

"Matchmaking event between CDM project developers & EU stakeholders in the field of Energy Efficiency (EE) and Energy Saving Technologies (EST)"

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EE CDM projects in India

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Why EE is important ?????

- **Energy efficiency** can account for **60%** of avoided emissions in 2030 (Institute of policy studies 2007)
- **Climate Change** - Immediate and significant CO₂ reductions
- **Poverty alleviation** - Savings to households & Governments
- **Energy security** - Deferred infrastructure costs and capacity
- **Programmatic CDM DEE** can deliver this, starting with lowest cost abatement

Possible Areas for New End-Use Energy Efficiency

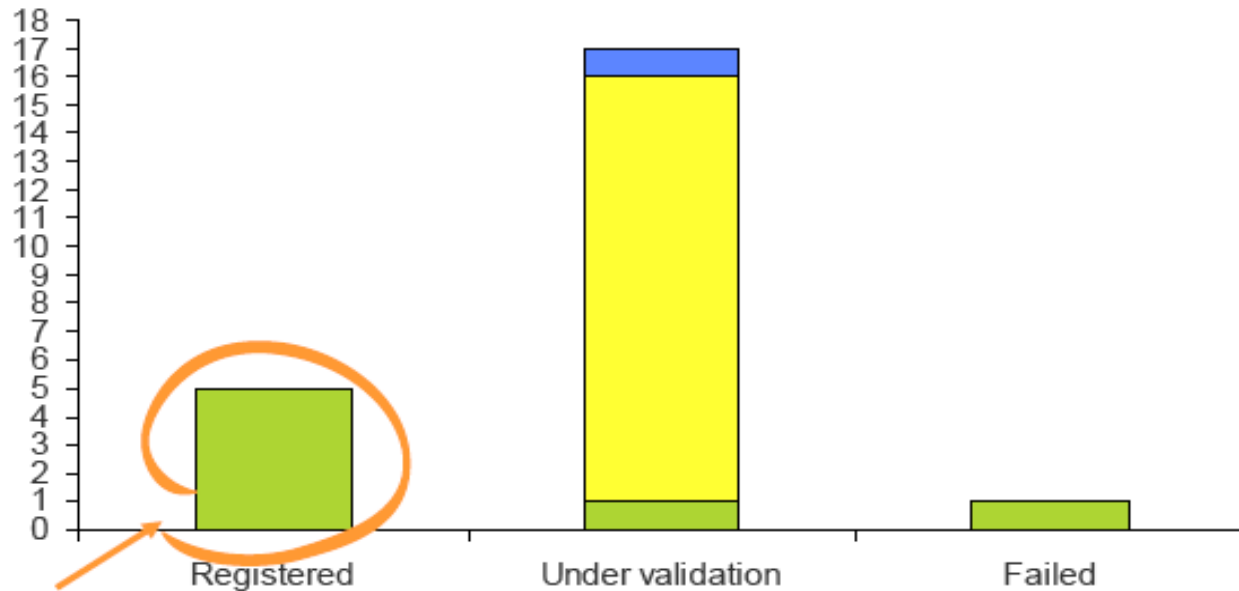
- Markets – comprehensive retrofits and new construction
 - Buildings (33% of global total CO₂ in 2004 – IPCC WG III 2007)
 - Commercial buildings
 - Hotels
 - Schools
 - Homes (NM023)
 - Water/energy nexus
 - Transportation
- Technologies
 - Industrial motors
 - Lighting
 - Agricultural pumps

CDM and EE pipeline

- **Approved methodologies for Energy Efficiency**
 - **19 –Approved methodologies**
 - **3 –Consolidated approved methodologies**
- **Energy Efficiency project activities**
 - **28 –Registered, Requesting registration / under review / under corrections**
 - **287 –Under validation, registered, requesting regn., under review**

Success of CFL in India – Dec 2009

CFL Projects and PoAs in the CDM Pipeline



3 Osram CDM Projects, India

■ AMS II.C ■ AMS II.J ■ AM0046

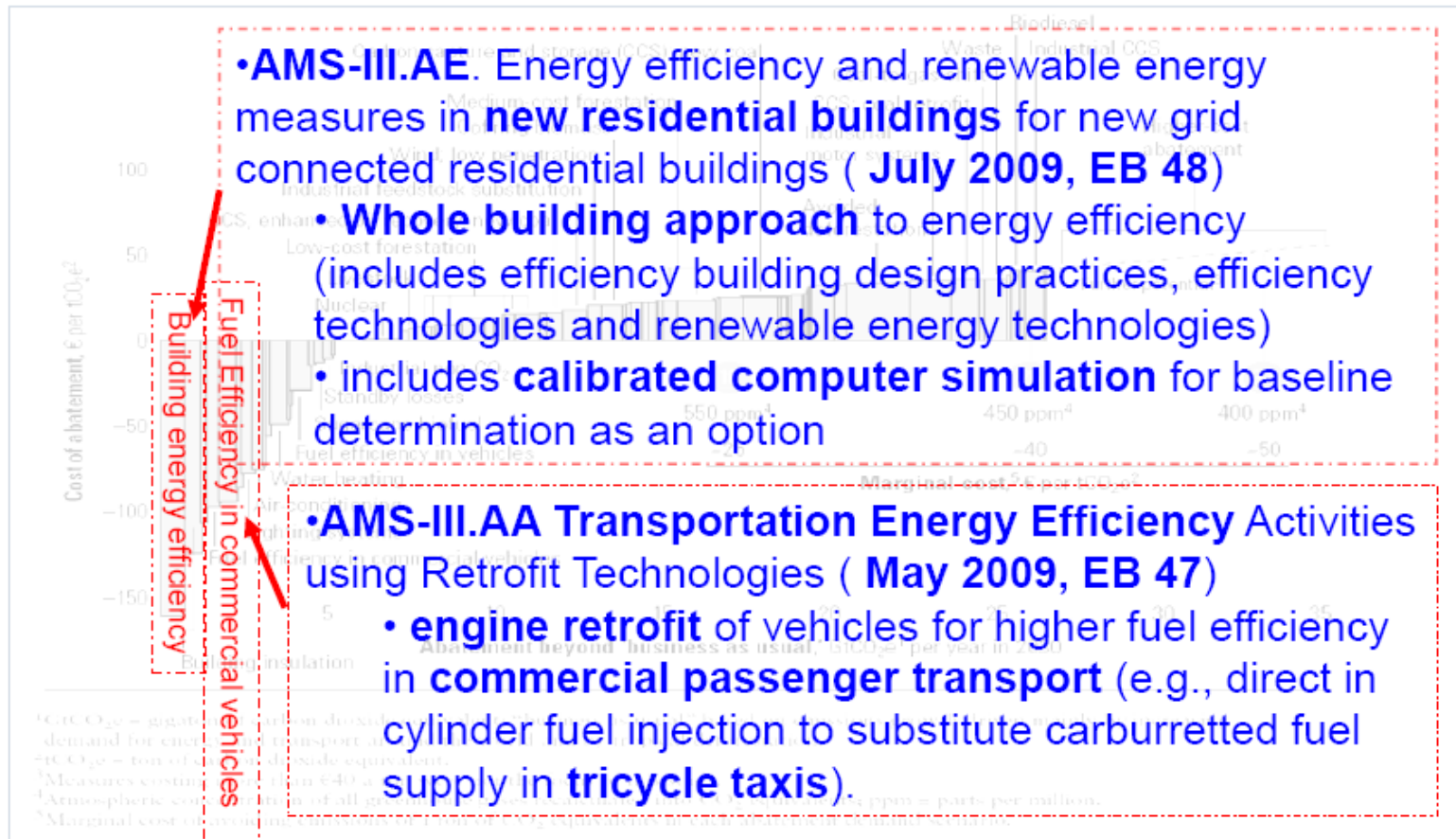
Small Scale Energy Efficiency Methodologies: where do we stand?

<u>Demand Side methodologies (9)</u>	Projects/ PoAs in the pipeline
•AMS-II.C Demand-side energy efficiency activities for specific technologies	25 (10)
•AMS-II.E Energy efficiency and fuel switching measures for buildings	25 (14)
•AMS-II.F Energy efficiency and fuel switching measures for agricultural facilities and activities	3
•AMS-II.G Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass	2/1
•AMS-II.J Demand-side activities for efficient lighting technologies	16/1 (0)
•AMS-III.AE. Energy efficiency and renewable energy measures in new residential buildings	0
•AMS-III.X Energy Efficiency and HFC-134a recovery in residential refrigerators	1
•AMS-III.Z Fuel Switch, process improvement and energy efficiency in brick manufacture	4
•AMS-III.AA Transportation Energy Efficiency Activities using Retrofit Technologies	0

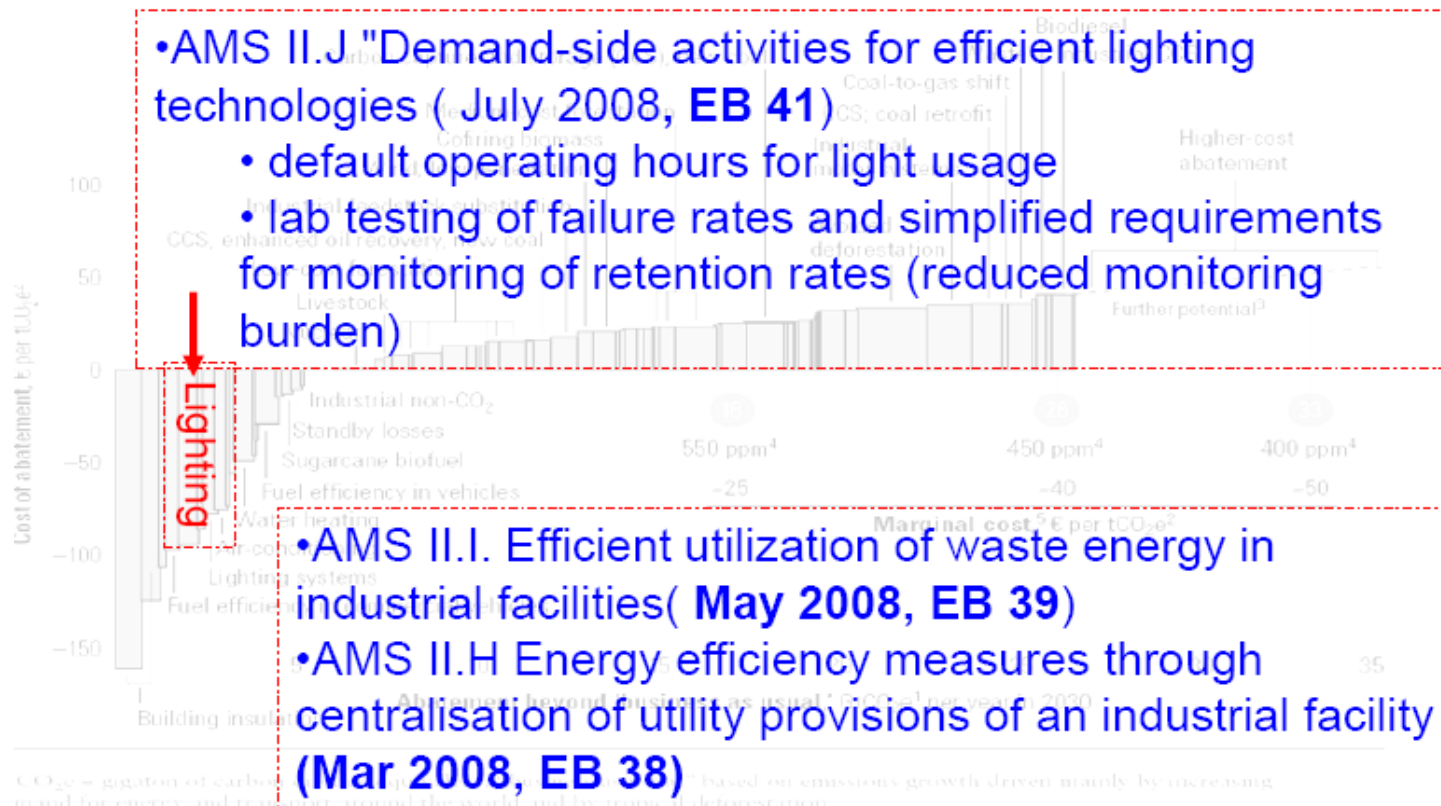
Small scale EE methodologies where do we stand

		Projects/ PoAs in the pipeline
Supply Side(2)	AMS-II.A Supply side energy efficiency improvements – transmission and distribution	2/1
	AMS-II.B Supply side energy efficiency improvements – generation	23 (10)
Industrial(3)	AMS-II.D Energy efficiency and fuel switching measures for industrial facilities	149/1 (50)
	AMS II.H Energy efficiency measures through centralisation of utility provisions of an industrial facility	8
	AMS II.I. Efficient utilization of waste energy in industrial facilities	0

Specific small scale EE methodologies



Specific small scale EE methodologies



CDM – EB work on EE based on CMP.4 request

1. Tool for baseline energy efficiency
2. Tool for equipment lifetime : already under discussion
3. Best-practices guidance on sampling and surveys for EE project activities including
 1. surveys for baseline determination,
 2. surveys to determine equipment failures or operation during crediting period,
 3. surveys of manufacturers to account for autonomous EE improvement,
 4. surveys to account for free-riders, leakages, spill-overs etc. and;
 5. regular monitoring surveys of sample groups
4. Energy benchmarking –based on AM0070
5. Guidance on Standardize and consistently use guidance on T&D losses across methodologies
6. Stand-alone or case-specific guidance on signal-to-noise ratio and rebound effect
7. Modeling approaches to calculate the energy efficiency and their implications on the “real and measurable” emission reductions.

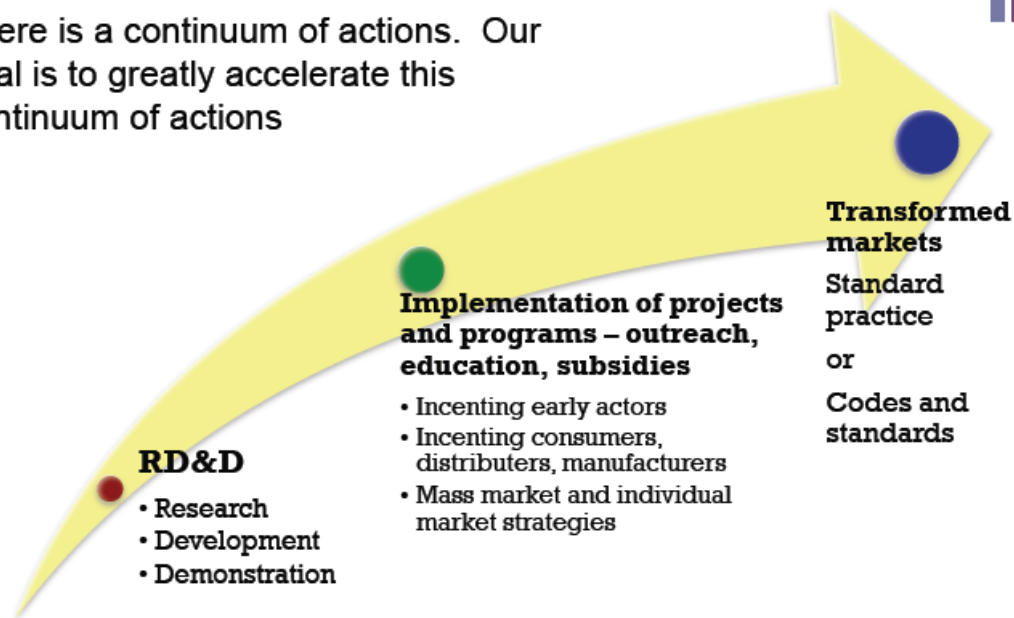
Issues for EE activities in CDM

- **Signal to noise ratio**
- **Rebound effect**
- **Free riders**
- **Service levels and output changes**
- **Lifetime of equipment**
- **Additionality**
- **Data availability**
- **Monitoring methods**
- **Scale**

How to move forward

+ End-Use Energy Efficiency Actions

There is a continuum of actions. Our goal is to greatly accelerate this continuum of actions

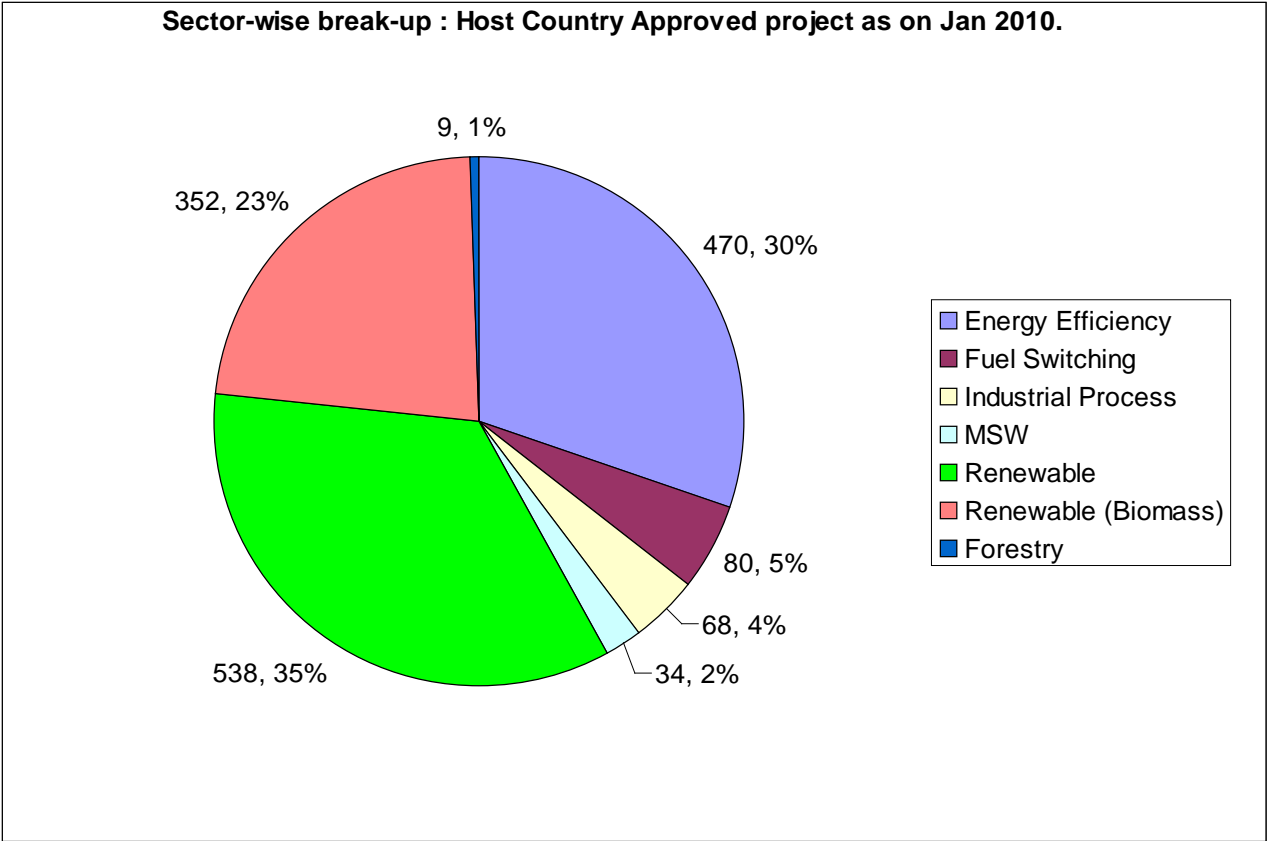


Continuing work.....

- Development of more default factors where feasible (WIP is for kerosene lanterns)
- EE methodologies for commercial buildings, commercial lighting, thermal energy savings and solar water heating (New methodologies proposed for public comments by SSC-WG 24)

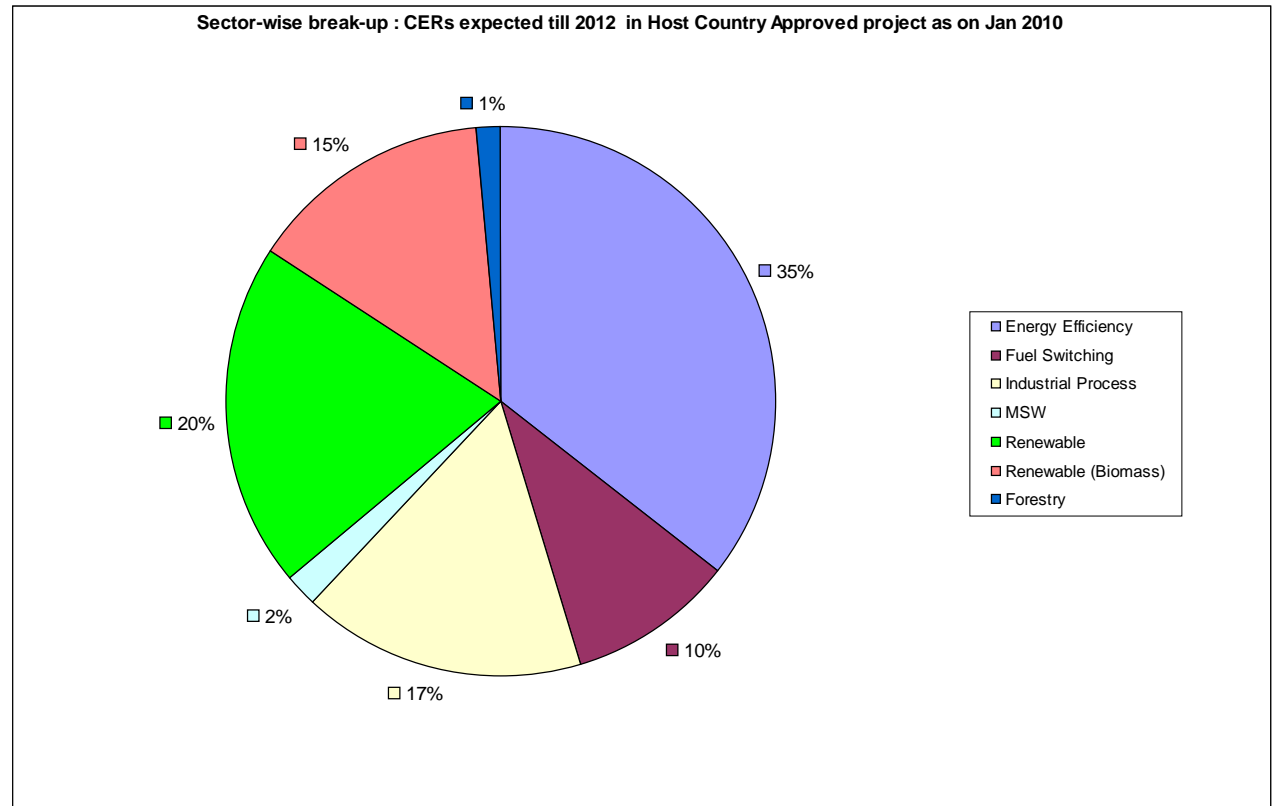
Portfolio of Host Country Projects approved

Sectors	No. of Projects
Energy Efficiency	470
Fuel Switching	80
Industrial Process	68
MSW	34
Renewable	538
Renewable (Biomass)	352
Forestry	9
Total	1,551

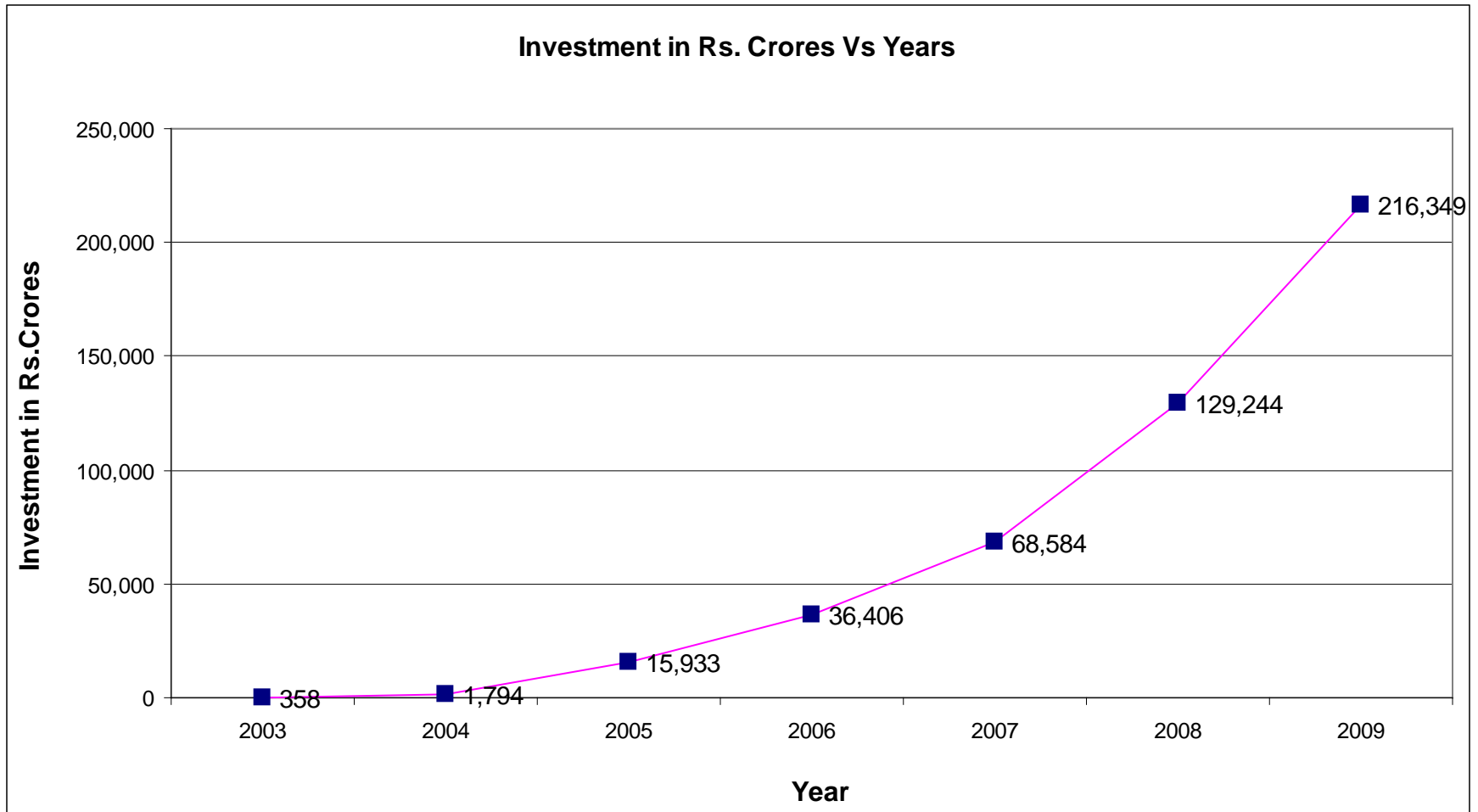


Sector-wise break-up : CERs expected till 2012 from Host Country Approved projects as of Jan 2010

Sectors	CERs (upto 2012)
Energy Efficiency	222,569,214
Fuel Switching	61,261,635
Industrial Process	105,191,473
MSW	11,523,432
Renewable	127,465,527
Renewable (Biomass)	91,023,912
Forestry	8,039,713
Total	627,074,906

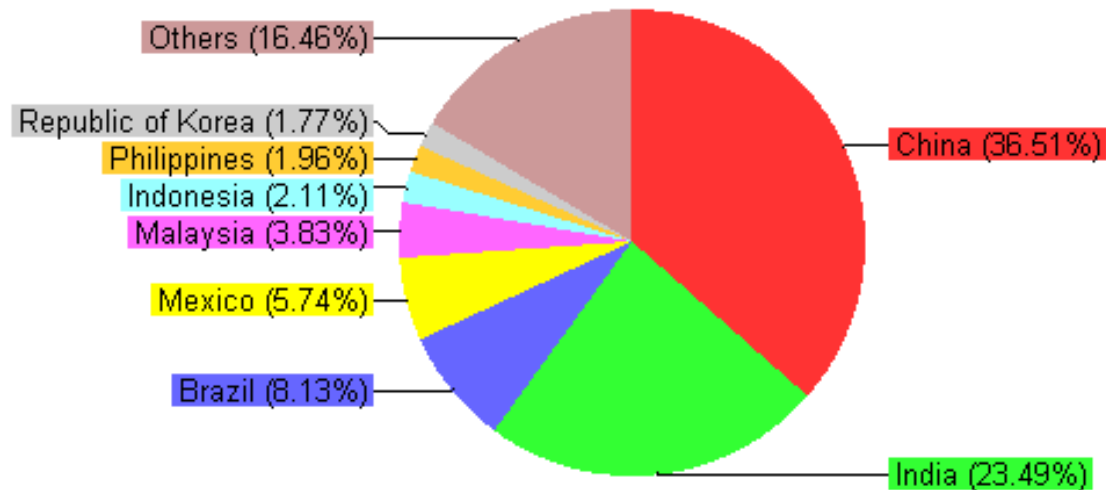


Investment in CDM Projects



International Statistics

Registered project activities by host party. Total: 2,090



THANKS

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