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

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Carmen Arguello (GCF)
Dieu Trinh Nguyen (Govt of Vietnam)
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.

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: Why attract private investments to public infrastructure (ECN)
  – PART 2: the Green Climate Fund as a case study for this (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
  – Dieu Trinh, Ministry of Planning and Investment, Vietnam
Part 1: The private sector and low-emission infrastructure: What, why, how?
Theoretical perspective

James Falzon, ECN
Mitigation finance framework

• In response to a need from practitioners to be able to better frame climate finance, in partnership with GIZ, ECN developed a framework to better understand climate finance flows.

• Objective of the framework is to highlight fundamentals in climate instrument selection.

• This is the basis for this part of the training - GIZ and ECN exploring how best to share insights.
An increase in investments is needed across different sectors, actions.

**Total investment requirements:**
- Agriculture: $125 bn
- Telecommunications: $600 bn
- Transport infrastructure: $805 bn
- Water: $1,320 bn
- Buildings & Industry: $613 bn
- Transport vehicles: $845 bn
- Energy: $619 bn

**Additional investment requirements in a green growth scenario:**
- Buildings & industry: $331 bn
- Forestry: $64 bn
- Energy: $139 bn
- Transport vehicles: $187 bn

*Source: WEF (2013)*
Private involvement in infrastructure: Total investment in energy, transport, and water by region

Source: World Bank and PPIAF, PPI Project Database. *Adjusted by US CPI
Why the private sector?
Advantages and disadvantages of Public Private Partnership projects

Advantages
- Reduction on public treasury
- Value for money
  - Risk transfer
  - Output based specification
  - Performance incentives
  - Private management skills
  - Competition
  - Innovation
- Foreign Direct Investment
- Time to delivery savings
- Improved response to market
- Improved costing (sunk costs)

Disadvantages
- Higher transaction costs
- Higher capital costs
- Risk transfer
- Insecurities
- Inefficiencies
- Culture gap
- Short term rigidities
- Public sector staff concern

Source: Van Herpen (2013)
What is needed to get private sector involved in infrastructure?

**Enabling conditions**

- Customs (import and export)
- Ease of starting, operating, closing a business, including licensing and registration
- Labour market (skills & flexibility)
- Property entitlements, incl. land
- Taxes
- Contract set-up and enforcement
- Legal institutions, rule of law
- Education policies, human & institutional capacities (overlap with business capacity)
- Macroeconomic policy framework, political stability
- Financial market, access to finance
- Infrastructure (energy, transport)
- Cluster policies
- Targeted research & development policies
- International cooperation on low-carbon technology (including tech. transfer and trade policy)
- Value chain promotion (including standards and codes)

**Activities**

- Policy and institutional framework development
- Project identification, screening, transaction structuring
- Contracts and procurement
- Financial instrument design
- Public awareness and stakeholder consultation
- Managing and monitoring of the project, compliance, disputes

Source: Stadelmann & Michaelowa 2011
How to maximize the advantage of reducing public budget burden through financial instrument design?

<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>
How to maximize the advantage of reducing public budget burden through financial instrument design?

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

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

- Regulation
  - Improved contractual protection
  - Technology standards
  - Targets

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

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

- Support service
  - Subsidy
  - Feed in tariff

- Support asset
  - Partial or full grants

 Decreasing leverage of public funds / decreasing efficiency

- In reality the ‘efficiency’ of any approach is context specific
- Should also consider effectiveness and feasibility (GCF investment criteria)
Private sector and LEDS

Appropriate instrument selection for a specific context: Feasibility and effectiveness

<table>
<thead>
<tr>
<th>Country investment grade</th>
<th>AAA</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current private sector participation</td>
<td>HIGH</td>
<td>NONE</td>
</tr>
<tr>
<td>Political willingness</td>
<td>HIGH</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>Potential profits</td>
<td>IRR &gt; 20%</td>
<td>IRR &lt; 5%</td>
</tr>
<tr>
<td>Risks</td>
<td>LOW</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

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

Risks:
- Potencial profits
- Political willingness
- Current private sector participation
- Country investment grade
Example of effectiveness: Geothermal in Kenya

- **Country investment grade**: AAA (C)
- **Current private sector participation**: HIGH (NONE)
- **Political willingness**: MEDIUM
- **Potential profits**: IRR > 20% (IRR < 5%)
- **Risks**: LOW (HIGH)

Diagram:
- Cap. build. and inform
- Regulation
- Guarantee
- Support finance
- Support service
- Support 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

Cap. build. and inform ➔ Regulation ➔ Guarantee ➔ Support finance ➔ Support service ➔ Support asset
Private sector and LEDs

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

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

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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 a specific sector in a country of your choice

• 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
Private investment in infrastructure: Shifting investment patterns

- Private investments illustrated earlier are not necessarily low-carbon.
- How can we shift patterns of investment?
- Lots of different financing sources!
- GCF can act as a catalyst:
  - Shifting existing investment patterns towards low-emission, climate resilient investments, by making these investments more attractive than other kinds of investments.
  - Increasing the pool of capital available such that low-emission, climate resilient projects, which often require more up-front capital, can be fully rolled-out (closing the gap)
- In order to do so, different financial instruments will be utilized.
Survey of accredited entities

• In response to demand from LEDS-GP members, the Finance Working Group / ECN studied GCF documentation, and undertook interviews with accredited entities.

• Provided insights on:
  – GCF process
  – Instruments
  – Short and long term priorities of GCF (from their understanding)
  – Pipeline development

• Here we share insights on instruments.
**How is the finance structured?**

Instruments of the GCF to leverage private investment

- **Short term**
  - Grants (mitigation and adaptation)
  - Concessional loans
  - Green project bond guarantees
  - Equity Instruments
  - Results based finance

- **Medium and long term**
  - Green bond direct issues
  - De-risk instruments
  - 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))

The GCF

Indicative GCF priorities on instruments and implications for size of request

- **Up to 200 million USD**
- **Up to 20 – 40 million USD**
- **Up to 10 - 15 million USD**

Instruments:
- Cap. build. and inform
- Regulation
- Guarantee
- Support finance
- Support service
- Support asset
### 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>Sub Debt</td>
<td>Sub Debt</td>
<td>Subordinated Debt (Various financial institutions - MDB / DFI's loan)</td>
<td>Up to</td>
<td>10%</td>
</tr>
<tr>
<td>Senior Debt</td>
<td>DFI Tranche</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></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 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

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

**Investors**
- Capital flow: 
  - Green Climate Fund
  - Guarantee
  - Capital: Equity + Concessional loan on-lent
  - Repayments
- Loan repayments (higher interest rate)

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

Source: ECN (2015)
Key messages

- Investment challenge for LEDS is enormous
- Private sector can play a role in bridging the gap
- There are many things that need to be addressed to attract private investment
- Focusing on maximizing leverage and efficiency, a variety of instruments can be employed, and context, effectiveness and feasibility are important constraints
- The GCF can help catalyze these efforts by supporting specific financial instruments
- From a volume perspective, most of the finance will be channeled through concessional finance
  - But other instruments are on the table – just need to remember to match your project funding request with what the fund is likely consider to reasonable!
Thank you for your attention. Questions?
Part 2: GCF deep dive

Carmen Arguello (GCF)

Country experience – Vietnam
Getting to a bankable proposal

What kind of actions are needed? Vietnam experience

Strategic Plan to Access GCF

Select & Develop Investment Proposal
2015-2016 via accredited MIEs/IEs

Coordination skill to harmonise work/choose appropriate work for all/each of the MIEs/IEs

Climate Finance Task Force under MPI

assist the VN GCF SC in directing and organising the implementation of the rights and obligations of the Vietnam NDA in implementing the international cooperation activities with GCF and its activities in Vietnam coordinating and implementing activities of GCF in VN and other international financial mechanisms about the CC-GG under MPI mandates

NDA

Potential NIE

Vietnam GCF Steering Committee/VN GCF SC

1. Conduct NIEs (line ministries, SBV, VDB, commercial banks, environmental/CC/GG funds) & NDA assessment
2. Select potential NIEs & design capacity building for NDA & potential NIEs & GCF focal point from line ministries
3. Design a special mechanism for GCF in Vietnam to accelerate timeline for the national internal process & gain higher effectiveness of the proposed projects/programmes. (i.e. in VN, MPI/NDA has carefully consider how to make GCF procedures takes less time than ODA project, GEF procedure.

Select list of project/programmes proposed by Line Ministries, SBV (collecting from commercial banks).
1. Renewable energy
2. Energy efficiency (sub-sector)

1. Cooperate with MIEs/NIEs to select & conduct potential proposal:
   In the period 2015-2016: Selection of accredited MIEs, i.e. UNDP, KfW, AFD, ADB ...; & potential MIEs interested in GCF, i.e. GIZ, KOICA...
   - Fit with the sectors of priority of MIEs;
   - Fit with the procedures for appraising, bidding, Monitoring and Evaluation (M&E);
   - Can act as Co-sponsor.
   In the period after 2016: Can select MIEs or NIEs

2. Procedure:
   - UNDP, KfW, AFD, ADB (VGGSF, VDB and other after 2015) to screen and then forward to MPI;
     Some important criteria for selection:
     Both adaption and mitigation;
     Involvement of private sector;
     High socio-economic impact: consider beneficiaries, i.e. the poor (projects supporting agricultural production, agricultural product processing...), gender equality issues;
     In line with priorities/requirements of GCF, National Strategy & MIEs/IEs.
   - MPI and Vietnam GCF Steering Committee to screen;
   - MPI reports to Prime Minister for approval;
   - MPI informs UNDP, KfW, AFD, ADB for improvement of the proposals

3. Communication with GCF:
   Inform to GCF about the proposal: both MIEs/IEs (UNDP, KfW, AFD, ADB) & MPI;
   Strategic communication plan with GCF.

Take into consideration:
GCF Readiness Programme (Standard Package) -> prepare ‘readiness proposal’.

TA support from DPs (UNDP, GIZ, KfW, KOICA, etc)

1. Conduct NIEs (line ministries, SBV, VDB, commercial banks, environmental/CC/GG funds) & NDA assessment
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Enhance Institutional Mechanism
NDA Potential NIE Vietnam GCF Steering Committee/VN GCF SC

Central level Region Province Private Sec.
Getting to a bankable proposal

What kind of actions are needed?

Vietnam experience

Challenges

- Funds mobilisation
- Funding and Disbursement Management
- Monitoring and Reporting
- Transparent, valid, simple and effective procedures
- Promoting participation from private sector (which currently has limited capacity, awareness)
- A transitional phase is normally experienced before being officially implemented.
- Specific challenge to convince private sector (especially business enterprise): many procedures/unwieldy mechanism + long time to wait for decision of investment; possibility of not being chosen for investment; while business enterprise (to attract GCF, this should be top medium-sized enterprise in VN) always looks for quick process, also has the ability to borrow from other funding despite of higher interest.
Exercise

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 shared 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)