Driving private finance to achieve 1.5-degree objectives
Agenda

16:00 – 16:05 | Welcome from Dr. Barbara Buchner, Executive Director, CPI

16:05 – 16:15 | Climate finance trends and driving private finance to achieve 1.5-degree objectives - Dr. Angela Falconer

16:15 – 17:15 | Panel: Unlocking investment for climate action in infrastructure and mobility

17:15 – 18:00 | Lab instrument showcase

18:00 – 19:00 | Networking drinks

#LDNClimatetAction
Climate finance trends and driving private finance to achieve 1.5-degree objectives

July 1, London
Global climate finance flows surged to $472 billion in 2015, before falling 3% to $455 billion in 2016.

* Preliminary Estimate
$3.8tn/year

To achieve 1.5 degree warming goals in the energy system alone according to IPCC
Investment in renewables has grown exponentially

CPI analysis based on REN21, IRENA, WEC data
Investment in electric vehicles has grown exponentially to USD 43 bn

IEA 2018; CPI analysis
Private sector provides the bulk of finance, but public sector remains the engine behind it

Private

- Renewable Energy: 238
- Energy Efficiency: 231*
- Sustainable Transport: 11
- Land Use: NA
- Adaptation: NA
- Other: NA

Public (DFIs & Int’l Finance)

- Renewable Energy: 57
- Energy Efficiency: 29
- Sustainable Transport: 81
- Land Use: 4
- Adaptation: 22
- Other: 21

Public (Domestic Finance)

- Renewable Energy: Tracked
- Energy Efficiency: Not tracked
- Sustainable Transport: Not tracked
- Land Use: Not tracked
- Adaptation: Not tracked
- Other: Not tracked

All figures in USD Billions

* Source: IEA WEIO 2017
Accelerating action through finance
Filling the gaps in the current landscape of climate finance

- **Private**
  - Renewable Energy: 238
  - Energy Efficiency: 231 *
  - Sustainable Transport: 11
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All figures in USD Billions

*Source: IEA WEIO 2017
The Climate-aligned Finance Tracking Group is a network of experts that aims to achieve greater impact and scale in climate finance by improving and aligning tracking efforts.

Steering Committee Members: AFD, ClimateWorks, EBRD, EFI, EIB, BMU, Grantham, I4CE, IADB, OECD, UNEP-FI, UNFCCC, WBG
## Broader interpretation to include investment decision-making

**Flows only perspective to article 2.1c**

<table>
<thead>
<tr>
<th>Financial Flows</th>
<th>Integration of Climate Change into Decision-Making</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bank Lending</strong></td>
<td>Loans&lt;br&gt;Loan approvals; governance, strategy and risk management processes</td>
</tr>
<tr>
<td><strong>Bond Markets</strong></td>
<td>Bond issuance&lt;br&gt;Bond disclosure and listings rules</td>
</tr>
<tr>
<td><strong>Listed Equity</strong></td>
<td>Equity issuance, IPOs, retained earnings&lt;br&gt;Corporate disclosure and listings rules; governance, strategy and risk management processes</td>
</tr>
<tr>
<td><strong>Private Equity</strong></td>
<td>Venture capital, private equity funds&lt;br&gt;Memorandums and risk management processes</td>
</tr>
<tr>
<td><strong>Insurance and Reinsurance</strong></td>
<td>Underwriting policies and premiums&lt;br&gt;Governance, strategy and risk management processes</td>
</tr>
<tr>
<td><strong>Assets Under Management</strong></td>
<td>Asset allocation and divestment policies/mandates&lt;br&gt;Asset allocation and divestment policies/mandates</td>
</tr>
<tr>
<td><strong>Financial Services</strong></td>
<td>TBC&lt;br&gt;Credit rating decisions; investment consultant advice</td>
</tr>
</tbody>
</table>
The Lab identifies, develops, and launches innovative finance instruments that can drive billions in private investment to action on climate change and sustainable development.

35 instruments launched

60+ public and private Lab Member institutions

$1.9bn mobilized
The Lab brings together over 60 institutions to address the sustainable investment gap

**Funders**
- Australian Government
- Bloomberg Philanthropies
- IFAD
- Rockefeller Foundation
- SHAKTI
- giz

**Members**
- ACWA Power
- AFD
- Allianz
- ADB
- Agence France Trésor
- BlackRock
- BNDES
- CAIXA
- IFC
- First Solar
- FMO
- Green Finance Institute
- Global Environment Facility
- HKBNDC
- IFC
- IRENA
- KfW
- JICA
- LCF
- M1
- Masdar
- NERI
- Norfund
- Renew
- Santander
- TATA Capital
- nteractive
- Vinodh

**Past Funders**
- OAK Foundation
- the David 
- Packard Foundation

**Secretariat**
- Climate Policy Initiative
Contact –

**CPI:** www.climatepolicyinitiative.org

**The Lab:** www.climatefinancelab.org

**USICEF:** www.usicef.org

**Global Landscape of Climate Finance:**
www.climatefinancelandscape.org

@climatepolicy

@climatepolicyinitiative

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Thank You
Unlocking investment for climate action in infrastructure and mobility

Chair: Barbara Buchner

Panelists:

Ashufta Alam, Deputy Director, International Climate Finance: Policy and Investments, UK Department for Business, Energy and Industrial Strategy

Abyd Karmali, Managing Director, Climate Finance, Bank of America Merrill Lynch

Meryam Omi, Head of Sustainability and Responsible Investment Strategy, Legal & General Investment Management

Nancy Saich, Chief Climate Change Expert, European Investment Bank

#LDNClimateAction
Lab instrument showcase

Chair: Michael Liebreich

Hein Gietema, Water Financing Facility

Thomas Motmans, Cooling as a Service

Jay Koh, Climate Resilience and Adaptation Finance & Technology Transfer Facility

Agustin Silvani, Restoration Insurance Service Company for Coastal Risk Reduction

Pedro Moura Costa, Responsible Commodities Facility

#LDNClimateAction
Driving private finance

Hein Gietema

1st July 2019
Our Approach

The **Water Finance Facility (WFF):**

- Set up national water finance facilities
- Mobilize domestic capital from institutional investors
- Support Project Development
- Provide Transaction Support
- Finance credit worthy water service providers (WSPs)
WFF is part of leading LCX platform
WFF Structure - simplified

- **Water Finance Facility** *(Global)*
  - **Equity** Support
  - **Grant** from Donors

- **National Water Finance Facilities** *(Local)*
  - **Bonds** from Domestic Institutional Investors
  - **Loan** Support from Water Service Providers *(Pool)*

- **Water Service Providers** *(Pool)*
  - **Grant/LCL** from Donors/IFIs

- **Donors**
- **IFIs**
Progress and Impact

Kenya

• Well established governance, guarantee and operational structures
• Engaged with 14 WSPs, now 2 lined up for 1st Loans (USD 5 mio Q4), another 2-3 for 2020 as well as for 2021 (USD 10 mio each year)
• Final documents to be signed by government delays processes

Other

• Progressing in Indonesia
• First assessment West Africa (francophone countries)
Achieving Scale

Target
• USD 1 billion in local currencies
• 5-8 countries
• 20 million people connected

Support welcome
• WFF business development
• Setup National WFFs
• First loss, guarantees to comfort local capital markets
• Support project development for WSPs
Lab instrument showcase

Chair: Michael Liebreich

Hein Gietema, Water Financing Facility

Thomas Motmans, Cooling as a Service

Jay Koh, Climate Resilience and Adaptation Finance and Technology Transfer Facility

Agustin Silvani, Restoration Insurance Service Company for Coastal Risk Reduction

Pedro Moura Costa, Responsible Commodities Facility

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Cooling as a Service
Refresh the planet
The Challenge and the Opportunity

• 1.6 billion ACs today, + 10 ACs/sec.
• Demand x 3 by 2050 (= 30% World electricity today)
• 6.9 trillion USD market over next 30y

EE cooling systems have higher CAPEX and lower OPEX than conventional systems. Investment decision sensitive to purchase price.
**Cooling as a Service (CaaS) model**

- Pay-per-service model
- Capex to Opex (inc. maintenance, operation, electricity)
- Provider owns equipment: no performance risk
- Circular economy
- Capitalization of providers through sale-leaseback

**CaaS contracts:** Customers pay for service

**Customer**

**Provider**

- Sell assets
- Contracts as collateral

**Financial institution**

**Payment guarantee**

**Capitalization of Provider**

- Leasing payment
CaaS Initiative

Institutionalize CaaS globally (fund)

- Alliance
- Pilot projects flagship building (TA Fund)
- Demos
- Standardize mechanisms
- Tools
Looking for partners

Developers/Real state/Manufacturers/PE funds
- Sustainable cash-flows
- Competitive risk-return

Banks, financial entities
- Sale-Leaseback deals
- Stable yields

Insurance
- Providing risk mitigation solutions

Associations
- Strategic partnerships

Thomas Motmans
thomas.motmans@energy-base.org
www.caas-initiative.org
Lab instrument showcase

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Agustin Silvani, Restoration Insurance Service Company for Coastal Risk Reduction

Pedro Moura Costa, Responsible Commodities Facility

#LDNClimateAction
CRAFT – Climate Resilience & Adaptation Finance Technology-transfer Facility

1 July 2019
London, UK

Contact:

Jay L. Koh
jay.koh@lightsmithgp.com

Sanjay J. Wagle
sanjay.wagle@lightsmithgp.com
Executive Summary

**CRAFT: First** private investment strategy focused on **climate resilience** and **adaptation**

+ Experienced, well-positioned team
+ Specialist growth investment strategy focused on “climate resilience” intelligence and solutions
+ Three innovations:
  + Blended Finance Structure
  + Aligned TA Facility
  + Impact Measurement
+ Great potential impact
The Team

The Lightsmith partners each have over 20 years of experience in:

- Growth Investing
- Development Finance
- Climate Finance

... and are supported by strong partners:

- The Carlyle Group
- VantagePoint Capital Partners
- OPIC
- IFC
- The Carlyle Group (Growth Investing)
- Global Environment Facility (gef)
- The Climate-KIC
- IFC
- OPIC
- NYSERDA
- Conservation International
- The iLab
- ICFA

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The Challenge

Climate change is increasing risk and impact now....

Hurricane Harvey: $125 bn damages 2017
California Wildfire: $11.4 bn damages 2018
Cape Town Water Crisis: $1 bn damages 2018
Mozambique Cyclone Idai: $2 bn damages 2019
Brazil Drought Hydropower: $5.6 bn losses 2014-17
Latin America Coffee Rust: $1 bn damages
17 Tropical Diseases: $2 bn/year
US Wind: Revenues down 6-18% Q1'15

PG&E: The First Climate-Change Bankruptcy, Probably Not the Last
The fast fall of PG&E after California’s wildfires is a jolt for companies considering the uncertain risks of a warming planet

...but >6% of climate finance is focused on adaptation, and almost nothing systematic in the private sector

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The Opportunity

+ Find and scale up “tools” to build climate resilience

“Intelligence” Companies
Flood Modeling

“Solutions” Companies
Water Harvesting

Current addressable market: **20 subsectors** linked to resilience, growing 20-30% CAGR, totaling **$130 billion**

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CRAFT integrates three innovations:

1. **Blended Finance**
   - Concessional capital layer
   - Mitigates Risk

2. **Technical Assistance Facility**
   - Project preparation funding
   - Expands in developing countries

3. **Impact Measurement**
   - 3-5 KPIs tracked with ESG
   - Demonstrates impact

Contact: jay.koh@lightsmithgp.com
Blended Finance + TA Facility

+ Concessional mobilizes 4X to 20X+ non-concessional investment
+ TA Facility applies solutions to LICs, SIDs, vulnerable populations

<table>
<thead>
<tr>
<th>Financing</th>
<th>Amount*</th>
<th>Financial Return</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Concessional Investment</td>
<td>80%</td>
<td>Commercial returns</td>
<td>Direct impacts from investments</td>
</tr>
<tr>
<td></td>
<td>(e.g., $200M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concessional Investment</td>
<td>20%</td>
<td>Concessional returns; offers risk mitigation</td>
<td>Crowds-In non-concessional capital; Demonstration effect</td>
</tr>
<tr>
<td></td>
<td>(e.g., $50M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(e.g., $250M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA Facility</td>
<td>$20M</td>
<td>Grant capital; no financial returns</td>
<td>Apply resilience solutions in LICs, SIDs</td>
</tr>
</tbody>
</table>

*Note: Amounts are provided for illustrative purposes only.*
Impact Measurement

Impact Measurement System (IMS) maps 3-5 KPIs against Climate Action, SDGs, and gender

Gender

- **Extreme weather**: 5X more women die from natural disasters (LSE 2007)
- **Agriculture**: 2/3 of women in developing countries are in agricultural work (UN)
The first private investment strategy focused on adaptation and resilience

Addressing the $300B annual Adaptation Gap in developing countries by 2030*

...and supporting multiple SDGs

*Source: UNEP

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Next Steps

For more information, please contact:

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Lab instrument showcase

Chair: Michael Liebreich

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Mangroves store more carbon per unit area than any other ecosystem on Earth.

Mangroves help keep people and homes safe.

But mangroves are being lost at a rate of 1%-2% per year — faster than any other type of forest.

Mangroves provide an estimated $82 billion in flood risk reduction annually and store an average of 850 tonnes of carbon per hectare.
RESTORATION AS A SERVICE
Instrument Mechanics: Philippines Pilot

**Service Provider(s)**
RISCO-linked or 3rd party

**Restoration Insurance Service Company (RISCO)**
Identify clients and sites, provide guidance and services, coordinate with insurance partners

**Carbon Credit Buyers**
Blended finance payments
Repayments
Blue carbon payments
Blue carbon credits

**Sources of Finance**
Impact / Concessional Investors
Commercial Fin. Providers

**Insurance Companies**
Discounted insurance premiums

**Blue Carbon Rights Holders**
Blue carbon rights
Blue carbon (tCO2e)
Conservation and restoration

**Coastal Asset Owners**
% premium payment savings
Coastal protection
Insurance
$5 million to develop models and pilot in the Philippines. **Blended finance** from commercial providers and impact investors (public or private) impact investors.

**Debt and/or equity** from impact investors or DFIs to **scale** in the Philippines and/or **expand** into other countries.

**Initial sites:** Revenue from insurance premium savings and **blue carbon** sufficient to self-sustain into the future.

**New sites:** Debt/equity as start-up capital, then self-sustaining.

**Proof-of-concept and pilot**

**Replication**

**Self-sustaining**
Lab instrument showcase

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Responsible Commodities Facility
Providing finance for the production and trading of responsible soy from Brazil
Soy expansion is resulting in deforestation of Cerrado...

5 million ha needed until 2027

However, 3 times more land is available, already cleared
2017 – A Cerrado Manifesto

A plea/pledge to redirect expansion of soy from native Cerrado to existing cleared land

Signed by more than 200 corporations and NGOs, including:
RCF Approach

- **Provide finance** to farmers that meet its **Eligibility Criteria**
- Capitalized by **Green Bonds**
- In partnership with **traders** and **Banco do Brasil**
A new Registry and Exchange for DCF-soy

- Participating Producers
  - Producer Enrollment and Due Diligence Platform
  - Registry of Responsible Commodities
  - Independent Monitoring & Traceability Services
  - Public Portal, for transparency and traceability

- External Producers
  - Registry of Responsible Commodities
  - Independent Monitoring & Traceability Services
  - Public Portal, for transparency and traceability

- Traders
  - Responsible Commodities Exchange
  - Independent Monitoring & Traceability Services
  - Public Portal, for transparency and traceability

Compliance and performance reports
Impact – USD 1 billion, 10 years

- **> 1000 farms**
  - Receiving Crop financing

- **180 Mt grain**
  - Over 10 years (both soy and corn)

- **200,000 ha**
  - Unproductive land restored to agriculture

- **> 800,000 ha**
  - Natural Vegetation conservation and/or regeneration in Legal Reserves

- **> 250 MtCO2e**
  - Reduced CO2e emissions
Annexes
Institutional support and partnerships

- MOU to support the development of the Responsible Commodities Facility

- UK Government fund – financial support to the development of the Facility

- Letter of Intent to make a catalytical investment in the Facility to generate quantified environmental impacts

- Endorsement by 60+ leading public and private investors who make up the Lab network

- Provided seed funding for the development of concept

- Working with the Facility to develop new credit lines for Brazilian farmers

- Working with the Facility to develop a new standard for green bonds for the agricultural sector

- Working with the Facility to structure legal frameworks for green bonds for the agricultural sector
Our Team

**Pedro Moura Costa** - Founder and CEO, UK
over 25 years experience on forestry, climate and environment sector, co-founder and director of BVRio Environmental Exchange, co-founder and former President of EcoSecurities Group Plc., the world leader in greenhouse gas mitigation and carbon trading, listed in the London AIM stock exchange; author of >100 publications including IPCC reports recognized with 2007 Nobel Peace Prize; PhD from University of London.

**Mauricio Moura Costa** - Founder and COO, Brazil

**Jose Tumkaya** – CFO, UK
over 17 years of corporate finance, strategic M&A and direct operating experience in energy and commodities within physical trading, investment banking and start up organisations. Formerly, executive director of the Commodities Principal Investments division of JP Morgan, COO of EcoSecurities Group Plc, and Investment Director of Mercuria Energy Trading, leading the US$ 800 m acquisition of JP Morgan’s global physical commodities business. BSc in Economics at Wharton School (Pennsylvania), and MBA at Columbia and London Business Schools.

**Shaun Kingsbury CBE** – Chairman
former CEO of the UK Green Investment Bank, previously served as an Investment Partner at Hudson Clean Energy Partners, a leading clean energy private equity firm where he was responsible for its European activities. He is a long time renewable energy investor and advisor having been a founding partner of Pulsar Energy Capital and an advisor to 3i on a number of renewable energy transaction opportunities in Europe.
Our Team

Arnaldo Carneiro – Senior Environmental Advisor
over 30 years experience in land use dynamics, led the creation of the Territorial Intelligence Nucleus of the Brazilian Presidency, former director of Agroicone and Senior Reseracher and the Amazon Reserach Institute (INPA), and coordinated strategy on soy supply chain for Global Canopy and Trase (trase.earth). Arnaldo is an Agronomist from Esalq-USP (Brazil), MSc at the International Institute for Geo-Information Science (Netherlands), PhD at the University of Strasbourg, France and post-doctorate at the University of Wageningen, (Netherlands).

Etienne Amic – NED, trade and finance
over 20 years experience in commodities trading, previously Head of European Energy of Mercuria Energy Group, Managing Director at J.P. Morgan where held a number of senior roles in trading, sales and principal investments, Global Head of Commodities at Credit Agricole CIB, and a trader at TOTAL. Founder of EnAlgo, which develops energy trading technology, and Chairman of Vortexa, a leading oil data and analytics provider. Etienne holds a MSc. in Quantum Physics, a Ph.D. in Theoretical Physics from Université Paris Jussieu, a MSc. in Financial Markets from Université Paris Dauphine and a MSc. in Mines Engineering from ParisTech.

Michel Gutnik – Senior Associate, Trading & Finance, Brazil
over 22 years experience in corporate finance, banking and entrepreneurship, responsible for the execution of more than BRL 6 billion in deals. Seasoned investor in the Brazilian grains business sector. Previously, Partner at Banco Brasil Plural, Managing Director of Equity Derivatives at Natixis Brasil, investment banker at Banco Pactual. BSc in Engineering at PUC-Rio, post-graduate in Marketing at FGV Rio de Janeiro, and MBA at NYU Stern School of Business New York.

Alex Cong Zhang – Investment Manager, UK
over 7 years of experience in renewable energy investment, fundraising and M&A advisory. Alex was formerly an investment executive at the UK Green Investment Bank Offshore Wind Fund (now part of Macquarie Infrastructure and Real Assets), where she was a key member in the fundraising, investment and asset management aspects of the fund business. Previously Alex worked as an M&A Analyst at Société Générale Power & Utility team. BSc in Mathematics with Statistics for Finance from Imperial College London.
Lab instrument showcase

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