### CDM PROCESSES

Based on :UNEP CDM Pre-feasibility Tool

Prof. Atul Raturi

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### **CDM** Participants

- Project Developer \ Operator
- CDM Investor \ CER Purchaser
- Host Government and DNA
- Designated Operational Entities (DOE)
- The CDM Executive Board (CDM-EB)
- Other Stakeholders

### CDM ELIGIBILITY

- 1. Has the host country ratified the Kyoto protocol?
- 2. Has the host country assigned a DNA?
- 3. Will the project reduce one or more of the GHGs?
- 4. Does the project meet SD requirements?
- 5. Is the project additional?
- 6. Is the project **not** financed through ODA?

### CDM Eligibility

- 7. Does the project fall in one of the following categories?
- End-use energy efficiency
- Supply -side energy efficiency
- Renewable energy
- Fuel switching
- Methane reduction
- Industrial processes that reduce GHGs
- Agriculture
- Sequestration and sinks

### CDM Eligibility

- 8. Small Scale Projects : Does the project fall in one of the categories?
- •Type 1: Renewable energy systems with < 15MW capacity
- Type 2: Energy Efficiency projects with a saving of < 60</li>
  GWh per year
- •Type 3 : Any other project reducing < 60 Kilo tons  $CO_2$  per year.

#### **Components of National Strategy**

Institutional preparedness:

•Operational DNA.

Facilitate CDM investment opportunities:

- Identify priority project opportunities:
- State-owned and private sector.
- •Adopt both Unilateral and bilateral CDM.
- Technology transfer

Human resource development:

•Training for local consultants on CDM project design.

Global promotion of host country as a CDM destination: Appear on
 <u>www.cdmhost country.org</u>

### **CDM Project Cycle**



### Step 1: Project Preparation

1. Identification of project

- 2. Pre-screening of CDM applicability
- 3. Development of feasibility study

### Step 2: Development of Project Idea Note (PIN)

- Not essential for CDM application
- Required by some DNAs
- Informs the DNA about the project and helps get feedback on the sustainability criteria setout by the DNA
- Also informs potential CER buyers
- Is checked by the potential buyers against the CDM rules

### PIN Structure

Approximately 5 pages, It provides information regarding

- Type and size of the project
- Location of the project
- Approximate GHG reduction compared to BAU scenario
- Suggested crediting time
- Suggested CER price
- Financial structuring –parties providing project funds
- Projects socio economic and environmental effects

## Step 3: PDD Development

- Most important document in the CDM cycle.
- Mandatory
- Submitted first to DOE for validation and then to CDM Board for registration
- Consists of 7 parts (A to G) and 4 appendices.

### PDD-PART A

This part describes the project (From PIN)

- Title of the project
- Purpose
- List of project participants
- Technical description of the project
- Funding details
- Barriers
- Timetable
- Project milestones
- Any other relevant information

### PDD - PART B

This part describes how the **Baseline** was set

- There are 3 ways of establishing emissions baseline
- 1. Existing, GHG emissions –actual or historical

2. Emissions from a technology that represents an *economically attractive option* taking into account financial barriers

3. The average emissions of similar activities undertaken in the last 5 years

Part B (contd.)

- The selected baseline approach is used to develop a *Baseline Methodology* for the project
- There are a number of baseline methodologies approved by the CDM Board
- Any new methodology has to be approved by the Board
- A project boundary has to be established to determine which GHG emissions are to be included
- A CDM project has to be **Additional**: the project could not have happened without CDM.
- Additionality of emission reductions is proven if the emissions under proposed CDM project is less than under the baseline scenario BAU without CDM

### PDD PART C

This part describes the duration of the project and the crediting period, There are two different crediting periods under CDM

- 7 years with the possibility of two extensions to a maximum of 21 years
- One time 10 years without possibility of extension.

### PDD -PART D

This part sets the *Monitoring plan* for the project

- Outlines how data will be collected once the project is operational
- The data has to be submitted to the DOE for validation
- The project developer is responsible for implementing the monitoring plan and for sending the data for future verification of CERs

### Monitoring Plan

- Definition of boundaries
- Means of data collection which is archived for 2 years after the last CER issuance
- Frequency and duration of measurement
- Leakages estimation
- Quality control of monitoring process
- Non GHG environmental impacts data
- Justification of monitoring methodology

### PDD: PART E

#### ESTIMATION OF GREENHOUSE GAS REDUCTIONS

• Core of the CDM project

Net GHG reduction has to be certified

### PDD: PART E

# Environmental impacts and sustainable development.

Impacts on

- Biodiversity
- Local air and water quality
- Soil contamination
- Noise level
- Use of natural resources
- Overall process efficiency and waste management

### Sustainable Development

**Country Specific** 

• Economy

Ecology

Social

### Step 4- Submission of PDD to DNA for approval and to DOE for Validation

- Completed PDD submitted to DNA for host country approval
- After checking the fulfillment of country criteria the DNA approves the proposal
- The PDD and host country approval documents are now sent to the DOE for review and validation

### Steps 5-7 : Public comments, Validation, Review and Registration

- The DOE carries out a consultation process by
- 1. Making PDD public for comments by parties, stakeholders and UNFCCC accredited observers- allow 30 days for comments
- 2. Prepares a report
- 3. Undertakes validation process
- 4. Submits the PDD to CDM Board for registration.

## Step 8: Project Implementation and Monitoring

- Once the project is registered, it can be implemented.
- CERs can be accrued from the point of validation
- Monitoring begins with implementation

### Step 9: Yearly Verification and Certification

- Done by Verification DOE
- Responsibility of the project developer
- Performed yearly
- A certification report and a monitoring report are sent to CDM Board
- These reports are made publicly available
- The Board approves the issuance of CERs

### CDM timelines and costs



## Additionality Tool-UNFCCC

- Stepwise approach to demonstrate and asses additionality.
- Identifies alternatives to the proposed activity.
- Investment analysis
- Barriers analysis
- Common practice analysis

### Project Boundary and Leakage

- The project boundary shall encompass all anthropogenic emissions by sources of greenhouse gases under the control of the project participants (PPs) that are significant and reasonably attributable to the CDM project activity (3/CMP.1, Annex, paragraph 52).
- Leakage are emissions outside the project boundary attributable to the project but not under control of the PPs. For example transport

### Project Boundary and Leakage

• Emission Reductions due to CDM project = Baseline emissions-Project (Boundary ) emissions-Leakage

Example: A Biofuel CDM project

Boundary :

The geographical area of production, cultivation and processing of biofuel + the area where the fuel is blended and sold.

Project Emissions :

#### " Field to Wheel Emissions



### Thank You