Impact of CDM: Key Research Findings and Options for the Future

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CDM Policy Dialogue Side Event
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Impact of CDM: Key Research Findings

- CDM has saved Annex I a minimum of **$3.6 billion** in compliance costs for 2008-2012
- Majority of studies agree that CDM has likely had a positive impact on sustainable development in host countries…but no real certainty without **monitoring**
- A significant, but minority, share of projects also involved technology transfer
- More than $215 billion in investment in CDM projects, almost all of which is **domestic** investment

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Impact of CDM: Key Research Findings (2)

- Assessment of net GHG impact of CDM depends mainly on view of power sector additionality, but positive and negative impacts are possible and significant
- Difficult to judge additionality for large scale power, which are also largest share of clean energy investment in CDM
- Cleaner fossil fuel projects also have imported fuel and long term technology lock in challenges
- Very limited impact on energy efficiency and access to modern energy services until recently
- Many smaller countries have no CDM projects, because regional distribution is driven by national GHG emissions and suppressed demand not fully recognised

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Additionality concerns focus on large power/energy supply

Project type	Share of CERs to date	Share of projected CERs, 2013-2020 from projects in the CDM pipeline	Significant additionality concern?
Industrial gases	**66%**	**20%**	
HFC-23	44%	1%	
N_2O – Adipic acid	18%	4%	
N_2O – Nitric acid	4%	3%	
Other	0%	1%	
Methane recovery	**5%**	**12%**	
Landfill gas	3%	4%	
Coal mine/bed	1%	5%	
Manure/wastewater	1%	2%	
Other	<1%	1%	
Power supply: renewable	**17%**	**53%**	
Hydro	9%	26%	●
Wind	7%	25%	●
Other renewable energies	<1%	2%	
Power supply: other	**10%**	**15%**	
Iron and steel waste gas	4%	3%	●
Fuel switch (natural gas)	3%	6%	●
Biomass	2%	4%	●
Higher efficiency fossil (coal)	0%	2%	●
Supply-side efficiency (other)	0%	1%	
Other	0%	<1%	
Other	**3%**	**4%**	

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Views on additionality drive net mitigation estimates

		Pessimistic	Optimistic
Industrial gases			
HFC reduction/avoidance	Non-additional CERs	91	-
	Over/undercrediting	-	(382)
	Subtotal	91	(382)
N_2O decomposition	Non-additional CERs	46	-
	Over/undercrediting	61	(18)
	Subtotal	107	(18)
Methane recovery	Non-additional CERs	291	0
	Over/undercrediting	-	(40)
	Subtotal	291	(40)
Renewable energy			
Hydropower	Non-additional CERs	1,313	-
	Over/undercrediting	-	(1,382)
	Subtotal	1,313	(1,382)
Wind power	Non-additional CERs	1,271	-
	Over/undercrediting	-	(1,016)
	Subtotal	1,271	(1,016)
Other power supply	Non-additional CERs	558	-
	Over/undercrediting	1	(526)
	Subtotal	559	(526)
Renewable energy	Non-additional CERs	3,571	-
	Over/undercrediting	62	(3,365)
	Total	**3,633**	**(3,232)**
	Total forecast CERs (IGES, 2012b)	5,885	5,885
	'Actual' abatement/CERs	**0.38**	**1.57**

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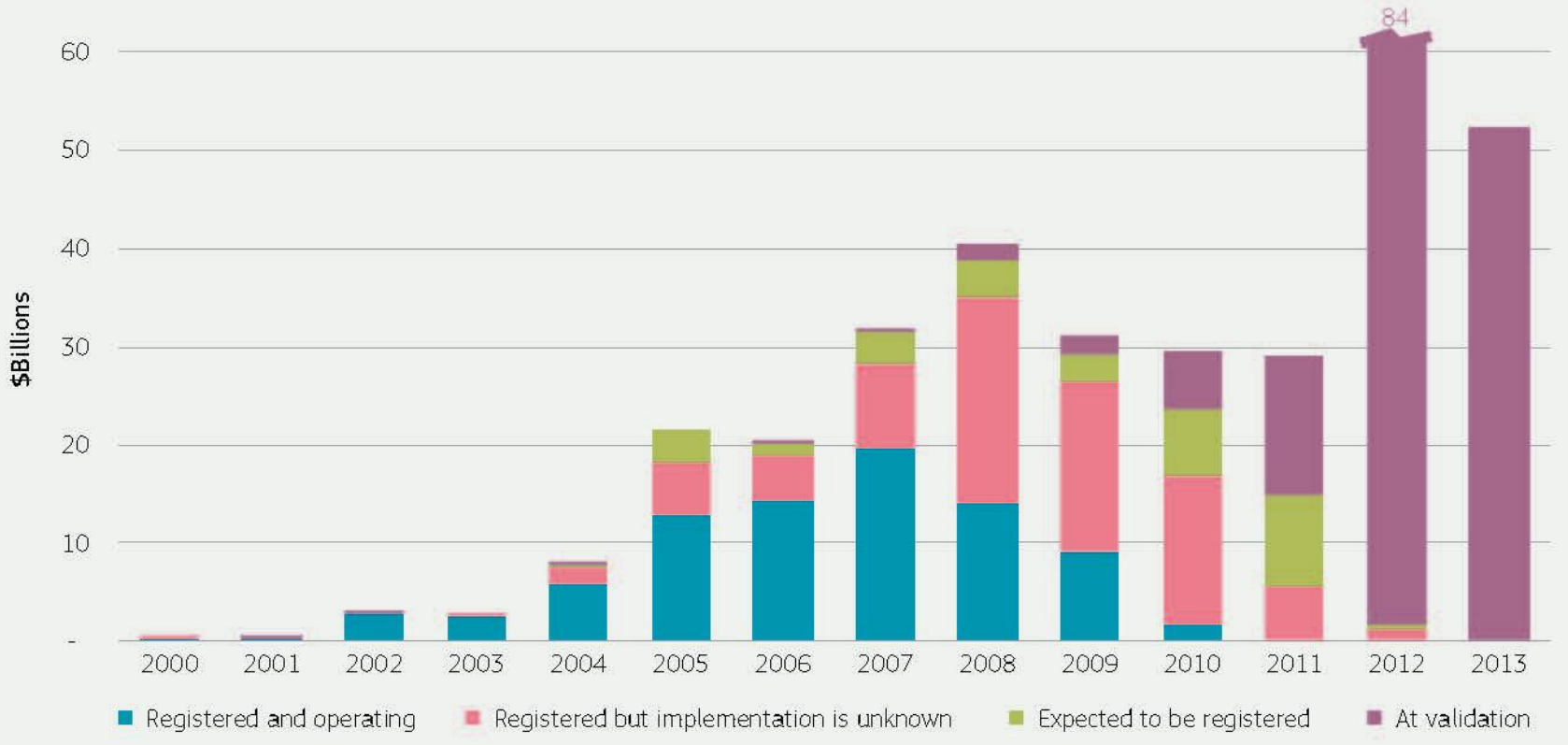
Investment continues to climb



Source: Authors' calculations based on the reported or estimated capital investment for 4,832 registered or soon-to-be registered projects and 4,472 projects at validation as of June 2012.

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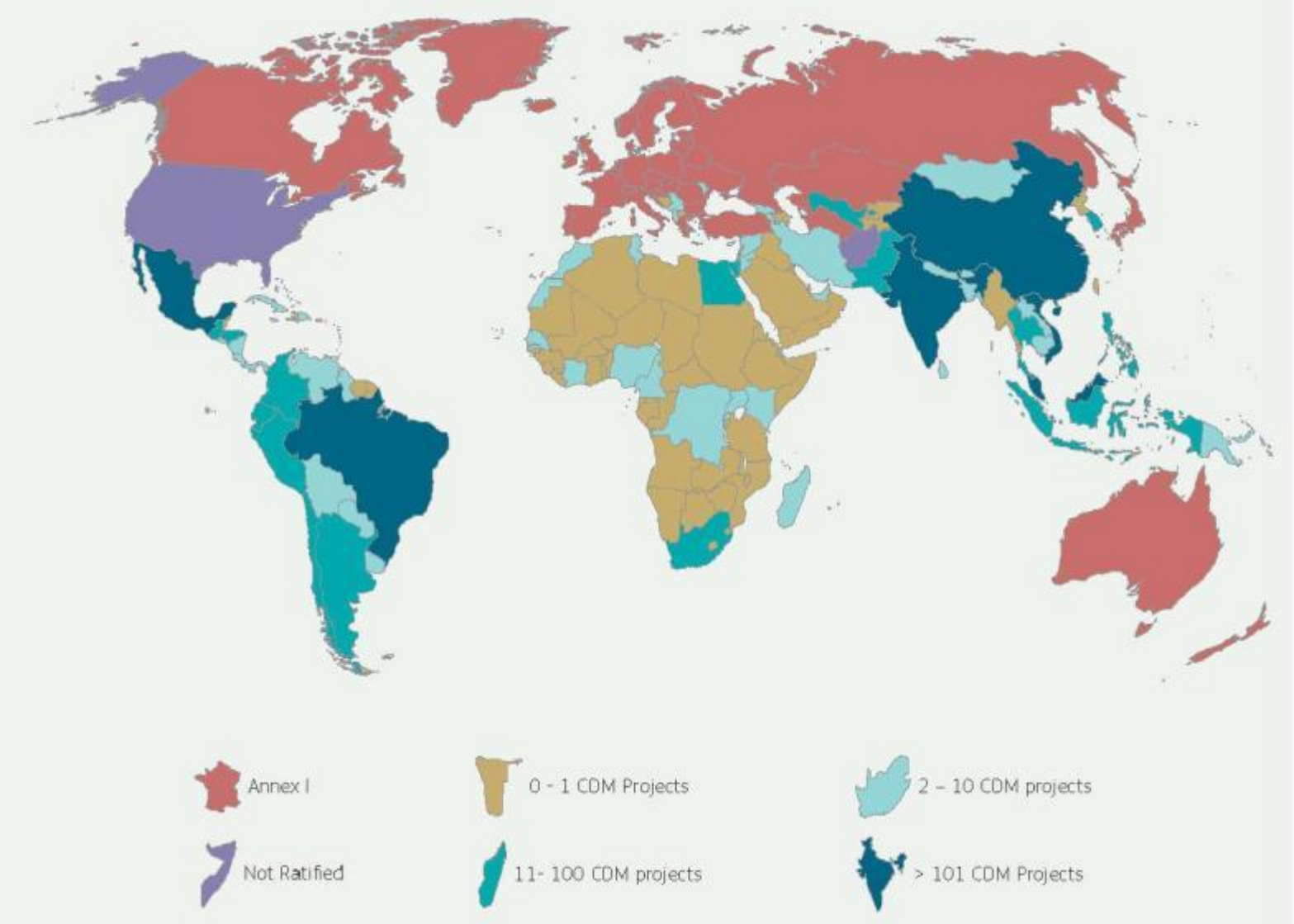
CDM still not reaching Africa…



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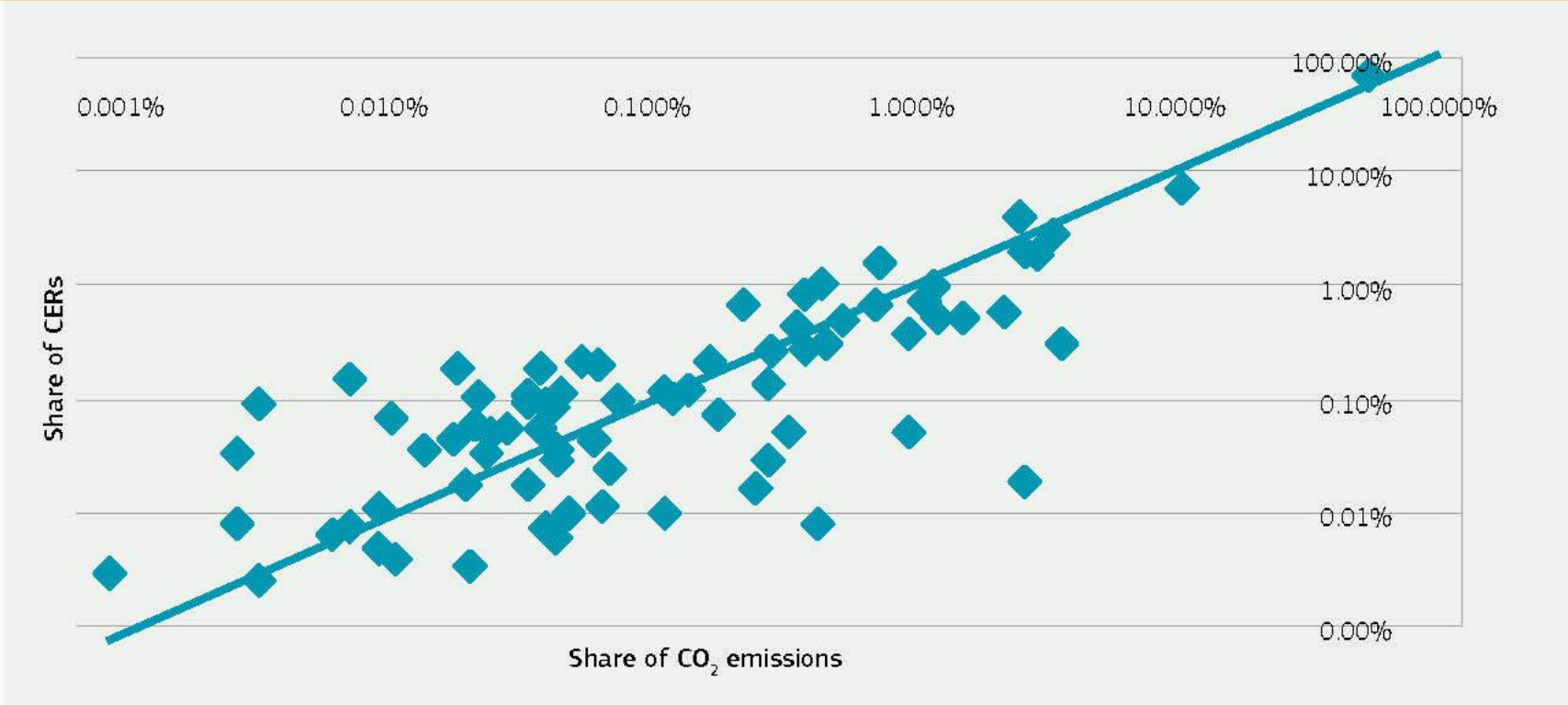
…because CERs follow abatement opportunities

Share of CERs vs Share of Non-Annex I CO_2 emissions



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Options for enhancing the impact of the CDM

- Sustainable development (SD)
  - Providing “menu” of SD indicators
  - Monitoring SD benefits
    - Voluntary vs mandatory
    - Initial vs ongoing
    - Declaration vs verified results
  - Improved safeguards against negative impacts
  - Consequences for lack of performance
  - Preferences for project type, scale or geography
  - Capacity building for DNAs
  - Enhanced stakeholder consultation and appeals process

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Options for enhancing the impact of the CDM (2)

- Regional Distribution
  - Capacity building for local financial sector
  - Include Africa in “LDC track”
  - Focused DNA support
  - Grants and/or loans for transaction costs
  - Standardisation of baselines and other parameters
  - Standardisation of procedures
- Net emissions impact
  - Discounting
  - Shorter crediting periods
  - Negative lists

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Options for enhancing the impact of the CDM (2)

- Large scale power additionality issues (wind, hydro, gas, coal)
  - Incremental improvement in guidance
  - Alternative additionality approaches (e.g. benchmarks)
  - Moving to alternative instruments
  - Restriction of eligibility by project type, scale or geography
  - Negative lists