Scaling Up Private Sector Investments for Green Growth

Daniele Ponzi
Technical Advisor (Environment)
Sustainable Development and Climate Change Department
Asian Development Bank

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Outline

• Introduction
• The Role of the Private Sector
• Scaling Up Green Business
• ADB Support for Green Investments
• Conclusions
From Billions to Trillions …

… implementing the Addis Ababa Action Agenda

Achieving the 2030 Agenda needs trillions of dollars annually.

1. We need all sources of finance (beyond ODA)

2. It’s crucial to improve domestic resource mobilization (more public revenues through better tax systems++)

3. Also critical is to unlock private sector finance (corporations going green + strong incentives & policies)

Huge investment requirements for green growth

An evolving financing landscape in Asia Pacific

What is a “green business?”

…a profitable business activity that supports environmentally sustainable growth …

Greening businesses

Environmental goods and services
Scaling Up Green Business

Greening Business

Input
- Renewable sources
- Recycled materials

Process
- Energy intensity
- Resource intensity

Output
- Recyclable goods
- Green services

Marketing
- Green labels
- Voluntary standards

Environmental Externalities
- GHG emissions
- Waste
- Other pollutants

## Scaling Up Green Business

### Key Drivers for Going Green

<table>
<thead>
<tr>
<th>Green Business Drivers</th>
<th>MARKET</th>
<th>“Buyer-led motivations”</th>
<th>BUSINESS</th>
<th>“Business rationale”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reputation risk</td>
<td>Product differentiation (eco-labeling and certification)</td>
<td>Cost reduction/quality and productivity improvements</td>
<td>Corporate Social and Environmental responsibility</td>
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<td></td>
<td>Consciousness-driven</td>
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<tr>
<th>GREEN FINANCE</th>
<th>“Investor-driven”</th>
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<tr>
<td></td>
<td>Responsible finance, social and environmental performance management</td>
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<td></td>
<td>Financing risks (stranded assets)</td>
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<td>Impact Investors, special credit lines, donor funds</td>
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<table>
<thead>
<tr>
<th>GOVERNMENT</th>
<th>“Government- and regulation-driven”</th>
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<tbody>
<tr>
<td></td>
<td>Regulations, policies, subsidies, and tax regimes</td>
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<td>Market based approaches</td>
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<td>Green procurement</td>
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<td>Public-private partnerships</td>
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Scaling Up Green Business

Expanding green business to include investments in natural capital

- Sustainable agriculture and food industry
- Sustainable fisheries and aquaculture
- Sustainable forestry
- Sustainable tourism
- Others
ADB Progress on Environment: Projects Supporting Environmentally Sustainable Growth (ESG)

![Graph showing progress on Environmentally Sustainable Growth (ESG) projects.](image)

- Yearly amounts in $ (million)
- 3-year average (no. of projects)
- Targets reached by specific years:
  - 25% target (by 2012)
  - 50% target (by 2016)
ADB Support for Green Business
Private Sector Operations: Current Portfolio, by Industry ($ millions)

ADB Support for Green Business
Private Sector Operations: Examples of Green Investments (2015-2016)

**Clean energy**
- Cambodia Solar Power (CAM)
- Mytrah Wind and Solar Power Development (IND)
- ReNew Clean Energy (IND)
- Green Energy Corridor and Grid Strengthening (IND)
- Simpa Off-Grid Prepaid Solar Leasing (IND)
- Muara Laboh Geothermal Power (INO)
- 102 MW Gulpur Hydropower (PAK)
- Triconboston Wind Power (PAK)
- 150-megawatt Burgos Wind Farm (PHI)
- Tiwi and MakBan Geothermal Climate Bonds (PHI)
- Distributed Commercial Solar Power (THA)
- Grid Parity Rooftop Solar (THA)
- 260-megawatt Northeaster Thailand Wind Power (THA)

**Sustainable infrastructure (non-energy)**
- Integrated Wastewater Management (PRC)
- Western Counties Water and Wastewater Mngt (PRC)
- SME Industrial Wastewater & Sludge Treatment (PRC)

**Sustainable agribusiness**
- High-Value Horticulture Development (Regional)
- Inclusive and Sustainable Livestock Farming (PRC)
- Sustainable Dairy Farming and Milk Safety (PRC)
- Hazelnut Value Chain Development (Bhutan)

ADB Support for Green Business

ADB Green Bonds

Green Bond Commitments by Country

Green Bond Commitments by Sector

Conclusions

1. The public sector cannot do it alone
   (need to go from billions to trillions & huge financing gap)

2. Need to unlock private sector finance
   (need for right policies & catalyzing use of public funds)

3. Great potential for green business expansion
   (companies, governments, markets/consumers and financial institutions all have a role in driving the green investment shift)

4. ADB is moving in the right direction
   (with an increasingly significant and diversified portfolio of green investments by the private sector).
T H A N K Y O U

Daniele Ponzi
dponzi@adb.org
Scaling Up Green Business

Entry Point #1: Public support to green technology innovation

Source: (UNFCCC, 2011)
## Scaling Up Green Business

### Entry Point #2: Addressing barriers to private green finance to support long-term investment.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Banking</th>
<th>Bond market</th>
<th>Institutional Investors</th>
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<tbody>
<tr>
<td><strong>Externalities</strong></td>
<td>Inadequate compensations for positive externalities of green projects: Inadequate penalties for negative externalities of polluting projects</td>
<td>Inadequate price signal</td>
<td></td>
</tr>
<tr>
<td><strong>Maturity mismatch</strong></td>
<td>Lack of appropriate financing instruments for long-term green projects</td>
<td></td>
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<tr>
<td><strong>Lack of clarity in green definitions</strong></td>
<td>Lack of green loan definition</td>
<td>Lack of green bond definition</td>
<td>Lack of green asset definition</td>
</tr>
<tr>
<td><strong>Information asymmetry</strong></td>
<td>Lack of info on borrowers: excessive risk aversion</td>
<td>Lack of info and monitoring on use of proceeds</td>
<td>Lack of info on assets (environmental impacts and risks)</td>
</tr>
<tr>
<td><strong>Lack of analytical capacities</strong></td>
<td>Lack of capacity to assess impact on credit risk</td>
<td>Lack of capacity to assess impact on credit risk</td>
<td>Lack of capacity to assess impact of asset valuation</td>
</tr>
</tbody>
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Entry Point #3: Market-based approaches to promote green businesses.

INVESTMENTS

COMMAND-AND-CONTROL

MARKET-BASED POLICIES

EXAMPLES:

**Economy-wide:**
- green infrastructure investments
- innovation and R&D
- education and awareness
- green skills development

**Sector-targeted:**
- bus rapid transit
- water infrastructure
- green jobs training in clean energy, water and agriculture

**Economy-wide:**
- efficiency standards
- pollution standards
- sustainable public procurement
- land regulation

**Sector-targeted:**
- energy performance standards
- vehicle standards
- land tenure regulation
- building codes

**Economy-wide:**
- environmental taxes and subsidies
- allowance schemes

**Sector-targeted:**
- full-cost pricing of water and energy
- pollution charges
- feed-in tariffs
Scaling Up Green Business

Entry Point #4: Green business approaches that preserve natural capital

- Sustainable agriculture and food industry
- Sustainable fisheries and aquaculture
- Sustainable forestry
- Sustainable tourism
- Others
Scaling Up Green Business

Entry Point #5: Skills training to ensure smooth transitions

Highest rates of green job growth
Annual average percent change in jobs, 2003-2010

- Wave and ocean power*: 20.9%
- Solar thermal: 18.4%
- Wind: 14.9%
- Carbon storage and management: 13.3%
- Solar photovoltaic: 10.7%
- Fuel cells: 10.3%
- Biofuels and biomass: 8.9%
- Smart grid: 8.6%
- Conservation: 7.2%
- Professional energy services: 6.9%

*Growth rate due to new demonstration projects
Source: Brookings Institution and Battelle’s Technology Partnership Practice, “Sizing the Clean Economy” (Washington, 2011)
ADB Support for Green Business

ADB Water Bonds

• Issued more than $1.5 billion equivalent since 2010
• Proceeds raised support water-related projects in the region
• Guided by ADB Water for All Policy and > ADB’s Water Operational Plan (2011-2020)

Source: ADB. **ADB Water Bonds: Water for All.** Unpublished.
Environmental Goods and Services

Global Environmental Markets (by region)

Regional environmental market growth rates (%)

<table>
<thead>
<tr>
<th>CAGRs</th>
<th>Global</th>
<th>USA</th>
<th>Europe</th>
<th>Asia-Pacific</th>
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<tbody>
<tr>
<td>2006-2010</td>
<td>2.72%</td>
<td>2.40%</td>
<td>1.71%</td>
<td>3.43%</td>
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<tr>
<td>2011-2015</td>
<td>2.78%</td>
<td>2.66%</td>
<td>1.44%</td>
<td>3.63%</td>
</tr>
<tr>
<td>2016-2020F</td>
<td>3.00%</td>
<td>2.71%</td>
<td>1.77%</td>
<td>3.66%</td>
</tr>
</tbody>
</table>

Source: ADB. 2016.
ESG Investments by Sector, 2012-2016
(By Number of Projects)

- Multi-Sector: 28%
- Energy: 25%
- Water & Other Urban Infrastructure: 10%
- Agriculture & Natural Resources: 9%
- Others: 7%

Figure 13: Renewable versus Conventional Energy Sovereign Operations ($ million)

- Other energy subsectors
- Renewable Energy


Figure 14: Renewable versus Conventional Energy Nonsovereign Operations ($ million)

- Other energy subsector
- Renewable energy

1. **Project eligibility**: ADB’s Green Bond Framework defines eligible projects to support developing member countries seeking to adapt to and mitigate the consequences of climate change.

2. **Project Selection**: The project selection criteria will be implemented by sector specialists in coordination with the treasury department.

3. **Proceeds**: Green bond proceeds will be allocated to a subportfolio and tracked against disbursement of eligible projects.

4. **Reporting**: ADB will make available eligible project list and green bond annual newsletter online.

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1/ With second opinion.

Eligible Project Criteria

- Eligible Projects: selected pool of projects funded, in whole or in part, by ADB that promotes the transition to low-carbon and climate resilient growth as determined by ADB.

Mitigation
- Renewable Energy
  - Solar
  - Wind
  - Geothermal
  - Small Hydro (20MW and below)
- Energy Efficiency
- Sustainable Transport

Adaptation
- Energy
- Water and other Urban Infrastructure and Services
- Transport

1/ Excludes fossil fuels.
Eligible Project: Sarulla Geothermal Power Development, Indonesia

PROJECT CATEGORY: Renewable energy

TOTAL LOAN: $250 million

OUTPUTS:
- Approximately 350MW renewable power to be commissioned

EXPECTED RESULTS:
- About 1.3 million tons of CO2 emissions avoided per year (30 years project life)
PROJECT CATEGORY: Renewable energy

TOTAL LOAN: $20 million

OUTPUTS:
- Installation and operation of 150 MW utility-scale wind power plant

EXPECTED RESULTS:
- Approximately 370 GWh of wind power delivered to the grid per year, on average, starting 2015
- Over 160,000 tons CO2 equivalent avoided per annum