to gender-based violence and harassment can affect women's participation as workers and customers.²² In financial services, targeted green credit, leasing and insurance can reach women-led enterprises while sustainability-linked incentives can reward inclusion outcomes.²³ These interventions can expand demand, improve retention or protect supply continuity, but the commercial mechanism should be demonstrated rather than assumed.

²¹ World Bank, Africa Gender Innovation Lab. 2025. Women and Climate Adaptation in Rural Sub-Saharan Africa: Constraints and Research Priorities. <https://openknowledge.worldbank.org/entities/publication/eefc27a2-cd54-44bb-a9b3-256efa73786f>

²² British International Investment and SIFEM. 2022. Managing Labour Risks and Opportunities of Platform Work: Guidance for Investors. https://assets.bii.co.uk/wp-content/uploads/2022/10/25124342/Platform-work-guidance_BII-and-SIFEM.pdf

²³ International Finance Corporation (IFC), How Employers Can Accelerate Inclusive Jobs in Green Transitions (2026), <https://www.ifc.org/content/dam/ifc/doc/2026/how-employers-can-accelerate-inclusive-jobs-in-green-transitions.pdf>



Credit: Tracey Jennings / Ocean Image Bank

Governance and measurement reinforce the strategy. IFC research in emerging markets finds that gender-responsive climate governance is associated with stronger board oversight, management accountability and inclusive business practice, and identifies sustainable-finance instruments with gender and climate performance indicators as one mechanism for action.²⁴ At the portfolio level, 2X and IRIS+ aligned indicators can reduce reporting fragmentation.²⁵ Funds should still select a limited set of measures that reflect the investment thesis and the investee's operating reality, such as customer access, job quality, supplier participation, safety, or adaptive capacity.

Capital and technical assistance make the lens actionable. Early-stage companies may need support to research customers, redesign products, improve workplace safety, recruit women, develop suppliers, or build data systems. Technical-assistance grants can cover these costs, while catalytic capital can absorb some of the early risk of reaching an underserved segment. IFC's She Wins Climate program combines acceleration, investor connections and capacity-building for women-led climate ventures, while its fund-manager platform supports climate-focused venture funds to develop gender action plans.²⁶ Gender-responsive governance and instruments with both gender and climate performance indicators can reinforce accountability at company and portfolio levels.²⁷

²⁴ International Finance Corporation (IFC). 2024. Gender-Responsive Climate Governance and the Role of Women Leaders. <https://www.ifc.org/content/dam/ifc/doc/2024/gender-responsive-climate-governance-report.pdf>

²⁵ 2X Challenge, CDC Group and Global Impact Investing Network. 2020. How to Measure the Gender Impact of Investments: Using the 2X Challenge Indicators in Alignment with IRIS+. <https://www.2xchallenge.org/press-news/2020/03/16/cdc-group-giin-and-the-2x-challenge-create-aligned-gender-impact-metrics-in-major-boost-to-advance-womens-economic-empowerment-and-gender-equality>

²⁶ International Finance Corporation (IFC). "She Wins Climate: Accelerating Women-Led Innovation and Investment." <https://www.ifc.org/en/what-we-do/sector-expertise/gender/gender-Inclusive-climate-investment/she-wins-climate>

²⁷ International Finance Corporation (IFC). 2024. Gender-Responsive Climate Governance and the Role of Women Leaders. <https://www.ifc.org/content/dam/ifc/doc/2024/gender-responsive-climate-governance-report.pdf>

Implications and remaining gaps. Gender should be treated as part of underwriting and value creation, not post-hoc reporting. An intersectional approach is essential because gender interacts with income, geography, disability, ethnicity, age, and other factors.²⁸ The strategy also faces fundraising headwinds: WEAV Capital reported that leading with "gender" and "climate" could end conversations before the investment case was understood. Catalytic funders and limited partners can help preserve the discipline by requiring credible integration, financing technical assistance and rewarding performance.

Key takeaways for investment funds

- Treat gender as decision-useful investment information: analyze who experiences climate risk, controls assets, buys and uses the solution, supplies the business, and participates in value creation. Track a focused set of gender data over time and use it to refine products, operations, and portfolio support so that inclusion and value creation are sustained and drive both financial, and impact performance.
- Integrate gender across sourcing, diligence, investment decisions, legal terms, portfolio support, and measurement — not only post-investment reporting.
- Develop sector- and geography-specific theses; test the commercial mechanisms rather than assuming that gender inclusion automatically improves returns.
- Pair legal agreements with technical assistance, and catalytic capital so companies can redesign products, improve job quality and safety, strengthen suppliers and build credible data systems.

²⁸ World Health Organization. "Gender and Health: Intersectionality." <https://www.who.int/health-topics/gender>



[IPCC Sixth Assessment Report: Impacts, Adaptation and Vulnerability](#)

[Heading for Change Tools](#)

[Heading for Change Investment Strategy](#)

[She Wins Climate: Accelerating Women-Led Innovation for Climate Action](#)

[Catalyzing change at the climate-gender nexus: Launching the Heading for Change Investment Toolkit](#)

[2X Challenge Criteria Reference Guide](#)

[Gender-Lens Investing in Climate and Disaster Risk Financing and Insurance \(CDRFI\) Solutions](#)

[Women and Climate Adaptation in Rural Sub-Saharan Africa: Constraints and Research Priorities](#)

[Managing labour risks and opportunities of platform work](#)

[2X Challenge launches aligned gender impact metrics in major boost to advance women's economic empowerment and gender equality](#)

[Gender-Responsive Climate Governance and The Role Of Women Leaders](#)

[World Health Organization: Gender and Health](#)



SunCulture farmer, an Equator VC portfolio company

3.5 Synthesis: what this means for investment funds

Blended finance is key, but there is no single model. The evidence confirms blended finance as a key strategy for converting commercially plausible adaptation opportunities into investments in emerging and frontier markets, but it does not identify one binding constraint or institutional model. Blended finance adds the most value where catalytic and commercial capital, technical assistance and market-building support are combined to address a specific mismatch involving preparation, risk, tenor, currency, affordability, transaction costs, or stage of development. Integrated platforms offer one promising way to coordinate these functions across stages, but they sit alongside specialized funds, domestic institutions and other models rather than representing the market's only end-state. Blended finance cannot substitute for underlying demand, a viable business model or workable market conditions.

Sources

Climate Adaptation Innovation Learning Community of Practice: GARI-hosted "Blended Finance for Adaptation and Resilience" webinar and related UNIDO/GARI summaries; and primary study interviews with EG Capital, GAWA Capital (Kuali Fund), Acumen, Mercy Corps Ventures (Resilient Future Fund), WEAV Capital, Ground Up Investing, the Lightsmith Group (CRAFT / Climate Resilience Partners Fund), the Catalyst Fund (Resilient Fund) and Adaptation Asia (Panra Fund).

Convergence (2024), State of Blended Finance 2024: Climate Edition — market context on adaptation deal volumes and mobilization ratios.

OECD, Blended Finance in the Least Developed Countries — context on guarantees as the leading mobiliser in LDCs and on DFI transaction thresholds.



["Blended Finance for Adaptation and Resilience"](#)



Section 4

Cross-Cutting Findings

The evidence does not point to a single model for investing in adaptation. It shows how different funds, investors, and market-building organizations address different parts of the investability gap. Climate-shaped demand is often already visible, but commercial potential does not automatically translate into current investability. Across the cases, blended finance is a recurring means of bridging that distance — combining catalytic and commercial capital with technical assistance, flexible instruments, risk-sharing, and market-building support. Its role varies by market and stage, and it is most useful where it addresses a clearly identified constraint.

This section highlights key cross-cutting findings from eleven case studies and the broader interviews and discussions conducted through the Climate Adaptation Innovation Learning Community of Practice. As introduced in Section 1.3, the cases span early-stage venture capital, venture building, private credit, growth equity, infrastructure debt, philanthropic capital, and blended investment platforms.

The cases are illustrative rather than representative of the entire market of adaptation investors focused on the Global South. Some organizations manage active portfolios, while others remain in fundraising, design, or early deployment.

Despite these limitations, there are clear conclusions about the state of the adaptation and resilience finance market today. This section presents four key findings. See Appendix A for complete case studies.

4.1 Four cross-cutting findings

Finding 1. Climate-shaped demand is present, but does not automatically produce investment

Across the cases, managers identified businesses responding to recognizable needs: agricultural productivity, reliable water and energy, supply-chain continuity, insurance, risk analytics, financial inclusion, resilient infrastructure, and technologies that allow businesses and communities to continue operating under changing climate conditions.

The constraint is therefore not always an absence of demand. In many of the markets examined, consumers, businesses, financial institutions, or governments already need the product or service being offered. The challenge is connecting that demand with an enterprise capable of responding, a business model that captures sufficient value and revenue streams, and capital suited to the opportunity. The cases suggest that blended finance is often what allows investors to act on that commercial potential when conventional capital alone does not yet fit the enterprise's stage, market, risk, or time horizon.

This helps explain why climate resilience functions primarily as an investment lens across existing sectors and investment strategies. The organizations examined invest through venture equity, private credit, growth equity, infrastructure debt, philanthropic capital, and blended platforms. Specialized adaptation products and vehicles are emerging, but the evidence does not point to one uniform adaptation asset class.

Sector-first language often is more effective for communication with private sector partners. Several managers also reported that sector-specific language — agriculture, water, infrastructure, insurance, financial services, or data — can communicate the commercial proposition more effectively than leading with adaptation terminology. Sector-first positioning does not eliminate the need for adaptation integrity. Investors can still assess the climate vulnerability addressed, the pathway to resilience, and potential maladaptation risks using CRISP or related approaches discussed in Section 2.

The cases do not establish that every adaptation need supports private investment. Public-good benefits, affordability constraints, and value that cannot be captured through an enterprise or transaction remain important boundaries. Public and philanthropic funding continues to play a central role where revenue or repayment cannot support commercial capital.

Finding 2. The investable pipeline is built through multiple institutions

The cases show that investability is rarely produced by an enterprise acting alone. Fund managers and market-building organizations frequently originate opportunities, test products and business models, prepare transactions, support management and governance, develop market partnerships, and connect companies with co-investors and follow-on capital.

Support also serves different purposes at different stages. Pre-investment grants, pilots, and preparation help establish commercial viability and create pipeline. Post-investment assistance helps portfolio companies execute and grow. Ecosystem-level support strengthens local intermediaries, partnerships, evidence, and market capacity beyond a single company or fund.

Funds build the ecosystem, not just the portfolio. Outrigger Impact emphasized that funds contribute to the adaptation ecosystem through origination, structuring, networks, mentoring, public partnerships, and co-investor mobilization — not only through the capital they deploy. GAWA Capital similarly described technical assistance that supports evidence, coordination, learning, and partnerships across the wider ecosystem.

These functions are not obligations for every investor. They help explain the importance of specialized fund managers, accelerators, venture builders, technical-assistance providers, philanthropies, DFIs, and locally embedded intermediaries. Later-stage investors may rely on the pipeline these institutions help create without performing all the upstream work themselves.

Finding 3. Capital gaps recur at multiple transitions

The evidence does not reveal one missing middle. It reveals gaps between grants and seed investment, early commercialization and growth, working capital and long-term finance, sub-investment-grade opportunities and institutional capital, and initial investment and refinancing or exit.

The cases studied each bridge a different financing stage, from early grants to institutional capital. Early-stage organizations help companies demonstrate commercial viability and attract subsequent investment. Patient-capital and growth investors support businesses that have moved beyond the pilot stage but remain poorly served by conventional capital. Private-credit and infrastructure strategies respond to working-capital, tenor, currency, liquidity, scale, and credit-quality constraints.

The findings support a constraint-specific approach to blended finance. Catalytic capital is most useful when it addresses a named barrier involving risk, preparation, currency, tenor, affordability, transaction costs, or institutional requirements. Its role is not simply to make investments more attractive, but to finance activities, bear risks, or accommodate timelines that commercial investors are not positioned to take on independently. It is less useful where the underlying problem is absent demand, a weak business model, or an enterprise that is not ready to absorb investment.

The findings also caution against expecting one vehicle to finance the full continuum. Integrated platforms may help coordinate different forms of capital and support across stages, but they are one emerging model rather than the market's inevitable end-state. Each vehicle can make a clearer contribution by defining the transition it addresses and connecting with the capital providers positioned before and after it.

Finding 4. Scale depends on local intermediation and institutional fit

The first three findings hold broadly across markets. The fourth does not: even where demand, capital, and institutional support all align, scale still depends on local fit. Similar investment opportunities may require different investment approaches depending on geography, currency, regulation, transaction size, domestic financial institutions, and the requirements of the intended investor.

Local banks, insurers, pension funds, corporates, fund managers, and other domestic institutions can contribute market knowledge, origination, distribution, currency alignment, and longer-term capital. Their participation may nevertheless be limited by liquidity, regulation, credit requirements, or unfamiliarity with adaptation-related technologies and business models.

Aggregation can help where commercially relevant opportunities are too small or dispersed for larger investors. Local intermediation can reduce transaction costs and improve access to smaller enterprises and communities. Guarantees, credit enhancement, or technical support can help domestic and institutional investors participate where specific constraints prevent them from doing so.

Institutional fit remains essential. A structure designed for an early-stage impact investor will not necessarily meet the scale, liquidity, credit quality, duration, or portfolio requirements of an insurer or pension fund. Opportunities are more likely to attract institutional capital when those requirements shape vehicle design from the beginning rather than being considered after the strategy and pipeline are already fixed.

The evidence supports a diverse market architecture. Specialized funds, domestic institutions, local intermediaries, aggregation

vehicles, and integrated platforms each perform different functions; no single model fits every market or stage.

4.2 What the evidence can and cannot establish

The research provides meaningful evidence about how funds identify opportunities, structure capital, develop pipelines, and address recurring market constraints. It provides less comparable evidence about long-term financial performance and adaptation outcomes. Two evidence questions remain distinct.

Financial and operating evidence includes deployment, revenue, repayment, defaults, losses, follow-on investment, refinancing, and exits. Because several vehicles remain in fundraising or early deployment and comparable transaction-level data are limited, the research cannot establish that adaptation investments systematically produce higher returns or lower risk.

Individual cases demonstrate plausible channels through which resilience can protect revenue, reduce disruption, secure inputs, increase productivity, or lower claims. Whether those benefits consistently translate into stronger investment performance, and at scale, remains an important hypothesis to test.

Adaptation evidence concerns the climate vulnerability addressed, the pathway to resilience, the significance of the solution, relevant beneficiaries or assets, and potential maladaptation risks. Frameworks and metrics can support identification, accountability, and reporting, particularly where LPs or DFIs have explicit adaptation mandates. The evidence does not show that these tools independently create commercial investor demand.

Fund managers also described limited benchmarks and comparable transactions in many of their markets. This establishes an information gap that can complicate underwriting and pricing. It does not establish that actual risk is consistently lower than perceived risk. Nor should data be treated as the binding constraint in every case; the immediate problem may instead be capital stage, tenor, currency, ticket size, or enterprise readiness.

The evidence base also has important limitations. The cases were selected to illustrate different models, not to represent the wider market. Their geographic coverage is broader than the paper's focus on LDCs and SIDS, with limited direct evidence from SIDS-focused strategies. Most quantitative information was provided by participating organizations and was not independently verified. The research is also stronger on fund-manager and investor perspectives than on those of governments, regulators, enterprises, customers, and communities.

These limitations define the conclusions that can responsibly be drawn. They do not diminish the value of the cases as evidence of emerging investment approaches and the specific constraints those approaches seek to address.

4.3 At a Glance

In summary, the evidence supports five conclusions:

1. First, climate resilience is primarily an investment lens applied across established sectors and strategies, although specialized adaptation products and vehicles are emerging.
2. Second, climate-shaped demand is often visible, but it becomes investable only when connected with a viable enterprise, appropriate capital, and workable market conditions.
3. Third, the investable pipeline depends on institutions that originate, prepare, support, aggregate, and connect opportunities — not only on the availability of capital.
4. Fourth, financing gaps recur at multiple transitions and are often rooted in familiar emerging-market constraints. Where demand and commercial potential exist, blended finance can be critical to converting that potential into current investability — provided it addresses a specific barrier and is suited to the opportunity's stage and market.
5. Fifth, no single vehicle or platform closes the full investability gap. Progress depends on stronger connections among specialized funds, local intermediaries, domestic institutions, and capital providers operating at different stages.



Section 5

Priorities for Closing the Investability Gap

The next phase of the market depends less on proving that adaptation presents an investment opportunity at a macro-level and more on building the practical connections that allow investors to see specific opportunities and act on them. In emerging and frontier markets, blended finance is a key part of that work: it can combine catalytic and commercial capital with technical assistance and market-building support to address the specific constraints that prevent viable opportunities from absorbing investment.

The evidence points to five priorities. They are framed around market functions rather than individual stakeholders because responsibility for closing the investability gap is distributed across enterprises, investors, fund managers, capital providers, intermediaries, and public institutions. More detailed policy and regulatory recommendations sit beyond the scope of this paper.

Priority 1

Diagnose the constraint before designing the solution

After identifying an adaptation and resilience investment opportunity, capital providers should begin with four questions:

1. Is there existing climate-shaped demand and a viable commercial proposition?
2. Is the enterprise or transaction ready to absorb investment?
3. Is capital available on terms suited to its stage, market, and business model?
4. Do wider market conditions allow the opportunity to be financed and scaled?

This diagnosis distinguishes among constraints that are often grouped together under the adaptation finance gap. An opportunity limited by working capital requires a different response from one limited by enterprise readiness, customer affordability, foreign-exchange exposure, transaction size, or the absence of follow-on investors.

Diagnosing the constraint also clarifies the boundaries of private investment.

Where climate-shaped demand supports a viable business, the challenge may be connecting that opportunity with appropriate capital. Where resilience benefits cannot drive sufficient revenue, repayment, or cost savings, public or philanthropic funding may remain the appropriate solution.

Priority 2

Use blended finance to address a named constraint

Blended finance structures are most useful when designed around a defined constraint rather than around the availability of a particular instrument or source of concessional capital. Depending on the opportunity, the constraint may involve enterprise preparation, risk, currency, tenor, collateral, affordability, transaction costs, scale, or institutional requirements.

The form of support can then be matched to the constraint: grants for preparation, technical assistance, or evidence generation; guarantees for defined risks; junior or patient capital where additional risk-bearing capacity is needed; local-currency finance for foreign-exchange exposure; flexible instruments aligned with enterprise cash flows; or aggregation where transaction size is the barrier. The objective is not to maximize concessionality, but to allocate costs and risks to the actors best positioned to bear them and enable appropriate commercial capital to participate.

This is not a fundamentally new role for blended finance. Many of the constraints facing adaptation businesses are familiar features of emerging and frontier markets. Adaptation can make the need more acute because solutions may be newer, benefits can be difficult to capture fully, and businesses may require longer development timelines. Structures benefit from identifying what catalytic support is expected to change and how its role may evolve as enterprises, funds, and markets mature.

Effectiveness should not be assessed solely by the amount of commercial capital mobilized into an initial transaction. In less-developed markets, blended finance may also build a credible pipeline, generate evidence, strengthen intermediaries, establish a transaction history, or enable enterprises to reach the stage at which commercial capital can participate. These outcomes should still connect to a plausible pathway toward greater commercial sustainability or market development.

Priority 3

Fund the functions that create an investable pipeline

A limited investment pipeline does not necessarily indicate an absence of demand. It may reflect gaps in venture building, enterprise development, transaction preparation, origination, technical assistance, aggregation, or local intermediation.

These functions operate at different stages:

- Pre-investment support establishes commercial viability and prepares enterprises or transactions for capital.
- Post-investment support strengthens execution, governance, distribution, and growth.
- Ecosystem-level support develops intermediaries, partnerships, knowledge, and market capacity beyond a single investment.

Not every investor needs to perform these functions. But fund and market design benefit from identifying who will perform them, how they will be funded, and how they connect opportunities with subsequent capital. Blended structures often provide the grants, technical-assistance facilities, patient capital, or ecosystem-level support needed to sustain these functions when commercial investment alone cannot fund them.

Priority 4

Design pathways across capital stages

Capital gaps recur between pilots and seed investment, early commercialization and growth, working capital and longer-term finance, sub-investment-grade opportunities and institutional capital, and initial investment and refinancing or exit.

Each vehicle is most useful when it clearly defines the transition it addresses and structures its capital accordingly.

The relevant considerations extend beyond debt versus equity to ticket size, tenor, currency, collateral, flexibility, seniority, repayment priority, and the enterprise's actual cash flows. Blended finance can help bridge these transitions, but no single vehicle should be expected to finance the full continuum.

Follow-on and refinancing pathways also benefit from earlier planning. The objective is not for one vehicle to finance every stage, but for specialized funds, domestic institutions, aggregation vehicles, and other capital providers to connect more intentionally across the continuum.

Domestic financial institutions are particularly important to these pathways.

Local banks, insurers, pension funds, corporates, and fund managers can bring local knowledge, distribution, currency alignment, and durable sources of capital. Their participation may require structures that respond to regulatory, liquidity, credit, or transaction-size constraints.

Priority 5

Build evidence that supports real decisions

The market requires two distinct forms of evidence.

Financial and operating evidence supports underwriting, pricing, and performance assessment. It includes revenue, cash flow, repayment, defaults, losses, follow-on investment, refinancing, and exits.

Adaptation evidence supports identification, integrity, accountability, and reporting. It establishes the climate vulnerability addressed, the pathway to resilience, the significance of the solution, and potential maladaptation risks.

Frameworks and taxonomies can help investors implement existing adaptation mandates and maintain accountability. The evidence does not show that they independently create commercial investor demand. Requirements are most useful when proportionate to the investment's stage, size, strategy, and stated adaptation objective.

The evidence does not yet establish that adaptation investments systematically produce higher returns or lower risk.

Individual cases demonstrate plausible channels through which resilience can protect revenues, reduce disruption, increase productivity, or lower losses. Testing whether these benefits translate into stronger financial performance remains an important area for future research.

Looking forward

This paper set out to understand how blended finance and institutional innovation can address the constraints that prevent existing demand for adaptation solutions from becoming investable opportunities.

The evidence does not point to one new asset class, financial instrument, or institutional platform as a solution to the investability gap. It points to a connected set of functions: identifying climate-shaped demand, preparing enterprises and transactions, matching capital to specific

constraints and stages, strengthening local intermediation, and building decision-useful evidence. Blended finance is a central means of connecting these functions where commercial capital cannot perform them alone, but it is not a substitute for demand, commercial viability, or workable market conditions.

These distinctions are particularly important in LDCs and SIDS, where commercial opportunities coexist with public-good needs, limited fiscal space, smaller markets, shallow domestic capital, and persistent barriers to investment. Private capital can contribute meaningfully, but it remains one part of a wider adaptation finance system. Blended finance is especially important in connecting public, philanthropic, concessional, and commercial resources to the different functions that system requires.

The next phase of the market is therefore less about proving that adaptation is an investment opportunity in the abstract. It is about building the systems that allow investors to see the opportunity and act on it.



Credit: Prosper Global



Appendix A

Case Studies



Part 1

Investment-Manager Case Studies



A.1 The Catalyst Fund

WHY THIS CASE MATTERS

Many companies do not position themselves as climate adaptation or resilience solutions up front. The Catalyst Fund's in-house expertise, robust thesis, and investment process provide a climate adaptation lens for identifying these companies and the adaptation outcomes they can deliver.

Overview

The Catalyst Fund is a blended finance venture capital vehicle focused on early-stage climate adaptation startups across Africa. It began in 2015 as a global inclusive-fintech accelerator run by BFA Global and relaunched in 2023 as Catalyst Fund Resilience I, a dedicated climate fund built in partnership with Financial Sector Deepening Africa (FSD Africa). With a USD 40 million target size and three years into deployment, the 10-year closed-end fund invests in pre-seed companies (~USD 200,000 per company) paired with 5–7 months of embedded, hands-on support to help portfolio companies build out operations, marketing, and fundraising capacity. Since 2015, the Catalyst Fund has accelerated 89 companies across 19 markets; the fund's portfolio companies have collectively raised more than USD 800 million in follow-on funding and reached more than 14 million individuals and MSMEs globally. Its investment approach explicitly integrates climate, gender, diversity, and inclusion across team composition, founder sourcing, and end-user impact measurement, with a stated goal of backing at least 40% women-led startups and solutions that benefit women.

PORTFOLIO EXAMPLE

Mazao Hub (Tanzania)

Mazao Hub equips Tanzania's smallholder farmers with low-cost solar-powered soil sensors and an app-based platform that turns soil data into localized, climate-smart farm management advice, inputs, and finance access — helping farmers regenerate degraded soil and increase yields. The Catalyst Fund invested USD 200,000 in Mazao Hub in 2024.

Source(s): thecatalystfund.com/portfolios/mazao-hub,
<https://www.climatefinancelab.org/news/clc-mazaohub-catalyst-fund/>,
<https://mazaohub.com/>

Case Profile

GEOGRAPHY

Pan-African (10 countries to date, including Kenya, Tanzania, Uganda, South Africa, Nigeria, Senegal, Morocco, Egypt, and Côte d'Ivoire), with a mandate to invest at least 50% in LDCs.

SECTOR(S)

Three verticals:

- 1) Fintech for Climate Resilience (climate insurance, carbon finance, climate and AI solutions),
- 2) Sustainable Livelihoods (climate-smart agriculture, aquaculture, land restoration), and
- 3) Climate Smart Essential Services (access to water, energy, waste management, mobility).

INVESTMENT TYPE

Pre-seed venture capital and venture-building support, with reserved capital for follow-on at Seed/Series A.

TYPE OF CAPITAL

Blended finance fund with three investor tranches: a senior tranche (high-net-worth individuals, family offices, corporate foundations, and DFIs) and two catalytic junior tranches (foundations, impact-first funds of funds, and DFIs) that absorb risk to protect senior investors.

FUND SIZE / TARGET

USD 40 million target size

TICKET SIZE

~USD 200,000 per company

KEY INVESTORS

IFC, FSD Africa, Shell Foundation, Trafigura Foundation, Cisco Foundation, Speedinvest, Blink Impact, and We-Fi



A.2 Prosper Global Ventures

Credit: Prosper Global

WHY THIS CASE MATTERS

Prosper Global Ventures invests directly in companies that are born and operate in LDCs, as well as in companies that expand into those markets. By cultivating early-stage innovation across geographies and investing at the earliest and riskiest stages, Prosper Global Ventures helps build a more robust pre-seed, angel, and early-stage investor ecosystem that can attract more capital across the investment continuum, as well as local liquidity.

Overview

Founded in 2015, Prosper Global Ventures is the venture arm of Prosper Global (formerly Mercy Corps), the global humanitarian and development NGO, and operates as a family of funds. In 2025, Prosper Global Ventures finished investing Fund I (Evergreen Fund) in pre-seed and seed-stage startups building climate resilience; it is now raising Fund II (Resilient Future Fund), a 10-year fund targeting USD 50 million that invests in early-stage, tech-enabled climate adaptation ventures with a follow-on Series A and Series B strategy. Prosper Global Ventures also backs startups through its Venture Platform (a TA facility that provides hands-on support for impact-driven business growth) and its Venture Lab, which “designs, launches, and funds first-of-a-kind climate and financial resilience pilots in emerging markets” to de-risk solutions, build evidence for scale, and crowd in new capital. To date, Prosper Global Ventures has supported 64 early-stage ventures to scale, catalyzed USD 757.2 million in follow-on capital, and reached 58.8 million customers in 131 countries, including 34 least developed countries and 27 of the most climate-vulnerable countries.

PORTFOLIO EXAMPLE

Pula (Kenya, operating in 22 countries)

Pula designs digital crop insurance and bundled advisory services that protect smallholder farmers in emerging markets against weather and yield risk, using weather indexing and macro data to automate cover. Rather than selling to farmers, Pula bundles insurance with inputs such as seed and fertilizer, with premiums typically carried by agricultural input companies or institutional partners. Prosper Global Ventures backed Pula as part of its strategy to fund scalable climate and financial resilience solutions in frontier markets, joining its 2018 Seed round with USD 150,000. Pula now reaches more than 20 million farmers in 22 countries and closed a USD 20 million Series B in April 2024.

Source(s): <https://www.unido.org/news/investing-climate-adaptation-and-resilience-mercy-corps-ventures-impact-and-vision>, <https://techcrunch.com/2024/04/14/pula-raises-20m-series-b/>

Case Profile

GEOGRAPHY

Prosper Global operates in 30+ countries. Prosper Global Ventures' investment team is based in the regions where it invests (Nairobi, Dakar, and Lagos in Africa, and Cartagena, Mexico City, and Quito in Latin America). Fund I invested in Africa, Latin America, and Asia. Fund II (Resilient Future Fund) targets 70% of investments to Sub-Saharan Africa and 30% to Latin America.

SECTOR(S)

- 1) Adaptive Agriculture and Food Systems (precision agriculture, regenerative agriculture, and other climate-smart practices),
- 2) Climate Finance and Fintech (climate insurance and credit-enabled solutions for solar and other climate-smart technologies),
- 3) Climate Insights & Operations (flood data analytics, forecasting, and sustainable supply chain solutions),
- 4) Energy and Productive Power (distributed and decentralized energy access, storage, and demand intelligence, productive-use energy), and
- 5) Nature Tech & Resilience Ecosystem (restoration survival and maintenance tech, conservation economics, and community stewardship).

INVESTMENT TYPE

Pre-seed/seed-stage venture equity, alongside TA provided through the Venture Platform and Venture Lab.

TYPE OF CAPITAL

Blend of impact-first capital from foundations, DAFs, and individuals, and more market-rate capital from DFIs and corporates.

FUND SIZE / TARGET

Fund II (Resilient Future Fund), a 10-year fund targeting USD 50 million

TICKET SIZE

USD 150,000 to USD 2 million

A.3 The Lightsmith Group

WHY THIS CASE MATTERS

Through CRAFT, Lightsmith launched the first private equity fund dedicated to climate resilience and adaptation. The premise was that adaptation investing need not wait — companies were already selling proven resilience solutions, such as weather and catastrophe risk analytics and water management, in fast-growing market segments. CRAFT showed that this opportunity could be packaged into a growth equity fund that institutional, commercial, and concessional investors would back side by side.

Overview

Founded in 2016, The Lightsmith Group is a global sustainable private equity firm investing in growth-stage technology companies that address the effects of climate change. Considered the first private equity fund focused on climate resilience and adaptation, Lightsmith's inaugural fund, the Climate Resilience and Adaptation Finance and Technology Transfer Facility (CRAFT), reached a USD 186 million final close in 2022. The fund is structured as a blended finance facility, with two parallel junior layers of capital designed to crowd senior capital seeking commercial returns into the capital structure: the Nordic Development Fund, the Luxembourg Government, and the Rockefeller Foundation subordinated their return of capital, part of their preferred interest, and some of their upside to senior capital. At final close, the Green Climate Fund also joined the fund and catalyzed additional capital as a junior capital layer.

Lightsmith also developed the first Impact Measurement System (IMS) specifically designed for A&R investments in 2018 and created the Adaptation Solutions Taxonomy in 2020 (with the support of the GEF, the Nordic Development Fund, and the Inter-American Development Bank), which was updated as the Climate Resilience Investments in Solutions Principles (CRISP) framework in 2024 in partnership with the MSCI Sustainability Institute, the Bezos Earth Fund, ClimateWorks Foundation, and GARI.

Case Profile

GEOGRAPHY

CRAFT was designed as a global fund, with half invested directly in developing countries (e.g., India, Malaysia, Brazil) and half in U.S. and European companies positioned to transfer technology or expand into emerging markets. Lightsmith invests the Green Climate Fund's capital in six designated beneficiary countries: South Africa, Rwanda, Mexico, Brazil, Trinidad and Tobago, and the Bahamas.

SECTOR(S)

Water Efficiency and Smart Water Management, Resilient Food Systems, Agricultural Analytics, Geospatial Intelligence, Supply Chain Analytics, and Catastrophe Risk Modeling and Risk Transfer. Two priority focus areas: Infrastructure & Energy Resilience and Supply Chain Resilience.

INVESTMENT TYPE

Growth-stage private equity.

TYPE OF CAPITAL

Commercial and concessional blended growth equity, backed by DFIs and MDBs.

FUND SIZE / TARGET

USD 186 million final close in 2022

TICKET SIZE

~USD 15 million to USD 25 million per company

KEY INVESTORS

Nordic Development Fund, Global Environment Facility (GEF), Luxembourg Government, Rockefeller Foundation, Green Climate Fund, and Conservation International

PIONEERING NEW STRATEGY SCALE

In 2025, Lightsmith secured funding to launch the first integrated climate adaptation investment platform, the Systemic Capital for Adaptation Localization and Expansion (SCALE), with support from the GEF and the Norwegian Ministry of Foreign Affairs. SCALE aims to identify and map credit and equity opportunities for climate adaptation investment in Latin America and the Caribbean, Africa, and Asia. Rather than developing a siloed credit fund, SCALE takes an integrated platform approach that works across the sources and uses of capital to scale up adaptation finance rapidly. Described as a "virtual green bank" for adaptation, it is built around four common activities: 1) a definition of adaptation and climate resilience based on the CRAFT approach; 2) impact measurement for credit, equity, and TA projects; 3) a shared approach to risk management; and 4) engagement with governments and other stakeholders.

A.4 Acumen Resilient Agriculture Fund (ARAF)

Credit: David Longdon; SunCulture solar-powered water pump, an Equator VC portfolio company

WHY THIS CASE MATTERS

ARAF is the first equity fund focused on smallholder farmer resilience. It operates in a market where debt is expensive and fragmented, the cost of capital for agriculture and working capital for farmers is very high, and many companies are over-leveraged. ARAF is Acumen's early-growth-stage counterpart to Trellis, Acumen's patient-capital investment initiative that invests across East Africa, India, Latin America, and West Africa and focuses on early-stage agricultural businesses. Together, Trellis and ARAF provide fit-for-stage capital for different parts of the investment continuum.

Overview

The Acumen Resilient Agriculture Fund (ARAF) is the "world's first equity fund designed to build the climate adaptation & resilience of smallholder farmers." Launched in 2020, ARAF is sponsored by Acumen, anchored by the Green Climate Fund, and has additional backing from FMO, the Soros Economic Development Fund, Proparco, the Children's Investment Fund Foundation, Global Social Impact, the IKEA Foundation, and others.

ARAF focuses on East and West Africa and invests USD 300,000 to USD 4 million in early-growth-stage (Pre-seed, Seed, Series A, and Series B and C capital) agribusinesses that provide bundled solutions to smallholder farmers, supporting innovative climate solutions from early-stage ventures and micro, small, and medium-sized enterprises. A linked USD 5 million TA Facility, funded by grants from the GCF, the IKEA Foundation, the UK Foreign, Commonwealth & Development Office (FCDO), and FMO, supports portfolio companies with farmer training, technical advising, impact measurement, ESG activities, and gender-focused initiatives.

ARAF is currently in its second iteration. ARAF II is an adaptation-focused blended finance venture capital fund targeting USD 120 million (USD 90 million secured as of July 2026) to enhance the climate resilience of smallholder farmers and the agriculture value chain by enabling smallholder farmers to adopt climate-resilient agricultural practices and access adaptation funding.

Case Profile

GEOGRAPHY

ARAF targets agribusinesses across East, West, and North Africa (ARAF I focused on Ghana, Kenya, Nigeria, Tanzania, and Uganda; ARAF II targets Morocco, Egypt, Côte d'Ivoire, Ghana, Nigeria, and Uganda). More broadly, Acumen operates across the United States, India, Latin America, Pakistan, and Sub-Saharan Africa.

SECTOR(S)

Agriculture — targeting platform businesses that provide farmers with access to inputs, finance, technical support, and markets.

INVESTMENT TYPE

Early- and early-growth-stage equity, plus a linked grant-funded Technical Assistance Facility.

TYPE OF CAPITAL

Concessional first-loss capital (from the GCF in ARAF I, and from the GCF and the Financing for Agri-SMEs in Africa (FASA) fund in ARAF II) anchoring commercial-return-seeking capital, recycled through Acumen's wider strategy on exit.

FUND SIZE / TARGET

ARAF I: USD 58 million (final close, 2021); ARAF II: targeting USD 120 million (USD 90 million secured as of July 2026)

TICKET SIZE

USD 300,000 to USD 4 million

KEY INVESTORS

ARAF I: GCF (anchor investor), FMO, Soros Economic Development Fund, Proparco, Children's Investment Fund Foundation, Global Social Impact, IKEA Foundation, and others; ARAF II: GCF, FASA, FMO, Proparco, Swedfund, BIO, and a family office

PORTFOLIO EXAMPLE

SunCulture (Kenya)

Only about 4% of farming families in Africa use irrigation; the rest rely on rainfall that climate change is making increasingly unpredictable. SunCulture sells solar-powered water pumps and irrigation systems to smallholder farmers on a pay-as-you-grow basis. These systems let farmers water crops through dry spells without costly, polluting diesel or petrol pumps. The company reports that its systems can raise crop yields by up to 300% while cutting water use by 80%, and it has sold more than 85,000 systems to date. ARAF was an early investor in SunCulture. It joined a USD 10 million mezzanine loan in 2022 and made a follow-on investment in 2024.

Source(s): <https://arafund.com/sunculture-2/>, <https://www.agriinvestor.com/briefing-acumen-launches-120m-resilient-agri-fund-ii/>, <https://disruptafrica.com/2024/04/12/kenyas-sunculture-raises-27-5m-in-oversubscribed-series-b-funding-round/>



A.5 Factor[e]

WHY THIS CASE MATTERS

Through its “Think, Do and Learn” approach and technology brokerage model, Factor[e] combines in-market operating experience with technical expertise to create scalable, sustainable solutions to global climate and development challenges. It sources innovations wherever they originate and funds ventures to deploy them in frontier markets.

Overview

Founded in 2013, Factor[e] exists to accelerate the impact of innovation on economies, communities, and the environment. Factor[e]’s approach involves a systematic process of “technology brokering” — bridging the gaps between groundbreaking climate technologies and the markets that urgently need them. Factor[e] collaborates across industries and regions to identify and invest in solutions to the world’s toughest climate and development problems in agriculture, water, and energy. Factor[e] develops investment theses, discovers promising innovations, and supports solutions to scale. By investing in early-stage companies, building new ventures, and fostering IP partnerships, it aims to expand the reach of transformative climate solutions in frontier and emerging markets. Its ultimate goal is to make climate technology more accessible and affordable for billions of people. To date, Factor[e] has deployed USD 20 million across 40 companies, resulting in eight exits and a multiple on invested capital of more than 2x (based on realized exits and fair market value of assets under management). The portfolio has a 25x leverage ratio for co- and follow-on investing and has collectively improved more than 100 million lives.

PORTFOLIO EXAMPLE

Sistema.bio Multi-country (Africa, Asia, Latin America)

Sistema.bio’s advanced biodigester technology converts organic waste and animal manure into clean-burning biogas for cooking and power, plus nutrient-rich organic fertilizer, helping farmers move toward energy independence. Factor[e] invested in Sistema.bio in 2016 to help scale its modular biodigester technology and bring clean energy and fertilizer to smallholder farmers in Sub-Saharan Africa.

Source(s): factore.com/approach/ventures, <https://sistema.bio/>

Case Profile

GEOGRAPHY

Currently focused exclusively on Sub-Saharan Africa (offices in Kenya and Nigeria), although it has historically also invested in India.

SECTOR(S)

Clean Energy, Sustainable Agriculture, Mobility, and Water.

INVESTMENT TYPE

Pre-seed and seed-stage venture equity, combined with in-house venture building and IP/technology brokering.

TYPE OF CAPITAL

Catalytic equity and venture debt.

FUND SIZE / TARGET

Permanent capital vehicle with USD 20 million deployed across 40 companies to date

TICKET SIZE

USD 250,000 to USD 750,000

KEY INVESTORS

Shell Foundation, Autodesk Foundation, FCDO



A.6 EG Capital

Credit: Sandrine Henton; EG Capital's Climate Adaptation Financing Roundtable, held on 27 April 2026 at our offices in Nairobi, Kenya.

WHY THIS CASE MATTERS

EG Capital is pioneering an innovative model that combines a first-loss portfolio guarantee with a liquidity and maturity facility that is designed to bring insurance companies into the fund. As part of this, it is preparing a listing on the Unquoted Securities Platform (USP) of the Nairobi Securities Exchange (NSE), backed by the UK FCDO's MOBILIST program.

Overview

EG Capital provides private credit to mid-sized African businesses to strengthen supply chain security and resilience. EG Capital's EG-Economic Empowerment Fund (EG-EEF) completed its first close in June 2026 with more than USD 15 million in commitments, a USD 10 million first-loss guarantee backed by Sida, and a USD 20 million liquidity facility backed by the European Commission and Société Générale. The fund is beginning to make its first investments from a pipeline of USD 70 million in opportunities. At first close, EG Capital secured USD 10 million in commitments from African institutional investors, with ~80% of all capital mobilized from private sector investors (including European and African family offices). The fund is preparing its second close for October 2026, alongside the proposed NSE USP listing, to mobilize an additional USD 40 million in commitments from local institutional investors. The fund is targeting a USD 100 million final close by September 2027.

EG Capital focuses on established medium-sized (mid-cap) businesses and has a typical investment size of USD 2 million to USD 10 million per company (including follow-on capital). It invests in making SMEs resilient to a changing climate, in SMEs delivering climate and adaptation products, and in the transformation of industries for future resilience. EG Capital provides flexible private credit with a medium- to long-term horizon (five- to seven-year holding period), structuring debt with cash interest and payment-in-kind (PIK) interest (and sometimes an equity kicker), with the principal deferred and payable at the end of five years. EG Capital uses innovative instruments at the deal level, where necessary, including FX hedging and credit risk insurance, while keeping the cost of lending low and affordable.

Case Profile

GEOGRAPHY

East Africa (Kenya, Uganda, Tanzania, Rwanda) and the Southern African Development Community (SADC) region (Zambia, Namibia, Botswana).

SECTOR(S)

Food Security (60% of allocation), Health Resilience and Emergency Response (20%), and Human Capital (20%).

INVESTMENT TYPE

Private credit (up to 80% of the portfolio) blended with quasi-equity, invested in established, EBITDA-positive businesses.

TYPE OF CAPITAL

Blended finance structure: junior equity absorbs first-loss risk beneath a senior tranche of private sector commercial capital, supported by a first-loss portfolio guarantee and a liquidity facility for institutional investors.

FUND SIZE / TARGET

USD 100 million target

TICKET SIZE

USD 2 million to USD 10 million per company (including follow-on capital)

KEY INVESTORS

African institutional investors and European and African family offices; Sida (first-loss guarantee); European Commission and Société Générale (liquidity facility); FCDO (support for NSE listing)



Credit: John Green through CC BY 4.0

A.7 Autodesk Foundation

WHY THIS CASE MATTERS

The Autodesk Foundation invests in a global portfolio of nonprofits and startups to de-risk and accelerate transformative design and make solutions. By combining catalytic capital (in the form of unrestricted grants and impact investments), Autodesk technology, and Autodesk employee expertise where they are needed most, the Autodesk Foundation supports its portfolio to prototype, validate, and scale climate and workforce solutions.

Overview

In 2014, Autodesk established the Autodesk Foundation. Through this philanthropic vehicle, Autodesk contributes financial resources, technology, and the talent of Autodesk employees to build a more sustainable and resilient world. The Autodesk Foundation invests in a global portfolio of nonprofits and startups that are transforming Autodesk's industries to be more sustainable and resilient. Funding and in-kind support from the Autodesk Foundation helps spark disruptive innovation and de-risk transformative technology solutions. The Autodesk Foundation's investment strategy focuses on three interconnected areas: Energy & Materials, Health & Resilience, and Work & Prosperity. These align with the challenges and opportunities in the industries Autodesk serves. In 2025, the Health & Resilience portfolio reached 28.3 million individuals with resilient solutions in housing and infrastructure, energy access, agricultural productivity, and economic development.

PORTFOLIO EXAMPLE

Build Health International (BHI)

(Sierra Leone and Nigeria)

BHI is a nonprofit within the Autodesk Foundation's Health & Resilience portfolio building public health infrastructure in climate-vulnerable communities. Access to Autodesk's design software and technical support let BHI lower the cost of designing and running two facilities (the Maternal Center of Excellence in Sierra Leone and the Institute of Genomics and Global Health, formerly ACEGID, in Nigeria), also building sustainability considerations into each project.

Source(s): autodesk.org/what-we-do/case-studies/build-health-international-acegid-mcoe, <https://buildhealthinternational.org/>

Case Profile

GEOGRAPHY

Global portfolio; Health & Resilience portfolio specifically concentrated in Sub-Saharan Africa, the Indian subcontinent, and Southeast Asia.

SECTOR(S)

Health & Resilience is one of three impact opportunity areas (alongside Energy & Materials and Work & Prosperity). The Health & Resilience portfolio invests in climate adaptation technologies and approaches including early warning systems, infrastructure resilience, health system strengthening, livelihood adaptation, energy access, and food and water security.

INVESTMENT TYPE

A blend of grants and impact investments (both equity and fund-of-funds-style commitments), plus in-kind support (access to specialized design/engineering technology and expertise).

TYPE OF CAPITAL

Catalytic/philanthropic capital; ~60% grants and ~40% impact investments.

FUND SIZE / TARGET

USD 16.1 million in grants and impact investments deployed in FY26

TICKET SIZE

USD 100,000 to USD 1 million, with most commitments USD 250,000 to USD 500,000

KEY INVESTORS

Autodesk, Inc. (sole funder)

A.8 GAWA Capital – Kuali Fund

WHY THIS CASE MATTERS

Kuali shows how a blended fund can reach smallholder farmers and SMEs at scale by working through the microfinance institutions, cooperatives, and local lenders they already use. GAWA's track record with its predecessor fund, Huruma, helped it secure the public first-loss capital that makes the model work.

Overview

Founded in 2009, GAWA Capital is a Spanish impact asset manager based in Madrid with more than 15 years of experience managing closed-end impact investment funds. GAWA's prior funds have focused on financial inclusion (microfinance, MSME lending, agricultural financing, vehicular financing), cumulatively reaching more than 770,000 families across 20 countries through 87 investments in 40 institutions. The Huruma Fund, for instance, launched in 2019 as a €120 million blended finance fund with an €8 million technical assistance facility, pioneering financing for smallholder farmers and agri-SMEs traditionally excluded from the financial system across Latin America, Africa, and Asia.

The Kuali Fund launched in November 2024 as GAWA's climate-specific vehicle and Huruma's successor. It extends the financial-inclusion thesis to explicitly include agriculture and climate adaptation and resilience alongside mitigation-oriented sectors such as construction and mobility. The fund has a target size of ~USD 230 million and a ~€12 million technical assistance facility to strengthen investees' product design, risk management, and staff capabilities. The Kuali Fund is a 10-year fund investing in both debt and equity through local financial institutions and innovative climate companies to help rural populations adopt climate-resilient practices, renewable energy, and sustainable agriculture.

PORTFOLIO EXAMPLE

Microserfin (Panama [Huruma Fund, Kuali's predecessor])

As described in GAWA's 2025 Impact Report, "Microserfin is a leading microfinance institution in Panama serving micro and small entrepreneurs," with "a strong rural footprint and significant exposure to agriculture and livestock lending." The Huruma Fund paired investment with technical assistance to strengthen Microserfin's agricultural credit methodology and risk management; the institution went on to exceed its target for agricultural loan disbursements in new regions, disbursing more than USD 2.1 million since the technical assistance project began.

Source(s): GAWA Capital, Impact Report 2025, "Panamá HURUMA" case study

Case Profile

GEOGRAPHY

The Kuali Fund targets a 70% Latin America / 30% India allocation. Current Latin America activity is concentrated in Guatemala, El Salvador, Colombia, Ecuador, Peru, Paraguay, and Brazil with a growing Central America focus.

SECTOR(S)

Financial inclusion (microfinance institutions, small banks, NGOs serving the base of the pyramid, ~70% of allocation) and direct investment in real economy/innovative climate solution providers (~30% of allocation), spanning agriculture, construction, and mobility.

INVESTMENT TYPE

Private debt and equity into financial intermediaries and innovative companies (no seed-stage/early venture capital).

TYPE OF CAPITAL

Blended finance — public first-loss capital (GCF, EU, Spanish DFI COFIDES) layered with increasing private commercial participation. The EIB has also structured an equity investment into Kuali's senior tranche, co-investing alongside the European Commission, Spanish Development Cooperation (AECID), and GCF.

FUND SIZE / TARGET

~USD 230 million target
(currently closing its fundraising period at just over USD 200 million)

TICKET SIZE

Not published (although the fund plans ~25 investments in financial institutions and climate solution providers)

KEY INVESTORS

GCF, EU, and COFIDES (first-loss capital); EIB (senior tranche equity), co-investing alongside the European Commission and Spanish Development Cooperation (AECID)



Part 2

Emerging and Innovative- Instrument Spotlights

A.9 Outrigger Impact

Credit: Tracey Jennings / Ocean Image Bank

WHY THIS CASE MATTERS

Outrigger operates in small capital markets with relatively small projects and companies, where much outside funding bypasses local stakeholders and adds to market fragmentation. It aims to provide grant funding that can be followed by meaningful investment capital.

Overview

Outrigger is an innovative blue economy impact solution that provides capital and capacity to projects in Small Island Developing States (SIDS). Outrigger is structured as two connected instruments: the Outrigger Impact Fund (debt and equity financing for blue economy SMEs and projects in SIDS) and the Outrigger Technical Assistance Facility (OTAF), a grant and repayable-loan facility with more than USD 5 million in investment-readiness grants and loans that prepares early-stage projects for investment by the main fund. The fund is a 10-year vehicle with a USD 100 million target; it reached first close in July 2026, supported by a USD 8 million junior equity commitment from the Nordic Development Fund, and expects a final close in 2027. Developed with the support of the Sea Change Impact Financing Facility (SCIFF) by the Ocean Risk and Resilience Action Alliance (ORRAA), the Outrigger Impact Fund is backed by a blended financing coalition including the Luxembourg-EIB Climate Finance Platform (LCFP), with a €5 million contribution from Luxembourg and EIB Global, as well as the Nordic Development Fund, the Trafigura Foundation, and the Catalytic Finance Foundation.

The fund will focus on blue economy sector investments that support climate adaptation and strengthen resilience, including circular economy, sustainable fisheries, ecosystem restoration, coastal resilience, and climate-smart infrastructure, as well as distributed clean energy, energy efficiency, and low-carbon shipping solutions that contribute to broader resilience outcomes for SIDS. Gender equality is a core element of the fund's strategy, supported by dedicated gender impact studies and sex-disaggregated data collection.

Case Profile

GEOGRAPHY

Small Island Developing States (SIDS) — 35 SIDS across the Caribbean (~50%), the Pacific (~25%), and the Indian Ocean/African island states (~25%).

SECTOR(S)

Blue economy: 1) nature-based solutions, conservation, eco-tourism; 2) fisheries; 3) circular economy; 4) non-sovereign infrastructure; 5) clean energy; 6) ridge to reef (sustainable agriculture, protection of freshwater).

INVESTMENT TYPE

Blended debt and equity, plus a linked grant/technical assistance facility.

TYPE OF CAPITAL

Concessional (public/DFI) and commercial capital across two linked vehicles. The fund layers a catalytic junior first-loss equity tranche (supported by DFIs and philanthropic partners), a senior equity tranche, and senior debt.

FUND SIZE / TARGET

USD 100 million target (final close expected in 2027)

TICKET SIZE

Not disclosed

KEY INVESTORS

Luxembourg-EIB Climate Finance Platform (Luxembourg and EIB Global), Nordic Development Fund, Trafigura Foundation, and Catalytic Finance Foundation

PORTFOLIO EXAMPLE

Positive Change for Marine Life (PCFML) (Solomon Islands)

As climate change and declining fisheries put pressure on reef-dependent coastal communities in the Solomon Islands, seaweed farming offers an alternative livelihood. But production in the Western Province remains fragmented, and farmers struggle with access to materials, drying infrastructure, quality control, and fair prices. PCFML is building a community-led seaweed cooperative platform to improve production quality, traceability, and market access, which helps diversify incomes while reducing pressure on reef fisheries. In 2026, OTAF selected the platform for investment-readiness support, including quality assurance systems and financial and market models, to prepare it for co-funding and future investment. Tropical Cyclone Maila's damage across the province has made this work more urgent.

Source(s): <https://pcfml.org.au/blog/otaf-funding-secured-seaweed-solomon-islands/>, <https://www.ndf.int/newsroom/outrigger-impact-fund-i-achieves-a-first-close-to-finance-blue-economy-projects-in-global-small-island-developing-states.html>



Credit: Etienne Girardet on Unsplash

A.10 Adaptation Asia – Panra Fund

WHY THIS CASE MATTERS

The Panra Fund is the first impact debt fund in Southeast Asia focused specifically on climate adaptation and resilience in agriculture, with a user-centered approach to debt products. Its embedded climate-tech platform (a digital platform connected to remote sensors that can measure and monetize adaptation benefits) uses tools such as satellite data for crop coverage and agroforestry tracking. The platform converts these metrics and verified outcomes into new “Resilience Asset” revenue streams, which help farmers finance their transition and generate returns for fund investors.

Overview

The Panra Fund is a USD 50 million climate adaptation debt fund developed by Adaptation Asia and TerrAvant and focused on agribusiness across Southeast Asia. It is targeting an initial fund of USD 20 million, en route to the full USD 50 million by the end of 2027. The Panra Fund integrates embedded ecosystem measurement, called Resilience Assets (RAs), into agribusiness lending, investing in agriculture companies through revenue-based financing. This debt instrument with equity-like characteristics is particularly suitable for agricultural businesses because of their seasonal cash flows and working capital needs. As described by [the Global Innovation Lab for Climate Finance](#), “the Fund will provide flexible revenue-based finance to regenerative agriculture enterprises, while a digital platform verifies and monetizes outcomes such as water, soil health, and biodiversity. This creates a dual-return model, delivering financial returns to investors and direct, performance-based ecosystem payments to farmers.” Over the next decade, the fund aims to help more than 1.8 million farmers, 60% of them women, adopt climate-resilient practices across 5 million hectares. Half of an accompanying technical assistance (TA) facility will help the Panra Fund’s investees build their monitoring and measurement capacity; the other half is a backstop for the RAs, providing a guarantee that ecosystem payments still pass through the fund to farmers even if the assets cannot be placed with buyers in advance.

Case Profile

GEOGRAPHY

Southeast Asia: Cambodia, Lao PDR, Vietnam, Thailand, Indonesia, Philippines.

SECTOR(S)

Smallholder and regenerative agriculture, agrifood systems, coastal communities.

INVESTMENT TYPE

Patient, revenue-based, and convertible loans layered with Resilience Assets, through a blended finance investment vehicle.

TYPE OF CAPITAL

Blended finance combining debt-like revenue-based financing with nature-based/biodiversity-credit revenue streams (senior investors will make up the majority of the fund, with junior investors and a guarantee).

FUND SIZE / TARGET

USD 50 million target, with an initial fund of USD 20 million (full target by the end of 2027)

TICKET SIZE

~USD 2.5–3.3 million per investee (implied: USD 50 million across 15 to 20 investees)

KEY INVESTORS

None yet (pre-first close); development support from the Global Innovation Lab for Climate Finance and an SDG Impact Finance Initiative (SIFI) grant



A.11 Acre Impact Capital Export Finance Fund I

Credit: Vamed Engineering

WHY THIS CASE MATTERS

Under international rules, OECD export credit agencies (ECAs) can typically guarantee only up to 85% of a project's value. Commercial banks typically fund the ECA-guaranteed tranche (the 85%), but funding for the remaining 15% clean-risk commercial debt tranche has become increasingly scarce. By providing specialist funding for this 15%, co-investing alongside established ECA partners and international banks, Acre Impact Capital's Export Finance Fund I mobilizes up to USD 5.60 of private sector capital for every dollar it invests.

Overview

Acre Impact Capital is a private-debt impact investment manager that finances climate-aligned, essential infrastructure in emerging markets, particularly across Africa. It bridges the infrastructure funding gap by partnering with commercial banks and ECAs to unlock large-scale development projects. Its Export Finance Fund I, a nine-year fund with a 4+5 structure (a four-year investment period followed by a five-year management/repayment period), is targeting a USD 300 million fundraising and reached a first close of ~USD 100 million with a group of investors including African institutional investors, major DFIs (the European Investment Bank, FSD Africa Investments, South Africa's Industrial Development Corporation, Proparco, and SIFEM), and family offices and impact-first investors (e.g., Trimtab Impact and Ceniath). The fund is committed to gender-smart investing and aims for at least 30% of its projects to meet the 2X Criteria.

Case Profile

GEOGRAPHY

Africa (pan-African infrastructure).

SECTOR(S)

Renewable power, health, food and water security, sustainable cities, and green transportation — essential infrastructure broadly, aligned with climate resilience and adaptation.

INVESTMENT TYPE

Private debt: a specialized "commercial tranche" strategy layered onto ECA financing.

TYPE OF CAPITAL

Blended private debt (DFI/impact-investor anchored, mobilizing commercial co-investment).

FUND SIZE / TARGET

USD 300 million target; first close of ~USD 100 million (April 2024)

TICKET SIZE

~USD 15–20 million per project (implied: USD 300 million across 15–20 projects)

KEY INVESTORS

African institutional investors; DFIs including the European Investment Bank, FSD Africa Investments, South Africa's Industrial Development Corporation, Proparco, and SIFEM; and family offices and impact-first investors such as Trimtab Impact and Ceniath

PORTFOLIO EXAMPLE

Project Oceanides: Abidjan stormwater drainage infrastructure (Côte d'Ivoire)

Acre Impact Capital is financing the construction of a 4-kilometer urban pluvial water collection tunnel and a 780-meter microtunnel in a major district of Abidjan through its Export Finance Fund I. The project will also protect 60 hectares of lagoon, including mangroves. For several decades the area (which is home to more than 240,000 people) has faced frequent flooding, caused by inadequate and outdated drainage infrastructure. These floods recur on an almost annual basis and cause a significant rise in water levels of 1–3 meters, resulting in loss of life, population displacement, loss of homes and personal property, loss of business stock and earnings, and general disruption to daily life. Typical project finance or private sector investment requires stable revenue streams. By lending directly to sovereign borrowers, Acre circumvents this, making it possible to fund public-good infrastructure — such as critical climate adaptation projects — for which there is a notable funding gap. By taking direct sovereign risk exposure, the fund catalyzed commercial banks into the ECA-covered (guaranteed) portion of the investment at a multiple of 22.65x. Projects of this nature often stall due to the lack of risk appetite to take direct African sovereign risk exposure. Acre's fund provides this crucial final slice of funding.

Source(s): <https://www.acre.capital/>

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Appendix B

Methodology

B.1 Overview

This paper draws on learning generated between 2024 and 2026 through the Climate Adaptation Innovation Learning program, financed by the Global Environment Facility and implemented by UNIDO Climate Tech Innovation in partnership with Climate KIC, GARI, and UNEP FI. It draws primarily on interviews, case studies, and discussions with investment funds and other market participants engaged through the Community of Practice on Investment Funds (see box).

Under the Climate Adaptation Innovation Learning program, GARI convened the Community of Practice (CoP) on Investment Funds, which met both in person and virtually between September 2024 and June 2026. Larger convenings were organized to share broad observations about the market for investing in climate adaptation and resilience, particularly in emerging markets, LDCs, and SIDS. Smaller convenings, including in-person roundtables and virtual regional sessions, focused on the specific challenges and opportunities investment funds face in achieving their fundraising, execution, and impact goals. Many participants in these smaller convenings are represented in the case studies, and discussions across all CoP convenings informed the findings of this white paper.

Section 3 (Making Adaptation Investable), Section 4 (Cross-Cutting Findings), and Section 5 (Priorities for Closing the Investability Gap) synthesize patterns across the full interview set. Eleven organizations are presented as formal case studies in Appendix A, selected for depth, diversity of model, and completeness of the underlying record; not every organization interviewed appears as a named case.

B.2 Interview Process

Interviews were conducted primarily as recorded video calls between March and August 2026, generally following a semi-structured format covering fund strategy and geography, capital structure and blended finance mechanics, barriers encountered, measurement and impact approach, and lessons for the broader field. Most interviews produced a video recording, a written transcript, and a set of interviewer notes; a small number are documented by notes alone, noted in the table below.

B.3 Organizations Interviewed

Nineteen organizations were interviewed in the process of developing this white paper. The table below lists each, its general focus, and its documentation status. “Case study” indicates that the organization appears as a named example in Appendix A; organizations not selected as case studies still inform the synthesis in Sections 3, 4, and 5.



ORGANIZATION	GENERAL FOCUS	DOCUMENTATION
Acre Impact Capital	Pan-African infrastructure private debt	Notes, video, transcript
Acumen (incl. Acumen Resilient Agriculture Fund / ARAF)	Growth equity, smallholder agriculture, East/West Africa and India	Notes, video, transcript
Adaptation Asia (Panra Fund)	Blended revenue-based lending, Southeast Asian smallholder agriculture	Notes, video, transcript
Autodesk Foundation	Corporate philanthropic/catalytic capital	Notes, video, transcript
AWE Funds	Gender-lens deep tech, India	Notes, video, transcript
Catalyst Fund	Early-stage venture, pan-African, tiered equity structure	Notes, video, transcript
Delta40	Venture studio and early-stage fund, East/West Africa	Notes, video, transcript
EG Capital	Private credit growth fund, East Africa/ SADC	Notes, video, transcript
Equator VC	Seed/Series A climate venture, Sub-Saharan Africa	Notes, video, transcript
Factor[e] Ventures	Early-stage venture and technology brokering, Sub-Saharan Africa	Notes only — no video or transcript on file
GAWA Capital (Kuali Fund)	Blended finance through microfinance institutions, Latin America/India	Notes, video, transcript
Global Infrastructure Partners (part of BlackRock)	Institutional-scale infrastructure credit (Infrastructure Resilience Development Fund)	Interview record; video/transcript status to confirm
Ground Up Investing	Agriculture/rural economic development, East Africa and Latin America	Notes, video, transcript
The Lightsmith Group	Growth-stage private equity, global emerging markets	Notes, video — no transcript on file
Outrigger Impact	Blue economy / SIDS infrastructure and technical assistance	Notes, video, transcript
Prosper Global Ventures	Pre-seed/seed venture, family-of-funds structure, global	Notes, video, transcript
Root Capital	Agricultural SME debt, Africa/Asia/Latin America	Notes, video — no transcript on file
WaterEquity	Water and infrastructure equity, global emerging markets	Notes, video, transcript
WEAV Capital	Gender- and climate-lens venture capital, Nigeria/Ghana	Notes, video, transcript

B.4 Case Study Selection Criteria

Organizations were prioritized for full case-study treatment in Appendix A based on the completeness of the interview record; diversity of financial model, so the featured set collectively spans venture equity, private credit, blended infrastructure finance, and growth-stage platforms; and geographic and sector diversity across the featured and spotlight set as a whole. Organizations with incomplete documentation were still eligible for spotlight treatment but are identified in the source record as lower-confidence.

B.5 Limitations

This paper's evidence is drawn almost entirely from interviews, and engagement with fund managers, investors, and one institutional infrastructure platform. It does not include direct interviews with governments, regulators, or policymakers. The discussion of policy and enabling conditions therefore reflects what investment-market participants reported and does not constitute a comprehensive assessment of policy priorities.

Because many of the organizations examined already use blended or catalytic capital, the research is well suited to identifying how these approaches are being applied but not to estimating their prevalence or proving their additionality relative to fully commercial alternatives. The findings should be understood as evidence of recurring functions and emerging approaches rather than as a comparative assessment of blended finance performance.





Appendix C

Acronyms

AI	artificial intelligence	LCFP	Luxembourg-EIB Climate Finance Platform
A&R	adaptation and resilience	LDC	Least Developed Country
ARAF	Acumen Resilient Agriculture Fund	LP	limited partner
BHI	Build Health International	MDB	multilateral development bank
CFLG	Catalytic First Loss Guarantee	MSME	micro, small, and medium-sized enterprise
CFO	chief financial officer	ND-GAIN	Notre Dame Global Adaptation Initiative
CGAP	Consultative Group to Assist the Poor	NGO	non-governmental organization
Climate KIC	Climate Knowledge and Innovation Community	NSE	Nairobi Securities Exchange
COFIDES	Compañía Española de Financiación del Desarrollo (Spanish Development Finance Company)	OECD	Organisation for Economic Co-operation and Development
CPI	Climate Policy Initiative	ORRAA	Ocean Risk and Resilience Action Alliance
CRAFT	Climate Resilience and Adaptation Finance and Technology Transfer Facility	OTAF	Outrigger Technical Assistance Facility
CRISP	Climate Resilience Investments in Solutions Principles	PIDG	Private Infrastructure Development Group
CRM	customer relationship management	PIK	payment in kind
DAF	donor-advised fund	PRI	program-related investment
DFCD	Dutch Fund for Climate and Development	RA	Resilience Asset
DFI	development finance institution	SADC	Southern African Development Community
EBITDA	earnings before interest, taxes, depreciation, and amortization	SCALE	Systemic Capital for Adaptation Localization and Expansion
ECA	export credit agency	SCIFF	Sea Change Impact Financing Facility
EG-EEF	EG-Economic Empowerment Fund	SIDS	Small Island Developing States
EIB	European Investment Bank	SIFEM	Swiss Investment Fund for Emerging Markets
ESG	environmental, social, and governance	SME	small and medium-sized enterprise
EU	European Union	TA	technical assistance
FCDO	Foreign, Commonwealth & Development Office (United Kingdom)	TAF	Technical Assistance Facility
FMO	Dutch Entrepreneurial Development Bank	UK	United Kingdom
FSD Africa	Financial Sector Deepening Africa	UNDRR	United Nations Office for Disaster Risk Reduction
FX	foreign exchange	UNEP	United Nations Environment Programme
GARI	Global Adaptation and Resilience Investment Working Group	UNEP FI	United Nations Environment Programme Finance Initiative
GCF	Green Climate Fund	UNIDO	United Nations Industrial Development Organization
GEF	Global Environment Facility	USD, US\$	United States dollar
GHG	greenhouse gas	USP	Unquoted Securities Platform
IFC	International Finance Corporation	WEAV	Women's Enterprise Acceleration Vehicle
IMS	Impact Measurement System	We-Fi	Women Entrepreneurs Finance Initiative
IP	intellectual property	WRI	World Resources Institute
IPCC	Intergovernmental Panel on Climate Change		
IRDF	Infrastructure Resilience Development Fund		