

ADB's Initiatives in GHG Mitigation and Carbon Financing

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Outline of Presentation

- 1. ADB in Brief**
- 2. Past and On-going Climate Change Mitigation Initiatives**
- 3. CDM Facility at ADB**

What is ADB?

ADB Headquarters: Right here in Manila, Philippines



ADB

ADB Basics

The Asian Development Bank (ADB):

- is a multilateral development finance institution established in 1966
- has 63 members – 45 of which are from Asia and Pacific region
- Japan and the United States are the largest shareholders
- 2004 lending: US\$ 5.3 billion (~14% energy sector)

ADB's mission aims to help its developing member countries (DMCs) reduce poverty

ADB's strategic agenda:

- focuses on pro-poor sustainable economic growth, inclusive social development, and governance for effective policies and institutions.

**Past and On-going
Climate Change
Mitigation Activities**

Climate Change Initiatives

- Over 50 Loans and TAs in the last 10 years (1994-2004) in over 15 DMCs, in areas covering Renewable Energy, Energy Efficiency and other GHG Reduction Measures and Technologies.
- REACH (Renewable Energy, Energy Efficiency and Climate Change) Program- Technical Assistance Program (started 2001) using four trust funds:
 - Netherlands Cooperation Fund for Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement (PREGA) (\$6.0 million)
 - Canadian Cooperation Fund for Climate Change (Can \$5 million)
 - Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas (DKK 30 million)
 - Finnish Technical Assistance Grant Fund (€1.9 million) (start 2005)

Program Achievements

- **PREGA**

- Country Studies (focusing on experience with REGA technologies and policies) prepared for several countries
- National Technical Experts trained in conducting pre-feasibility studies
- Over 25 pre-feasibility studies covering various REGA technologies

- **Canadian Cooperation Fund**

- Guidelines and action plans developed for small-scale CDM activities
- Major CDM Capacity Building Study completed in China
- Other multiple projects and TAs

- **Danish Cooperation Fund**

- Multiple studies approved to promote renewable energy in rural areas and small towns

Canadian Cooperation Fund - Projects

- China: “Opportunities for the Clean Development Mechanism in the Energy Sector”
 - Conducted 19 training and capacity building workshops at the national, provincial and local level
 - Developed detailed Handbook to guide project developers
 - Drafted Project Design Documents (PDDs) for 7 Small-scale CDM projects
 - Recommended an Institutional Framework for promoting and financing Small-scale CDM projects including a China Carbon Investment Facility
- Indonesia: Carbon Sequestration and Biomass Energy Pilot Projects
- India: Capacity Building for CDM

Danish Cooperation Fund - Projects

- Mongolia: Renewable Energy Development in Small Towns and Rural Areas
- Indonesia: Power Welfare Scheme
- Afghanistan: Renewable Energy Development for Poverty Reduction
- Pacific Islands: Promotion of Renewable Energy and Energy Efficiency in the Pacific (REEP)
- Uzbekistan: Off-Grid Renewable Energy Development
- Philippines: Rehabilitation of Renewable Energy projects for Rural Electrification and Livelihood Development (Pilot Project in Southern Tagalog Region)

Underlying Finance for CDM Projects: Coalmine Methane Demonstration Project

- Capture of CMM from coal mining operation in Shanxi province, PRC
- Using CMM as a fuel in a 120 MW generation plant (combined cycle)
- Reduces methane release and displaces coal-fired power generation (baseline)
- ADB Loan Approved in 2004: \$125 million
- Total project cost: \$205 million
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- Total volume of ERs expected (10 yrs): 29 million tCO₂e
- Contract ER volume: 3 million tCO₂e
- Contract value: US\$12.75 million
- Contract price: US\$4.25/tCO₂e VER basis
- If all ERs sold at \$4.25/tCO₂e = US\$120 million

Underlying Finance for CDM Projects: Gansu Clean Energy Development Project

- 98 MW run-of-river type hydro project (Xiaogushan Hydro) in Gansu Province, PRC
- Displaces (BAU alternative) 109 MW coal-fired power generation (baseline)
- ADB Loan approved in 2003: \$35 million
- Total Project Cost: \$87 million
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- Total volume of ERs expected (10 year): 3.7 million tCO₂
- Also avoids annual emissions of 240 tons of particulate matter and 1,910 tons of SO₂
- Contracted ER volume: 2 million tCO₂
- Total Contract value: US\$8.50 million
- Contract price: US\$4.25/tCO₂ VER basis

ADB's CDM Facility

CDM in ADB: A Natural Extension

- Capacity building in the area of renewable energy, energy efficiency and climate change since late 1990s
- ADB Energy and Environmental Policies recognize the importance of focusing on projects with lowered environmental impacts
- Global Environmental Facility (GEF) access
- Many ADB Country Strategies acknowledge CDM potential and benefits
- CDM Facility established in 2003 (both internal and external facilitation objectives)

Rationale for the CDM Facility

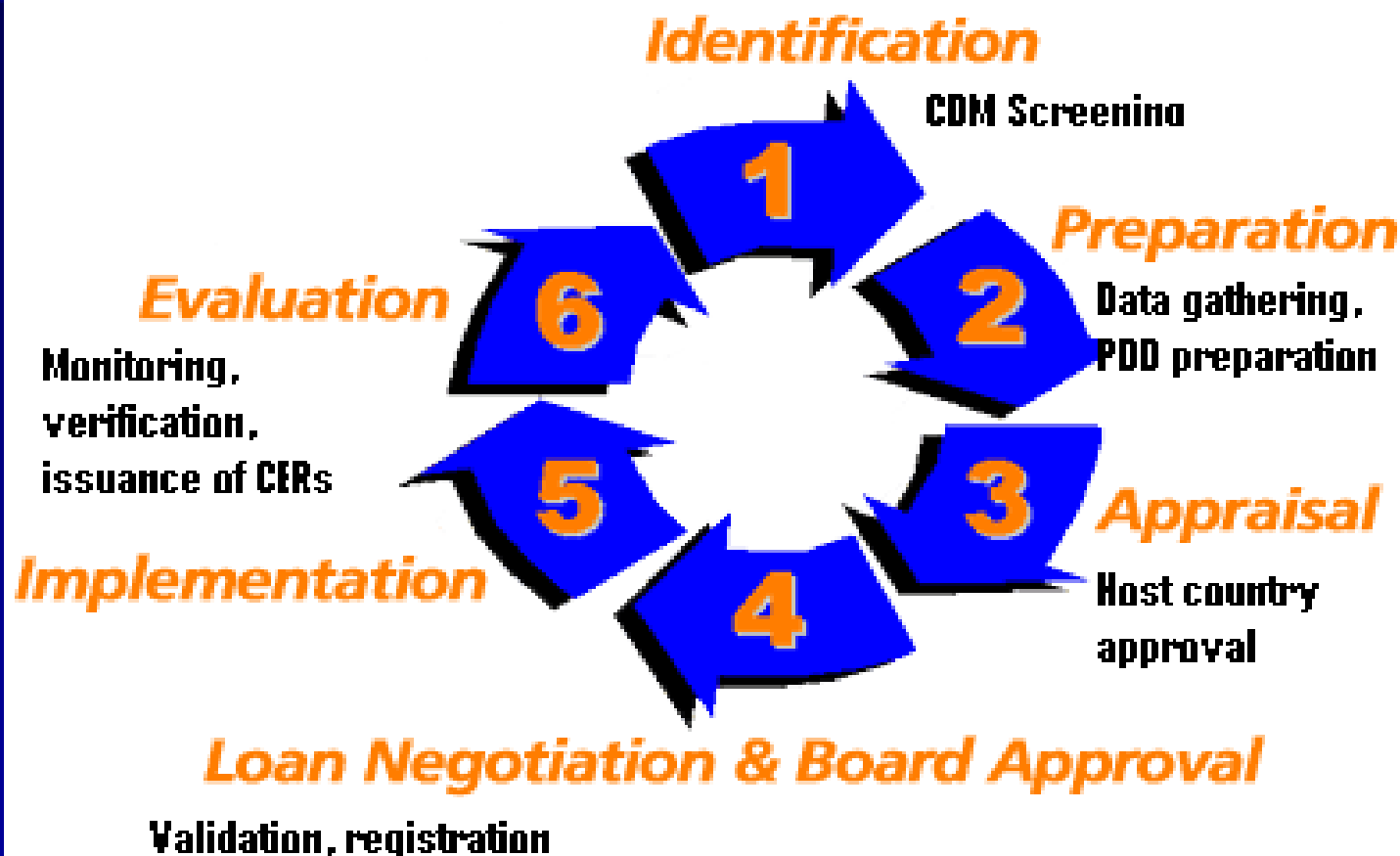
- Significant GHG reduction potential and high quality CDM opportunities in lending portfolio
- Host country interest/request/pressure to have ADB's active involvement in CDM
- Existing multilateral and bilateral instruments focus on "procurement" over project development
- "CDM financier" and an "honest broker"
- CDM makes many marginal projects financially viable, allowing extension of loan services
- CDM-specific transaction costs can be kept low by integrating into normal due-diligence process

Incremental CDM Analysis in ADB Project Due Diligence

**General
Project
Analyses**

**Additional
Analysis for
Potential
CDM
Projects**

Integrating CDM into ADB Project Cycle



ADB CDM Services & Resources

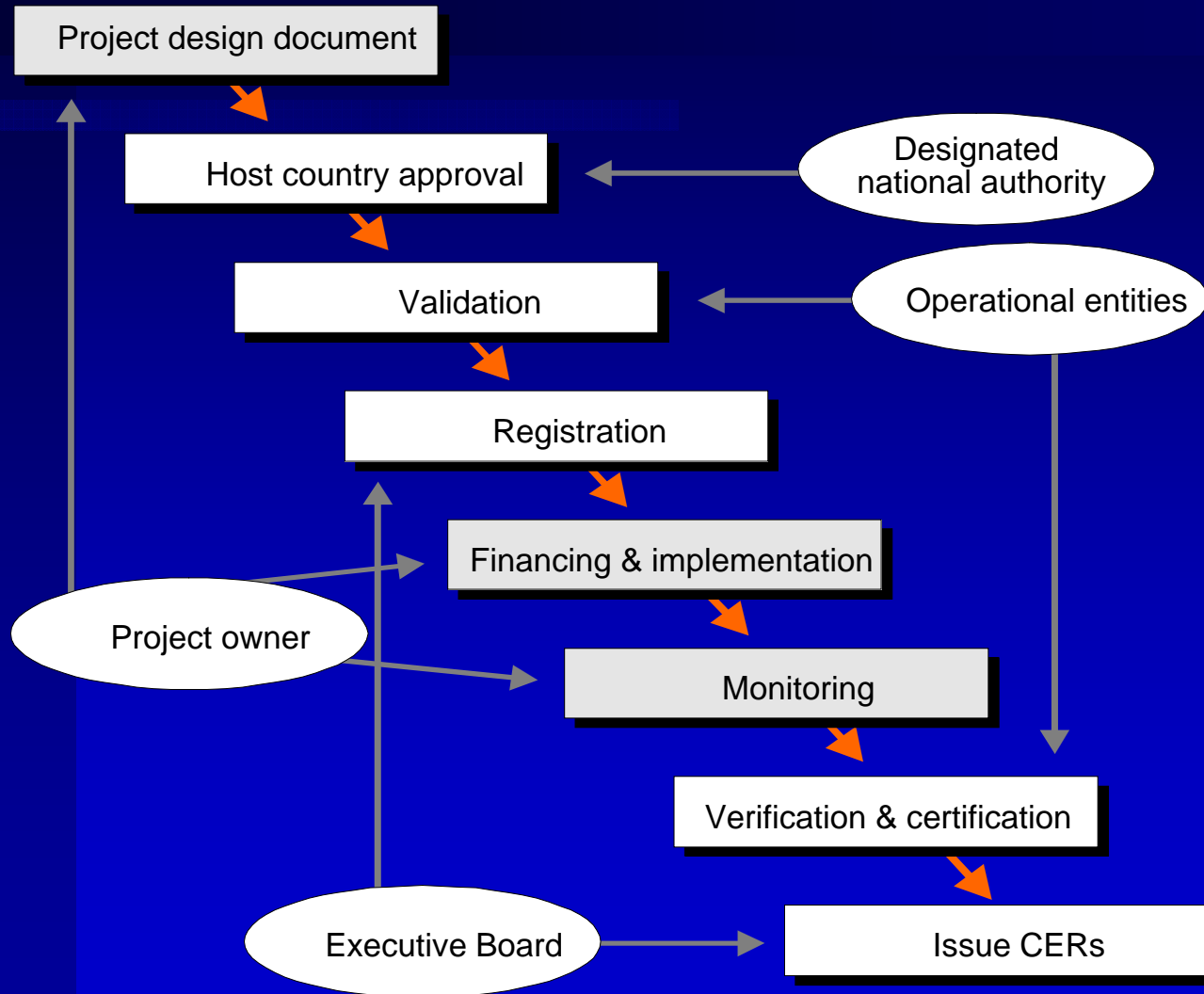
(available through the CDM Facility*)

- Screen projects for CDM potential (develop Project Idea/Concept Notes)
- Identification of potential buyers of credits
- Development of CDM documentation, including PDD and new methodologies (if required)
- Stakeholder Consultation
- Arrangement of validation/verification
- Facilitate Host Country Approval
- Assist negotiation of ERPA
- Local CDM capacity building

* Services are provided and implemented in conjunction with project/ loan cycle and under the overall supervision of the respective Regional Departments of ADB

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CDM Project Cycle



Prospective CDM Loan/TA Portfolio (2005-2006)*

Location	Project Type
China	CMM Utilization
China	Agricultural Waste Utilization
Indonesia	Geothermal and Small Hydro
Samoa	Micro Hydro
Pakistan	Rural Electrification and Renewable Energy
Indonesia	Agricultural Waste Utilization
India	Hydropower
China	Rural Electrification and Renewable Energy

*These proposed ADB projects, expected to deliver CERs in KP's first commitment period (2008-12) may be processed through the CDM Facility, in close coordination with respective ODs and with concurrence of DMC project developer.

For Project Developers

BENEFITS

- No up-front transaction costs – “risk-free”
- Assistance along every step of the CDM Cycle
- Opportunity to explore offers from multiple buyers
- Lowered transaction costs (costs capped at direct expenses, and process streamlined into existing project planning cycle)
- Targeted capacity building also provided

ACCESS

- Currently only available to projects which receive underlying finance from ADB
- Propose public sector projects to ADB regional departments, through DMC government
- Propose private sector projects to ADB private sector window

For Carbon Buyers

BENEFITS

- Access to projects with secure underlying finance
- Access to projects with lower project risk (ADB-financed projects are compliant with stringent social/environmental regulations & guidelines, with continuous monitoring)
- Access to CERs from projects in time for the first commitment period (2008-2012)
- Lowered transaction costs
- Existing relationships with host country governments, risk of required Host Country Approval of CDM project reduced

ACCESS

- Express interest to CDM Facility, register as eligible buyer
- Submit conditions/preferences when PIN is provided through CDM Facility

Fuxin CMM/CBM Project

- Subproject under the Liaoning Environmental Improvement Project in Liaoning province, PRC
- Project will:
 - Improve extraction of CMM and pre-mining CBM
 - Install storage, compression and distribution systems to enable CMM/CBM use
 - Utilize CMM/CBM for heating, electricity generation, some flaring
- ADB Loan Approved in 2004: \$15.8 million (\$70 million to entire Liaoning project)

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- Loan fact finding initiated early 2004, CDM fact finding initiated simultaneously
 - CDM support provided throughout project development cycle
 - Loan approved on 25 Nov 2004; New methodology & draft PDD submitted to CDM Meth Panel early Feb 2005; Bidding process started Mar 2005
 - 10-15 EOIs submitted, short-listed based on price, volume, up-front payment
 - Developer makes all decisions on buyers; CDM Facility provides advice
 - Total volume of ERs expected (7 yrs): 5 million tCO₂e
 - Contract price: TBD – but may become one of highest to date

THANK YOU

For more information, please contact:

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