

Climate Change as a Business Opportunity: Roles of Financial Institutions on Mitigation and Adaptation of Climate Change

Financing Energy Efficiency

Samuel Tumiwa

Senior Energy Specialist

Regional and Sustainable Development Department

ADB

Presentation Outline

- **Barriers to Financing EE**
- **ADB's Clean Energy and Environment Program**
- **ADB's Experience Financing Energy Efficiency (EE)**
- **New Approached to Financing EE**

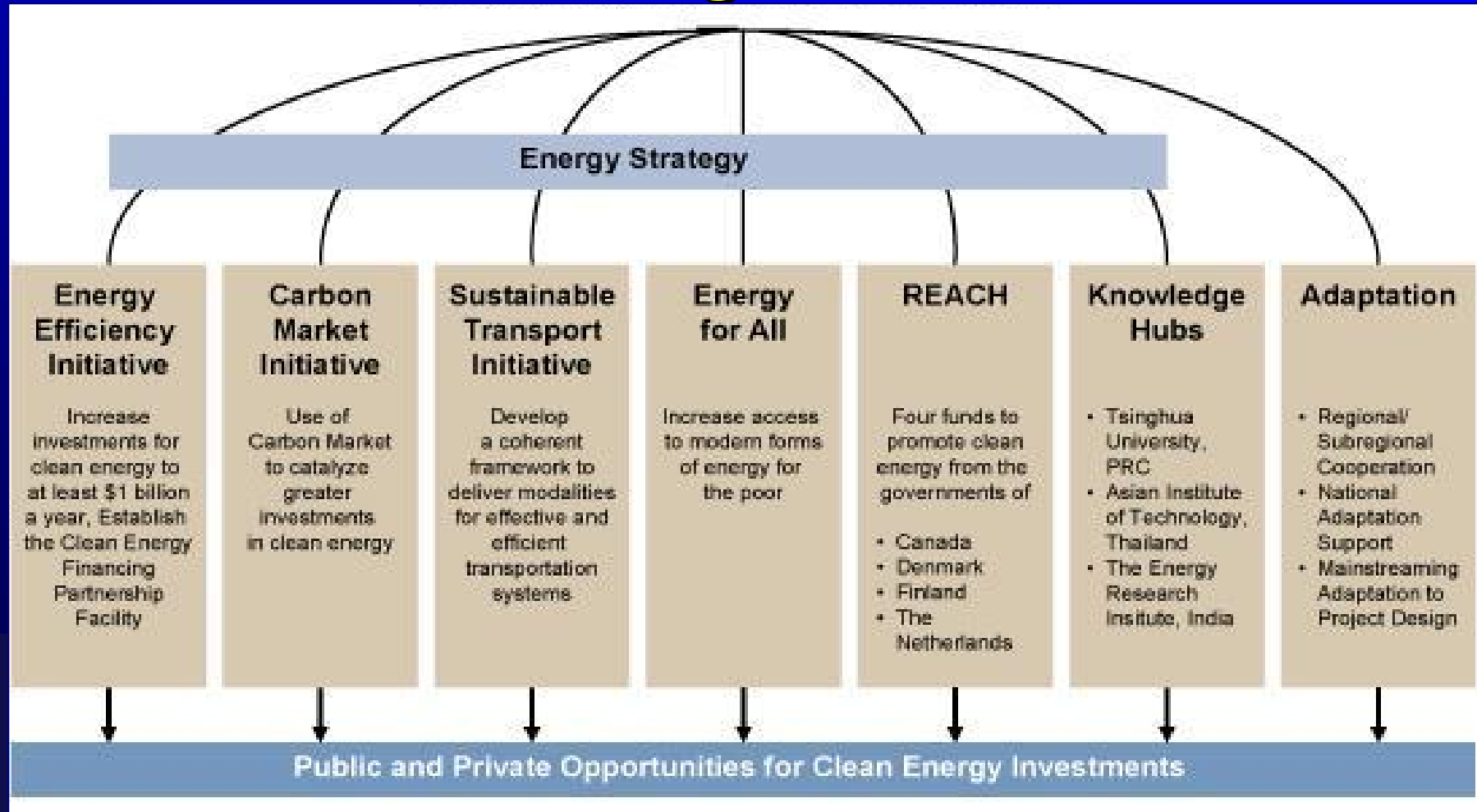
Barriers Against Financing Energy Efficiency

- For ADB
 - Transaction Amounts
 - High Transaction Costs
- For Financial Institutions
 - Not at Problem for Multi-nationals
 - More of a Problem for Regional and Local FIs
 - Basically, Corporate Finance or Loan for Plant and Equipment
 - Balance Sheet Lending
 - Therefore not a Priority

Possible Solutions

- ADB to Develop New Approaches and Financing Mechanisms
- FI do not Need a Line of Credit. They Want to Share the Risk
 - Partial Credit Guarantees
 - Performance Guarantees
 - Need Technical Support
 - May Need to Re-Look at their Underwriting Criteria

Clean Energy and Environment Program



ADB's Energy Policy

- ADB's Energy Policy identifies four operational priorities:
 - Poverty reduction
 - Promoting private sector involvement
 - Addressing regional and global environmental impacts
 - Promoting regional cooperation
- Currently Reviewing Energy Policy:
 - Greater focus to address energy security and climate change through improved energy efficiency and greater use of indigenous forms of renewable energy

ADB's Clean Energy Loans: Past and Future

Year	Total Approved Loans (\$ million)	Clean Energy Investment (\$ million)	% Increase CE Investment (yr to yr)	CE as % of overall ADB Loan
2003	6,120	206	0	3.37
2004	5,203	381	84.95	7.32
2005	5,957	638	67.45	10.71
2006	7,657	833	30.56	10.88
2007*		911	9.36	-
2008*		1,234	35.46	-
2009*		1,124	-8.91	-

* Pipeline Loans

ADB's Clean Energy Loans: Across Energy & Non-energy Sectors

Year	Energy		Agriculture		Water & Sanitation		Transport		Multisector		Total	
	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)
2003	6	140.2	1	6.0	2	9.8	1	50.0	0	0.0	10	206.0
2004	6	274.5	1	1.1	1	8.0	1	18.0	4	79.9	13	381.5
2005	5	589.1	0	0.0	2	8.5	1	40.0	0	0.0	8	637.6
2006	11	801.0	1	1.8	1	0.3	1	30.0	0	0.0	14	833.1
2007*	26	897.5	1	4.5	0	0.0	2	8.5	0	0.0	29	910.5
2008*	15	1,151.7	0	0.0	0	0.0	5	32.0	1	50.0	21	1,233.7
2009*	21	1,082.0	2	5.0	0	0.0	3	37.5	0	0.0	26	1,124.5
Total	90	4,936.0	6	18.4	6	26.6	14	216.0	5	129.9	121	5,326.9

* Pipeline Loans

ADB's Energy Efficiency Initiative (EEI)



- ADB launched EEI in July 2005
- Expand EE operations to \$1 billion/yr
- Focus on both supply-side and demand-side EE (including RE)

Mainstreaming EE in ADB Operations

Phase I Initiation

(Jul 2005 – Jun 2006)

- Establish rationale for expanded ADB action in EE
- Provide priorities and framework for next steps



Phase II Formulation

(Jun 2005 – Dec 2007)

- Prepare country-level investment/action plans and project pipeline
- Design and establish the Clean Energy Financing Partnership Facility (CEFPF)
- Develop institutional capacity to scale up EE investments and perform EE monitoring & evaluation
- Pursue immediate EE investment opportunities



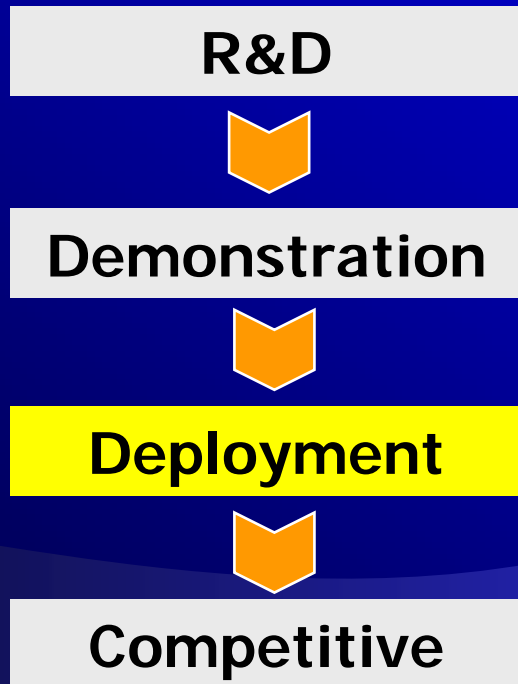
Phase III Implementation

(2007 – 2010)

- Execute investment and action plan
- Process projects in pipeline
- Commit CEFPF fund

Clean Energy Financing Partnership Facility (CEFPF)

Stages of Technology Development



- Objective is to “buy down” the higher costs of the new technologies to facilitate their deployment.
- Targets small number of high-impact large interventions that will deploy new EE technologies
- IEA identifies the crucial need for large deployment programs to bridge between EE and RE technology R&D and commercialization

Source: IEA Energy Technology Perspectives 2006

Clean Energy Financing Partnership Facility

TF Component

Multi Donor Trust Fund

Individual TF

Individual TF

Framework Agreement

Joint or Parallel Cofinancing

Framework Agreement

Knowledge Sharing

e.g. secondments etc.

Framework Agreement

Risk Sharing

e.g. credit guarantees with first loss coverage

PROJECTS

Grant Components of Investments

Technical Assistance

ADB

Examples

- **Partial Credit Guarantee for Energy Efficiency in PRC**
 - Local financial institutions (LFI) unwilling to make loans for EE projects
 - ADB specifies a list of EE projects that we are willing to provide PCG for.
 - We provide PCG facility for 3-4 banks. Up to \$100 million. 80/20 for the first 10% and 60/40 for the remaining 90% of the portfolio.
 - LFI uses its marketing, due diligence process, and underwriting guidelines.
 - By doing this, we share the risks of EE projects and catalyze greater local financing of EE

Examples

- Performance Guarantee in ?
 - Focused on energy service companies
 - A rating agency is established through international competitive bidding
 - Agency reviews proposals/contracts
 - If technically, legally, and financially viable, ADB will put its guarantee behind a contract
 - ESCO can then take the contract to local FIs for financing
 - Performance guarantee covers the the FI, not the ESCO or the equipment

Examples

- Wind in Sri Lanka
 - ADB to get the concession from government to develop wind farms in eastern Sri Lanka
 - Using CEFPP resources, ADB will set up company, do the micro-siting, negotiate and sign PPA, and build wind farm
 - Once build, can sell it off.
 - Example of catalyzing investment in RE

Examples

- **Waste to Energy in India**
 - **INR 760 million for a waste-to-energy conversion project in Delhi**
 - **Requested amount from CEF INR 20,000 (~ \$500,000) to buy down the capital cost of the new technologies**
 - **Catalyze the deployment of new technologies for something that is clearly replicable and scalable.**

For More Information

Email: stumiwa@adb.org

Web site: www.adb.org/clean-energy