New UNFCCC Methodologies for Building EE

Nice, France
25-26 June 2015
Clean Development Mechanism (CDM)

- A “flexible mechanism” under the Kyoto Protocol, to help ANNEX I Parties to meet their emission reduction commitments, while bringing sustainable development benefits to the CDM host countries.

- The first undertaking of its kind in the world, using market-based instrument to achieve GHGs mitigation at the least cost

... Complexity was inevitable at start but things have changed.
CDM achievements

• During its 10-year history, CDM has been able to:

7,500+ projects and counting...
250+ programmes of activities
105 developing countries
200+ unique methodologies
4,500+ organizations
110,000+ MW of renewable energy (as of 2012)
1.5+ billion tonnes of avoided CO2
USD 500 billion in investment

THE KYOTO PROTOCOL’S CLEAN DEVELOPMENT MECHANISM

CDM has delivered offsets, but also capacity, know-how, finance, adaptation funding and sustainable development co-benefits
GHGs mitigation methodologies under CDM

- 209 methodologies as of 30 Apr 2015
- Methodologies are the biggest assets of CDM (2013 CDM survey)
Buildings sector

BUILDING (Residential/commercial)
- Buildings retrofit for better energy performance (e.g., insulation)
- EE design of new buildings (e.g., passive solar building design)
- EE domestic appliances (e.g., EE refrigerator)
- Efficient heating, cooling and lighting

Methodological approaches
- Measure specific
- Whole building
- Full monitoring
- Benchmarking (incl. building code)
- Computer simulation
- Regression Analysis

10+ methodologies
130+ projects
11 Mt CO2/year
Scaling-up of GHGs mitigation actions

- Substantial mitigation action before 2020 needed.
  - At least 20 billion tons of CO2e mitigation gap until 2020 (UNEP’s report)

- Technical expert meetings (TEMs) under ADP Workstream 2 focused on key sectors:
  - Energy efficiency improvements
  - Urban environments

- CDM facilitates scaling-up
  - Programme of Activities (PoAs)
  - Standardised baseline (SB)
  - Hook to the future mechanism
Scaling-up: Programme of Activities (PoAs)

- 280 + PoAs registered by April 2015, including 1,854+ CPAs;
- 75+ PoAs in Building sector;
- Combining of multi-measures further simplified

CME – coordinating or managing entity
CPA – component project activities
Scaling-up: Standardized baseline (SB)

METHODOLOGY

APPROACH

Around 22,000 small rice mills using diesel engines

So potentially:

22,000 emission factors

22,000 pages demonstrating additionality !!

Example: Rice mill sector in Cambodia

METHODOLOGY

APPROACH

Pre-calculated baseline for any small rice mill:

0.0542 t-CO2 per tonne of rice

Cleaner technologies than diesel engines additional !!

• A Party or a group of Parties;

• For the whole sector, it offers baseline emission factor; and/or positive-list of technologies
SB in building sector

For residential buildings in county/city/region:
• # kWh/m² ???
  ▪ # kWh/occupant ???

▪ Building characteristics such as
  • Type of buildings (e.g., office, hospital, courthouse, warehouse, etc.);
  • Building location (e.g., climate zone or zip code);
  • All floor area in the building;
  • Occupancy of the building.
Building SB in 2015

29+ submissions ; 9 approved

- 13 DNAs interested
- 14 grid EF
- 1 off grid
- 1 charcoal
- 1 cement
- 1 cookstove
- 2 rice milling & cultivation
- 9 Waste

2015: Building
Cookstoves
A/R Brick
Charcoal cement

TOP-DOWN
- 13 DNAs interested
- 40 potential SBs to develop
Scaling-up: hook to future mechanisms

CDM and its methodologies are of high relevance to future mechanism:
  a) Highly tested MRV and recognition instrument for mitigation;
  ➔ Facilitation of scaling-up of climate finance

Ex.

SB for rice cultivation of the Philippines (kgCH4/ha/season), is used by the UNDP for NAMA development of the country.
Way forward

- Alternative approaches to standardization for Building Sector
- Options for promoting mitigation actions in a city context

- Partnering with institutions with sector expertise

You input is very much welcome!