A Decade of Climate Finance Innovation: Impact Lessons from the Lab

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The Lab

CLIMATE POLICY INITIATIVE

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ABOUT CPI

CPI is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has seven offices worldwide in Brazil, India, Indonesia, South Africa, the United Kingdom, and the United States.

ABOUT THE LAB

The Global Innovation Lab for Climate Finance identifies, develops, and launches innovative finance instruments that can drive billions in private investment to action on climate change and sustainable development. Climate Policy Initiative serves as the Secretariat and analytical provider.

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INTRODUCTION

As the **Global Innovation Lab for Climate Finance (the Lab)** marks its 10th anniversary, we reflect on a decade of transformative achievements, as well as future aspirations. Launched in 2014 to catalyze private investment in climate solutions, the Lab has played a pivotal role in shaping the climate finance landscape. Over the past ten years, we have witnessed profound changes in the market, with climate finance evolving from a niche sector into a critical component of the global effort to combat climate change.

This publication celebrates the Lab's journey, offering insights into the lessons learned, challenges overcome, and successes achieved. We explore how innovative financial instruments and blended finance approaches have unlocked new pathways for climate investment, mobilizing over USD 4 billion. Each article delves into specific aspects of our work, from pioneering new climate finance models to navigating the complexities of emerging market investments to specific cases from the Lab portfolio.

In the first article, **Barbara Buchner** explores the Lab's challenge of balancing innovation with actionable climate finance solutions, highlighting the need for scalability, rapid learning, and alignment of private sector incentives with climate goals.

Then, **Benjamin Thomas and Haysam Azhar** present key strategies to address barriers to private climate investment. Their analysis focuses on five critical approaches to enhancing the flow of private capital to climate solutions.

Megan Sager and Ricardo Narvaez build on this to demonstrate how a well-crafted theory of change can guide social and environmental modeling and improve the impact of climate finance investments.

Next, **Carla Orrego** addresses the crucial topic of building a compelling investment profile for climate finance instruments to unlock private capital and address the substantial investment needs for climate action.

Amanda Brasil continues the discussion by delving into the strategic use of concessional capital in climate finance, focusing on the Lab's blended finance approach to de-risk investments and enhance their attractiveness.

Transitioning to specific cases from the Lab portfolio, **Arun Krishnan** interviews **Jayant Prasad** about the Sustainable Energy Bonds (SEBs) mechanism, highlighting the challenges and successes of using SEBs to attract investment to small-scale renewable energy projects in India.

Jonathan First reflects on the Climate Adaptation Notes (CAN) instrument and its challenges. Submitted to the Lab in 2020, CAN aimed to address climate adaptation needs, particularly in South Africa's water sector, but faced significant hurdles that hindered its implementation.

Phillipe Käfer interviews **Paulo Todaro** to discuss how the Green Receivables Fund (Green FIDC) addresses barriers to private investment, its innovative design features, and the lessons learned from its development and implementation in Brazil.

In the eighth chapter, **Morgan Richmond** outlines six key steps for structuring effective adaptation finance instruments, emphasizing the importance of defining adaptation goals.

Rosaly Byrd adds another layer through her comprehensive look at how integrating gender considerations into financial models can drive more inclusive and impactful outcomes.

Finally, **Ben Broché** reflects on the evolution of climate finance, highlighting emerging trends, challenges, and opportunities while underscoring the need for ongoing improvements in policies and investment strategies to advance a low-carbon economy.

We invite you to explore these insights shared from the Lab's first decade, and to join us in continuing the vital work of advancing climate finance solutions for a sustainable and resilient future.

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A DECADE OF THE LAB: FINDING A BALANCE BETWEEN CLIMATE FINANCE INNOVATION AND ACTIONABILITY

Barbara Buchner
Global Managing Director

In the decade since its founding, the **Global Innovation Lab for Climate Finance (the Lab)** has played a critical role in shaping the climate finance landscape. Its mission—sourcing, developing, and helping launch innovative solutions that mobilize finance to combat climate change—has never been more urgent.

As a market-builder and pipeline incubator, the Lab addresses a unique challenge: balancing a demand-driven approach while fostering innovation. The Lab plays a crucial role in supporting financial instruments in sectors emerging as important for climate change while leveraging domestic capital markets that are not yet mature and international private capital that is risk-averse and ill-suited for these immature markets. Striking the right balance between these needs—innovation and actionability—is essential to the Lab's impact.

Since 2014, the Lab has helped mobilize over USD 4 billion in investment by supporting 78 instruments that address barriers to climate and sustainable development action, including USD 1.6 billion from the private sector. The Lab's diverse portfolio has served a number of sectors, addressing mitigation and adaptation needs and offering practical blueprints for scaling finance towards a resilient, net-zero future. Our 10th anniversary provides an opportunity to share the valuable lessons learned and help accelerate and replicate business models that unlock

private finance for emerging markets. So, here are some key learnings from the Lab's experience balancing climate finance innovation with actionability over the past 10 years.

SCALABILITY AND PRACTICAL IMPLEMENTATION

Enable market creation while prioritizing scalable, bankable solutions. The climate finance space is filled with bold ideas and innovative approaches, but not every solution is ready for implementation. While experimentation is essential to drive solutions that address climate finance needs in difficult sectors and geographies, it is equally important to focus on projects that have both the potential to scale and the capacity to attract private capital. The Lab is an innovation-focused program, and the failure of some of its instruments to launch is one of its most important learnings. Every idea the Lab has supported is bold and challenging, though some were ready to scale in hindsight while others were not. Climate finance must ultimately serve dual purposes: delivering real-world impact and providing returns for investors. Prioritizing bankable projects helps ensure great projects don't get stuck in the pilot stage but instead grow to the scale needed to tackle global challenges.

Speed and scale: Fail fast, learn faster. Climate scientists have made it resoundingly clear we are in a race against time. As the effects of climate change accelerate, the need for large-scale climate solutions becomes increasingly urgent. The Lab's approach is clear: move fast, fail fast, learn quickly, and repeat. Not every project will succeed, but the key is to get promising solutions to the market as soon as possible. If they succeed, scale them; if they fail, learn and pivot. The goal is speed and scale, not perfection. Using this approach, more than 50% of instruments incubated in the Lab have gone on to mobilize at least an initial round, a success rate on par with most private venture investment portfolios.

RISK MITIGATION AND CAPITAL MOBILIZATION

Use blended finance to mitigate risk. One of the most effective tools to achieve actionability in climate finance is blended finance—using below-market-rate public and philanthropic funds to de-risk projects and attract private investment. Blended finance is a way to leverage risk-tolerant and patient capital to unlock private finance for projects in sectors and geographies that would otherwise struggle to attract funding. By leveraging limited public resources to absorb market and project-level risks, blended finance mechanisms make climate projects more appealing to private investors who might otherwise shy away.

Align private sector incentives with climate goals. Climate finance must work within a clear but sometimes uncomfortable reality. While private investors vary widely in their mandates, ability to take risk, and integration of climate into decision-making, their capital is driven primarily by the need for reasonable risk-adjusted returns. This is simply how financial markets work at the moment as they are not required to and usually do not price in the risks related to the climate crises. In the absence of carbon pricing and other mechanisms to address the global externality, what we can do is to try and channel significant capital toward climate action by creating financial instruments that align private sector incentives with long-term climate goals.

Climate finance's challenge is making investing in decarbonization and resilience profitable, which requires structuring investments to reflect attractive risk-adjusted returns while simultaneously focusing on impact and avoided risks.

Building strong local ecosystems by empowering local actors, financial markets, and solutions is essential for accelerating climate finance and addressing community needs in regions like Sub-Saharan Africa, Latin America, and South and Southeast Asia.

LOCAL RELEVANCE AND EARLY STAGE SUPPORT

Build strong local ecosystems. If there is one takeaway from working in regions like Sub-Saharan Africa, Latin America, and South and Southeast Asia, it is that local networks, local capacity, and local solutions matter. We must work to build a future where climate solutions are locally led and access to funding by local entities is simplified. Encouraging the development of domestic financial markets and supporting local financial institutions, investors, and entrepreneurs are critical steps in making climate finance actionable in these regions. When local actors lead, projects tend to move faster and better address the needs of local communities on the ground.

Early-stage capital is crucial. Many of the Lab's proponents face a significant barrier: they cannot access the small but essential amounts of capital needed to hire or maintain teams, conduct research, or engage with investors. Early-stage, flexible working capital is consistently highlighted as one of the most important factors in getting climate finance solutions. Programs like the Lab's Pre-seed Capital Facility are steps in the right direction, providing small but catalytic amounts of capital to help innovative teams bridge the gap between ideation and implementation.

A VISION FOR THE FUTURE

The climate finance landscape has evolved dramatically in the past 10 years, but the path ahead remains challenging. If we are to mobilize finance for mitigation and adaptation action at the scale and speed necessary to meet our international climate targets, we need to focus on not only innovative but also actionable financial solutions. This balance—between creativity and practicality, between finance and real-world impact—will define the future of climate action.

Ultimately, the goal is to make all finance become climate finance, embedding climate and development considerations so deeply into how capital is allocated that we no longer need a separate term. Until then, the Lab's role remains vital: catalyzing the next wave of innovation while ensuring that the projects we fund today lead to the climate solutions of tomorrow.

1

FIVE STRATEGIES TO BREAK DOWN BARRIERS TO PRIVATE CLIMATE INVESTMENT

Benjamin Thomas
Senior Analyst

Haysam Azhar
Analyst

Emerging markets and developing economies face significant challenges in attracting investment to mitigate greenhouse gas emissions and adapt to climate change. Finance needs in these markets are projected to reach USD 2.4 trillion annually by 2030, presenting a substantial opportunity for private investment.

Despite controlling the world's largest pool of assets, private institutional investors and commercial banks have played a limited role in funding climate solutions in developing economies due to both real and perceived risks at the macro and micro levels. [1]In Sub-saharan Africa, for example, private finance accounts for less than a third of all climate finance.

Over the past decade, the Lab has been on a mission to bridge the private finance gap for climate-related investment. Since its establishment in 2014, the Lab has supported 68 climate finance instruments that have collectively mobilized over USD 4 billion, with USD 1.6 billion

1 Micro risks are firm-specific and can impact a project's ability to generate revenue and investors' ability to profit from their investment. In contrast, macro risks may affect all businesses or industries across geographic regions or countries.

coming from the private sector. Through this work, we have developed a robust knowledge base on various approaches that help projects reach commercial viability and attract private investment.

The Lab tackles two main barriers to climate investment in emerging markets: acute and chronic risks.

- **Acute risks** are specific to a project stage, occur at different points during the project cycle, and typically play out at the micro level. Some examples of highly acute risks are burdensome administrative processes and insufficient project size. Moderately acute risks include limited technical capacity, lack of data, and inadequate physical infrastructure. Lab instruments have most successfully addressed acute risks in their design.
- **Chronic risks** are long-term uncertainties throughout a project's life. They include revenue risk, political instability, currency volatility, and climate disasters. Chronic risks typically play out at the macro level.

Lab solutions have championed various strategies to overcome these barriers, including standardization, aggregation, capacity building, blended finance, and credit enhancement. Below, we explore these concepts' ability to increase climate finance in emerging markets.

1. STANDARDIZATION STREAMLINES BUREAUCRACY AND ACCELERATES INVESTMENT

Bureaucratic hurdles can stall investments. External delays can be caused by obtaining permits or land titles from government agencies, while internal holdups may include completing due diligence and negotiating contracts. Establishing common templates for agreements and procedures reduces admin istrative burdens for investors and project developers, streamlining project initiation and due diligence and speeding up project cycles.

Climate Investor One (CIO) has mobilized private finance at scale from investors, including NWB Bank, KLP Norway, and Aegon Asset Management, to become the most successful solution developed by the Lab, with USD 1.9 billion committed, including via spin-offs Climate Investor Two and Climate Investor Three. As an investment vehicle comprising three funds that work in tandem to finance renewable energy projects at different stages, CIO has standardized its investment process to reduce administrative burdens. By integrating separate funds for the development, construction, and operating periods, CIO simplifies negotiations between multiple capital providers, thereby streamlining the funding processes.

2. AGGREGATED PORTFOLIOS BETTER MEET THE NEEDS OF LARGER PRIVATE INVESTORS

Since small projects often struggle to attract large investors due to high transaction costs, bundling several into a single investment package can achieve economies of scale and make them more attractive.

For example, the Sustainable Energy Bonds (SEB) India Lab-supported instrument has mobilized capital for small clean energy projects by aggregating them into a single diversified loan portfolio.

Given that loans for small initiatives such as rooftop solar or energy efficiency retrofits often yield low per-transaction returns, the SEB bundled them in order to spread their fixed costs and create an appealing value proposition for investors.

Similarly, the Structured Finance for Nature for Southeast Asia, which the Lab is supporting in 2024, proposes an aggregation approach to reduce bondholders' repayment risks. It aims to do this by leveraging cash flows from new projects financed through the bond proceeds and existing projects already generating income.

3. CAPACITY BUILDING REDUCES PIPELINE RISK

Emerging markets require support to build their expertise to adopt innovative financing approaches and create a steady flow of promising climate projects. This includes providing technical skills to create and maintain monitoring systems, as well as financial know-how to secure loans and manage finances. Technical assistance can range from helping with initial planning to ensuring the long-term operation of projects. By training developers, implementers, and other key players, Lab solutions empower them to structure, run, and monitor climate projects effectively – all of which help to build future project pipelines.

The Catalyst Fund, for example, offers pre-seed capital and bespoke venture-building support to foster innovation and promote adaptation solutions. The fund's team of technical experts provides climate-focused startups with hands-on venture-building support to achieve product-market fit faster and build climate resilience among their customers. This grant-funded program includes an ecosystem-building facility to bolster the adaptation sector in Africa and make it more attractive for investment. The initiative benefits a range of players, from businesses receiving grants to private investors looking for promising opportunities. The Catalyst Fund's current portfolio includes more than 20 climate startups in Tanzania, Kenya, Senegal, Egypt, Uganda, Morocco, and South Africa.

4. BLENDED FINANCE MITIGATES RISKS AND UNLOCKS PRIVATE CAPITAL

Chronic risks such as currency volatility, political instability, and revenue risk are common barriers to private investment in developing economies. These risks can be addressed by blending public and private investments to enable investors with different risk appetites to work together. Blended finance uses public and philanthropic funds to mobilize additional private capital. The Lab specializes in developing such instruments, which can alleviate private and commercial investors' concerns regarding chronic risks.

The Smallholder Forestry Vehicle (SFV) is one of many Lab instruments that uses blended finance to attract private capital. A first-loss tranche from public investors reduces risks and catalyzes additional private investment in the Kenyan forestry sector. The public tranche takes the initial loss if tree growth or crop yields fall below expectations. By mitigating revenue risk in a challenging market, SFV has attracted private investment from CI Ventures, a leading impact investor.

5. CREDIT ENHANCEMENT LEVELS THE PLAYING FIELD

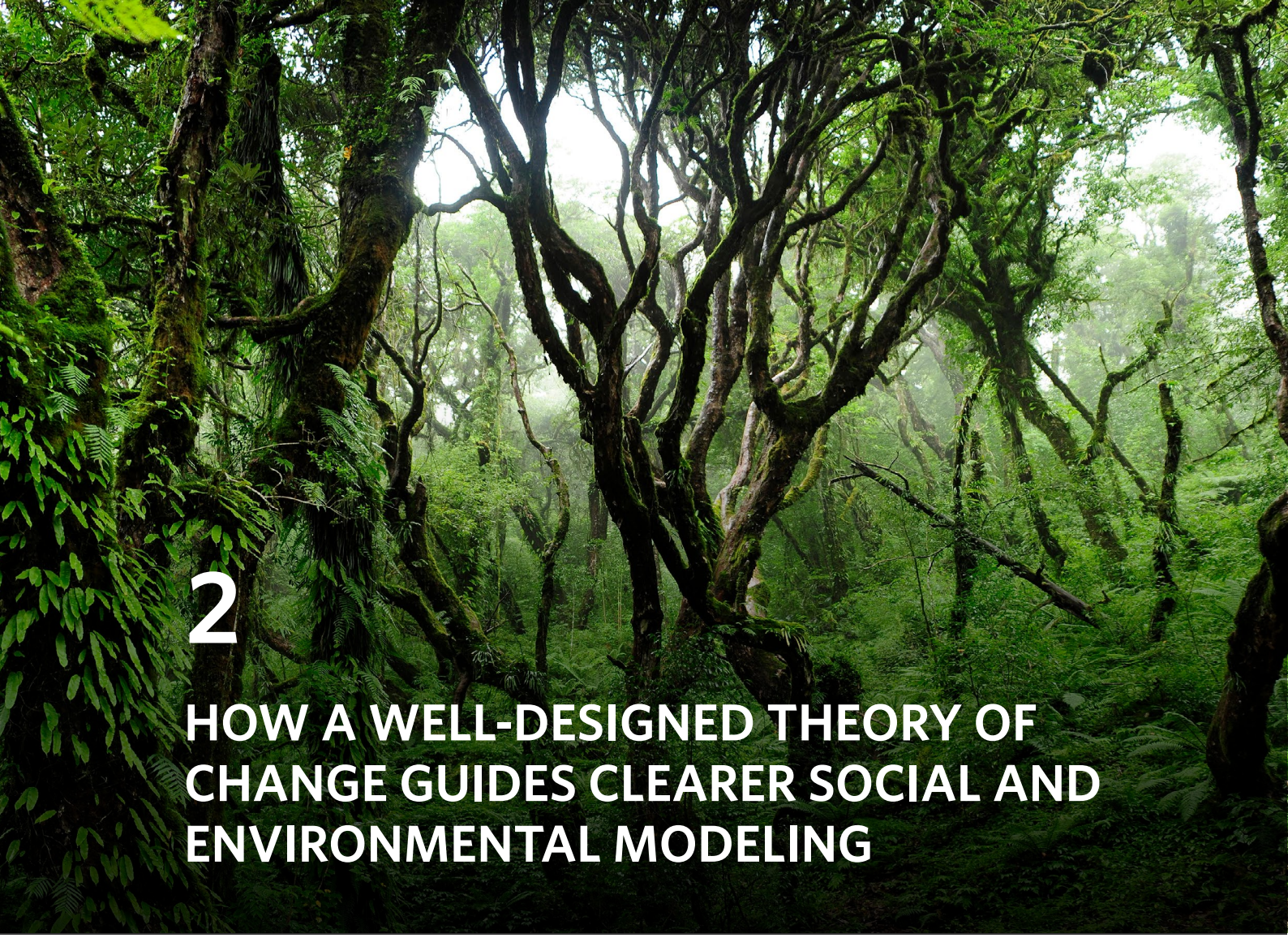
Credit enhancement is another valuable tool for making climate projects more competitive vis-a-vis conventional investments. It can help mitigate chronic risks related to currency fluctuations, political instability, and project performance. Guarantees act as a safety net, promising to fulfill a service or good if the original provider fails to do so. This injects a third party into the agreement, offering an extra layer of security for the beneficiary (usually an investor). On the other hand, insurance involves a direct agreement between an insurance provider and a policyholder. In case of a specific negative event causing harm or loss, the insurer provides financial compensation.

In response to the rising demand for risk mitigation tools, the Lab has expanded its portfolio of guarantee and insurance mechanisms. One example is the Green Guarantee Company (GGC), developed in 2022 under the Lab's East and Southern Africa program. The GGC is an investment-grade (Fitch BBB/Stable) guarantor that enables public and private borrowers to access long-term debt from global credit and capital markets, mobilizing USD 100 million.

6. STRONG PUBLIC-PRIVATE PARTNERSHIPS ENABLE ACTION

Trillions of dollars must come from private actors for the climate transition – the public sector simply does not have the funds. The Lab has emerged as a source of information on practical solutions to bridge the gap between public and private investors in developing economies. By employing multifaceted strategies to address challenges in these markets, Lab instruments have mobilized billions of dollars.

As demand for climate action intensifies, the Lab's expertise in de-risking investments and building robust project pipelines remains crucial. By fostering collaboration between the public and private sectors, the Lab can unlock the vast potential of private capital and accelerate the transition to a sustainable future for all.



2

HOW A WELL-DESIGNED THEORY OF CHANGE GUIDES CLEARER SOCIAL AND ENVIRONMENTAL MODELING

Megan Sager
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Finance Lead

Imagine you are designing a financial instrument to promote sustainable land management practices among Southeast Asian farmers. You envision this will reduce deforestation, improve soil health, and increase carbon sequestration. But how can you quantify these expected outcomes to demonstrate the return on your investment?

Social and environmental modeling is an essential yet tricky aspect of climate finance. Investors increasingly seek to estimate their investments' environmental and social outcomes. However, establishing and measuring these metrics can be challenging.

Climate finance innovators often struggle to establish a logical impact framework that fully grasps the social and environmental context they aim to address with their financial instruments. This can make it difficult to define and communicate the impact of potential solutions.

At the Lab, we have found that designing a Theory of Change (ToC) is an effective tool for integrating impact considerations into climate finance mechanisms. For the past ten years, the

Lab's team of experts has worked with several innovators to develop robust ToCs, resulting in better-designed climate finance solutions with a clearer path toward achieving social and environmental goals. But how do we do it?

UNDERSTANDING THE THEORY OF CHANGE

A ToC is a roadmap that outlines the steps required to achieve desired goals. It lays out the pathway from activities to outputs (direct results of activities), outcomes (short- to medium-term effects), and impacts (long-term, significant changes).

The value of the ToC lies in its ability to provide a clear, visual representation of a project's goals and the necessary steps to achieve them in a cause-and-effect chain. This helps to clarify the assumptions and causal linkages that underpin a project or initiative.

It serves as a planning and communication tool, ensuring that all stakeholders understand the objectives and the means to attain them. This clarity is invaluable for social and environmental modeling.

Integrating a ToC into the Lab process of developing climate finance instruments complements the detailed design of financial mechanisms. Here's how the Lab defines the key elements of this framework:

- **Activities:** The core set of 4-8 actions the instrument will take to solve the problem and achieve its goals. These might include developing a pipeline of projects, gathering data, mapping key financial flows, or conducting due diligence.
- **Outputs:** The direct, measurable deliverables of the activities, including immediate practices, products, and services. Outputs are typically directly within the control of the project.
- **Outcomes:** The results the instrument aims to achieve through its activities. Outcomes are influenced by the project but not directly controlled by it. They are typically measured over longer timeframes.
- **Impact objectives:** The broader mission statement describes the instrument's overarching influence, typically spanning 2-3 key areas. While not directly measurable, the impact objectives should connect to the project's activities, outputs, and outcomes.
- **Goal:** A core, concise statement summarizing the instrument's overarching purpose.

Outputs, outcomes, and impact indicators should naturally emerge from a well-crafted ToC to measure anticipated results. When these indicators are chosen independently of a ToC, they may not align well with the intervention. Therefore, having a clear ToC is crucial to selecting appropriate indicators, defining success, and measuring impact.

TOC ENHANCES SOCIAL AND ENVIRONMENTAL MODELING

Once the ToC is established, the Lab leverages its expertise to translate qualitative aspects into quantitative indicators. This may involve researching existing benchmarks for similar projects, identifying relevant data sources, and developing data collection and analysis methodologies.

While not an exact science, this marks an earnest attempt to quantify the impact achieved per dollar invested. For instance, each dollar allocated might abate a certain amount of CO2 emissions. Determining this factor—how each dollar translates into impact—is a significant challenge, and the Lab often supports proponents in addressing it.

Integrating a ToC into developing climate finance instruments has shown significant benefits. This approach is exemplified by the 2023 Lab alumnus Catalyst Fund, which provides equity and hands-on venture-building support to startups building climate adaptation capabilities in Africa to help them achieve product-market fit.

The process solidified the fund's key investment verticals (Fintech for Resilience, Sustainable Livelihoods, and Climate-Smart Essential Services) and linked specific activities to broader resilience outcomes. This clear cause-and-effect pathway allowed the fund to select relevant and precise outcomes and impact metrics aligned with its overarching goals for the startups in its pipeline.

For instance, within the Fintech for Resilience investment vertical, the fund targets a resilience outcome of improved access to financial services that build financial health and allow households to cope with climate risks. They have structured a related set of output metrics, including the percentage of users using insurance for the first time and the number of loans deployed. These and other metrics prove the fund's effectiveness and investments' positive social and environmental outcomes.

The Catalyst Fund (2023 Lab Alumnus) solidified the fund's key investment verticals.

MEASURING GENDER EQUALITY IN HOUSING

Another example is Social Infra Ventures (SIV), a groundbreaking rental and for-sale gender-responsive, green, affordable housing platform in Northern Africa. When joining the Lab program in 2023, SIV's proponents knew they wanted to focus on gender-positive affordable housing but lacked clarity on defining and measuring it. Without a clear definition or metrics for success, SIV would have struggled to demonstrate the impact its housing developments would have on women.

The Lab's ToC prompted SIV to identify specific impact objectives, consider gender-responsive design features, and develop measurable outcomes and outputs. An example is the development of social and infrastructure facilities such as parks and childcare centers. This output directly translates into the number of products and services that benefit women, a key impact metric for SIV.

The Lab's ToC prompted Social Infra Ventures (2023 Lab Alumnus) to identify specific impact objectives considering gender-responsive design feature.

GOAL	**CREATION OF AFFORDABLE, GENDER-RESPONSIVE AND GREEN COMMUNITY-CENTRED HOUSING OPTIONS** Inclusive, green, and safe communities will be created by providing gender-responsive and climate-sensitive rental and ownership housing options while creating social infrastructure facilities.				
IMPACT	**DEVELOPMENT OF AN AFFORDABLE, GREEN AND GENDER-RESPONSIVE HOUSING PLATFORM** Development of an affordable rental and for-sale housing options in well-located areas which have green, climate-resilient, and gender-responsive features.	**DEVELOPMENT OF INCLUSIVE AND SAFE COMMUNITIES NEAR ECONOMIC HUBS IN SECONDARY CITIES** Creation of burgeoning, diverse, and empowered communities with access to social infrastructure economic opportunities, especially for women, youth, and children.			
OUTCOMES	**Mobilization of local currency funding at scale** from pension funds and insurance companies.	**Greater access to safe and affordable housing**, particularly for women, youth, and children.	**Improved access to economic opportunities and social services** within or close to city center.	**Innovative green and gender-responsive home designs** integrated into development of all buildings.	**Institutionalized rental providing secure tenure**, especially for women, youth, and children.
OUTPUTS	**Listing of a residential REIT facilitating local investment** into institutional rentals.	**Awareness raising** around benefits of green buildings and gender-inclusive designs.	**Range of housing typologies** catering to different household needs.	**Development of social infrastructure facilities** such as parks and childcare centers.	**IFC EDGE standard and Building Resilience Index (BRI)** incorporated in all developments.
ACTIVITIES	**Engagement with local banks, administration, and stakeholders** to understand barriers, address bankability and secure construction finance.	**Construction of green, affordable, climate resilient and gender-responsive housing** in suitable locations in secondary cities.	**Engagement with local communities** to identify needs, particularly for women, youth, and children.	**Undertake housing market studies** to gain a better understanding of rental housing demand and community needs, especially for women, youth, and children.	

IMPROVING INSTRUMENT DESIGN

The Lab's ToC framework can also inform instrument design. Take, for example, the Green Affordable Housing Finance, a 2022 Lab instrument that deploys a combination of guarantees for construction loans and mortgages with targeted capacity-building interventions to foster a locally driven and self-sustaining affordable housing finance ecosystem.

Lab proponent Reall originally planned to focus only on household access to credit, but the ToC showed that access to credit for housing developers was also a constraint. That led to the instrument guaranteeing construction loans and mortgages, enhancing how the instrument would target systemic change in a complex system with many different actors and steps.

Green, Affordable Housing Finance (2022 Lab Alumnus) ToC showed that access to credit for housing developers was also a constraint.

GOAL	**A SELF-SUSTAINING HOUSING FINANCE ECOSYSTEM FOR GREEN AFFORDABLE HOMES** Local financial institutions deploy private finance across the housing value chain to support inclusive green home development				
IMPACT	**CONSTRUCTION OF LOW-COST GREEN HOMES AT SCALE** Construction of affordable units and adoption of green building standards become the status quo for housing developers		**ACCESS TO CREDIT FOR LOW & INFORMAL INCOMED BORROWERS** Households with low and informal incomes are integrated into local financial institutions' status quo lending operations		
OUTCOMES	**Adoption of green building standards** by local developers	**Innovative home designs** integrated into development plans	**Increased lending** volume by local financial institutions	**Adoption of alternative credit assessment** for low & informal income	
OUTPUTS	**Direct construction finance** at concessional rates for innovative home designs	**Construction guarantee** shares default risk with local financial institutions	**Knowledge sharing** through dissemination of information to developers, LFIs, & households	**Technical assistance for green home construction** facilitates adoption of green building strategies	**Mortgage guarantee** shares credit risk of low & informal incomed borrowers with LFIs
ACTIVITIES	**Identification of innovative home designs** with high affordability & climate impact potential	**Due diligence on new home construction** in conjunction with ongoing support for local developers	**Gather & evaluate data** on green building performance & mortgage repayment rates	**Support local developers in meeting IFC EDGE standard** for newly constructed homes	**Promotion of alternative credit assessment** to underwrite low & informal income

ADDRESSING CHALLENGES AND FUTURE OPPORTUNITIES

A well-designed ToC can help clarify the components needed to drive impact. If you understand these resources, you can estimate the value of an expected outcome. This can help translate the investment into the outcomes and impact you aim for in the report.

Doing so requires shifting from focusing solely on financial returns to considering broader social and environmental effects. Developing a comprehensive ToC can be time-consuming and requires collaboration among various stakeholders.

However, the potential rewards make this effort worthwhile. By systematically incorporating a ToC into their development processes, climate finance initiatives can improve their impact projections and become more effective investments. As more data becomes available from implemented projects, these ToCs can be refined and used to develop industry benchmarks and best practices.

Looking ahead, The Lab sees potential in fostering collaboration across institutions to standardize impact metrics and methodologies. By leveraging the collective insights from a diverse portfolio of projects, they can contribute to a more consistent and credible approach to social and environmental modeling.

3

BUILDING A COMPELLING INVESTMENT PROFILE FOR CLIMATE FINANCE INSTRUMENTS

Carla Orrego
Portfolio Manager

Private capital is critical to unlocking the trillions needed to combat climate change. However, billions in climate finance are untapped due to a perfect storm of challenges: small deal sizes, nascent asset classes, track record restrictions, and investor concerns over emerging markets. To realize this potential, climate investments must become more attractive. There is a pressing need to create a pipeline of investable solutions that better align the risk-return profiles of climate finance instruments with investors' expectations.

For the past 10 years, the Lab has helped climate finance innovators build compelling investment profiles for climate finance instruments by addressing financial risks and ensuring a solid impact thesis. The Lab goal is to create a bankable pipeline of structures that channel capital into climate projects through financial innovation to de-risk transactions and drive investments to underfunded sectors and geographies.

The Lab's approach involves designing and structuring diverse financial mechanisms, from private equity and infrastructure funds to results-based financing models, to align with the specific needs of climate projects and investor preferences. The Lab's portfolio of 68 instruments incorporates different strategies to break down barriers to investment. These include using blended finance to match different financial actors with their appropriate risk-return profiles;

cost-effective models like pay for performance to address the lack of upfront financing; credit guarantees and insurance schemes like parametric indexed or guaranteed annuities; aggregation models to overcome small ticket size issues; among others.

This blog showcases specific examples from our portfolio, highlighting their strategies for building compelling investment profiles, ultimately leading to them mobilizing millions of private climate investments.

BUILDING A PIPELINE OF INVESTABLE CLIMATE SOLUTIONS

The Climate Resilience and Adaptation Finance & Technology Transfer Facility (CRAFT) is an investment strategy developed within the Lab in 2017 that led to the Lightsmith Climate Resilience Fund, an innovative private equity fund focused on climate resilience and adaptation. Leveraging a blended finance structure, the fund invests in growth-stage technology companies offering adaptation solutions like weather analytics and drought-resilient seeds. By targeting underserved markets, the fund helps customers assess and manage climate risks while reducing costs. In 2021, the fund successfully closed at USD 186 million and has since deployed over 60% of its capital.

The Lab played a crucial role in developing the fund's investment thesis and strategy, including designing its blended finance structure to attract a diverse investor base. By mitigating risks and aligning investment opportunities with investor expectations, the Lab helped position the fund for success, drawing participation from governments, impact investors, and commercial investors across different tranches of the capital stack.

CRAFT stands out as a global pioneer in adaptation finance. It has attracted significant attention and demonstrated the potential for systemic change by engaging commercial investors. The fund is now actively deploying capital in various deals, demonstrating its robust theory of change and impact.

INNOVATION WITH RIGOROUS SCRUTINY

Another example is the Blockchain Climate Risk Crop Insurance, designed to attract capital to smallholder agriculture in Africa, a historically underserved sector. Endorsed by the Lab in 2019, the instrument is a digital platform for standardized parametric crop insurance that aims to increase smallholder farmers' resilience by offering affordable insurance and accelerating claims processing following a catastrophic weather event. Each insurance policy is plugged into smart contracts on a blockchain and indexed to local weather, facilitating timely and fair payouts.

The Lab supported building the financial structure by helping proponent Etherisc prove their unique concept. The Lab's working groups provided a platform for rigorous scrutiny and constructive feedback, posing hard questions that helped the implementers refine their approach. This process prepared the team to confidently address inquiries from potential investors and other partners, ensuring that the investment thesis was robust and well-articulated. By doing so, the Lab helped the team anticipate and address potential concerns, making the project more appealing to investors.

The instrument has been implemented in various regions in Kenya, onboarding over 17,000 farmers and paying out policies to roughly 6,000. While still in its early stages, this project highlights the potential for creating substantial positive change for vulnerable communities.

Similarly, the P-REC Aggregation Facility (PAF), from the Lab's 2021 cohort, taps into a challenging market. PAF is a project finance vehicle that monetizes renewable energy projects' environmental and socioeconomic attributes across 13 fragile African countries. It does so through the origination and aggregation of Peace Renewable Energy Credits (P-RECs), a high-quality International Renewable Energy Certificate (I-REC) generated from climate-vulnerable and energy-poor countries.

PAF covers developers' up-front construction costs in exchange for P-RECs generated by the project over 10 years. When construction is finalized and as energy is generated, PAF will recover initial financing and generate returns by selling the P-RECs to corporate buyers. PAF aims to provide catalytic financing to local developers and attract international renewable energy investment into conflict-afflicted regions. The proponent, Energy Peace Partners, has closed several independent transactions, including with Google and Microsoft in the Democratic Republic of Congo and Block in South Sudan.

ADAPTING FOR IMPACT AND SCALE

Flexibility is key to the Lab's work, which constantly finds new ways to streamline or standardize its processes for broader use by climate finance actors. Similarly, the Lab helps proponents adapt their investment thesis to new applications.

Cooling as a Service (CaaS) illustrates how an instrument can be adapted for new sectors addressing specific market needs. CaaS is a servitization model that decreases energy consumption and emissions from cooling systems by making efficient technologies more accessible. As CaaS gained initial traction, the proponents realized the need for cooling solutions in underserved African and South Asian markets.

The instrument evolved into a new model: Cooling as a Service with a Virtual Cold Chain Assistant (CaaS with VCCA). This new pay-per-service model helps smallholder farmers access sustainable cooling facilities. Farmers pay per kilogram of food stored in cold rooms, avoiding up-front investments. They also have access to a mobile application that uses physics-based modeling to simulate how crops age based on real-time sensor data and inform farmers' post-harvest decisions.

CaaS replicated their model using the mechanism designed through the Lab's process and as part of a replication program. The Lab helped them adapt this approach to the sustainable agriculture sector, specifically for customized solutions in India, allowing them to scale their model within this segment.

Following this success, CaaS proponents began exploring how to replicate their model in other sectors. Essentially, their strategy involves identifying different market needs and then adapting and iterating the model developed through the Lab to address them.

BUILDING A BLUEPRINT FOR THE FUTURE

By strengthening the instruments' investment profile, the Lab creates blueprints and structures that different institutions and stakeholders can adopt. The Lab focuses on driving investments from a diverse group of stakeholders, helping proponents develop a pipeline that can be standardized, replicated, and scaled.

Take, for example, the 2015 Lab instrument Energy Savings Insurance (ESI), a model that incorporates an insurance agreement as a performance guarantee mechanism and a package of complementary measures providing technical capacity and access to capital. ESI encourages climate investment by mitigating the downside risk for SMEs investing in energy-efficient technologies. ESI was initially piloted in Latin America, then adapted by different parties and replicated across Europe and Asia.

Lab instruments undergo an intense period of stress testing and guidance from experts, which helps proponents strengthen their models to become easily scalable and replicable once they hit the market. Proponents can improve their instruments' investment profile and attract risk-averse investors looking to park their money in safer places. By doing so, the Lab works to unlock the full potential of the private sector to catalyze the trillions needed each year to drive mitigation and adaptation action at the scale and speed necessary to meet international climate targets.

4

MAKING THE MOST OF CONCESSIONAL CAPITAL: THE LAB'S BLENDED FINANCE APPROACH

Amanda Brasil
Senior Program Associate

A key barrier to mobilizing climate finance at scale and speed to meet international climate goals is getting the private investors involved. Often, these actors can be deterred by risk, complexity, and limited familiarity with economic activities compatible with climate mitigation and adaptation.

Concessional finance, or below-market-rate finance, is fundamental to breaking down barriers and unlocking the potential of climate finance. It is used in blended finance mechanisms to fund structures like guarantees, first loss, and subordinated tranches, ensuring that investments' risk-return profiles are better aligned with private sector expectations. This strategy attracts private investors who might otherwise choose more traditional sectors.

Given that limited concessional finance is available, this blog breaks down the Lab's approach to maximizing its impact and reducing proponents' reliance on it over time. Various Lab instruments have proved that concessional funds can help solve the riskiest parts of financing structures in the early days, demonstrating funds' viability and helping them to become self-sustaining over the longer term.

BLENDED FINANCE DRIVES CLIMATE INVESTOR ONE

To date, no other Lab instrument has been more successful at mobilizing capital than Climate Investor One (CI1), launched in 2015. Climate Fund Managers (CFM) created this blended finance solution to facilitate early-stage development, construction financing, and refinancing to fast-track renewable energy projects in developing countries. CI1 reached its final close at USD 950 million, while its sister instrument, Climate Investor Two (CI2),announced its third close at USD 875 million late last year.

Key to the success of CI1 and CI2 is their blended finance structures, which enable them to deliver impact and make the most of concessional capital. CI1 comprises three funds: a USD 50 million development fund, a USD 800 million construction equity fund, and a USD 800 million refinancing fund. The bulk of the concessional capital is invested via the development fund to address the riskiest stage of renewable energy projects and attract commercial investors. It can fund up to 50% of the project and provide technical assistance. The refinancing fund provides senior debt through post-construction refinancing.

While renewable energy is one of the more mature areas of climate finance, other less-developed sectors need more concessional finance to attract commercial investors. CI2, which has yet to reach its final close, targets the water, sanitation, and ocean sectors. CFM aims for a development fund of USD 90 million, a USD 1 billion construction equity fund, and a USD 1 billion refinancing fund.

LEVERAGING CONCESSIONAL CAPITAL FROM THE PRIVATE SECTOR

The Responsible Commodities Facility (RCF), a 2018 Lab instrument, provides additional insight into how concessional capital from the private sector can drive environmental impact. The Lab worked with proponent BVRio to develop RCF, which provides financial incentives to produce soy on cleared and degraded lands in Brazil's Cerrado, thereby preserving existing forests.

BVRio used concessional capital—lending to farms at a more attractive rate—to pilot its model. Funded by UK supermarkets, the USD 11 million pilot was highly successful, drawing interest from farmers who were able to meet their loans' environmental requirements.

The second iteration of RCF switched to commercial rates registered in Euros, but the loans were still more attractive than those provided by local markets. Leveraging concessional capital enabled RCF to achieve commercial success. Last year, its Cerrado Programme fund expanded more than four-fold to USD 47 million.

The program already has a sizable environmental impact. In the 2023/24 season, it financed 122 farms to produce more than 260,000 tonnes of soy, resulting in the conservation of over 43,000 hectares of native vegetation and the protection of 20 million tonnes of CO_2 carbon stocks.

GOING THE EXTRA MILE

Sourcing concessional capital, often patient and impact-driven, takes time and presents unique challenges. Largely provided by governments, development finance institutions, and multilateral climate funds, these investments require navigating a complex process that can be a pain point. Nevertheless, concessional capital can also come from different sources within the private sector, including philanthropies, impact-first investment managers, and even private companies.

The Brazilian cosmetics multinational company Natura of one of the proponents behind the Amazonia Sustainable Supply Chains Mechanism, a 2021 Lab solution. This initiative leverages off-taker agreements to catalyze the bioeconomy and keep forests standing. Natura has been highly effective in positively influencing actors in its supply chain. The instrument helps Natura fund its suppliers and generate the conditions for them to follow sustainable practices.

This makes good business sense for the company because it reduces the risk of damage to its brand through unsustainable practices in its supply chain. It is also positive to keep the same suppliers rather than changing business focus, and it is strategic for corporations to be involved in financing the SMEs and cooperatives that are part of their supply chain.

As in RCF's case, private companies can play a key role in contributing capital for impact investing. They can also work within their own supply chains to ensure that their partners are engaging in socially and environmentally responsible practices.

PHASING OUT CONCESSIONAL CAPITAL

A key aspect of blending is the ability to phase out capital at a certain stage. Planning this transition to commerciality is crucial for most instruments in the Lab's portfolio. While a pilot may require more concessional capital, scaled-up versions should no longer need it once their investment theses are proven.

However, reducing or eliminating the share of concessional capital in a blended finance vehicle can be difficult in sectors and geographies deemed particularly risky by commercial investors. In certain cases, ongoing concessional support may be necessary to help mitigate systemic risks that are not likely to disappear within one investment cycle.

For example, a small-scale forestry project in an emerging market with substantial political and currency risks may rely on concessional capital more heavily and for longer than a massive renewable energy project. If used wisely, concessional capital can be a critical tool for driving private-sector investment and opening new doors to commercial investors.

The Lab program helps proponents structure their finance instruments to get the most out of concessional investments and create financially sustainable climate solutions. Designing and implementing blending finance mechanisms frequently involve intricate institutional arrangements and alignment among public and private investors with different priorities.

5

ENHANCING THE APPEAL OF SMALL-TICKET INVESTMENTS WITH SUSTAINABLE ENERGY BONDS IN INDIA

Arun Krishnan
Program Manager, India Lab

Launched in November 2015, the Lab in India is a public-private initiative that identifies, develops, and accelerates innovative solutions to finance renewable energy infrastructure and other green growth channels. To date, the India Lab has endorsed 11 climate finance solutions, including the Sustainable Energy Bonds (SEBs) from the 2017 cycle, developed by cKers Finance.

SEBs are a class of bonds that drive impact investment in sustainable energy in India by offering debt exposure, sufficient returns, and standardized impact measures. They are designed to aggregate smaller-scale renewable energy projects (typically between USD 1 million to USD 5 million) into a single investable package. This approach addresses the challenge faced by investors typically interested in larger-scale projects.

To date, SEBs mobilized over USD 8 million to fund the installation of 50+ megawatts of rooftop solar in India, the addition of 10,000 electric vehicles on the country's roads, and many other use cases, including clean energy efficiency.

A few weeks ago, I sat down with cKers Finance Executive Director Jayant Prasad to discuss the SEBs' journey, his time with the Lab, and future plans.

The below transcript of their conversation has been edited for clarity.

WHAT WERE THE MAIN BARRIERS HINDERING PRIVATE INVESTMENT IN INDIA'S CLEAN ENERGY SECTOR, PARTICULARLY FOR THE SMALLER-SCALE PROJECTS THAT SEBS ADDRESS?

Jayant: When we applied to the Lab, we said that there are climate investors inside and outside India who would want to finance India's clean energy transition, but they need to better understand the opportunity and its relevancy.

Traditionally, the market has preferred large projects. Green bonds and other frameworks have typically funded utility-scale solar, wind, and similar projects. With the SEBs, we specifically wanted to target smaller projects from USD 1 million to USD 5 million. Climate and impact investors are wary of small transaction sizes, and I think this has been the biggest stumbling block for us.

We needed to explain to investors why funding large-scale utilities alone is insufficient to drive India's decarbonization. This challenge highlighted the need to market instruments such as SEBs, which aggregate smaller projects for scale.

A second challenge is that each investor usually ends up putting in their own compliance norms in their funding. This results in one beneficiary organization having to follow multiple compliance norms. For large-scale projects in the range of USD 50 million to 100 million, these costs are just a small percentage. They become significant if you are trying to borrow or raise funds for a USD 1 million to USD 5 million project, especially if you have conflicting compliance requirements.

Our sustainable energy bond framework addresses these barriers head-on. SEBs aggregate multiple projects that individually are too small for bond issuances but together provide the required scale. SEBs can be applied to loans, securitization pools, or any other similar financial instrument. To counteract conflicting compliance requirements, we created simple menu-driven options for the investor to choose what impact they want to be reported.

I THINK THIS IS A VERY NICE SOLUTION NOT ONLY FOR THE RENEWABLE ENERGY MARKET BUT OTHER MARKETS AS WELL. I'M CURIOUS AS TO WHY NOBODY ELSE CONSIDERED THIS. WAS THERE A REGULATORY ISSUE THAT GOT RESOLVED BY THE TIME YOU WERE PLANNING THIS BOND?

Jayant: While we were the first to focus on renewable energy, others have launched social impact bonds in the space. The concept was not entirely new. We were riding on existent regulations, so the regulatory issue was not there in the renewable energy space.

DIFFERENT INVESTORS WILL HAVE DIFFERENT PRIORITIES, SO HOW DO YOU MANAGE BETWEEN THEM?

Jayant: I give them a menu of choices, based on a consensus view of what kind of impact would be reported. The investor is choosing from a standardized taxonomy, so we are not reinventing the wheel. Investors essentially want to know that our reporting has an actual basis.

The gap was in the desire of climate, impact, and DFI investors to do smaller ticket-size transactions. As of today, we still find people not wanting transactions below USD 10 million, USD 20 million, or even USD 50 million.

That's where the marketing approach from our side comes in. We ask: "How will these spaces grow if you are not willing to invest in them?"

ARE YOU INTERESTED IN REPLICATING THIS FRAMEWORK GLOBALLY?

Jayant: We haven't attempted it, but this framework is regulation-agnostic and could be applied anywhere. It's simply a framework on how to market, measure, and report impact. You could be issuing loans, pools, or bonds using this framework out of Guatemala for all you care, right?

The question you need to ask yourself is whether impact reporting is an issue in that particular country and whether regulation permits impact investing. Can climate investors who are inside or outside the market invest easily? If so, then maybe you need to add a project preparation angle. Otherwise, I don't see anything stopping this framework from working.

SO, COMING TO THE ROLE THAT THE LAB PLAYED, WHAT VALUE DID YOU DERIVE FROM THAT?

Jayant: We worked with the Lab to build this instrument. The Lab is very good at asking questions and helping people flesh out the instrument contours.

Our team used the inspirational ideas from the Lab's model to determine what framework or instruments would make sense for investors. We met with investors who are part of the Lab network and marketed the instrument to them, asking if it made sense.

The Lab helped us network both inside and outside India. We were able to go into investment meetings to explain our framework. Post-completion, we had the framework ready and published it. We had several investor conversations, one of which we converted. The California Clean Energy Fund (CalCEF) gave us two tranches totaling USD 5 million (USD 3 million and USD 2 million).

We are currently in the process of scaling up and looking for more investors. Eventually, we hope to work with our investors and investees to adapt the framework to open bond platforms, which are becoming very popular for things like EVs and solar.

HOW COULD THE LAB PROCESS HAVE SUPPORTED YOUR IDEA EVEN MORE?

Jayant: I should also mention that most of the people we met with through the Lab were ready to give intellectual support to the idea, but not provide financial commitment. In my opinion, the Lab needs to have investors who commit through the Lab process. By having domestic or international members coming in and providing equity, it could really transform what you are doing.

6

WHY CLIMATE ADAPTATION NOTES DIDN'T TAKE OFF – AND THE LESSONS I LEARNED

Jonathan First
Senior Advisor, Africa

When we submitted the Climate Adaptation Notes (CAN) to the Lab in 2020, adaptation to climate change was a relatively new focus area for investors. Funders and governments were increasingly emphasizing resilience, and CAN aimed to support adaptation projects in the water sector. We saw an opportunity and were thrilled to be selected for the Lab's inaugural Southern Africa program.

The timing seemed perfect. Two years after Cape Town's "Day Zero" crisis, when the city had nearly run out of water, the country was alert to the critical threat of water scarcity. The office of the President of South Africa had also just established an infrastructure committee to identify projects for development over the next decade. We thought this would provide fertile ground for us to identify water infrastructure projects for CAN.

However, we soon faced hurdles in the project pipeline. While we initially relied on a government-sourced list of over 200 infrastructure projects, the impact of COVID-19 combined with short-term political priorities resulted in slow progress or stagnation for most on that list. Still today, very few have been implemented. Consequently, the implementation of CAN has been delayed.

It has been frustrating, but our journey with the Lab has brought valuable lessons that can inform future climate finance innovators and ensure a stronger foundation for their projects. Despite

CAN's challenges, its core structure remains relevant and implementable, with strong potential to catalyze blended finance.

With the adaptation finance gap widening, CAN offers a valuable blueprint for others working to mobilize private investments for much-needed sustainable infrastructure with a focus on climate adaptation.

CAN'S FINANCIAL STRUCTURE: LEVERAGING SOUTH AFRICA'S STRENGTHS

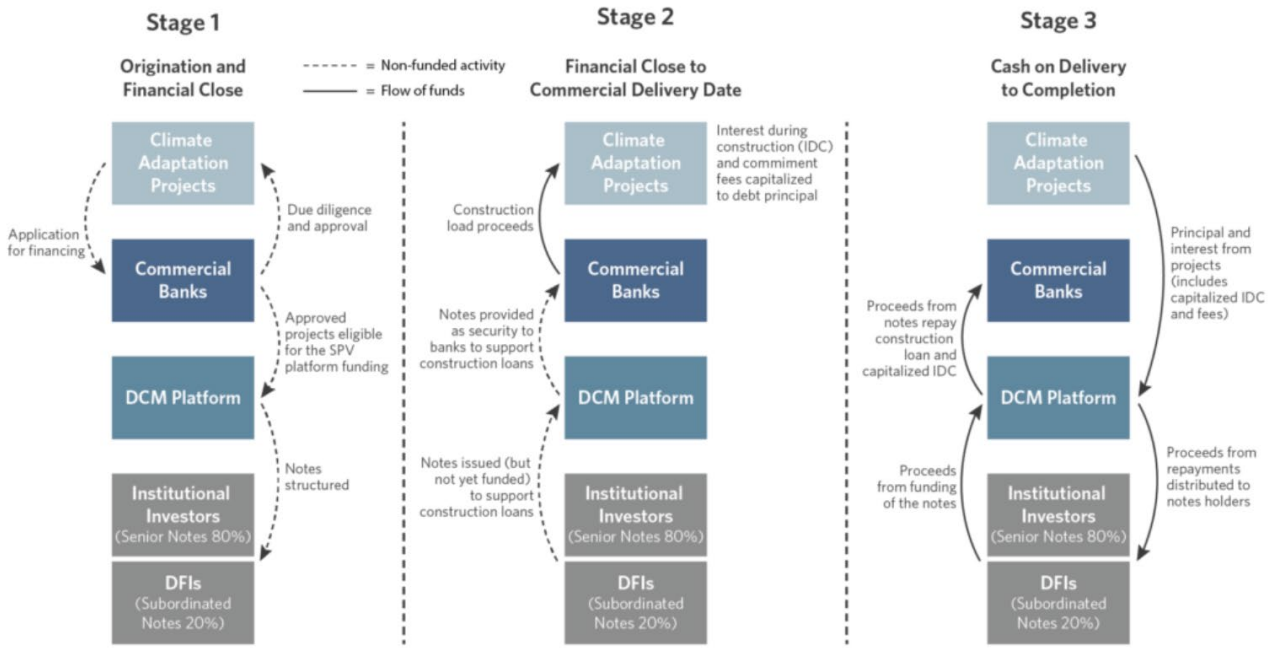
CAN's financial structure aimed to capitalize on several South African debt capital market strengths. While adaptation projects typically face greater funding challenges than mitigation ones, significant development finance was available on concessional or risk-mitigation terms for water infrastructure projects in the country. In addition, South Africa's estimated USD 400 billion in gross domestic savings are a vast potential pool of finance.

However, these funds have gone largely untapped for infrastructure projects. Despite this massive pool of money, a significant portion remained unused for infrastructure projects. This was further exacerbated by stricter liquidity rules under Basel 3, making long-term bank loans more expensive due to increased capital provisioning requirements.

We planned to leverage development finance to mitigate the risk for institutional investors. Subordinated notes provided by the development finance institutions (DFIs) would act as a buffer, absorbing potential losses before impacting the senior notes purchased by institutional investors.

By doing so, CAN could bridge the gap between two distinct markets: short-term bank project finance and longer-term institutional investment.

Climate Adaptation Notes works through a three-stage process, implemented through an independently managed and regulated Debt Capital Markets platform.



THE PROJECT PIPELINE CHALLENGE: A LESSON LEARNED

Amid the widespread failure of water infrastructure across South Africa, there is a growing need for investment in refurbishment, upgrades, and new wastewater treatment plants. In 2023, the city of Durban's water treatment system collapsed, leading to beaches being closed due to contamination with sewage water. Similar challenges with water treatment systems have recently plagued Johannesburg.

We identified 30 to 40 suitable adaptation projects for CAN from the list of infrastructure projects published by South Africa's Infrastructure Office. Some of the most obvious applications involved water treatment and reuse. For example, Cape Town had identified the need for several billion rands worth of new water treatment plants to avoid most of the city's water being "flushed" into the sea.

CAN's potential here was clear. It could finance a network of wastewater treatment plants along the coastline to capture this unused water, treat it, and reintroduce it into the system. This approach would have sustainably addressed a critical water scarcity issue.

We trusted the efficacy of this list, assuming that the majority of the projects had reached the "bankability" stage. Unfortunately, our optimism didn't translate to reality. For various reasons, primarily political, most of the listed projects either stalled or never materialized. We simply couldn't find a concrete infrastructure project to tailor CAN to.

This experience highlights a crucial lesson: the importance of robustness in the project pipeline. While we believe in CAN's structure and approach, its success hinges on securing a suitable project for implementation. The lack of a reliable pipeline prevented us from moving forward.

Looking back, we could have been more critical in evaluating the initial project pipeline. Relying on a government infrastructure list turned out to be insufficient. Ideally, we should have conducted more thorough due diligence on each project rather than assuming its validity because of its inclusion on the list.

Another crucial lesson is early engagement with potential funders. Once a promising structure is developed, testing it with funders is essential. While potentially discouraging, negative feedback allows for early adjustments before significant resources have been invested.

GLOBAL APPLICABILITY OF CAN

While CAN has faced implementation challenges in South Africa, its potential remains strong. The core structure offers a valuable tool for financing climate adaptation projects in suitable markets. The core concept is not unique to South Africa and can be adapted for broader application.

Looking forward, CAN could be applied in other middle-income country markets that share key characteristics, including:

- Well-developed domestic capital markets.
- Large domestic savings pools.
- Established banking infrastructure.

For example, Brazil, Indonesia, and India all possess these features, making them strong candidates for CAN.

While my involvement might not be feasible for implementation in these specific countries, CAN's beauty lies in its open-source nature. The Lab makes the instrument structure freely available without any intellectual property restrictions. Therefore, any entity could consider CAN as a financing tool for climate adaptation projects, provided it has the necessary financial market infrastructure and, of course, a secured pipeline of projects.

7

BRAZIL'S GREEN FIDC: THE LAB'S CHAMPION FOR PRIVATE INVESTMENT MOBILIZATION

Phillipe Käfer
Brazil Lab Program Lead

The Green Receivables Fund (Green FIDC) has become one of the Lab's flagship instruments in Brazil since its endorsement in 2017. While Lab solutions feature a balanced mix of public and private investments, the Green FIDC stands out by securing 100% of its funding from private sources, in the Lab portfolio[1].

Despite the size of Brazil's capital markets[2] and the financial promise of sustainable investment, unlocking private capital for climate finance has been an uphill battle. Skittish investors have been deterred by risk and complexity, a pattern in line with other emerging economies.

The Green FIDC packages and securitizes the cash flows of renewable energy projects and sells shares on local capital markets, providing long-term finance for these projects in Brazil. Based on a receivables fund, the Green FIDC is regulated in Brazil under the terminology of *Fundo de Investimento em Direitos Creditórios (FIDC)*. This special purpose vehicle (SPV) allows companies to raise capital by securitizing receivables.

1 The 2018 Brazil Lab Instrument Responsible Commodities Facility also achieved full private financing, though on a smaller scale than the Green FIDC, with a total investment of USD 47.5 million.
2 Brazil market capitalization accounted for USD 780.3 billion in June 2024. Data retrieved from CEIC Data Company. Market capitalization. Brazil. Available at: https://www.ceicdata.com/en/indicator/brazil/market-capitalization. Accessed August 7, 2024.

Based on this concept, Albion Capital, the proponent, has pioneered four financial instruments for financing solar distributed generation projects that have mobilized USD 114 million in private capital. Albion Capital is now working on new versions of these vehicles to support other climate-aligned sectors.

To better understand how the Green FIDC identified barriers and accommodated its approach, I sat down with Paulo Todaro, founding partner at Albion Capital. An edited transcript of the interview is shared below.

WHAT INITIALLY INSPIRED THE CONCEPT OF THE GREEN FIDC? WHAT GAP IN THE CLIMATE FINANCE LANDSCAPE WERE YOU HOPING TO ADDRESS?

Paulo: We developed the Green FIDC concept to address the shortage of private capital for green project financing in Brazil by leveraging 100% private sector funding. These instruments are the first climate-related financial tools in Brazil structured as textbook project finance, and they are the first Brazilian securitization vehicles to be certified as climate bonds.

The Green FIDC was conceived to fill the gap of off-balance sheet project finance options for climate-aligned developers in Brazil and beyond. Our objective was to move away from traditional debt instruments and instead use asset-backed securities funded by local capital markets in local currency, avoiding the challenges of long-term FX hedging.Traditionally, financing for sustainable infrastructure projects has been constrained by the limited balance sheets for securing traditional debt. The Brazilian Development Bank has been historically the primary source of financing for these projects, but we believe it is time to enhance the role of the Brazilian capital markets.

A major issue in climate finance is the heavy reliance on public investors, often overlooking the need to engage private capital at scale. The Green FIDC addresses this by adapting securitization techniques to attract private sector investors, thereby reducing the reliance on development finance institutions (DFIs) for funding sustainable infrastructure projects. Essentially, the Green FIDC is an SPV structured as a fund.

Paulo Todaro, founding partner at Albion Capital and Green FIDC's proponent

CAN YOU WALK US THROUGH THE KEY DESIGN FEATURES OF THE GREEN FIDC?

Paulo: The Green FIDC was designed to unlock long-term private sector capital in Brazil. It addresses the inefficiencies of hedging strategies that require companies with revenues in Brazilian reais to take on debt in US dollars or euros.

Given that Brazil's fund industry is substantial and comparable in size to many European markets, it should be feasible to structure investments that cater to local investors using local currency. Our current instruments are exclusively funded by private investors within Brazil, which enhances their financial efficiency.

The Green FIDC is structured as an SPV that holds all the guarantees associated with the financed projects. We oversee the assets through our own financial and engineering teams, managing all risk management aspects to ensure minimal construction completion and operational risks. This approach ensures that the Green FIDC remains both efficient and effective in mobilizing local capital for sustainable projects while also mitigating risk perception for more risk-averse investors.

THE GREEN FIDC ACHIEVED A RECORD-HIGH PERCENTAGE OF COMMERCIAL INVESTMENT FOR A LAB INSTRUMENT. WHAT SPECIFIC FEATURES OF THE GREEN FIDC MADE IT SO ATTRACTIVE TO PRIVATE INVESTORS?

Paulo: The Green FIDC's record-high percentage of commercial investment can be attributed to several key features. Firstly, our approach fosters investor confidence by ensuring that we are not only involved until closing but remain actively engaged throughout the project lifecycle. Our engineers and financial team continuously track and manage the projects, which reassures investors and builds their trust over time.

Additionally, our focus on assessing project quality rather than solely evaluating the developer's balance sheet has been crucial. By prioritizing the project's inherent value, we enable financing for a broader range of developers, making the Green FIDC more attractive to private investors.

WHAT WERE SOME OF THE UNFORESEEN CHALLENGES FACED DURING THE DEVELOPMENT AND PLANNED IMPLEMENTATION OF GREEN FIDC?

Paulo: The Green FIDC faced several unforeseen challenges during its development and implementation. One significant issue was the complexity of our structures. This complexity limits scalability, as investors are often not only risk-averse but also averse to intricate financial instruments. To address this, our 2023 Catalytic Climate Finance Facility vehicle, the Sustainable Guaranty Solutions (SGS), was designed to simplify the Green FIDC model. SGS introduces a different type of instrument – an insurance contract – aimed at de-risking project finance to financiers and thus attracting a broader range of investors to this space by reducing complexity.

The SGS concept emerged from our experience with the Green FIDC, where we identified that construction and completion risks were major barriers for Brazilian private sector investors. While the Green FIDC manages these risks through a complex array of guarantees, oversight, and intervention rights, many investors prefer simpler solutions. Traditionally, balance sheet guarantees or credit enhancements could address these issues, but they are often only viable for large-scale developers.

To address this, we designed SGS as a risk-transfer mechanism that separates completion risks from the developer's balance sheet, employing an insurance-based approach. SGS provides a straightforward solution for complexity-averse investors, allowing them to participate in project finance without intricate contractual arrangements.

Another challenge was related to our first experience with concessional capital. We found that concessional investors are not necessarily more willing to engage with complex or innovative structures than private sector investors. Concessional and philanthropical capital are under significant pressure to deliver results, and it is comprehensible that they are often hesitant to invest in innovative approaches.

Ultimately, we learned that engaging concessional investors requires a different approach than engaging private sector investors. Innovators must be adept at communicating and structuring deals to appeal to both types of capital. To develop blended finance instruments successfully, it's essential to bridge the gap between concessional and private sector expectations. The Lab and CPI were instrumental in helping us understand and address this challenge effectively.

CAN YOU ELABORATE ON HOW THE LAB CONTRIBUTED TO THE GREEN FIDC'S INNOVATIVE APPROACH AND ABILITY TO ADAPT TO MARKET NEEDS?

Paulo: The Lab and Climate Policy Initiative (CPI) were crucial in shaping Green FIDC's innovative approach and ability to adapt to market needs. They provided unwavering support and essential connections that allowed us to refine and enhance our concept over time.

The journey was challenging, and there were many moments when we doubted whether the project would succeed. However, CPI and the Lab consistently opened new doors for us, offering guidance and encouragement when we felt isolated and misunderstood.

We first submitted the Green FIDC concept in 2016, but the official launch didn't occur until 2021. It was the continuous support and expertise from CPI and the Lab that kept us motivated and helped translate our complex technical ideas into a format that investors could readily understand and embrace.

8

ADAPTATION FINANCE: SIX KEY STEPS FOR STRUCTURING INSTRUMENTS THAT DELIVER RESULTS

Morgan Richmond
Manager

Over the past decade, the Lab has built a strong track record in adaptation finance, gleaning many hard-earned lessons from support for pioneering instruments. Of the 68 instruments in the Lab's portfolio, 17 have a central focus on adaptation. Many of these have successfully attracted investment—collectively mobilizing over USD 380 million.

Adaptation finance aims to reduce the vulnerability of human or natural systems to climate impacts by enhancing adaptive capacity and resilience. Despite progress to date, many barriers to raising capital for adaptation projects remain, including high perceived risk, limited investor awareness, and the nascent nature of adaptation and resilience as a mainstream investment thesis.

By analyzing the success stories and the more challenging cases, the Lab has identified six key steps for structuring adaptation instruments that deliver results.

1. DEFINE THE INSTRUMENT'S ADAPTATION AND RESILIENCE THESIS

A successful adaptation financial instrument requires a clear and shared understanding of adaptation outcomes. Because adaptation activities are highly context-specific, implementing teams must clearly articulate how their investments enhance resilience in their specific settings, as what constitutes adaptation in one setting may not be applicable in another.

The Lab's experience shows that defining adaptation and resilience theses can vary significantly. Some instruments focus on adaptation from the outset, while others have recognized the adaptive capacity of existing mitigation activities to address context-specific needs.

The 2019 Lab instrument Cooling as a Service (CaaS) is a pay-per-service model for energy-efficient cooling systems. As the team progressed, they shifted focus from only emissions reduction (mitigation) to the ways that CaaS also helps communities prepare for the effects of climate change (adaptation). For example, using clean cooling technology, CaaS can reduce emissions while relieving extreme heat. As a result, the implementing team worked closely with partners to understand their needs and developed a plan addressing emission reduction and climate adaptation.

2. BUILD A PIPELINE WITH OPTIMAL CASH FLOWS

A project becomes an investment when there are predictable and robust cash flows, and that investment becomes bankable when there is an adequate pipeline of projects. This is particularly relevant for adaptation due to perceived cash flow constraints and the reality of sector-specific pipeline challenges. Sectors that require substantial adaptation finance, such as water, forestry, and ecosystem services, are areas where investors have limited experience generating revenues. Furthermore, a critical challenge is that the benefits of many adaptation projects manifest in avoided losses rather than revenue generation, constraining the monetization of these projects.

Many Lab adaptation instruments that struggled to gain traction had an inadequate pipeline. For example, the Water Financing Facility, endorsed by the Lab in 2016, sought to pool loans from domestic water service providers in Kenya. The instrument faced challenges in aggregating creditworthy providers to develop a pipeline for the project. Moreover, development partners focused on the same group of providers, resulting in an unbankable project due to limited cash flows.

Effective strategies for building an investment case for an adaptation project include pipeline diversification, identifying multiple sources of cashflows for risk mitigation, and using technical assistance and grants to cover the costs of ecosystem development.

Adaptation finance aims to reduce the vulnerability of human or natural systems to climate impacts by enhancing adaptive capacity and resilience.

Adaptation finance aims to reduce the vulnerability of human or natural systems to climate impacts by enhancing adaptive capacity and resilience.

3. STRUCTURE STRATEGICALLY AROUND RISK AND RETURN

The Lab's most successful adaptation instruments overcame key adaptation-related barriers through their structuring – managing against high upfront costs, slow fundraising rounds, and high perceived risk. Structuring approaches include:

- **Dedicated pre-development funds or TA facilities:** To reduce risk for adaptation instruments.
- **Revolving funds:** To efficiently recycle limited investment capital.
- **Blended finance structures:** To de-risk investments using concessional capital.

Because adaptation is often perceived as risky, adaptation instrument structures should be kept as simple as possible to reduce investors' perceived structural risks. Notably, many Lab instruments simplified their structures between completing the Lab process and their pilot and implementation phases.

4. ENGAGE FLEXIBLY WITH INVESTORS

To be successful in fundraising, adaptation instruments must make the case to investors that investing in adaptation is both impactful and profitable. Because the adaptation and resilience investment thesis is relatively nascent and investors lack familiarity, it is crucial for implementors engaging with investors to define adaptation and resilience, highlight the private sector investment opportunity, and dispel common myths and misconceptions about investing in adaptation.

Successful Lab instruments have skillfully tailored their pitch to specific investors and funders. For impact-focused investors already familiar with adaptation (including some development finance institutions, impact investors, and philanthropies), Lab solutions often succeed by highlighting their specific adaptation expertise in relevant sectors like water or agriculture. In contrast, when engaging with commercial Investors, teams often succeed through a clear articulation of the opportunity of investing in a climate-resilient future — whether that

be climate-proofing livelihoods, creating a circular economy, starting a market for cooling technology, or enhancing food security through regenerative agriculture.

5. CULTIVATE COLLABORATORS AND BUILD BRIDGES IN YOUR ENVIRONMENT

Adaptation projects require collaboration with diverse stakeholders, including local financial institutions, community partners, and technical experts. Building a strong network can leverage existing expertise and resources, enhancing the effectiveness and sustainability of adaptation solutions. Still, instruments may face competition from public sector entities and the risk of a crowded adaptation investment space if pipeline growth remains limited. To this end, it is useful to map out all potential partners while structuring an instrument to attract a diverse network of collaborators and strengthen the adaptation ecosystem.

Equally important is understanding and aligning with the policy and regulatory environments in the target market. Recognition of policy and regulatory headwinds and tailwinds for instruments in different geographies and sectors helps determine their viability and alignment with the national government's priorities. For example, if an instrument focuses on agriculture, the team should ensure that the specific pipeline plan aligns with the country's national adaptation plan.

6. MEASURE THE IMPACT THAT MATTERS (TO YOU, YOUR PIPELINE, AND YOUR INVESTORS)

A wide range of metrics are used to track adaptation impact, which indicates the variety of approaches to adaptation and the diversity of activities in the space. This creates a challenge in comparing impact across adaptation instruments as there is no uniform set of metrics. Thus, benchmarking becomes more complicated.

When developing an adaptation finance instrument, we have found that Lab instruments have seen the most success when they have begun by evaluating the kinds of requests they are receiving from potential and current funders, the key factors that will be most important to end-users and beneficiaries of the finance when facing accelerating climate risk, and the best possible scenario of data that could be capturable from these end-users and beneficiaries.

IN SUMMARY:

Expanding adaptation finance is critical to building climate resilience, particularly amid increasingly severe climate risks. While the market remains less developed than mitigation finance, the lessons learned from successful adaptation instruments offer a pathway forward. Simplifying structures, aligning with diverse investor interests, and fostering strategic collaborations are key to overcoming barriers and unlocking investment. By refining the approach to pipeline development, impact measurement, and stakeholder engagement, we can build a robust adaptation finance ecosystem that attracts investment and delivers meaningful outcomes for vulnerable communities.

These innovations in adaptation finance will help ensure that the necessary capital flows to where it's needed most.

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BEYOND BOX-TICKING: WHY GENDER-RESPONSIVE CLIMATE FINANCE IS EFFECTIVE CLIMATE FINANCE

Rosaly Byrd
Manager

In the climate crisis, women are disproportionately affected. The United Nations estimates that women make up 80% of those displaced by the adverse impacts of climate change, and women and children, particularly the poor and marginalized, are 14 times more likely to die than men in the event of a disaster.

At the same time, women are change agents for mitigation and adaptation action, particularly in areas where they have an outsized role in agriculture, forestry, and other land use (AFOLU), water, and energy. Women involved in agriculture, particularly smallholder agriculture, are often at the forefront of implementing climate adaptation measures and technologies.

Women also have a key role in making change as consumers, as they are responsible for 80% of household buying decisions worldwide. This is true in the corporate world, with a clear correlation between female board representation and company carbon disclosure.

From an investment perspective, disregarding the needs of women means disregarding half the market, reducing impact and returns.

Taking an intersectional approach to climate finance and incorporating a gender lens is an important component of the Lab. Our proponents have increasingly made gender a core part

of their instrument models, culminating in the launch of the Lab's first-ever Gender Equality stream in 2023 with support from FinDev Canada. Through this stream, the Lab sought financial solutions to advance gender equality and women empowerment as core objectives, in addition to climate change action.

BREAKING DOWN GENDER VULNERABILITY AND CLIMATE FINANCE

Disregarding women's specific needs, vulnerabilities, and capabilities in climate finance solutions can reduce investment returns and hinder the achievement of mitigation and adaptation objectives. Women's adoption of new green technologies or sustainable practices is largely contingent on addressing these contextual gender differences, inequity, and inequalities early on.

Take, for example, the role of low-carbon public transportation in driving mitigation efforts. Applying a gender lens when investing in such measures is critical because women may be deterred from using new forms of public transit if their needs are not accounted for.

A 2019 study by CAF – Development Bank of Latin America and the Caribbean and the FIA Foundation found that more than 70% of women felt unsafe taking public transportation in the major Latin American cities of Buenos Aires, Quito, and Santiago. A 2018 report on Gender in Public Transportation in Jordan found that 47% of women reported rejecting job opportunities due to public transportation challenges, including having to use multiple modes of transportation to reach workplaces and the high cost of fares. By investing in secure, gender-responsive public transportation, more women can be encouraged to join the workforce.

Transportation is just one example of the importance of gender-responsive climate finance in reaching all beneficiaries, ensuring the sustainability of investments, and driving social and environmental impact. A gender lens must be used to design vehicles that finance safe, accessible, and affordable public transportation to ensure that intended beneficiaries use it.

A DATA-DRIVEN PROCESS

Despite its importance, engagement with the nexus between gender and climate finance for mitigation and adaptation remains nascent. CPI's 2021 Global Landscape of Climate Finance data identified that only 2% of total climate finance flows were gender-responsive between 2019 and 2020. Meanwhile, Convergence data shows that just 22% of all blended climate finance deals identified in its Historical Deals Database had integrated some gender-responsive component into the overall transaction structure.

Improved understanding and tagging of gender-responsive climate investment would help increase the volume and effectiveness of these financial flows. For instance, data-driven evidence can support the gender-responsive climate finance business case, demonstrating to investors that their efforts yield financial returns while delivering social and environmental impact.

What's more, embracing a data-driven process would help improve transparency and better track total finance flows. A lack of harmonization among data standards and definitions of gender-responsive climate finance has hindered the reporting and tracking climate actions that integrate women's considerations and empowerment.

Although we are seeing more demand for solutions beyond a box-ticking exercise, particularly from development finance institutions, more efforts are needed to address this data gap. The 2X Criteria provide a global standard for gender finance and mark a significant step forward in helping stakeholders better understand gender-lens investing. More metrics specifically targeted at gender-responsive climate finance will allow for increased reporting and investments that support women and girls in the face of climate change.

GENDER AND THE LAB

At the Lab, we believe it is critical to incorporate gender in the design of climate finance instruments from the start. This includes thinking through metrics that can be used for data-driven impact, both at the end-use point and throughout the investment chain. After all, what gets measured gets managed.

If treated as an afterthought, consideration of women and their needs will likely be less significant in these instruments, hindering real change.

In addition, Lab instruments should leverage local expertise to understand local gender issues better, as women's perspectives and roles vary greatly across cultures and regions. Understanding such context is key to ensuring that beneficiaries and investors receive our approach well.

We have seen several encouraging trends in recent years, with proponents embracing gender-responsive climate finance and listening to local voices, particularly in the green housing space. Social Infra Ventures (SIV), a 2023 instrument under the Lab's first-ever gender equality stream, is a first-of-its-kind gender-responsive platform for green and affordable housing in Northern Africa.

SIV plans to sell its rental portfolio through a strategic sale or listing on the Moroccan stock exchange to fund future phases, creating a self-sustaining housing finance ecosystem and institutionalizing green and gender-responsive housing, including rental. SIV also integrates gender mainstreaming into its program cycle. SIV has set up gender-responsive mechanisms across its operations through a Gender Action Plan that includes gender-responsive metrics for HR, procurement, monitoring and evaluation, and customer service.

Other proponents have increased their focus on gender as their instruments evolve. Endorsed by the Lab in 2022, Reall's Green, Affordable Housing Finance (GAHF) instrument deploys construction and mortgage loan guarantees alongside targeted enabling interventions to foster a locally driven and self-sustaining, affordable housing finance ecosystem. Since securing funding from the SDG Impact Finance Initiative, Reall has focused on putting women and gender at the center of GAHF as it rolls out its pilot in Kenya, mainstreaming gender by using alternative credit assessments when evaluating loan applications from women due to their increased likelihood to occupy the most vulnerable categories of informal sector work. What's more, GAHF is also modeling gender-positive guarantee products, bringing women to the construction sector, and broadening access to home ownership.

"By addressing the intersectionality between green, affordable housing and gender, we're bringing in and reaching a formerly marginalized group. I think that is a fantastic way to reach a lot of women who did not have access to some of these opportunities to own homes," said Naa Ayeleysa Quaynor-Mettle, Reall's Climate and Green Buildings Lead.

Lab proponents such as SIV and GAHF have successfully addressed key climate finance sectors by embracing an intersectional approach and ensuring gender responsiveness within their theories of change.

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EMERGING TRENDS, CHALLENGES, AND OPPORTUNITIES IN CLIMATE FINANCE

Ben Broché
Associate Director

Since the Lab's inception a decade ago, we have seen growth and transformation in the climate finance landscape. Global capital and market penetration in climate-related sectors have increased significantly, while innovation and falling price curves in renewables, electric vehicles, climate tech, and other key sectors have made a pathway to net zero look feasible, albeit fraught with challenges. This blog explores the emerging trends, opportunities, and challenges in climate finance as we look ahead to the Lab's next 10 years.

KEY TRENDS TO WATCH IN THE SHIFTING CLIMATE FINANCE LANDSCAPE

Progress on climate finance has been driven by all actors and sectors of the economy – from government to industry and business to the financial sector.

From a policy standpoint, frameworks like the Paris Agreement, moves to enhance climate-related corporate disclosures, advancement of green taxonomies, and other pro-investment climate policies have set a benchmark for change and created clear market signals. Together, these influence how domestic and international investors are thinking about climate investment opportunities and how to integrate climate materiality into investment decisions and portfolios.

In addition, companies are increasingly recognizing the importance of reducing their greenhouse gas emissions not just from their operations (scope 1 and 2) but also pushing for decarbonization across their suppliers, customers, and other entities within their value chain (scope 3). Despite the slower-than-predicted growth in the voluntary carbon market, these companies' net zero commitments have fueled investment in innovative carbon reduction and removal approaches, many of which have co-benefits, including biodiversity, nature, and livelihoods. These have led to a much wider scope of climate projects that can now be considered commercially viable, which is reflected in the projects we support at the Lab.

As part of this transition, blended finance has become an increasingly relevant topic. Although it is still a small piece of the overall climate finance mobilization pie. The Lab was founded on the need to use public and concessional capital to effectively de-risk private investment, and the term "blended finance" did not even exist back then. It has been interesting to see the climate finance discussion evolve from something primarily driven by international climate policy and the UNFCC to something pivotal in the minds of many VCs, private equity firms, family offices, and, increasingly, large commercial and institutional investors.

As climate risks gain recognition, investors increasingly align portfolios with climate impact, signaling a positive shift toward a sustainable economy.

CHALLENGES IN EMERGING MARKET CLIMATE FINANCE: RISKS AND MISPERCEPTIONS

While there are many reasons for optimism, emerging market climate finance contains many layers of risk. From political and regulatory risk to off-taker risk, technology risk, currency risk, transaction size, and other issues that drive investors away from emerging markets, it is a challenging space that does not naturally fit with the mandates and incentives of many large

capital managers and allocators. These risks, both real and perceived, deter capital allocation to potentially viable and profitable climate projects, exacerbating the investment gap.

This challenge is compounded by the fact that most of the world's capital is concentrated in developed markets like the US, UK, and European Union, leaving emerging markets limited access to finance for crucial climate projects.

Most investors, and perhaps humans in general, have a tendency to stick with what has worked in the past – but we are living in a rapidly changing world, and the next 30 years will not be anything like the last 30. Unfortunately, this aversion to change often proves to be the case for pension funds and institutional investors, who hold the majority of the world's capital. These institutions should be the most concerned with climate risk and the investment opportunity that the energy transition presents, given their mandate for long-term capital preservation and growth. However, they are often constrained by outdated regulations, portfolio management and risk approaches, and incentive structures. In addition, data gaps that could unpack the difference between real and perceived risk in climate sectors compound these challenges.

To see a meaningful shift, we need changes in incentives and regulation, crucially ensuring there are products and tools available that take into account the constraints of large capital allocators and provide viable pathways to invest in climate-relevant sectors, especially in underserved geographies.

Curating instruments and large-scale deals that fit the needs of large institutions is certainly possible and proven. We have seen this in the Lab portfolio through instruments like the Green Guarantee Company and Climate Investor One. We must continue to test and scale investment approaches that can unlock the kind of capital being sought for climate projects across the globe.

The evolution of climate policies offers clear market signals, encouraging sustainable investments and creating a predictable environment.

SEIZING OPPORTUNITIES FOR WHEN LOW-CARBON INVESTMENTS BECOME THE NORM

We need an all-hands-on-deck approach to meet our international climate targets and transition to a low-carbon economy. NGOs and advisory institutions focused on policy and regulation can be crucial in pushing governments towards action through advocacy, lobbying, and other means. The Inflation Reduction Act, SFDR, and the almost 50 green investment taxonomies now in place or under development in countries and economic regions across the globe would not have happened without NGOs, activists, and advisory bodies pushing for change.

Speaking from the public sector side, in addition to designing and implementing strong policy levers, governments must focus more intently on private sector investment mobilization and partnerships with private investors, which is not always easy or natural but is very necessary. In addition, governments can use their influence and role as shareholders to push bilateral DFIs and MDBs to shift risk-return expectations in favor of climate impact and increase development banks' willingness to subordinate to private investment. We need to fundamentally transform how the development bank ecosystem operates, including how investment decisions are made, how they work with smaller and locally led developers and fund managers, and ensuring practices and product lines reflect the reality of climate risk and the energy and infrastructure transition are also crucial.

The private sector also has a significant role. There is a massive opportunity to break out of the box and explore innovative emerging market opportunities, and we're already seeing a big uptake here, not only from large institutions but also with the rapid growth of climate-specific funds and firms that are led by alumni from some of the world's largest investment banks.

Looking towards the future and zooming out to the big picture, I hope that in a few decades, when my child is my age, climate finance won't exist – climate considerations will simply be baked into how capital is allocated. Energy investment will be low-carbon by default. Fossil fuels might still have a role, but the rapid technological shift, cost curves, and integration of physical and transition risk into decision-making will mean that clean energy is the only viable option in most contexts.

Investments in agriculture and food systems will incorporate soil health, regenerative agriculture, alternative protein sources, and methane capture. Climate considerations and the value of natural assets will be priced into capital decisions. In transportation, investments will naturally shift towards low-carbon options as these become easier, less expensive, and more convenient, just as we have seen with the adoption of electric cars in some markets.

At scale, people make climate-smart decisions not out of altruism or concern for our planet but when it makes sense for their lives. We have to continue to build an economy that reflects this fact, and infrastructure and investment will follow.

While this is quite broad, the tactical vision includes everything we have been discussing: ambitious regulatory frameworks, strategic public investment, well-designed incentives, and collaboration across public, impact, and purely commercial capital sources.

This transformation presents a formidable task, but we have seen such significant shifts in a short time. We have an incredible opportunity to transition to a clean economy in just a few decades, moving away from a carbon-intensive economy that took over 200 years to build. We will get there, and we'll get there together.

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