Mobilizing Investments to Enhance Access to Climate Technologies

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## **UNFCCC "Bali Building Blocks"**

|            | Mitigation | Adaptation |
|------------|------------|------------|
| Finance    |            |            |
| Technology |            |            |

## UNFCCC's <u>Technology</u> Mechanism

- Technology Executive Committee (TEC)
  - High-level policy body
  - Works with the CTCN and other bodies under and outside the UNFCCC
- Climate Technology Center and Network (CTCN)
  - A large network of partners to assist countries on technology needs
  - **To be operational from early 2013**
  - **UNEP** ranked first as potential CTCN host

## **UNFCCC's** <u>Financial</u> Mechanism

Global Environment Facility (GEF) **All MDBs** are GEF implementing agencies Green Climate Fund (GCF) **•** Fund instrument adopted in Dec 2011 **Expected to mobilize multiple Spillions per year Board will likely commence work next month** Expected to be "ready for business" in 2014 **MDBs** expected to play substantial role, particularly in the early years

# UNFCCC "Bali Building Blocks" and IFI/MDB Relevance Today



# **Ongoing ADB Projects (sample)**

| Country     | Project Type                   |  |
|-------------|--------------------------------|--|
| Indonesia   | Geothermal power               |  |
| India       | Wind power                     |  |
| Lao, PDR    | Small hydropower               |  |
| Bangladesh  | Waste composting               |  |
| China, PR   | Geothermal space heating       |  |
| Thailand    | Solar PV                       |  |
| Philippines | Energy-saver bulb distribution |  |
| China, PR   | Landfill gas                   |  |
| Mongolia    | Boiler efficiency improvement  |  |
| China, PR   | Concentrated solar power       |  |
| China, PR   | Urban transport system         |  |
|             |                                |  |
|             |                                |  |



# The obvious: economy of scale



# Not so obvious?



2. But can we help here? 1. We can finance here

# **Technology Innovation Chain**





## ADB and Climate-Tech: Innovate, Transfer, Diffuse

Innovation: Asia Climate Change and Clean Energy (AC<sup>3</sup>E) Venture Capital Initiative will provide (i) equity (up to \$100 Million), and/or (ii) technical advisory, to 5-7 venture capital funds that will invest in nascent companies with climate mitigation and adaptation technology products.

- Transfer:Low-Carbon Technology Marketplace will bring together commercial<br/>buyers and sellers of low carbon technologies and assist them with<br/>executing transactions. Tech-transfer CDM will use carbon credits to<br/>lower the cost of energy-efficient and/or renewable energy technology<br/>products and make them affordable in developing countries.
- Diffusion: Climate Public-Private Partnership Fund will mobilize private equity investment at scale, in the order of \$billions, in partnership with the world's largest pension funds and sovereign wealth funds. Asia Solar Energy Initiative aims to mobilize financing from ADB and partners to install 3GW of solar power generation in the next 3 years.

## **VC Initiative: Equity Investment**



### ADB's role (1):

- Dedicate up to \$100 million to multiple VC funds
- Leverage its network to invite commercial investors and government agencies to co-invest in VC funds

## **VC Initiative: Technical Support**



### ADB's role (2):

- Secure funds (own and donors) to provide a pool of technology experts and consultancy firms for VC funds
- This allows VC funds to expand their focus sectors and sub-sectors, allocate more resources to early stage opportunities, reduce transaction costs, and give a better chance to boost return profile

## Low Carbon Technology Marketplace

# **How it works?** • Matchmaking broker for IP, where the brokers proactively identify sellers and buyers, and helps them structure a transaction (licensing, JV, or acquisition)

- Most contracts will likely be "tailor made", complex to structure and carry out, and require some component of post-deal support
- Focus on specific technology sectors, employing brokers that are experts in the sector, capable of evaluating technologies, understanding strategic objectives and suggesting value-adding partnerships



- Innovation design houses or university labs who need others to commercialize their ideas
- Start-ups looking for capital injection to scale-up
- MNCs with non-core IP that is unutilized, or wanting to test out new markets



#### Potential tech buyers

- Local manufacturers that want to enter new markets or expand their portfolio
- Existing LCT manufacturers looking to improve upon their current technology



## ADB-UNEP Pilot Asia-Pacific Climate Technology Network and Finance Center

### Objective

Accelerate access to climate mitigation and adaptation technologies

### Focus

- Foster knowledge-sharing and collaboration
- Create enabling environment for private-sector based innovation and diffusion
- **–** Facilitate mobilization of financial resources
- Demonstrate how the technology and finance
  mechanisms could work in tandem to generate a step
  change in the level of access to climate technologies

## ADB-UNEP Pilot Asia-Pacific Climate Technology Network and Finance Center

- Initial Financing Partners
  - Global Environment Facility
  - **Government of Denmark**
  - **Government Finland**
  - Government of Japan
  - **Government of the Republic of Korea**
  - VITO Flemish Institute for Technological Research
    NV

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## **ASIAN DEVELOPMENT BANK**



# **GCF and Technology**

### Linkages (from decision text)

17. *Requests* the Board to initiate a process to collaborate with the Adaptation Committee and the Technology Executive Committee, as well as other relevant thematic bodies under the Convention, to define linkages between the Fund and these bodies, as appropriate;

#### Funding window and structure (from fund instrument)

38. The Board shall also ensure adequate resources for capacity-building and technology development and transfer. The Fund will also provide resources for innovative and replicable approaches.

### Private sector facility (from fund instrument)

41. The Fund will have a private sector facility that enables it to directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international levels.

42. The operation of the facility will be consistent with a country-driven approach.

43. The facility will promote the participation of private sector actors in developing countries, in particular local actors, including small and medium-sized enterprises and local financial intermediaries. The facility will also support activities to enable private sector involvement in SIDS and LDCs.