How to mobilize private sector investment into low emission infrastructure
With an example of the Green Climate Fund as a catalyst

James Falzon, Donald Pols (ECN)
Carmen Arguello (GCF)
Punta Cana, October 2015
Introduction ECN

ECN Policy Studies

Energy research Centre of the Netherlands since 1955
- Research NGO – not for profit
- Over 500 staff in seven research areas
- 60 staff in Policy Studies unit
- Main think tank for Dutch government on energy and climate.

Global Sustainability group

Within ECN Policy Studies 15 staff work on issues of ‘global sustainability’ with the mission to help *mobilizing public and private investment through low carbon energy policies and measures*. Our focus is on four key themes:

- Policy and strategy development
- Increased policy effectiveness
- Scoping and prioritisation
- Renewable energy deployment

Clients include: European Commission, UNFCCC, UNEP, UNDP, CDKN, DFID, GIZ, BMUB, World Bank and the IPCC

Experience working in: a diverse group of countries including Indonesia, Pakistan, Mongolia, Thailand, Ghana, Kenya, South Africa, Kuwait, Argentina, Brazil, Mexico, Colombia, etc.
Introduction to the training session

- **Training objectives**
  - Understand role of private sector in financing low emission infrastructure and financial instruments for mobilizing such participation
  - Understand the role that the Green Climate Fund (GCF) can play to catalyse this, and how

- **Overview of training session: 3 parts**
  - PART 1: A bit of theory on the rationale for private sector investment from a public sector perspective, and support modalities (ECN)
  - PART 2: Catalysing private sector investment, the Green Climate Fund as a case study for this (Green Climate Fund, ECN)
  - PART 3: Developing a bankable proposal, what kind of activities are needed? What are the challenges? (Green Climate Fund, ECN)
Introduction to the training session

• Target audience
  – LEDS generalist that needs to interact with finance experts and facilitate proposal development

• At the end of this training participants will be able to
  – Identify, at a high level, the potential role the private sector can play in low-carbon infrastructure and why
  – Analyse what kind of instruments are best suited to support private sector investment in such infrastructure
  – What is needed to develop a proposal for the Green Climate Fund

• Presenters
  – Donald Pols, ECN
  – James Falzon, ECN
  – Carmen Arguello, Green Climate Fund

James Falzon, ECN
LEDs financing challenge

Investments (and divestments) are needed across different sectors, actions

• According to the CLIMACAP project, an average additional 21 billion US$/yr of energy supply investments are required in Latin America until 2050 under a climate policy aiming at 2°C climate stabilization

Annual additions to global power generation capacity (GW), courtesy of Bloomberg
Why a role for the private sector?

- **Economic/prioritisation perspective** (MAC curve)

- **Social/sector perspective** (regulation vs market based, ‘environmental economics 101’)

- **Public budget perspective** (i.e. catalysing or leveraging private sector investments)
**Private sector and LEDS**

**Why a role for the private sector?**

<table>
<thead>
<tr>
<th>Total cost of mitigation action</th>
<th>Finance strategy 1</th>
<th>Finance strategy 2</th>
<th>Finance strategy 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. RE investment, new waste facility, new transport</td>
<td>PRIVATE SHARE</td>
<td>PRIVATE SHARE</td>
<td>PRIVATE SHARE</td>
</tr>
<tr>
<td></td>
<td>PUBLIC SHARE</td>
<td>PUBLIC SHARE</td>
<td>PUBLIC SHARE</td>
</tr>
</tbody>
</table>

**INCREASING FINANCIAL EFFICIENCY**
What does the private sector want?
What are the enabling conditions?

<table>
<thead>
<tr>
<th>Core business environment (not low-carbon)</th>
<th>Investment climate (partly low-carbon)</th>
<th>Targeted policies (low-carbon specific)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Customs (import and export)</td>
<td>• Legal institutions, rule of law</td>
<td>• Cluster policies (including long-term policy signals &amp; short-term policy incentives)</td>
</tr>
<tr>
<td>• Ease of starting, operating, closing a business, including licensing and registration</td>
<td>• Education policies, human &amp; institutional capacities (overlap with business capacity)</td>
<td>• Targeted research &amp; development policies</td>
</tr>
<tr>
<td>• Labour market (skills &amp; flexibility)</td>
<td>• Macroeconomic policy framework, political stability</td>
<td>• International cooperation on low-carbon technology (including tech. transfer and trade policy)</td>
</tr>
<tr>
<td>• Property entitlements, incl. land</td>
<td>• Financial market, access to finance</td>
<td>• Business development services (overlap with business capacity)</td>
</tr>
<tr>
<td>• Taxes</td>
<td>• Infrastructure (energy, transport)</td>
<td>• Value chain promotion (including standards and codes)</td>
</tr>
<tr>
<td>• Contract set-up and enforcement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Stadelmann & Michaelowa 2011
What is efficient from public budget perspective? Focus on finance

- Highly stylised spectrum of policies/instruments for catalysing private sector investment

- In reality the ‘efficiency’ of any approach is context specific
- Should also consider effectiveness and feasibility

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**Private sector and LEDS**

**Decreasing leverage of public funds / decreasing efficiency**

- Support asset
  - Partial or full grants

- Support finance
  - Concessional loan
  - Public equity
  - Tax holiday
  - Fiscal incentives (depreciation rules)

- Support service
  - Subsidy
  - Feed in tariff

- Guarantee
  - Partial credit guarantee
  - Political risk guarantee
  - Risk cover instruments

- Regulation
  - Improved contractual protection
  - Technology standards
  - Targets

- Cap. build. and inform
  - Awareness raising
  - Guidelines
  - Decision tools

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Figure: adapted from Lutken 2014
Appropriate instrument selection for a specific context: Feasibility and effectiveness

**Country investment grade**: AAA

**Current private sector participation**: HIGH

**Political willingness**: HIGH

**Potential profits**: IRR > 20%

**Risks**: LOW

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**Support asset**

**Support service**

**Support finance**

**Guarantee**

**Regulation**

**Cap. build. and inform**
Example of effectiveness: Geothermal in Kenya

Country investment grade: AAA

Current private sector participation: HIGH

Political willingness: MEDIUM

Potential profits: IRR > 20%

Risks: LOW

Support:
- Cap. build. and inform
- Regulation
- Guarantee
- Support finance
- Support service
- Asset
**Private sector and LEDS**

Example of feasibility: UK Onshore Wind.... Before

- **Country investment grade**: C
- **Current private sector participation**: NONE
- **Political willingness**: MEDIUM
- **Potential profits**: IRR > 20%
- **Risks**: LOW
Example of feasibility: UK Onshore Wind.... After

- Country investment grade: C
- Current private sector participation: NONE
- Political willingness: HIGH
- Potential profits: IRR > 20%
- Risks: IRR < 5%

Diagram showing:
- Cap. build. and inform
- Regulation
- Guarantee
- Support finance
- Support service
- Support asset
Exercise instructions

• Use the diagram as a basis for discussion of the range of instruments to support private investment for low-emission infrastructure in the example country

• Note down the different challenges / uncertainties you face in doing so
  – For example, to understand what instruments are on the table, you might need expert advice
  – Where are the biggest uncertainties?
  – What is good practice?

• Time available – 15 minutes
Part 2a: What is the GCF and how does it work?

Carmen Arguello, GCF
Part 2b: Examples of financial structures to mobilize private investment, and how the GCF could fit in

James Falzon, ECN
Instruments of the GCF

How is the finance structured?

Instruments of the GCF to leverage private investment

- **‘Instream’: To ATTRACT finance to climate investments, supply side**
  - Green project bonds (GCF either guarantees intermediary [short term], or issues itself [long term])
  - Commercial paper (promissory note with a fixed maturity, usually less than one year)
  - Syndications and club deals (group of lenders to one single borrower)
  - Private placement programs (intermediate step between bonds / commercial paper (securities) and syndicated loans (loan instrument))

- **‘Downstream’: To ACCESS funds for climate projects, demand side**
  - Grants
  - Concessional loans
  - De-risk instruments [longer term]
  - Equity Instruments
  - Results based finance
  - Blended finance

**How could the finance structured?**

Example 1: Blended concessional finance

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Tranche</th>
<th>Source</th>
<th>Amount</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>Equity</td>
<td>Project promoter and Funds</td>
<td>minimum</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Sub Debt</td>
<td>Subordinated Debt (Various financial institutions - MDB / DFI loan)</td>
<td>Up to</td>
<td>10%</td>
</tr>
<tr>
<td>DFI Tranche</td>
<td></td>
<td>DFI/MDBs Loan (such as ADB, AfDB, EIB, WB etc...)</td>
<td>Up to</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concessional Funding (such As CIF and GCF)</td>
<td>Up to</td>
<td>5%</td>
</tr>
<tr>
<td>Senior Debt</td>
<td></td>
<td>DFI Syndicated Loan</td>
<td>Up to</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Commercial Tranche</td>
<td>Commercial Bank Loan</td>
<td>Up to</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: GCF (2014)
How could the finance be structured?

Example 2: Fund for innovative energy companies in East Africa

- Bank as an accredited entity and lead organiser
- Would like to set up fund for on-lending to innovative energy companies in East Africa
- Approximate 50 million USD application as pilot phase from the GCF
- Will on-lend to private companies

Concessional loan

Loan repayments (lower interest rate)

Capital: Equity + Concessional loan on-lent

Loan repayments (higher interest rate)

Source: ECN (2015)
Example 3: Green bonds

- GCF initially will not be able to issue green bonds itself
- Could guarantee intermediaries issuance
- Long-term, it may be possible for GCF to issue its own bonds

Green bond issuance: e.g. World Bank, with JP Morgan, Goldman Sachs as managers

Source: ECN (2015)
The GCF

Assumed GCF priorities on instruments and implications for size of request

Country investment grade: AAA

Current private sector participation: HIGH

Political willingness: HIGH

Potential profits: IRR > 20%

Risks: LOW

Support asset

Support service

Support finance

Guarantee

Regulation

Cap. build. and inform

Likely size of disbursements:

Lowest

Moderate

Highest

Moderate

Lowest
Part 3: GCF readiness: NDA, accreditations, pipeline

Carmen Arguello (GCF)
Closing discussion

Donald Pols, ECN
Plenary discussion

- What are your experiences in developing a proposal?
- What are the most important activities?
- What are the biggest bottlenecks?
- What are good practices that you can share with colleagues?
- Where do you think private sector could come in?
- What kind of support would be most useful?
Support for your efforts to mobilize private investment, and accessing the GCF

- **Existing GCF readiness support:**
  - Strengthening NDA and focal point
  - Strategic framework (country programme for engagement, and strategic investment priorities)
  - Accreditation of implementing entities
  - Pipeline development
  - Information and experience sharing

- **LEDS-GP FWG is considering to develop:**
  - Knowledge products (guides, meta-guides [i.e. overview of available guides])
  - Ad-hoc small-scale technical assistance across different activities needed to prepare a proposal (already available)
  - Matchmaking with accredited entities, GCF, NDAs
  - Support to look for funding for readiness and proposal development
Thank you for your attention

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Carmen Arguello (carguello@gcfund.org)