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

CYCLES CONDUCTED

The

The Lab

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





CAPITAL MOBILIZATION SUCCESS RATE

Sthe Lab

2022 Lab instruments span high-impact and challenging sectors



Financing Steel Decarbonization



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



SThe Lab





The Green Guarantee Company.

Global Innovation Lab for Climate Finance – Demo Day October 2022

guarantee.dev

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





Sources: 1) 2022 SIFMA Capital Markets Fact Book; (2) United Nations Framework Convention on Climate Change (UNFCC) Standing Committee on Finance – Technical Report on the Determination of the Needs of Developing Country Parties 2021

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





Source: IFC. Bloomberg, Environmental, Finance, Climate Bonds initiative

The Credit Rating Barrier For Emerging Markets

Global Credit and Capital Markets



Credit Risk	Moody's	Standard & Poor's	Fitch	Investmer	nt Grade	
Highest quality	Aaa	AAA	AAA			
High quality (very strong)	Aa	AA	AA			
Upper medium grade (strong)	А	A	А			
Medium grade	Baa	BBB	BBB			
-ower medium grade somewhat speculative)	Ва	BB	BB	Below Invest	ment Grade	Emerging Mark

How The Green Guarantee Company Can Help



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

MOBILIST



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

THE Development Guarantee

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	in pro
Pipeline consolidation	Selecting opportunities in target countries	In pro



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



Concessional capital to complete \$100 million first close

Raise by **Q1 2023**

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

Global Innovation Lab for Climate Finance – Demo Day October 2022



guarantee.dev



Impact Capital for Development

Climate Insurance Linked Resilient Infrastructure Financing (CILRIF)











Lack of Liquidity







Lack of Liquidity



Budget Reallocation







Lack of Liquidity



Budget Reallocation



Access to Financing









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





Technical Assistance and Subsidy facility



lnsurance Facility



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

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





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









Promotes Climate Adaptation





Promotes Climate Adaptation Is Data Driven & Science Based





Promotes Climate Adaptation Is Data Driven & Science Based

Mitigates Inequalities





Promotes Climate Adaptation Is Data Driven & Science Based Mitigates Inequalities Facilitates Access to Capital






Powerful Partner Coalition

A coalition of voluntary contributors from global organizations





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

background in strategy Strategy consultant consulting and philanthropy



Nikunj Bhimsaria **Giulia Franzoso**

MBA student with a

Corporate and capital markets attorney,

Project manager, market research and innovation

Sarah Eschner



Risk management consultant

Aliya Khabdulina



Data & supply chain

analyst, post graduate

student



Hale Tatar

Becky Ogbodo

Credit risk manager

Fundraising Opportunity



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



Abhisheik Dhawan

Abhisheik.dhawan@uncdf.org Cilrif.team@uncdf.org

www.uncdf.org/cilrif



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 Steel is a hard to abate sector

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 Decarbonization Facility (SDF)

Steel Decarbonization Initiative (SDI)

Blended debt fund & Technical assistance facility

Service company

INNOVATION: MAIN BARRRIERS ADDRESSED







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 reduction

250 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 c**oncessional **4 USD/tCO₂** overall



Innovation-led industrial infrastructure development



Sustainable industry and livelihoods **250 MtCO₂ reduction**

IMPLEMENTATION PATHWAY

Phase 1		Phase 2		Phase 3	
Year 1 and 2		Year 3 to 7		Beyond year 7	
	Legal set-up of the two entities: SDF and SDI	レ	Scale further fund capitalization to \$1 billion		Expansion to other sectors and geographies
ہ ا	Fundraising SDF: grants and debt. Execute TA SDI		Technology ready for commercialization	S B B	Fundraising SDI: private equity
	Launch Steel Decarbonization Fund				

Year 3



Pipeline: invest in pilots/solutions



Fundraising: SDF debt, 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



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/

METHANE CAPTURE SERVICE





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. methane emissions are often an overlooked problem. for methane capture technologies is limited which prevents them from scaling

O bluemethane

BRAZIL

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

The Solution



The first methane capture-as-aservice



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



8 DECENT WORK AND ECONOMIC GROWTH



bluemethane





Go-to-market Strategy



PROOF OF CONCEPT

years1&2

PILOT

years 3 & 4

Prove instrument concept & validate local parameters at a single location

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

THANK YOU











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 Shrimp Co-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.



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)





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




The Climate Smart Shrimp Fund incentivizes **improved productivity** and **mangrove restoration** on shrimp farms to drive food security, livelihoods, climate, and biodiversity benefits.

> CONTACT INFORMATION: Dane Klinger dklinger@conservation.org

CROSSBOUNDARY

The Fund for Nature

Investing in carbon sequestration, biodiversity, and livelihoods across Africa

October 2022



Natural climate solutions are 37% of the climate solution...



... 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...



State of Climate Finance in Africa 2022; WVVF, Living Planet Report 2022; Griscom

CrossBoundary

- I0-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

Barriers addressed

Lack of access to low-cost upfront 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

Solution

The Fund for Nature provides project-level debt and offers investors access to a portfolio of highintegrity nature-based carbon projects in Africa.





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



15 LIFE ON LAND

Biodiversity

CCB certification or similar Project-specific biodiversity targets





Africa project pipeline

Our pipeline



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



Investment opportunity

	Investor type	Amount	Role of capital	Returns
L	Donor funding (Grant Capital)	\$2M	Fund start-up costs and technical assistance vehicle	n/a
	Commercial Equity (40% of Fund)	\$20 – 28M	Patient capital to support the Fund	12-15%
	Concessional Debt (15% of Fund)	\$7.5 – 10.5 M	Subordinate first- loss tranche to support Pilot Fund	4-6 %
	Commercial Debt (45% of Fund)	\$22.5 – 31.5 M	Senior debt to capitalize the Fund	8-10%
the second		We are also exploring opportunities for investor repayment through carbon credits.		



Contact

Kate Wharton kate.wharton @crossboundary.com

Jake Cusack jake@crossboundary.com

CrossBoundary Natural Capital team naturalcapital@crossboundary.com



CROSSBOUNDARY/

crossboundary.com

CONFIDENTIAL . PROPRIETARY



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 **30 years** experience



• Over 55K affordable homes built



S Over **US\$100 million** invested



Over 107K people housed



REALL IS AN INNOVATOR AND INVESTOR IN GREEN **AFFORDABLE HOMES IN AFRICA AND ASIA**









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)



3M

financial institutions

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: Ian 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.

SUBMIT DE/

DEADLINE Dec 26





Thank you!