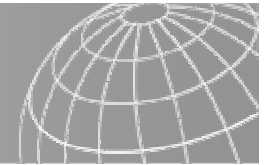


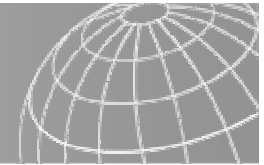
Challenges for CDM in India Experience from GTZ

Holger Liptow
Deputy Head Energy and Transport
GTZ
FU Berlin
1 October 2008



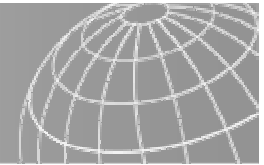
Content

- India's Position in the Global Carbon Market
- GTZ in India on CDM
- Challenges
 - Programme of Activities
 - Carbon Market
 - Energy for India: Can CDM help?



India's Position in the Global Carbon Market

- **1,072 projects** have got **NCDMA** approval leading to
- **525 million CER** (till 2012) if registered
- Issued **49,349,434 CER** so far
- Investment touches **120,079 Crore rupees (18,5 Billion Euro)**, nearly all unilateral projects (little Technology Transfer)
- The majority of registered project in India are
 - **renewable energy** (biomass, hydropower, wind energy)
 - **energy efficiency,**



GTZ in India on CDM

BMZ

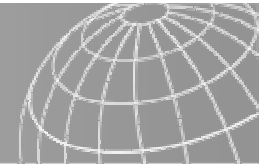
- Energy Programme (**IGEN**): CDM Component
- Environment Programme (**ASEM**): CDM in Municipalities

German Private Sector

- **Carbon Procurement Unit**

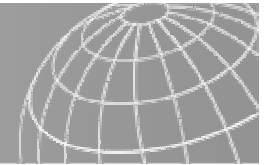
BMU

- **CDM-Initiative**



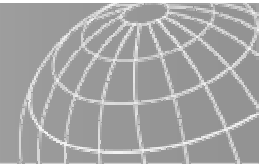
Energy Programme - CDM

- **CDMIndia** with BEE, CEA, MoEF as partners
- Institutional: Support for setting up **NCDMA** (DNA)
- Fostering **quality in CDM project development**
 - Capacity Building Support for PDD development
 - Sector specific and in-house training
- Reduction of **transaction costs**
 - Development of **new methodologies**
 - Rehabilitation & Modernisation
 - Supercritical power plant
 - Official **baseline** data base for all 5 **power grids** !
- **PoA development of energy efficiency projects**



Carbon Procurement Unit

- **Identify** eligible GHG emission reduction projects
- Facilitate / finance CDM project documents preparation and approvals for **CDM/VER** projects
- Introduce high **large buyers** in Germany
- Facilitate **carbon financing / emission credits trading** in all stages (**ERPA**)
- Facilitate Buyers with **monitoring management** to timely and reliable delivery

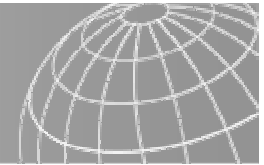


BMU CDM-JI-Initiative

- Aim:** To enhance **small and medium German companies** with compliance in the EU ETS to use the CDM and/or to transfer technology
- Target group:** Companies which face barriers in being active in the CDM
- Approach:** Establishing “CDM-Units“ with CDM experts in China, **India**, Brazil and Tunisia (for North Africa)

Service offered by CDM-Units:

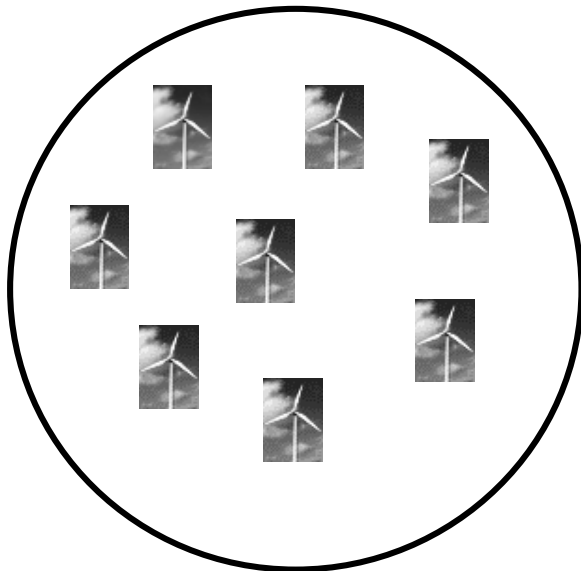
Develop project portfolios and offer trading assistance (project sourcing – project matching – investment/transfer options)



CDM: Bundled versus PoA

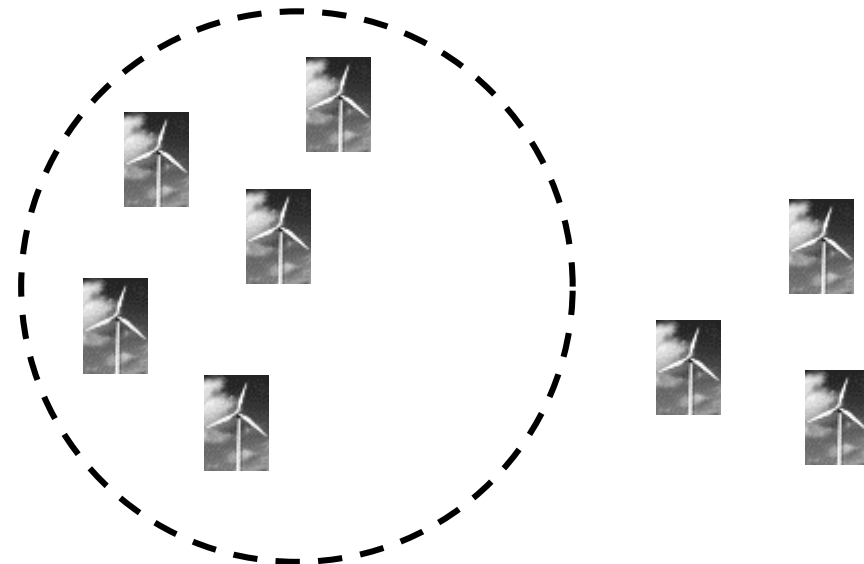
Bundled

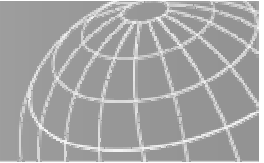
- Small-scale projects
- Same period
- Pre-determined



Programmatic CDM

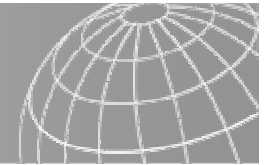
- Large and small scale
- Project can be added to PoA at any time
- **One approved baseline and monitoring methodology**





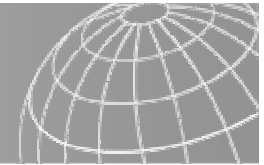
PoA for Energy-Saving Light Bulbs

- GTZ supports a PoA for Compact Fluorescent Lamps (CFL).
- Replace 80% of incandescent light bulbs – 320 million light bulbs – in Indian households.
- 80 individual projects
- energy-saving light bulbs distribute at price of incandescent light bulbs.
- Bureau of Energy Efficiency: coordinating entity.
- **Challenges**
 - Project boundaries not yet decided
 - Awaiting approval of “OSRAM” Methodology
 - No DoE ready for validation of the project



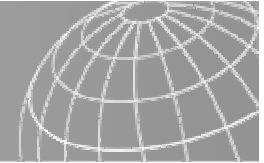
Challenges in the Carbon Market

- **Buyer's preference** for projects
- **Large project owner** demand higher price
- **Public Owners** goes for tendering
- **High talks on PoA** but: low clarity
 - DoE
 - Structuring
 - Monitoring
- Investment and **venture capital companies**:
large volumes and late stage projects
- Sellers want to sell **post 2012 credits** in package
with Kyoto credits



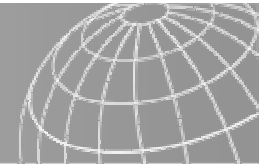
Risk associated with Hydro Projects

- Additionality is the key challenge in registration
- Low Plant Load Factor: No guarantee of CERs - natural calamity
- Gestation period: Plan well ahead
- Acceptance of large hydro projects under EU emission trading scheme - WCD guidelines



Energy for India: Can CDM help?

- Renewable energy for quality and reliable **decentralized power** to rural areas (25 000 off-grid villages)
- **10% of additional capacity from renewable** (wind and solar) by 2012
- Favorable **financial and fiscal policies** to support commercialization of Renewables – **Additionality issues**
- **Renovation and modernization** of old power plants, methodology still under preparation .
- Inclusion of **Nuclear** power project – **Uncertain**
- Methodology for **Ultra Mega Power Plants** - **Required**



THANK YOU FOR YOUR ATTENTION

