G-20 Mandate: Deepening the AGF Analysis

"We tasked the World Bank, working with Regional Development Banks, and the IMF, in coordination with other relevant organizations, to conduct the analysis on mobilizing sources of climate change financing, including public and private bilateral and multilateral as well as innovative sources, drawing inter alia on the AGF report consistent with the objective, provisions and principles of the UN Framework Convention on Climate Change."

Public Sources

- Comprehensive carbon pricing policies
- Market-based instruments (MBIs) for international aviation and maritime fuels
- Fossil-fuel subsidy reforms

Leveraging Private & Multilateral Flows

- Other policies and instruments to engage private finance
- Carbon markets to catalyze private flows
- Strengthening MDB leverage and pooled arrangements

Public and Private Flows are Complements
1. Public Sources
2. Leveraging Private & Multilateral Flows
3. Monitoring Climate Finance Flows
4. In Summary
Comprehensive Carbon Pricing (1/2)

- More effective: exploits mitigation opportunities economy-wide
- More efficient: pursues least-cost options
- Substantial revenue potential
  - $25 per ton CO2 => $250 billion in 2020 in developed countries
  - for efficiency, fiscal consolidation and support to low-carbon growth (domestically and abroad)
Comprehensive Carbon Pricing (2/2)

- Choice between carbon taxes and emissions trading less important than doing something and getting the design right

- Economic costs expected to remain modest, if revenues applied productively (e.g., used to scale-back inefficient taxes)

- Several options to improve acceptability (e.g., reduce other taxes/use transfer system) but reduce revenue
International Aviation and Maritime Fuels

- A sizeable and growing source of emissions, under-taxed from both an environmental and broader fiscal perspective
- Global approach to charging needed (esp. for maritime), due to mobility of vessels; so need to compensate developing countries
- Compensation and implementation need further study—but appear feasible
- Revenue potential of about $40 billion ($25 per ton CO2 charge on fuels); $22 billion net of compensation for climate finance and other uses
Reform of Fossil Fuel Subsidies

- US$10 billion p.a. if reforms in developed countries led to 20% of subsidies being directed to international climate finance
- Scope for reforms in developing countries (> $300 billion p.a.)
- Progress in several countries on reform, for efficiency, fiscal consolidation and low-carbon growth
- Well-targeted, transparent and timebound programs required to assist poor households and energy workers

New OECD inventory of fossil-fuel support in developed economies

- US$40-60 billion p.a. (2005-10) for Annex II (OECD: $45-75 billion p.a.)
- half for oil; two-thirds for consumption
- over 250 support mechanisms, mostly budgetary transfer and tax expenditures
- not all are inefficient and lead to wasteful consumption
- estimates must be interpreted and aggregated with caution, since majority are tax expenditures (in reference to country-specific benchmark)
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Climate investment has grown fast and has more potential if market failures and barriers can be tackled

by sector (US$ billion), 2010 data

Developed countries
Developing countries

Wind 109 67 43
Solar 80 28 214
Other renewables 20 6
Biofuels 307 187 119
Efficiency & low carbon tech/services 280
Energy efficiency & low carbon transport 336
Total

$1: Pro-rated split between developed and developing countries

Source: Bloomberg New Energy Finance, HSBC, staff estimates
The Need to Leverage

Climate Finance as a catalyst (illustrative scenario)

“Baseline” investment in developing countries ~ $10,000 billion
Climate finance $100 billion

Climate finance covers additional costs and serves as a catalyst to leverage development investments & enhance development policy and finance.
Financial instruments and support mechanisms can facilitate clean energy deployment

Source: Adapted from OECD (2011) and Bloomberg New Energy Finance (2011)
Public and Private Flows are Complements

Scaling-up financing & transformation with the Climate Investment Funds

<table>
<thead>
<tr>
<th>Transforming clean technology markets</th>
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<tbody>
<tr>
<td>$750 million to catalyze $4.8 billion for deployment of 1GW in concentrated solar power (3 x current global capacity) in 5 Mediterranean countries.</td>
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<tr>
<th>Piloting index-based agricultural insurance</th>
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<tr>
<td>contingency funding to farmers in Niger to cope with climate shocks (with Global Index Insurance Facility, private sector, other partners).</td>
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<tr>
<th>Opening domestic capital markets for clean energy</th>
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<td>$50 million in cofinancing for concessional debt and technical assistance to incentivize commercial banks in Turkey to establish new lines of business.</td>
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</table>
Carbon markets: alive despite very low prices

- A viable, cost-effective means to reduce emissions and to catalyze low-carbon investment

- Joining EU and NZ, 6 jurisdictions passed climate bills, including market initiatives
  - Australia, California, China, Quebec, Republic of Korea, Mexico

- Durban decisions increased the regulatory clarity on existing market and advanced on new market instruments

**Partnership for Market Readiness (PMR)**

A $100 mln global partnership for carbon market innovation:
- Build market readiness
- Pilot new concepts for market instruments
- Foster technical discussions and exchange on lessons and best practices
- Connect countries and collectively foster a global carbon market.

25 countries (15 implementing)
Where Next for Carbon Markets?

2 degrees €39 per tCO₂e ($150 billion p.a.)
Copenhagen high €20-28 per tCO₂e ($31-43 billion p.a.)
Copenhagen low €12-20 per tCO₂e ($5-9 billion p.a.)
Options to keep momentum in carbon markets

<table>
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<th>Demand: Bridge the gap</th>
<th>Supply: Build a pipeline</th>
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<tr>
<td>• Manage transition post 2012</td>
<td>• Support readiness to design eligible projects and programs</td>
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<td>• Adopt ambitious targets, aligned with 2°C, with greater scope for market mechanisms</td>
<td>• Innovate to turn carbon into finance (frontloading mechanisms, risk-mitigation tools, revolving funds)</td>
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<td>• Bring long-term policy clarity on future frameworks and work towards their harmonization</td>
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Harmonize rules and institutions

| • Scale-up from projects to programs |
| • Harness untapped opportunities, e.g., sustainable energy, forestry and agriculture in Africa, cities, policies |
| • Harmonize market framework, for efficiency, greater access and environmental integrity |
Role of MDBs: Mobilizing and leveraging finance and markets

- Facilitating access to climate finance
- Pioneering carbon finance
- $19 bln for mitigation in 2011
- Climate Investment Funds
- Green Bonds
- Catastrophe risk financing
### Role of MDBs: Mobilizing and Leveraging Finance and Markets

<table>
<thead>
<tr>
<th>A. Pooling flows to support targeted concessional lending</th>
<th>B. Leveraging shareholder capital with private market borrowing</th>
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<tbody>
<tr>
<td>• New ways to contribute, e.g., long-term concessional loans with Clean Technology Fund</td>
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<tr>
<td>• New sources, e.g., private foundations and emerging donors</td>
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<td>• More flexibility in structuring</td>
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<tr>
<td>• Learning opportunities from health sector (AMC, IFFIm)</td>
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<tr>
<td>• Limited current headroom for additional climate financing</td>
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<tr>
<td>• A climate-focused capital increase could be considered in the longer term</td>
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<tr>
<td>• Leverage factor of 3 to 4 for new climate loans</td>
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<tr>
<td>• Solutions needed to accommodate climate capital increase with shareholder structure</td>
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</table>
1. Public Sources

2. Leveraging Private & Multilateral Flows

3. Monitoring Climate Finance Flows

4. In Summary
Monitoring a Complex Web of Flows to build trust and understand performance

- Clear definitions of public and private climate finance
- Tracking of international flows, at both ends
- For public flows, draw on existing systems (Rio Markers) and on-going efforts (e.g., by MDBs)
- For private flows, track leverage ratio of public instruments and carbon market flows
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Taking forward revenue options

- Fossil-fuel subsidies: expand inventories of support; implement commitments through well-designed and durable reforms
- Carbon markets: implement targets under the Copenhagen Accord and Cancun Agreements; continue reform and innovation
- Expand MDB pooled financing arrangements to build momentum and gain experience
- Build in-country policy and institutional readiness to facilitate access and increase impact
- Generate knowledge and share experience through new networks and partnerships (e.g., SGG, B-20 Platform)
- Improve monitoring and tracking of flows for building trust and learning
Thank you