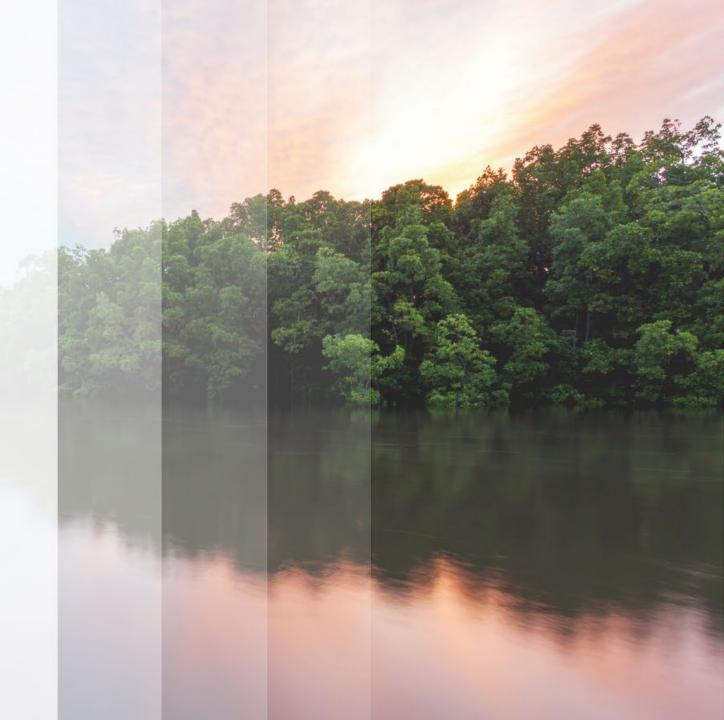
THE LAB DEMO DAY

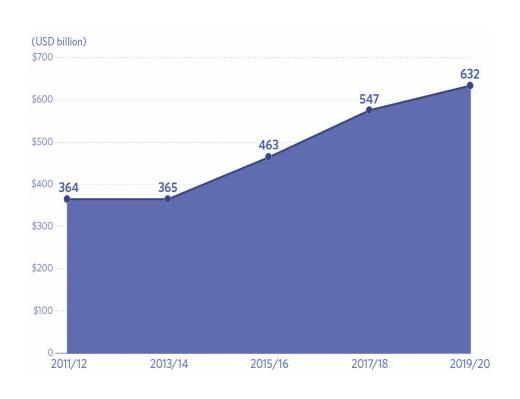
October 19 10:00 AM ET 4:00 PM CEST

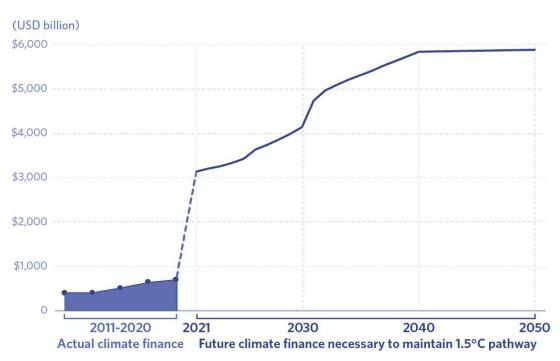






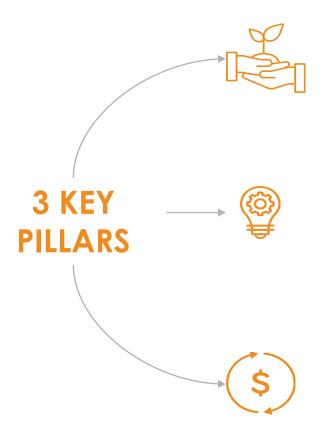
Global climate finance flows reached \$632 billion in 2019/2020, but current investment levels are still far behind what's needed for a successful low-carbon transition ...







The Lab develops innovative financial instruments that can drive billions in private investments to action on climate change



Public-Private Collaboration

The strengthened partnership between the public and private sectors builds capacity and knowledge to identify and deploy effective climate finance solutions.

Innovation & Transformative Solutions

Innovative, actionable, catalytic, and financially sustainable solutions reduce risks and barriers to investment in sustainable development.

Mobilizing Finance

Catalytic finance from Lab Members and the broader network enables piloting and implementation of transformative solutions.

~\$3.3Bn

CAPITAL MOBILIZED

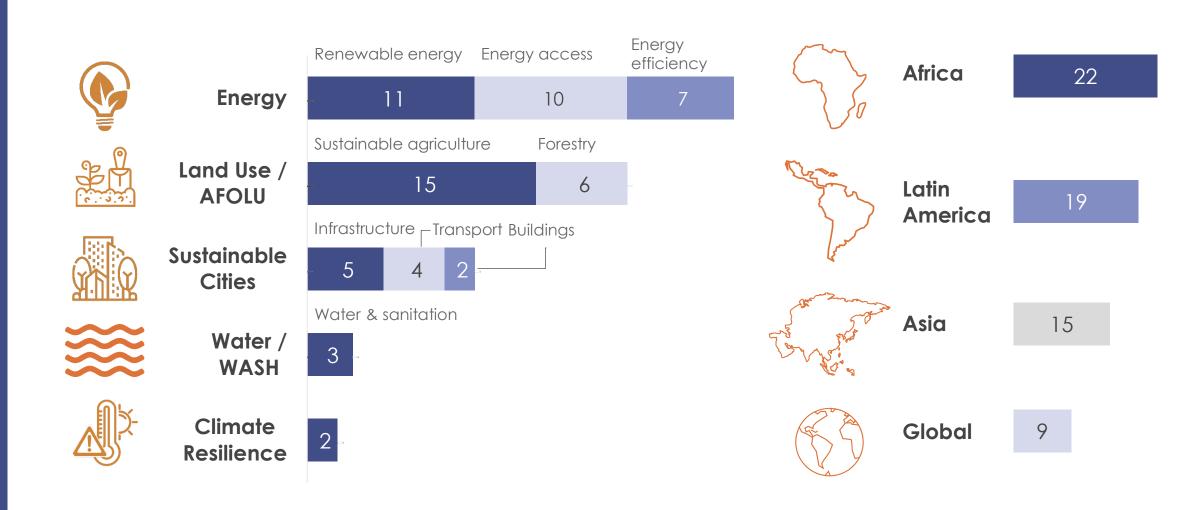
65 INSTRUMENTS DEVELOPED

70+ MEMBERS

CYCLES CONDUCTED

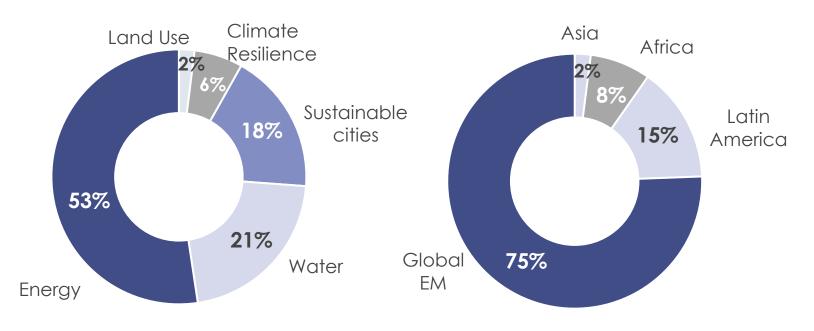


The Lab portfolio is composed of 65 instruments addressing climate change mitigation and adaptation





... that have collectively mobilized over \$3.3 billion in climate investments







2022 Lab instruments span high-impact and challenging sectors

















Today's impact: 14 Sustainable Development Goals addressed across multiple regions in 3 continents

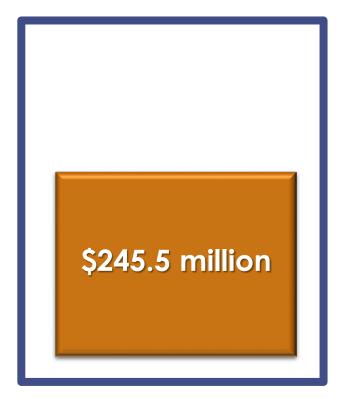




Today's investment opportunities

COMMERCIAL CAPITAL

\$1.3 billion



\$676 million



GRANTS \$153 million

\$60.5 million



The Green Guarantee Company.

Global Innovation Lab for Climate Finance – Demo Day October 2022

The Development Guarantee Group



The Development Guarantee Group



The Development Guarantee Group (DGG) brings together the collective experience of Cardano Development and experts in setting up and running guarantee companies focused on emerging markets

DGG is the world's first dedicated guarantee platform focused on designing, developing, and operating guarantee solutions and companies that can effectively mobilize private sector capital towards funding development and sustainability challenges



The Team



Lasitha Perera, CEO

- Over 23 years of debt capital markets and structured finance experience in developed and developing markets
- Former CEO of GuarantCo, a leading local currency guarantor in developing capital markets in Africa and Asia



Dale Petrie, CFO

- Over 12 years in financial and operational leadership roles in financial services
- Former CFO / Finance Director of GuarantCo, a leading local currency guarantor in developing capital markets in Africa and Asia



Anne Desdoigts, *Managing Director* – *Origination and Execution*

 Over 23 years of combined experience as an investment banker and a lawyer in complex cross-border and emerging market transactions, across project finance, corporate finance and other structured financings



Boo Hock Khoo, Managing Director – Risk

- Started-up the Credit Guarantee and Investment Facility (CGIF) the guarantee trust fund of the Asian Development Bank
- Developed new guarantee structures for SE Asian local currency bond markets



The Problem We Want To Solve



Local capital markets in developing countries cannot address the climate finance gap by themselves



Total climate finance required by developing countries



\$1,777 billion¹

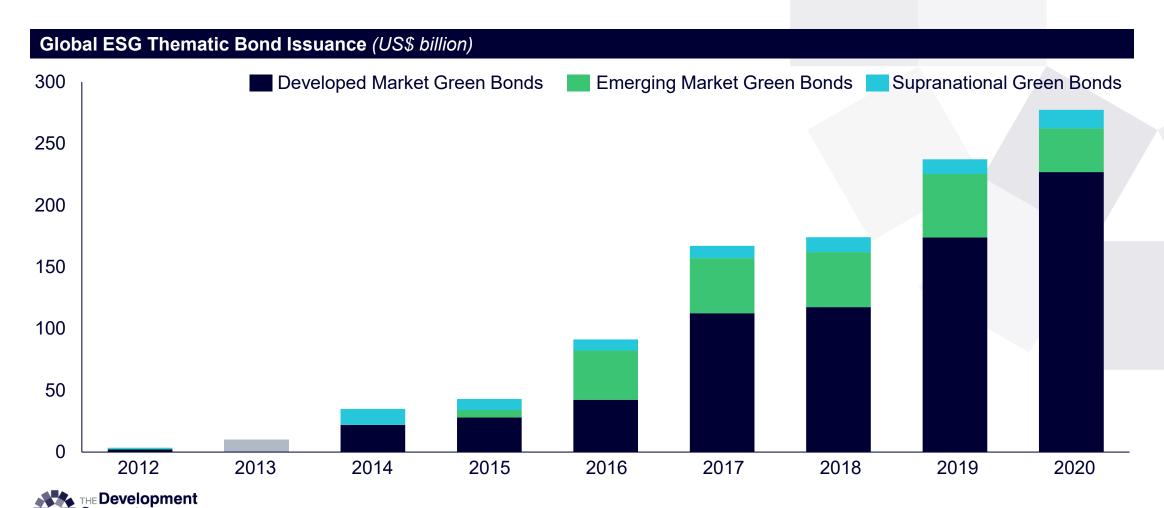




Total value of **fixed income** markets for **emerging markets**



Exponential global green bond market growth but emerging market green bond volumes are static



The Credit Rating Barrier For Emerging Markets

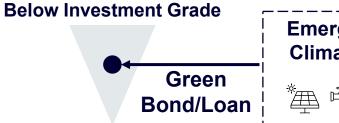
Global Credit and Capital Markets



Credit Risk	Moody's	Standard & Poor's	Fitch
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (strong)	Α	Α	Α
Medium grade	Baa	BBB	BBB

Investment Grade

Lower medium grade (somewhat speculative)	Ва	BB	ВВ
Low grade (speculative)	В	В	В







How The Green Guarantee Company Can Help

Reporting **Credit Risk** Moody's Standard & Poor's Fitch **Investment Grade** AAA AAA **Highest quality** Aaa **High quality** (very strong) Aa AA AA **Credit Rating Upper medium grade** (strong) THE Green Guarantee **BBB BBB** Medium grade Baa mproved Guarantee Covering Non-Payment **Below Investment Grade** Lower medium grade Ba BB BB **Emerging Market** (somewhat speculative) **Climate Projects** Low grade (speculative) В В В Green Bond/Loan HE Development

Global Credit and Capital Markets

— 17

The Green Guarantee Company (GGC)

MISSION

Use guarantees to deliver climate mitigation and adaptation projects to help deliver a net zero carbon economy and environmental and social sustainability



Worldwide Recognition







Guarantees to emerging market borrowers

GGC will have an investment grade rating and provide guarantees to emerging market borrowers to improve their own credit rating and increase the pool of capital available to them to finance climate adaptation and mitigation ("green") projects



Reporting services

GGC will provide reporting services to investors in global capital markets to help them monitor the progress and impact of an emerging market investment in a green project



Investment Attributes



16x catalytic potential over 10 years, and mobilize up to \$10 billion in climate finance



9% expected return on equity

10% expected gross IRR



Potential to abate **75 million tons of CO2e** and help **17million (direct) and 20 million (indirect) beneficiaries** become more climate-resilient



Track record setting up and scaling 6 guarantee companies in emerging markets

The Green Guarantee
Company is a crosscutting climate finance
initiative with the ability
to work globally across
multiple sectors















What We Need to Succeed



Go-to-Market Strategy

2022 - 2023

5 signed MoUs for transaction origination DBS, Deutsche, MUFG, Shinhan Bank Standard Chartered

BBB/Stable indicative credit rating

Assigned by an international rating agency to GGC

\$900k grant raised

Grant from GCF to start operations in 6 months

\$100 million capital raised for first close

\$80 million commitments, fundraising for \$20 million

Pipeline consolidation

Selecting opportunities in

target countries











2023 - 2024

- Close first transactions
- Second close: \$150M paid-in equity
- Technical assistance facility: \$10M in grants

2024 - 2028

- **Expand to LDCs**
- Increase capitalization: \$350M equity
- Prepare for public listing



Funding Opportunities

\$20M

Raise by **Q1 2023**

Concessional capital to complete \$100 million first close

Anchor investors: **Green Climate Fund and UK Mobilist**

Investors approved-in-principle to provide USD 80 million allocated to first close of USD 100 million subject to last mile USD 20 million being found

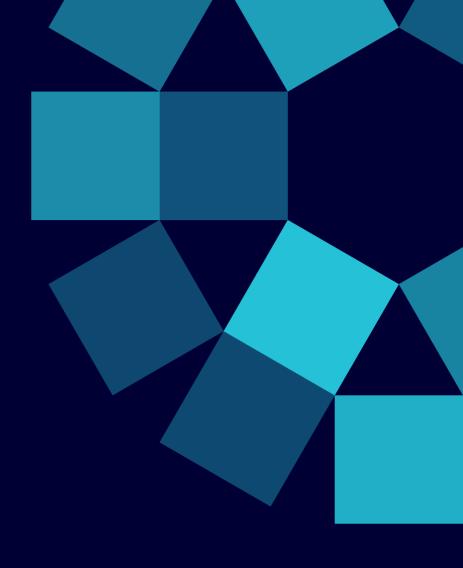




Contact:

Lasitha Perera – <u>lasitha.perera@guarantee.dev</u>

Thank you.





Cities are often at the frontline of extreme weather events. High barriers keep them from adjusting to risks incurred



Cities are often at the frontline of extreme weather events. High barriers keep them from adjusting to risks incurred



Lack of Liquidity



Cities are often at the frontline of extreme weather events. High barriers keep them from adjusting to risks incurred



Lack of Liquidity



Budget Reallocation



Cities are often at the frontline of extreme weather events. High barriers keep them from adjusting to risks incurred



Lack of Liquidity



Budget Reallocation



Access to Financing



Cities are often at the frontline of extreme weather events. High barriers keep them from adjusting to risks incurred



Lack of Liquidity



Budget Reallocation



Access to Financing



Limited Investment in Resilience Infrastructure



The CILRIF Approach

Long-term insurance that promotes resiliency

- ✓ Liquidity access for recovery
- ✓ No budget reallocation
- ✓ Commitment to **investment in resilient** infrastructure
- ✓ Lower insurance premiums over time upon resiliency investments
- ✓ Decreased financing costs



How it works

Technical Assistance and Subsidy facility





- Helps cities adopt the CILRIF approach
- Helps cities secure funding for the proposed interventions

Insurance Facility



- Provides long-term
 insurance products to cities
- •At a **fixed premium**
- Pending investments in resilience infrastructure

Finance Facility



- Invests and purchases municipal bonds
- Access to lower cost of capital and expansion of fiscal capacity upon investments









Research and Analysis

Pilots and Modeling

Scale-up



Promotes Climate Adaptation







Promotes
Climate
Adaptation

Is Data Driven & Science Based









Is Data Driven & Science Based



Mitigates Inequalities





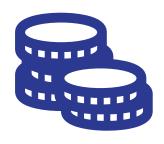




Is Data Driven & Science Based



Mitigates Inequalities

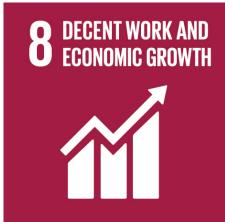


Facilitates Access to Capital



Impact











Powerful Partner Coalition

A coalition of voluntary contributors from global organizations

¬Insurance & Reinsurance Companies →







mıyamoto.



Experts













Investors



Development Agencies -











CILRIF Team

UNCDF - Facilitation



Abhisheik Dhawan, Sustainable Finance and Partnership Specialist

- Responsible for creating innovative blended finance vehicles, leading partnership efforts for UNCDF at a corporate level and overseeing the creation of CILRIF multi stakeholder working group over the last 18 months.
- Over 20+ years of experience in international markets, financial services, and sustainable development, Abhisheik has worked with banks and technology companies, including startups, in India and the United States, engaging with clients across continents.

Volunteers



Karin Andersson

International Humanitarian Action, PhD candidate in Sport Science



Aidan Berkey

Strategy consultant



Nikunj Bhimsaria

MBA student with a background in strategy consulting and philanthropy



Giulia Franzoso

Corporate and capital markets attorney,



Sarah Eschner

Project manager, market research and innovation



Aliya Khabdulina

Risk management consultant



Becky Ogbodo

Data & supply chain analyst, post graduate student



Hale Tatar

Credit risk manager

Fundraising Opportunity

\$20 million

Grant seed capital needed for the Technical Assistance and Subsidy Facility



"Through the CILRIF project, we are learning to integrate it, to harmonize it, and now we can see a different aspect of our data, because of the CILRIF project."

Anthony Xenon DL Walde EnP.

Chief, Planning Section, Department of Environmental Services





Take part in the conversation with UNCDF



FINANCING STEEL DECARBONIZATION

India







Powered by BTH © Sustainability Framework

Impact does not dilute commercial performance

TECHNOLOGY

Fossil to Green

BUSINESS

Health technology assessment to Sustainable

HUMANITY

Inequity to Inclusivity

TEAM



Abhijit Basu *Keeper of the Purpose (KOP)*

 Business, Technology, and Humanity Catalyst



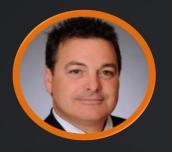
Mark Ruth *Energy Decarbonization*

- NREL Hydrogen@Scale
- Director, Analysis



Sridhar Seetharaman *Steel Decarbonization*

- US DOE Advisor Low Carbon Materials Technology
- Former TATA Steel/Royal Academy Chair



Eric Stevenson *Impact Digitization*

- Former CTO, BAAQMD
- 30 years as Emissions & Pollution Regulator

CHALLENGES IN THE STEEL INDUSTRY

Emission intensive sector

Steel is a hard to abate

Early-stage technology

New cleaner technologies under development and/or underutilized

To decarbonize the steel sector, we need to overcome technological challenges and the funding gap



THE SOLUTION

First climate-impact and return-oriented mechanism that will promote the adoption of a diverse range of low-carbon technologies (LCT) for decarbonizing the steel sector

Financing Steel Decarbonization (FSD) Steel Steel **Decarbonization Decarbonization** Initiative (SDI) Facility (SDF)

Service company

Blended debt fund &

Technical assistance facility

INNOVATION: MAIN BARRRIERS ADDRESSED

TRADITIONAL BARRIERS

Unsuitable risk-return profile of low carbon technologies

Low investment intensity and adoption levels by steel companies

Competitive market prevents large investments in new tech

Blended catalytic finance

Partnerships with leading sustainable companies

Segmentation with price support

CAPITAL

CARBON

COMMODITY

CLIMATE
INVESTMENT
BARRIERS

Limited clarity on pathways and pipeline of bankable projects

Lack of coordination and enabling ecosystem among de-risking tools

Process for demonstration of impact of climate investments

Industry associations + Project preparation

Ecosystem integration

Transparent impact monitoring & reporting

CONSUMER OF TECHNOLOGY

COMPLEXITY

ACCOUNTABILITY

HOW IT WORKS

Steel Decarbonization Facility (SDF) **Steel companies Steel Decarbonization** Initiative (SDI)

Investment and technical support:

Commercially available technologies (50%)

New and innovative technologies (50%)



Low-carbon steel production

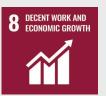


One-stop service provider:

End-to-end support for developing decarbonization projects

ECONOMIC, SOCIAL AND ENVIRONMENTAL IMPACT













25% steel emission intensity reduction250 MtCO₂e reduction over the lifetime



20-30 MTPA capacity to **mobilize 7x** concessional capital and **3.5x** overall capital



Capital, technology and market connectivity ecosystem & partnerships



Work, Income Equality & Health



Cost of abatement
2 USD/tCO₂ concessional
4 USD/tCO₂ overall



Innovation-led industrial infrastructure development



Sustainable industry and livelihoods
250 MtCO₂ reduction

IMPLEMENTATION PATHWAY

Phase 1

Year 1 and 2



Legal set-up of the two entities: SDF and SDI



Fundraising SDF: grants and debt. Execute TA SDI



Launch Steel Decarbonization Fund

Year 3



Pipeline: invest in pilots/solutions



Fundraising: SDF debt, SDI

private equity

Phase 2

Year 3 to 7



Scale further fund capitalization to \$1 billion



Technology ready for commercialization

Phase 3

Beyond year 7



Expansion to other sectors and geographies



Fundraising SDI: private equity

FUNDRAISING OPPORTUNITIES

Concessional Money Lacks
Hard to Abate Focus

Deploy Money to bridge the Hard to Abate Chasm to Deliver Impact and Commercial Performance \$20 M

Grants

Start-up capital and technical assistance

\$98M

Concessional Equity

First loss for de-risking and reducing financing cost

\$98M

Commercial Debt

Senior debt in SDF technology fund

\$18M

Commercial Equity

Equity stake in SDI service company

CONTACT

De-risking capital, technology and market connectivity for **steel decarbonization** across horizontal production processes and vertical supply chain.





Abhijit Basu

abasu@smartex.me



@jarasochiye



https://www.linkedin.com/in/basuabhijit/



https://thinkofheart.medium.com/



GET TO KNOW OUR TEAM





Combining Bluemethane's technology and Open Hydro's extensive network in the hydroelectric sector

SCALABLE SOLUTIONS FOR METHANE CAPTURE



Cristina Díez Santos CEO, Open Hydro



Louise Parlons Bentata CEO, Bluemethane



Néstor Rueda-Vallejo CTO, Bluemethane



María Ubierna CPO, Open Hydro





The Challenge









is responsible for half of net global warming to date. A sharp reduction in emissions is essential.

HYDROPOWER

methane emissions are often an overlooked problem.

FINANCE

for methane capture technologies is limited which prevents them from scaling



BRAZIL

Holds more reservoirs with high methane emissions than anywhere else in the world TECHNOLOGY
COMBINED WITH
INNOVATIVE
FINANCE CAN
TRANSFORM THIS
LANDSCAPE







The first methane capture-as-a-service



Unlocks investment in new methane capture tech



Minimizes technology adoption risk



Generates carbon credits and energy



Reduces emissions





STRUCTURE



Bluemethane will develop the methane capturing plant



Open Hydro will own and manage the methane capture and biogas plant under an SPV structure



Hydropower plant operators will host the project in their sites

REVENUE STREAMS



ENERGY SALES

Methane will be removed from the water and fed into the biogas plant



CARBON CREDIT

A third-party verifier will measure methane abatement

Social & Environmental Impact





6.8 MILLION TONS OF CO2

equivalent abated per year (~1.5 million cars)

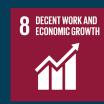
200k+ HOUSEHOLDS

will benefit discounted energy

13k+ GREEN JOBS

created, focused on gender equality













Go-to-market Strategy



PROOF OF CONCEPT

years 1 & 2

Prove instrument concept & validate local parameters at a single location



PILOT

years 3 & 4

Set up an initial portfolio to prove business case

250 sets of installations and leverage \$ 3 billion in commercial investments

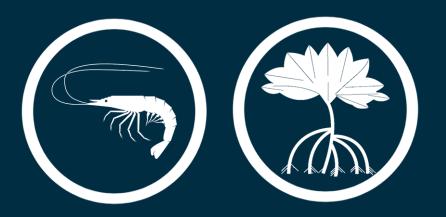
FUNDING OPPORTUNITY

\$ 6.5 million PROOF-OF-CONCEPT

Grant Capital Needed to Fund One Methane Capture Project







Climate Smart Shrimp Fund



The Global Mangrove and Shrimp Challenge







Loss of Historical Mangroves

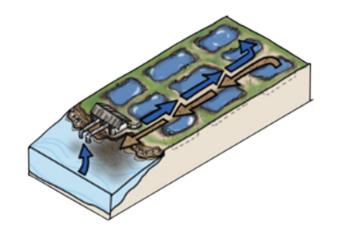
Average annual increase in shrimp aquaculture since 1980

Farmed shrimp production (2020)

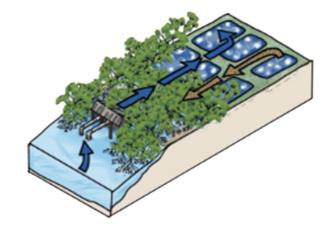
While laws and regulations have since been established that aim to prohibit mangrove deforestation for new operations, the ecosystem services once provided by mangroves remain lost.



Solution: Climate Smart ShrimpCo-location of sustainable intensification and restoration







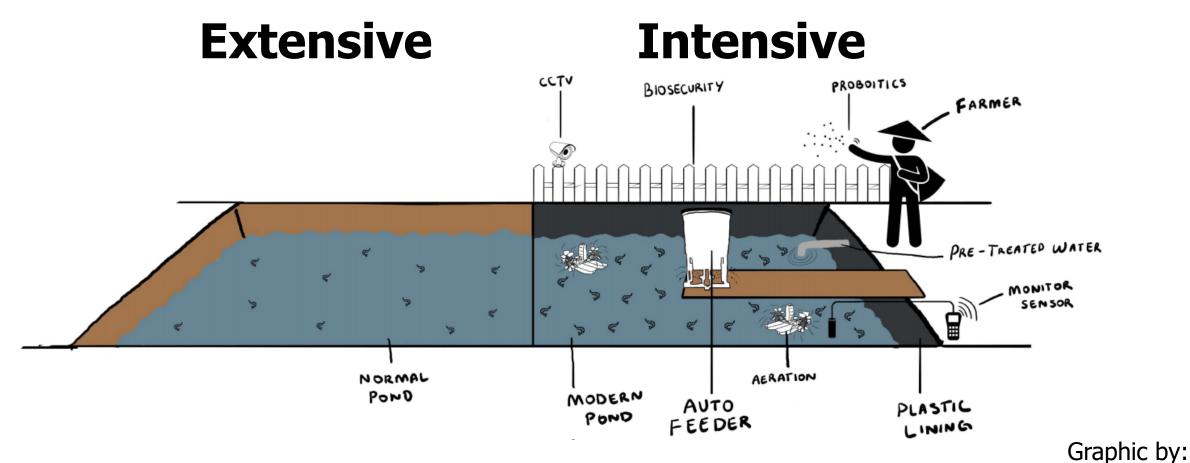






Modernization of Shrimp Aquaculture

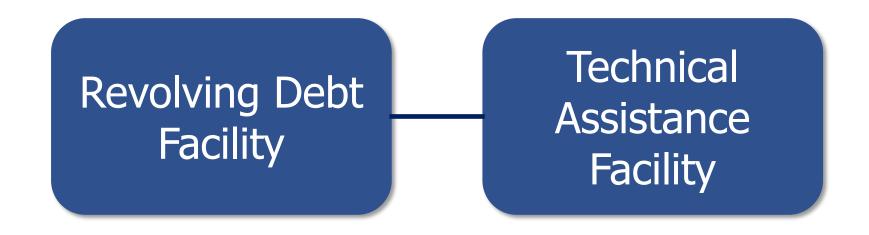
Commodity pricing, improved technology, and resource constraints are driving shrimp farmers to transition from extensive to intensive systems.





ALUNE

Climate Smart Shrimp Fund: A loan fund to support adoption of CSS at scale

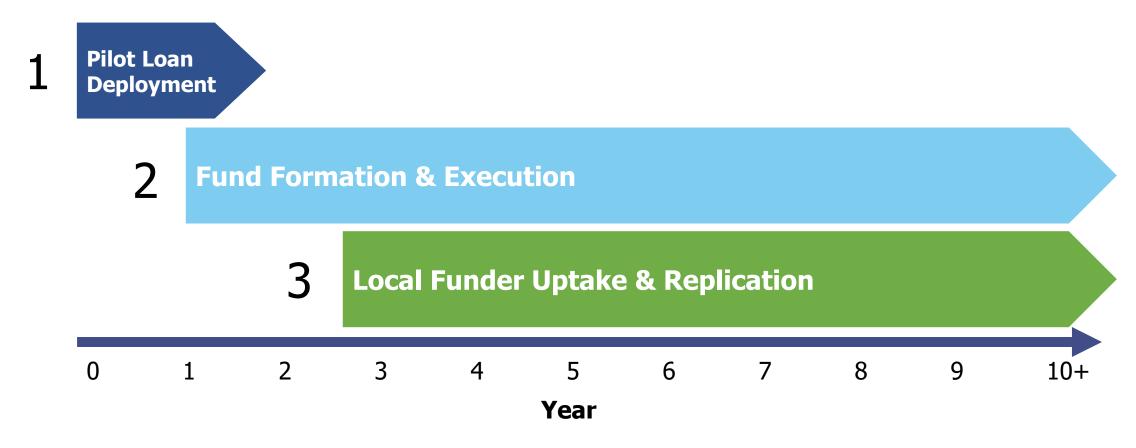


Target \$100m revolving loan facility focused on Indonesia and Ecuador





Implementation Pathway (Phases)



With recent support from:

















Impacts

Mangrove restoration and improved productivity combats environmental and socioeconomic issues on multiple fronts





















Investment Opportunities

Investor type	Amount (USD)	Role of capital
Grants/Concessional debt	\$5M	Concurrent pilot programs
Grants	\$5M	TA facility
Concessional equity	\$25M	Catalytic capital for fully scaled debt fund
Commercial equity	\$70M	Funding for fully scaled fund



Climate Smart Shrimp Team

Global Strategy

CI Aquaculture Team

CI Green-Gray Engineering Team

CI Conservation Finance Div / CI-Ventures



Country Programs

Konservasi Indonesia

CI-Philippines

CI-Ecuador

Implementing partners and collaborators





















CROSSBOUNDARY

The Fund for Nature

Investing in carbon sequestration, biodiversity, and livelihoods across Africa

October 2022





... but receive only about 2% of global climate finance flows

More than **50**% of **emissions** in Africa are driven by **deforestation**...



... with a \$100B+ climate finance gap for ag & forestry through 2030

Wildlife populations in Africa declined an average of 66% since 1970...



... primarily driven by land use change for agriculture



CrossBoundary

- 10-year track record of unlocking private capital in emerging and frontier markets
- 3 active investment platforms in Africa 2 climate-focused
- 9 offices across Africa
- 170+ person global team, with 110 (60%+) in Africa
- Advising nature-based carbon projects across Africa

Our team



Kate Wharton, Head of Natural Capital

- Leading nature-based carbon transactions globally, including Africa
- Launched and managed CrossBoundary's Iraq office for 2 years
 - MBA, Stanford

Jake Cusack, Founder & Managing Partner

- Co-founder of CrossBoundary's climate investment platforms
- 10+ years of pan-Africa investment and advisory leadership
- MBA & MPA, Harvard

Nathan Kelly, Head of Corporate Development

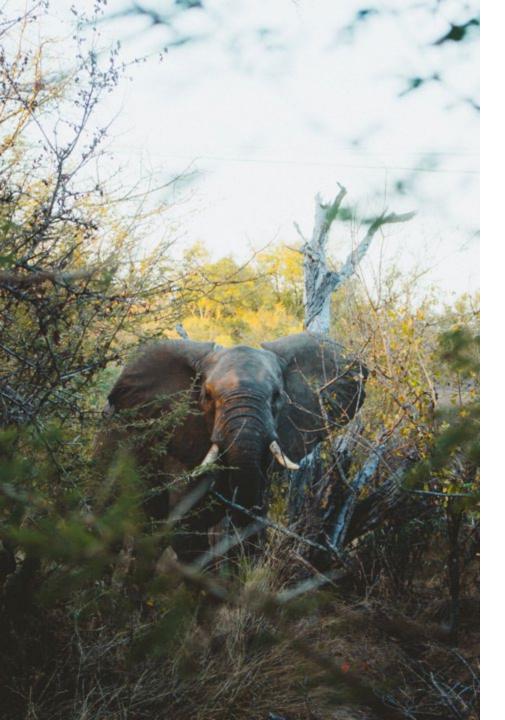
- Leading CrossBoundary's regenerative ag engagements globally
- Blended finance expertise including advising AfDB
- Investment banking background specializing in cross-border M&A

Oliver Miltenberger, Carbon Markets Advisor

- Experienced in carbon markets regulations in Africa
- UNFCCC consultant; contributor to SBTi, TSVCM, ICVCM
- Masters in Ecology, PhD candidate in Environmental Economics

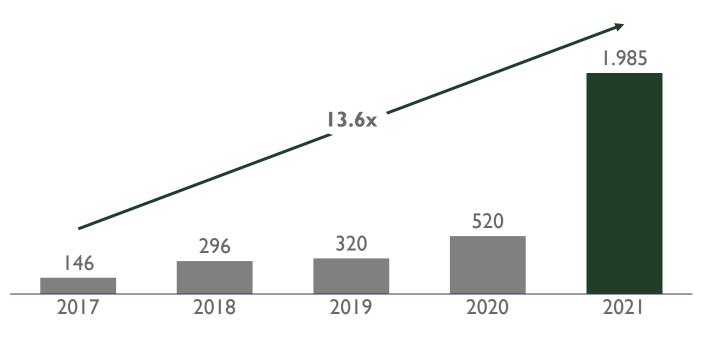
Valentina Ramirez, Natural Capital Senior Associate

- Advising on nature-based carbon transactions in Africa
- Previous experience in asset management & investment banking



Carbon market opportunity

Carbon markets are creating scalable, commercially attractive investment opportunities for nature.



Voluntary Carbon Market size by value of traded carbon credits (\$M)

Source: Ecosystem Marketplace, a Forest Trends Initiative



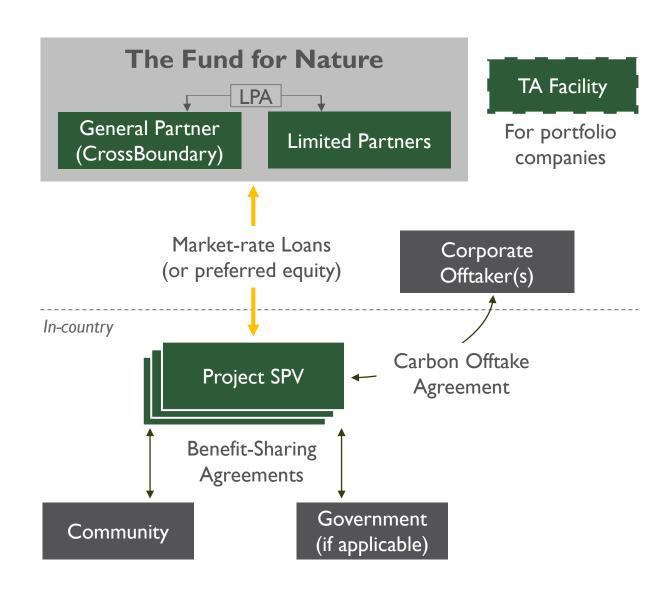
Lack of access to low-cost up-front capital for projects

High transaction costs due to bespoke terms & structures

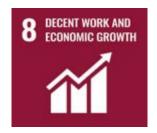
Information asymmetry between projects & buyers of credits

Investors are often looking for larger, lower-risk deals





Impact



Employment & income diversification

500+ beneficiaries per project
Target 50%+ revenue-sharing with local community



Supply-side integrity Demand-side integrity

2M+ tCO₂ sequestered or avoided per project



Biodiversity

CCB certification or similar Project-specific biodiversity targets







Africa project pipeline

Our pipeline

\$100M+ total size \$5-10M avg. size

800,000+ hectares 10+ countries

Project types

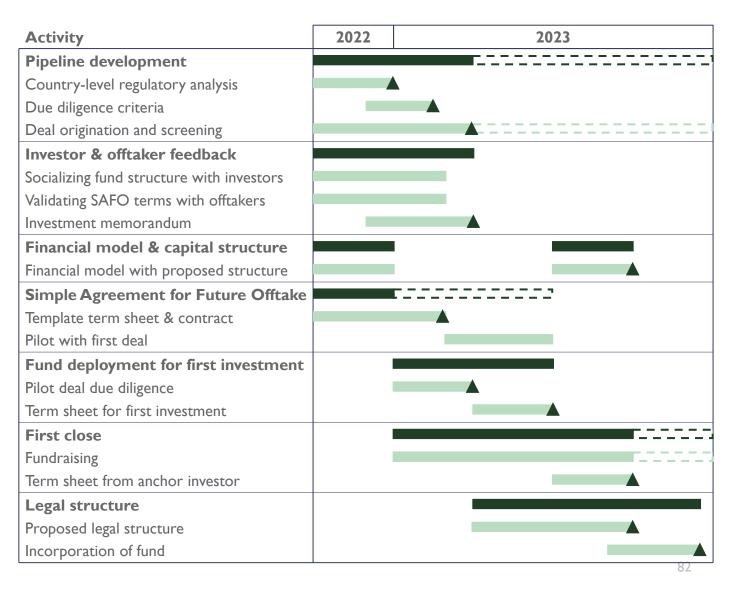
- Afforestation, Reforestation, and Revegetation (ARR)
- Reducing Emissions from Deforestation & Degradation (REDD+)

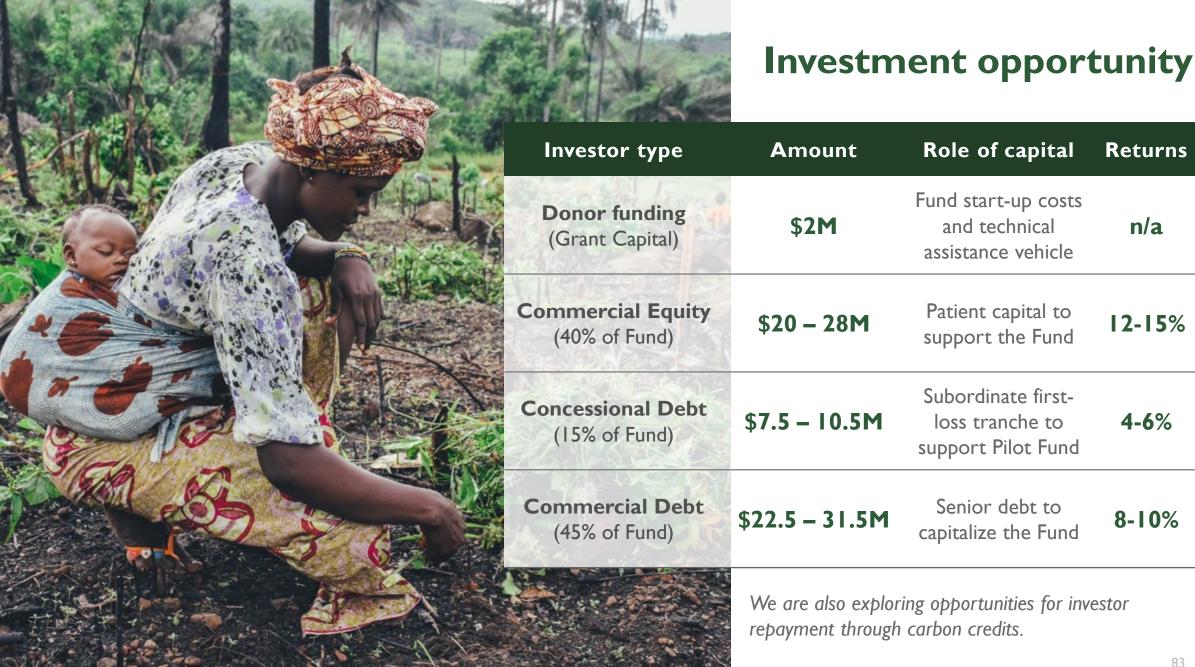
Impact prioritization criteria

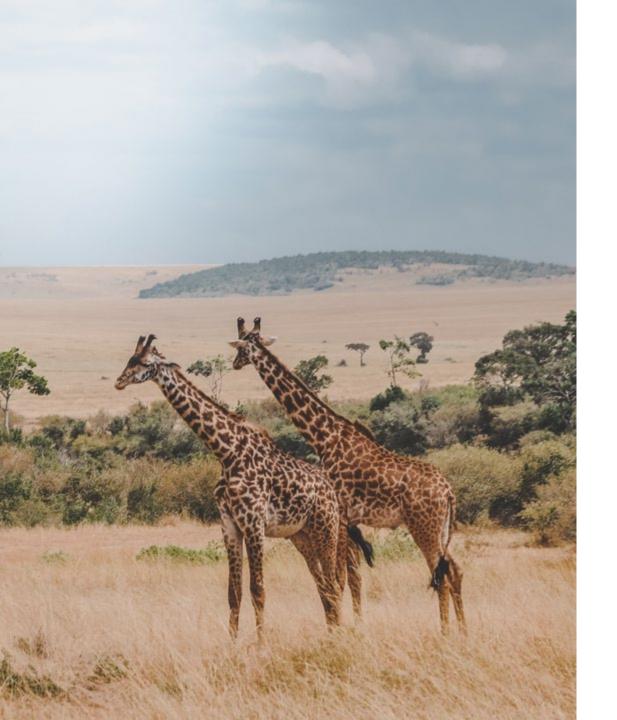
- Demonstrate carbon sequestration **integrity**
- Protect irrecoverable carbon sinks
- Ensure strong **community** benefit-sharing and long-standing operator relationships with communities & government
- Address core drivers of biodiversity loss
- Support **climate adaptation**, with special focus on water
- Supportive regulatory environment and government relations



Implementation







Contact

Kate Wharton

kate.wharton@crossboundary.com

Jake Cusack

jake@crossboundary.com

CrossBoundary Natural Capital team

naturalcapital@crossboundary.com





Green Affordable Housing Finance



ENDORSED BY:





The challenge





300 million new homes are needed by 2030

Sub-standard housing exacerbates risk from climate-linked disasters

Buildings contribute 37% of energy related GHG emissions

USD 1.5 trillion climate smart investment opportunity in homes that addresses finance constraints in supply and demand

Unlocking supply and demand finance for green affordable homes



Reall's track record









\$ Over US\$100 million invested

Over **107K** people housed

Over 83K jobs created





How it works









Impact





Mobilises local investment into climate-smart construction and finance

In five years in Kenya, we will demonstrate viability through:

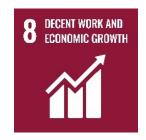
- Creating green homes and assets for 11,000 people
- Avoiding 8,000 tonnes of CO₂ in embodied energy emissions
- Enabling USD \$48 million in local lending into the green housing value chain

Over 15 years we will mobilise over \$400 million loans into the green affordable housing value chain















Implementation and pilot





5-year Pilot

Scale

Replication

Enabling Environment
Facility (EEF) and
Guarantee Facility
catalyse and de-risk
lending for green
affordable homes in
Kenya

The instrument expands deeper into housing markets through development and normalisation of alternative credit assessment and green supply chains

The instrument is rolled out into other markets throughout Africa and Asia with country-specific EEFs and an expanded Guarantee Facility



Investment opportunities (USD)





Concessional Debt

Refundable Grants

Non-refundable Grants



Construction loans for innovative green home designs



Capitalization of guarantee facility



TA for housing developers and financial institutions

Start-up costs, inc. fund formation and legal fees







This is an innovative investor-ready solution to the climate crisis which improves the availability of green finance for people on low incomes

Now we need investors to embrace this market-ready opportunity

Contact:

lan Shapiro – ian.shapiro@reall.net | Lucy Livesley – lucy.livesley@reall.net

Call for Sustainable Investment Ideas

The Lab is looking for innovative finance solutions that can unlock investment for a net zero economy transition.

Selected ideas receive guidance, analysis, stress-testing, and development by expert working groups and access to a network of high-level public and private investors.

climatefinancelab.org Dec 26





Thank you!