Financing Sustainable Infrastructure and Low-Carbon Climate Resilient Technologies: From Policy Reform to Transformational Innovation

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PRESENTATION OUTLINE

- **REVIEW** State of Sustainable Infrastructure and Low Carbon Technology Finance/Investment

- **DISCUSS** Key Trends in Sustainable Infrastructure and Low Carbon Technology Finance/Investment
  - Mobilizing Blended Finance for Social and Environmental Outcomes
  - Designing Impact Investing Models that Provide Market + Sustainable Community Returns
  - Learning From the East Africa Off-Grid Solar Energy Technology Finance Case Study

- **HIGHLIGHT** Key Issues & Questions: Sustainable Infrastructure and Low Carbon Technology Finance/Investment Ecosystem (2019-2024)
REVIEW State of Sustainable Infrastructure and Low Carbon Technology Finance/Investment
Infrastructure investments are critical to poverty reduction, growth and sustainability.

$26 Trillion investment need across Asia and Pacific 2016-2030

$3.1 Trillion investment need across Southeast Asia 2016-2030

Current infrastructure investments in the region are well below levels that are needed.

**$881 Billion**

Current level of infrastructure investments annually in Asia and Pacific.

**$1.3 Trillion**

Level of infrastructure investments needed annually in Asia and Pacific.

Climate change is going to require greater regional infrastructure investments.

**Baseline estimates**
- Total: $22.6 trillion
- Annual average: $1.5 trillion
- 35% (Water and Sanitation) $7.8 trillion
- 52% (Communications) $11.7 trillion

**Climate-adjusted estimates**
- Total: $26.2 trillion
- Annual average: $1.7 trillion
- 3% (Water and Sanitation) $0.8 trillion
- 32% (Transport) $8.4 trillion
- 56% (Power) $14.7 trillion

Select sustainable infrastructure & low carbon technology finance/investment activities

- **Urban Climate Change Resilience Trust Fund** (Grant Financing) Climate resilient urban infrastructure

- **Clean Energy Financing Partnership Facility** (Debt and Equity Financing) Market development of renewable energy, energy efficiency, etc.

- **Green Finance Catalyzing Facility** (Concessional finance; grants; guarantees) Sustainable urban development; clean transportation, etc.

- **Responsible Inclusive Finance Facility for Southeast Asia** (strengthen the capacity and responsible inclusive finance practices of financial service providers in Southeast Asia)
• **Cambodia** Building Adaptive Capacity Through the Scaling Up of Renewable Energy Technologies in Rural Cambodia (2013)

• **Thailand** Sustainable Energy Finance Program (2010)

• **Vietnam** National Forest Development and Protection Fund & Provincial Development and Protection Funds (2010)

• **China** Loan Program for Clean Bus Leasing (2013)
DISCUSS Key Trends in Sustainable Infrastructure and Low Carbon Technology Finance/Investment
1. Mobilizing blended finance for social and environmental outcomes

The OECD definition

‘The strategic use of development finance for the mobilisation of additional finance towards the SDGs in developing countries’ where additional finance refers primarily to commercial finance not currently addressing development objectives

The diagram shows the mobilising process with two types of mandates:
- Non-Development mandate
  - Public
  - Private
- Development Mandate
  - Public
  - Private

The Blended finance mechanisms or instruments are categorized into:
- Concessional
- Non-concessional

The use of finance is represented by the SDG logo for sustainable development.
Innovative financing in shifting from basic resource mobilisation tools to a diverse range of solution-driven financing instruments.

1995 - 2005
- Aid-based pilots
- **Mechanisms**: Taxes, levies and voluntary private contributions

2005 - 2015
- Engaging the private sector
- **Mechanisms**: Foreign-based investment funds, public-partnerships, and solutions to address political constraints

2015 - 2030
- Unlocking Emerging Capital Markets
- **Mechanisms**: Risk sharing and incentives to mobilize private enterprises and local investors

**TODAY**
- Targeted investment opportunities within agriculture, energy and infrastructure
- Engagement of customers, investors, corporations and governments in emerging markets

**SIZE OF SECTOR**

**TIME**

Public goods related to health, environment and infrastructure
2. Designing impact Investment models that provide market + sustainable community returns

<table>
<thead>
<tr>
<th>Pure Social</th>
<th>Pure Profit</th>
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<tr>
<td>Philanthropic Donations</td>
<td>Socially-Responsible Investments</td>
</tr>
<tr>
<td>Venture Philanthropy</td>
<td>&quot;Do no harm&quot; investing in listed stocks that avoid ethically and environmentally questionable companies (e.g. tobacco, coal, casinos)</td>
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<tr>
<td>Program-Related Investing</td>
<td>100% driven by maximisation of short-term financial gain</td>
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- **Investment Approach**
  - Pure Social: Pure charitable giving with no expectation of financial return
  - Venture Philanthropy: Donations are given as seed capital with the expectation of operational sustainability through mentoring by investors
  - Program-Related Investing: Return of at least the principal is expected; possibility of market return, as well as of social performance
  - Impact Investing: Investments in companies whose primary goal is delivering social and environmental good, whilst also delivering competitive market returns
  - ESG Investments: Limiting investments to companies who track and evaluate their performance against key environment, social and governance metrics

*Source: Avantage Ventures Analysis 2011*
**Blended finance + impact Investing instruments**

- **GRANTS** Transfers in cash and in-kind support where no legal debt is incurred (e.g. **ADB Urban Climate Change Resilience Trust Fund**)

- **EQUITY** A share in the ownership of a company or a collective investment scheme (e.g. **UNDP Impact Finance Platform**)

- **GUARANTEE/INSURANCE** Risk sharing agreement between say a borrower and a lender designed to “de-risk” project/investment capital (e.g. **VisionFund International Resilience Disaster Insurance**)

- **DEBT INSTRUMENTS** Transfers in cash and in-kind support where legal debt is incurred [e.g. loans, bonds, etc.] (e.g. **Miami Forever Fund**)

Over 690,000 families in six low-income countries (including the Philippines) will benefit from a new climate insurance program launched in January 2018 by VisionFund International, World Vision’s microfinance division with support from FMO (Dutch development bank), UK Department for International Development, and others.
Miami Forever Bond

WITH THE PASSING OF THE MIAMI FOREVER BOND, WE ARE READY TO INVEST IN OUR FUTURE

The Miami Forever bond is a $400M general obligation bond that will pay for projects to protect our homes and property from sea level rise flooding and increase affordable housing.

- $192M for sea level rise / flood prevention
- $100 million for affordable housing
- $78 million for parks and cultural facilities
- $23 million for road improvements
- $7 million for public safety
3. Learning From East Africa Off-Grid Solar Technology Finance Case Study

THE ENERGY LEAPFROG

African countries need energy strategies that drive growth, and reduce energy poverty, while transitioning to a low-carbon economy.

With the region experiencing some of the earliest, most severe and damaging climate impacts, African leaders have every reason to support international efforts to limit greenhouse gas emissions.

Energy rich countries have put the world on a DANGEROUS HIGH-CARBON TRAJECTORY.

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<th>Share of total CO₂ emissions from the consumption of energy</th>
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<td>EU-27</td>
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<tr>
<td>12%</td>
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Africa accounts for only 2.3% of global CO₂ emissions.

Africa’s energy systems can leapfrog onto low-carbon pathways where renewables replace fossil fuels.

Africa could become the global leader in low-carbon development.

Energy production
Using pay-as-you go off grid solar & mobile payment technology business model to scale total & private blended finance + impact Investment in Kenya/East Africa
HIGHLIGHT Key Issues and Questions: Climate Change and Sustainable Development Finance Strategy (2019-2024)
How can ADB/GMS more effectively design, develop, and implement a long-term sustainable and inclusive investment/finance ecosystem?

- CREATING THE ENABLING ENVIRONMENT Define the core problems and create social, ecological, and economic “value” across sectors and organizational boundaries

- INVESTING IN CAPACITY BUILDING Invest in capacity building activities to accelerate private finance involvement + collaboration across the sustainable infrastructure finance/investment domain

- DESIGNING BLENDED FINANCE + IMPACT INVESTING PLATFORM Develop, implement, and evaluate sustainable finance and investment prototypes (e.g. payments for environmental services bond, disaster risk financing/guarantees, etc.)
Financing green Infrastructure + social resilience = Just and inclusive sustainable transition?

Women Holistic Empowerment and Enhanced Livelihood (WHEEL) impact bond in India