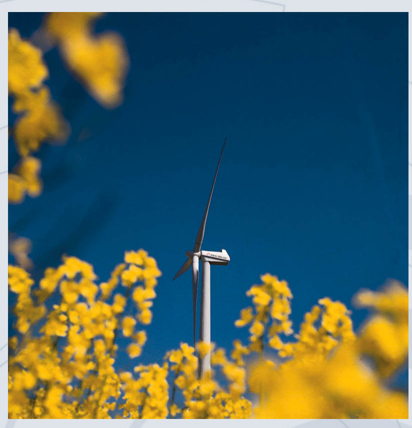
Carbon credits

An additional revenue stream: Status and Prospects

Carbon credits

- **Carbon credits are reduction in emission of GHGs caused by a project**
- **1 tCO_2 is the equivalent of 1 carbon credit (CERs)**
- **The six identified GHGs are:**
  - ***Carbon dioxide***
  - ***Methane***
  - ***Nitrous oxide***
  - ***Perfluorocarbons***
  - ***Hydrofluorocarbons***
  - ***Sulphur hexafluoride***



CDM and India

- 200 projects registered (as on 1st June'06)
- 59 Indian projects have been registered
- Projects have accumulated 90,00,000 CERs so far
- Projects based on renewable energy large in number
- CERs have been issued to around 10 Indian projects
- Strong support from the MoEF
- Lack of credibility of Indian projects in the international market – prices offered are lower

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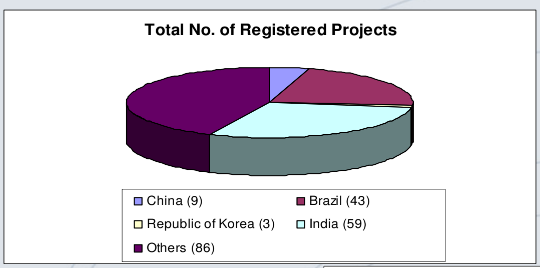
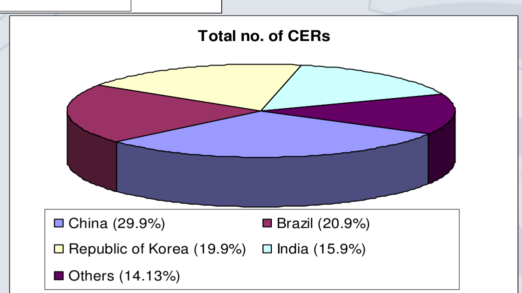
India vs. The Others





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EUAs and CERs

- **Difference between the EU-ETS and CDM**
  - Commodity : EUAs Vs CERs
  - Trading : European nations Vs Annex I & Non-Annex I nations
  - Delivery risk : Low in EU-ETS & High in CDM
- **Buyers, brokers and traders**
  - Buyers are generally governments of various Annex I countries
  - Various brokers in the market
  - Online Exchange
- **The ERPA**
  - International Emission Trading Association – Sample ERPA
  - Minimum amount of CERs
  - Failure to transfer / deliver minimum amount
- **Falling prices**
  - The allowance prices had reached around Euro 30
  - Slipped to 50% and even lower

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Investors' Perception

- **Tremendous potential in the sector**
- **CDM definitely a bonus over and above business as usual- foreign exchange**
- **UK and US trading permits for domestic industries- CDM is India's equivalent**
- **CDM benefits can cover O&M cost on a machine to machine basis**
- **Promotes green image of investors**

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Some concerns…

- Concern over sharing of CER income with State Utility
- Low confidence about success of CDM projects especially wind projects
- Concern over generation variability
- Buyer contracts' tenure
- Ambiguity about fees charged by UNFCCC
- As the carbon market matures and transactions actually occur, there will be greater confidence amongst all stakeholders

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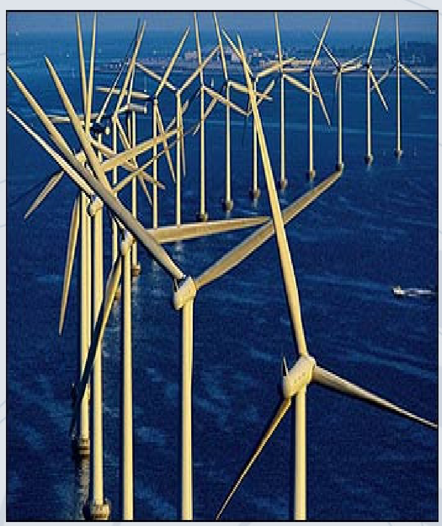
Post Kyoto?

- The first commitment period of Kyoto Protocol expires on 2012
- Possibility of "emission-cap" on India for the next phase of the protocol
- Number of regional, national and interest-specific efforts likely to emerge to achieve the common objective
- Similar markets already exist for the SO_x in the United States



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Thank you

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