CDM: *Experience and way ahead?*

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CDM

- CDM – Clean Development Mechanism – is a mechanism under the Kyoto Protocol that allow developed nations to purchase carbon credits created by greenhouse gas reduction projects in developing nations.
- CDM´s two goals are to make it cheaper for developed countries to achieve their Kyoto reduction targets and to promote **'sustainable development'** in developing countries.

CDM

- To be registered under the CDM, a project has to be **‘additional’** which means it has to be a new project that would not have happened in business-as-usual scenario because of barriers (financial, technical etc.)

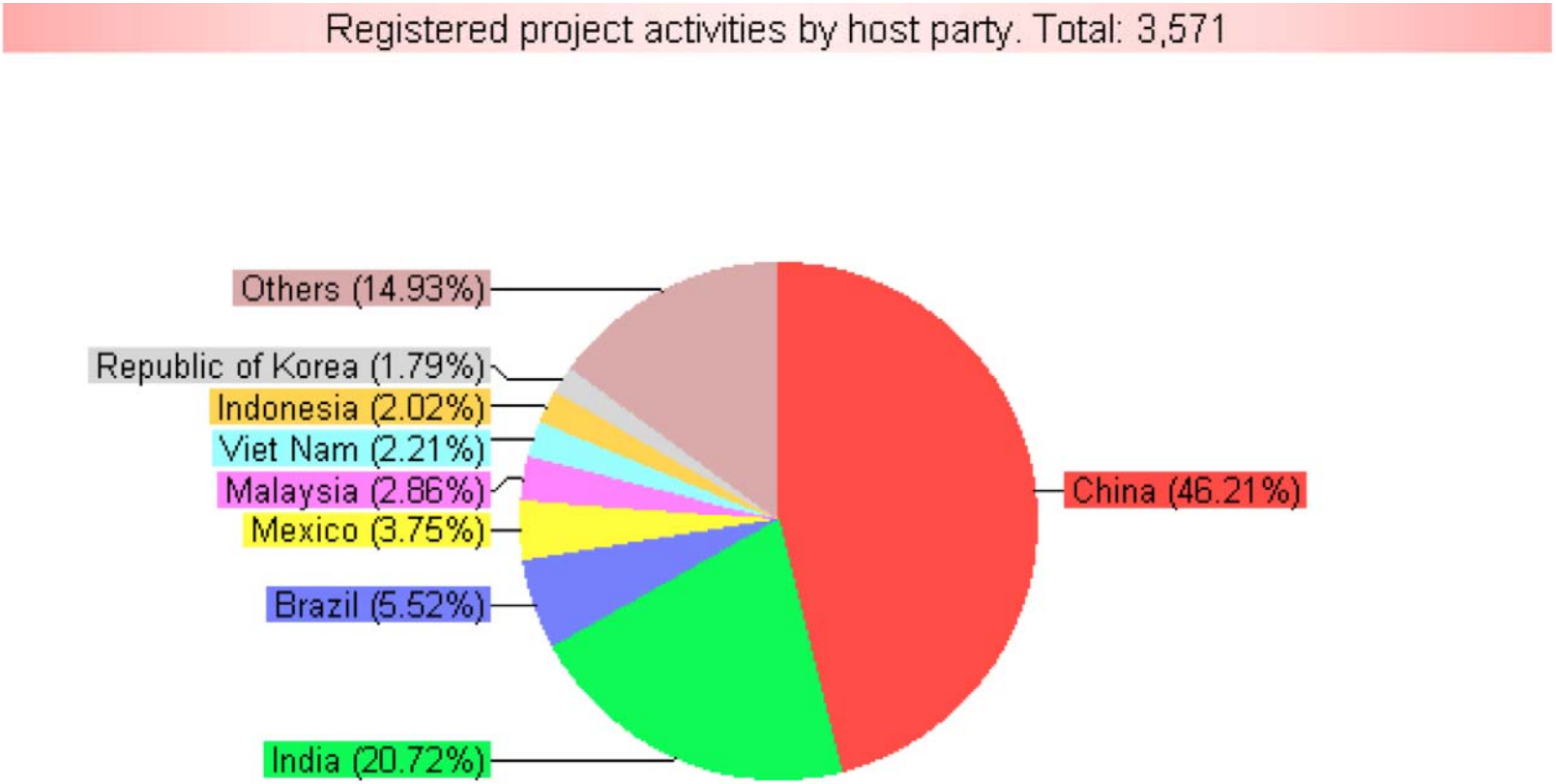
CDM Process

- Project proponent hires consultant to do project design document (PDD); Stakeholder meeting mandated to assess sustainability of project
- National government (national CDM authority) gives approval for the project with a certificate that the project contributes to sustainable development – based on PDD without any verification.**"….take the project developer at his word". *No project ever rejected*.**
- Private validators (DOE) hired by company look at PDD. Certify project is additional. Take to CDM board.
- CDM board gives approval based on DOE report and register project.

Conflict of interests

- DOE certify the reductions each year… CERs (1 CER = 1 tonne CO_2 reduction) issued by Board and sold/ resold
- **Deals are private-private.** Auditors certify carbon reduction is 'additional' to business-as-usual and the project would not happen without CDM money. Certify that carbon reduction is real.
- **Government has little role or interest in checking projects.**
- System riddled with conflict of interest – **DNV blacklisted in 2008 -- five projects were found to be verified without being surveyed.**
- **Huge question mark on <u>additionality</u> and <u>sustainability</u> of projects**

CDM Statistics: Global



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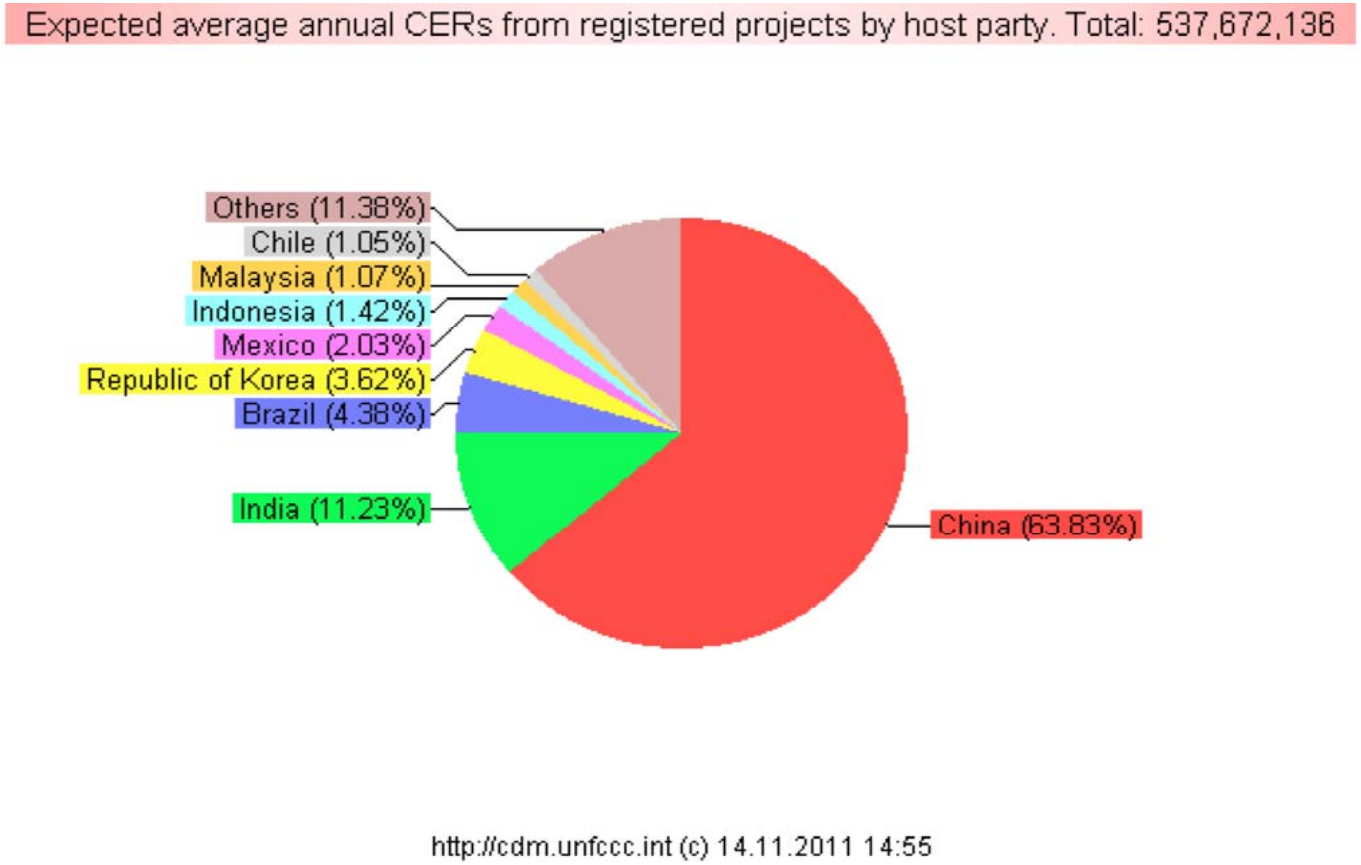
CDM Statistics: Global



- **2 billion CERs expected from these projects by 2012**

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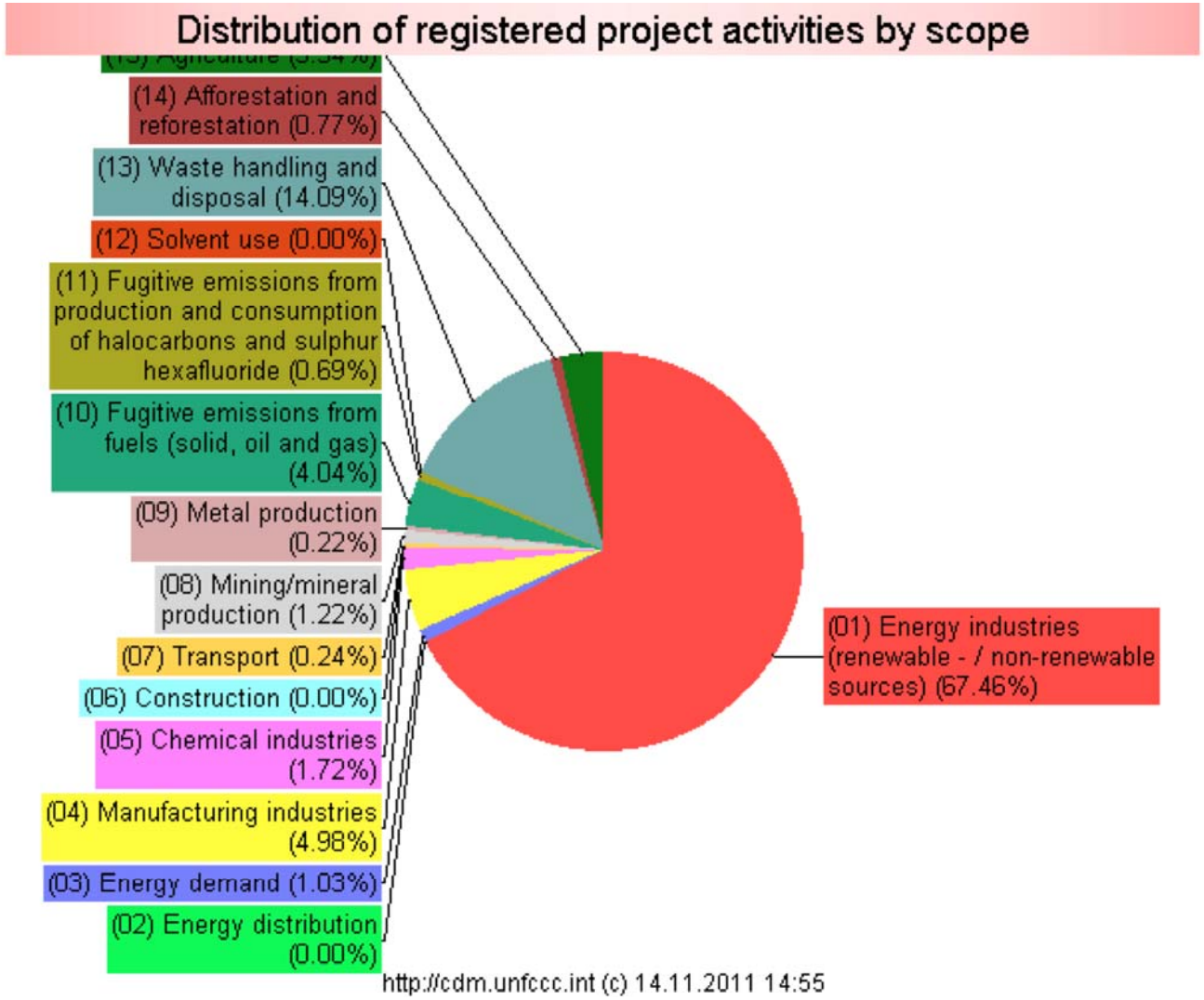
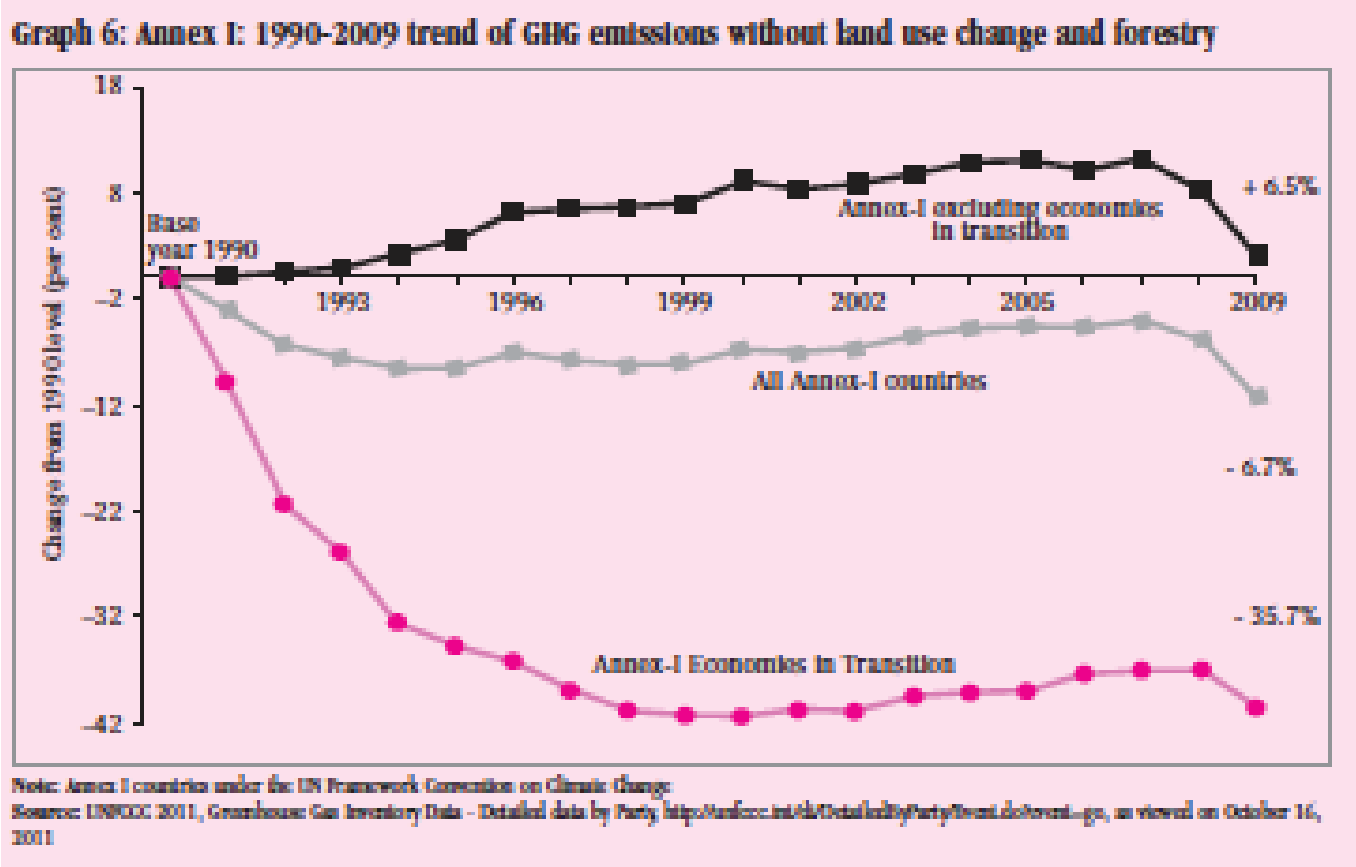


How much offset these CERs can provide?

- Kyoto parties (Annex 1 excluding the US) have to reduce their emissions by 4.2% below 1990 levels during 2008-2012 – from 12.57 to 12.06 Gt CO_2e
- This means an annual reduction of 0.52 Gt or total reduction of 2.59 Gt over 2008-2012.
- 744 million CERs issued so far is sufficient to offset 29% of the reduction target of the Kyoto Parties.
- 2 billion CERs expected from registered projects by 2012 will offset 77% of the reduction target
- **With 'hot air' and CDM, many developed countries meet Kyoto targets without reducing any emissions domestically**

Little action in developed countries

- Hot air could be between 7-12 Gt by 2012, which can be sold to other Kyoto parties



- EiT met targets with hot air; others didn't buy

Why additionality is important, but also problematic?

- A non-additional CDM project is a BAU project – would have happened anyway. Therefore, giving carbon credit to such projects does not represent real emission reduction.
- Now, a developed country will buy non-additional CER to meet its emission reduction target. This would allow it to increase its domestic emissions and offset it with non-additional CER.
- This in totality increases global emissions, instead of reducing.

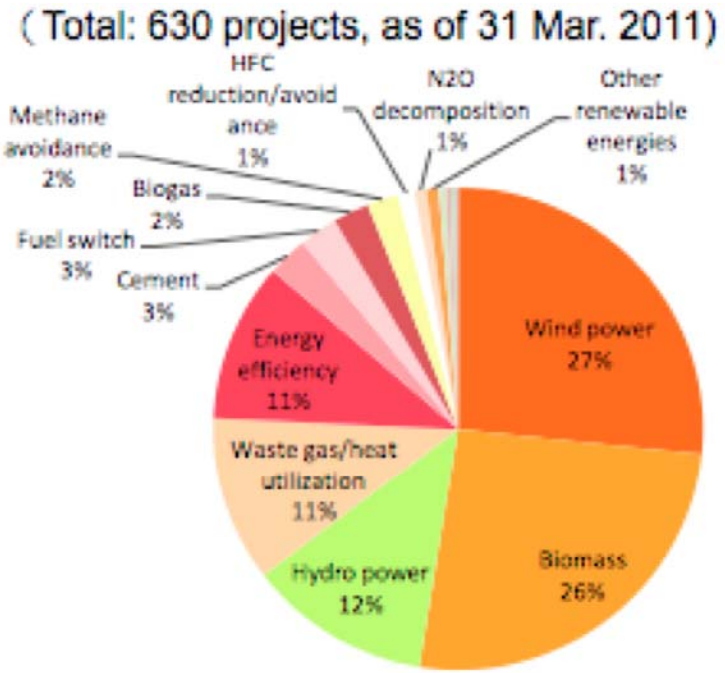
Why additionality is important, but also problematic?

- Estimated that more than 50% of registered projects are non-additional.
- This would be equivalent to 1 billion CERs till 2012
- This is about 40% of the annual emission reduction target of Kyoto Parties excluding the US.
- So the developed world will emit a billion tonne CO_2e extra, companies in developing world would earn few billion, but on the carbon balance sheet it would be shown as reduction.

Non-additional projects?

- **Rejected projects: 39 (21% of all rejected projects)**
- **Because financially not additional**

Wind	Hydro	Biomass based energy generation	Waste heat recovery based generation	Energy efficiency	Coal Super-critical power plant
8	5	15	8	2	1



Wind project?

- In 2006, two wind power projects (65.2 MW) of Bajaj Auto in Maharashtra was rejected by the CDM board because of financial non-additionality
- The PDD said that the project is unviable without CDM money, but its 2002 Annual report it said "The project is extremely beneficial on a standalone basis and has a payback period of three years with an internal rate of return (IRR) in excess of 28%."
- PriceWaterhouseCoopers, the PDD consultant, publicly stated that all wind projects in Maharashtra had similar characteristics and CDM consultants will, in the future, advise their clients to avoid a paper trail regarding the attractiveness of their projects.

Wind project?

- Wind project in India attractive not because of CDM but because of the tax incentives and preferential tariff.
- Most will have more than 16% IRR and therefore financially viable.
- Financial data cooked-up to show they are financially unviable without CDM – “Project proponent make two financial sheet – one for the banks other for the CDM board”.
- They became non-additional because GOI gave subsidy; they would have been additional without subsidy.
- So, wind sector is a case where instead of the developed countries paying for transition, India itself is paying. **That is the problem of additionality**

Why additionality is important, but also problematic?

- It is problematic because:
  - If government has law to mandate lower emissions or give public subsidy, then project will not qualify for CDM. **Perverse incentives to governments not to do anything.**
  - **Data cooking and corruption**
- **So coal based super critical thermal power plants will qualify as additional but solar power plants under National Solar Mission would not.**

Designing a new market mechanism

- Incentive for transition and not cheap carbon credits - CDM only for high-end transformational projects (gold list)
- CDM to support government policies and not give perverse incentives for government to do nothing
- Developed countries to meet only certain percentage of targets from CDM (< 25%)
- Remove conflict of interests during project development, verification & certification of CERs – consultants to be paid from national CDM board corpus – money to be raised by taxing CERs