Science Centre
North Rhine-Westphalia
Institute of Work
and Technology

Institute for Culture
Studies

Wuppertal Institute for
Climate, Environment and
Energy

Can Sectoral Approaches to the CDM Promote Renewable Energy Technologies?

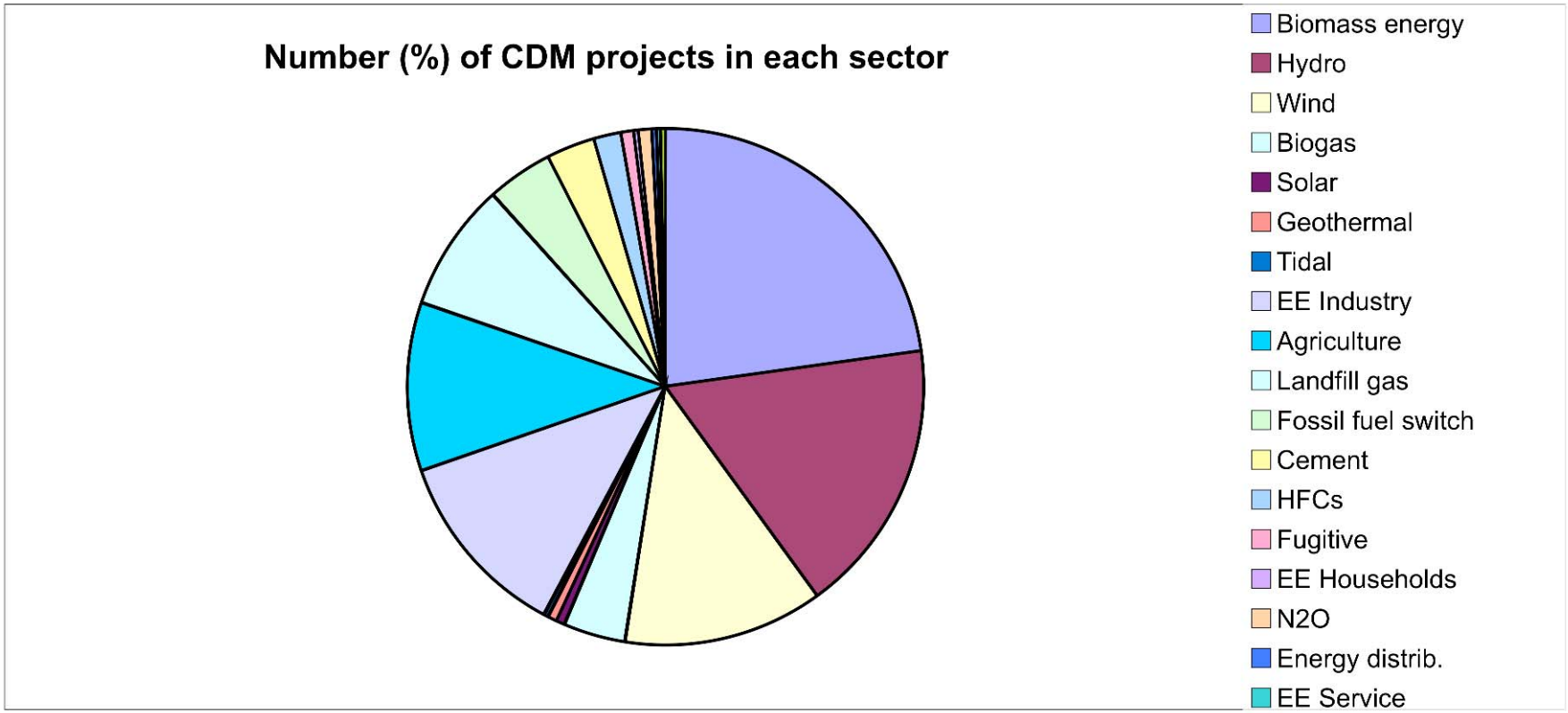
SB 24 Side Event

22 May 2006

The Wuppertal Institute

- The WI explores and develops models, strategies and instruments to support a sustainable development at local, national and international levels.
- 4 Research groups: Future Energy and Mobility Structures; Energy, Transport and Climate Policy; Material Flow and Resource Management; Sustainable Production and Consumption
- President: Prof. Dr. Peter Hennicke
- **Established** 1991, conducted by Prof. Dr. Ernst Ulrich von Weizsäcker
- **Legal form:** Ltd., Non-Profit-Organisation
- **Ownership:** State of North Rhine-Westphalia
- **Staff:** more than 150 members from all disciplines
- **Projects:** 80 - 100 projects per year (UN, EU, Governments, Private Sector, NGOs)

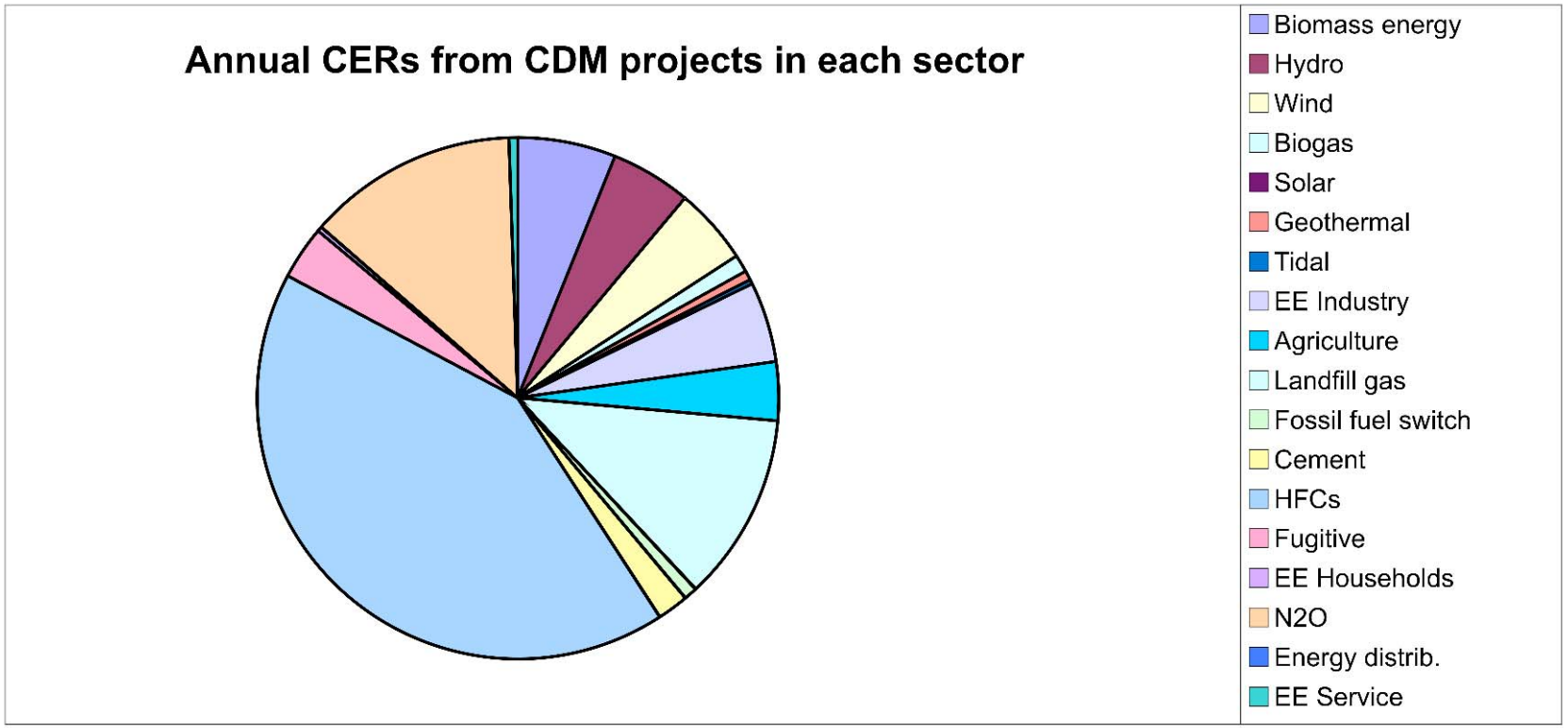
Projects in Global CDM Pipeline Sorted by Sector



Total: 744 projects, of which 428 renewables (58%)

Source: Joergen Fenhann: CDM Pipeline Overview (updated 3 May 2006) (www.cd4cdm.org)

Annual CERs in Global CDM Pipeline by Sector



Total: Almost one billion CERs by 2012, more than annual emissions of Spain and UK combined, of which 185 million (19%) from renewables

Source: Joergen Fenhann: CDM Pipeline Overview (updated 3 May 2006) (www.cd4cdm.org)

CDM Pipeline Observations

- Huge number of RET projects but generating only relatively few CERs
- Local SD impact of projects does not depend on number of CERs, but evidently RETs don‘t get as much out of CDM as other project types
- Non-Annex I emissions mainly energy-related or LULUCF

=> CDM so far little impact on key sectors for climate problem

Barriers to CDM RET implementation

- CDM rewards only emission reductions, not other SD benefits

- RET projects often small-scale, dispersed activities (eg solar water heaters)

=> Increased transaction costs, few CERs

- Usually only CO2 reduced

=> Few CERs

- Low CER price

=> CER revenues often have little impact on profitability of RET projects

- High CDM specific transaction costs
- Most of these are up-front, CER revenues only ex-post

=> CDM exacerbates RET investment cost problem

- Buyers‘ primary consideration is large CER volumes at low price

Sectoral Approaches

- Term „Sectoral CDM“ introduced in 2002 by Samaniego/Figueres, but defined differently by different people:

- Policy-based, government-driven
- Bundling of projects
- Programmatic project activities
- Sectoral crediting

Issues to be resolved

- MOP1 decided that policies and standards are out, bundles and programmes are in
- But so far no definitions, no guidance by EB
- Where is the dividing line? What if a „programme of activities“ implements a policy?
- Distribution of costs and benefits
- Project boundaries
- Baseline-Setting
- Additionality
- Crediting period
- Double Counting

Potential Impact of Sectoral Approaches

- Sectoral approaches can
  - Aggregate dispersed activities
  - Contribute to sector-wide transformations
  - Lower specific transaction costs

- Sectoral approaches cannot
  - Address problem that RETs typically reduce only CO2
  - Raise CER prices
  - Reduce up-front costs
  - Make buyers pay bonus for SD

- Sectoral Approaches might
  - Swamp the market with CERs, thus ruining the price
  - Exacerbate current geographical imbalance due to need for data and capacity in host countries

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Thank you for your attention!

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CDM Pipeline

Type	CDM					
	number		CERs/yr (000)		Accumul. 2012 CERs (000)	
Biomass energy	170	23%	8543	6%	65831	7%
Hydro	127	17%	7440	5%	51493	5%
EE Industry	90	12%	7061	5%	54893	6%
Wind	93	13%	6686	5%	49311	5%
Agriculture	78	10%	5141	4%	36931	4%
Landfill gas	60	8%	16521	12%	115993	12%
Fossil fuel switch	31	4%	1439	1%	12469	1%
Biogas	28	4%	1411	1%	11426	1%
Cement	22	3%	2631	2%	23788	2%
HFCs	13	2%	59609	42%	392567	40%
Fugitive	5	1%	5030	4%	34386	4%
Solar	5	1%	56	0%	358	0%
Geothermal	4	1%	817	1%	5294	1%
EE Households	3	0%	42	0%	253	0%
N2O	5	1%	18716	13%	115032	12%
Energy distrib.	2	0%	209	0%	1509	0%
EE Service	2	0%	600	0%	4666	0%
Coal bed/mine methane	2	0%	15	0%	94	0%
Tidal	1	0%	315	0%	1104	0%
Transport	1	0%	7	0%	59	0%
Afforestation & Reforestation	2	0%	72	0%	619	0%
Total	744	100%	142362	100%	978076	100%
HFC & N2O reduction	18	2%	78325	55%	507599	52%
CH4 reduction & Cement & Coal mine/bed	167	22%	29338	21%	211192	22%
Renewables	428	58%	25268	18%	184817	19%
Energy efficiency	98	13%	7919	6%	61380	6%
Fuel switch	31	4%	1439	1%	12469	1%
Afforestation & Reforestation	2	0%	72	0%	619	0%

Source: Joergen Fenhann: CDM Pipeline Overview (updated 3 May 2006) (www.cd4cdm.org)