

# Analysing the status quo of CDM projects

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- » CDM portfolio analysis
- » Aug 2013 – Oct 2015
- » Institutions: NewClimate Institute, Ecofys, TÜV SÜD
- » Publications:
  - » *Status Report* released in May 2015
  - » *3 Focus Studies* in preparation

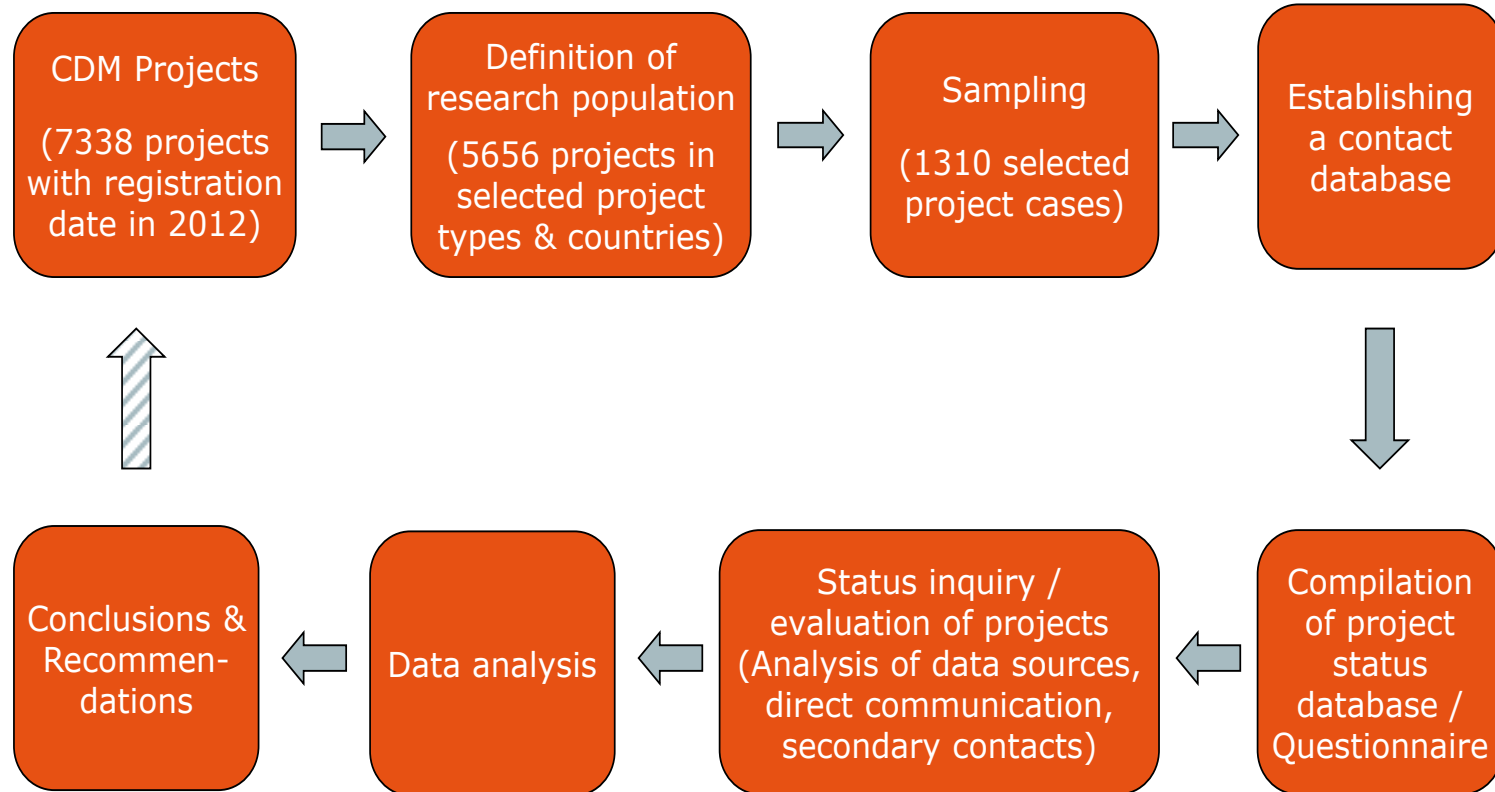


Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety



- » Registered CDM projects face substantial challenges due to record low CER prices
  - » Implemented projects may no longer be able to cover their operational costs and/or transaction costs
  - » Projects might not be implemented, shut down or modified for continuation outside the CDM
- » Solid up-to-date information required to design tailored approaches for efficient and effective support
- » Empirical analysis of the situation of CDM project activities on different levels: globally, project types and host countries
- » Creation of a database with great value for tailor-made recommendations and support

# Approach



- » Stratified sampling for a selection of 22 host countries and 26 project (sub-)types

- » Evaluation period: March – October 2014
- » >30 questions related to project status, CER marketing, barriers, costs, and support
- » Overall response rate 82% (1075/1310)
- » 50% of responses provided detailed information
- » Project team covered 8 nationalities
- » Questionnaires in English, Spanish, Chinese and Portuguese
- » Substantial effort in project-by-project approach
- » Substantial data beyond the survey collected (e.g. >50 interviews)

# Responses

	Projects in sample	Information received
Brazil	113	65 %
Chile	59	100 %
China	274	74 %
Colombia	31	100 %
India	244	85 %
Indonesia	78	76 %
Israel	25	92 %
Malaysia	76	89 %
Mexico	80	89 %
Peru	31	94 %
S. Africa	50	84 %
S. Korea	52	44 %
Thailand	64	81 %
Vietnam	57	100 %
C. America <sup>1</sup>	47	100 %
SS Africa <sup>2</sup>	29	100 %

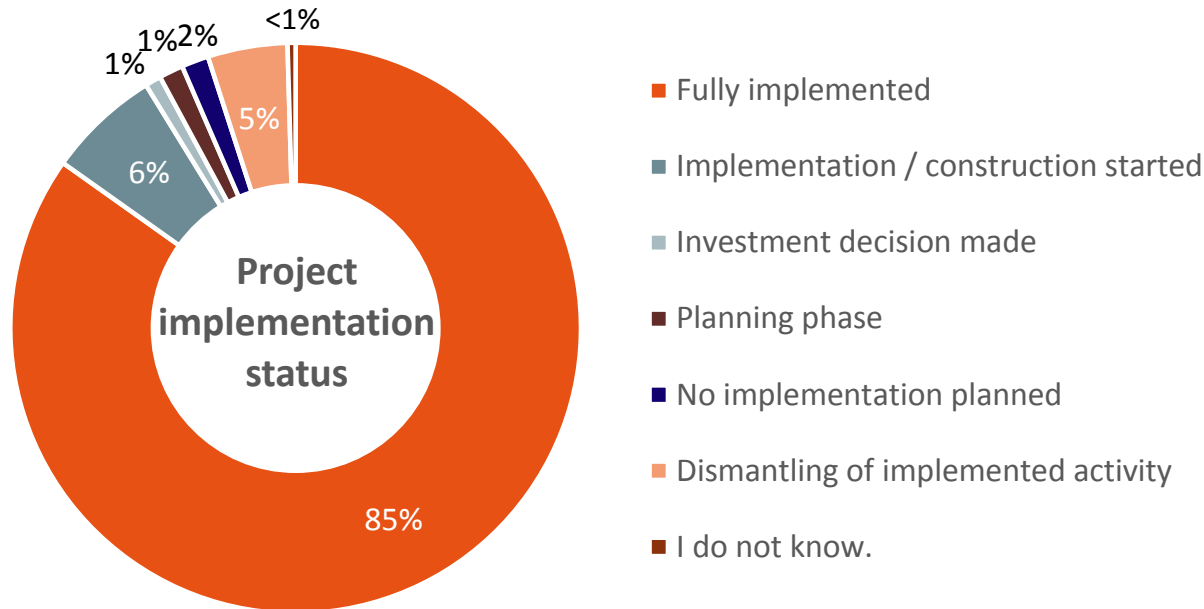
Per project types			
Agric. / Forest Residue	84 %	Hydro 2<20MW	88 %
Bagasse power	81 %	Landfill gas flaring	83 %
Palm oil waste	82 %	Landfill gas power	88 %
Clinker replacement	53 %	Methane Flaring	73 %
CMM	78 %	Methane power	86 %
Household Stoves	96 %	Composting	83 %
Household Lighting	76 %	Domestic manure	100 %
EE Industry	73 %	Adipic acid	100 %
Coke oven gas / Iron Steel heat	86 %	Nitric acid	79 %
Cement heat	77 %	HFC23	67 %
Oil to NG fuel switch	67 %	Solar PV	73 %
New NG plant	88 %	Solar water heating	86 %
Micro Hydro	83 %	Wind	83 %

<sup>1</sup> includes: Guatemala, Costa Rica, Honduras, Panama

<sup>2</sup> includes: Kenya, Rwanda, Senegal, Uganda

Marked in Red = PMR Implementing Country Participants

# Projects implemented



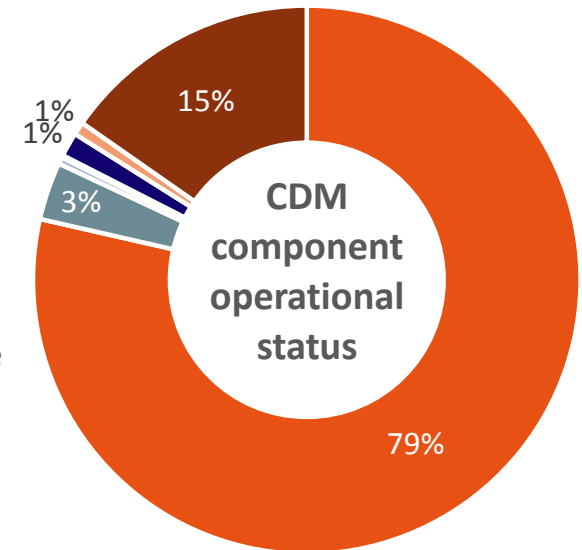
What is the technical implementation status of the CDM GHG mitigation activity?

- » Up to 85% of registered CDM projects with registration date in or before 2012 have full technical implementation
- » Excl. China and India just up to 68% of projects are fully implemented

# Projects operational

What is the operational status of the CDM component of the GHG mitigation activity?

- In regular operation
- Regular operation temporarily stopped
- Regular operation permanently stopped
- Regular operation not started, no GHG mitigation
- No CDM-conformant operation, alternative GHG mitigation equipment operating
- I do not know



- » Up to 79% of registered CDM projects are in regular operation
- » Excl. China and India just up to 53% of projects are operational
- » The rate of operational projects globally could decline by 5% within the next 12 months



# Variations are significant

- » **Asian countries forecast a decline** in operational projects over the next 12 months, whilst other regions forecast an increase
- » **Low regular operation in Sub-Saharan Africa** group (36%), whilst the Central America group reports 69%
- » **High operational status** demonstrated for EE own generation (93%), FF switch (81%) and RE generation projects (wind 92%, hydro 81% and solar 80%)
- » **Low operational status** especially for LFG (54%), other methane avoidance activities (48%), EE households (58%) and N2O (49%)
- » LFG and methane avoidance projects report a **high dismantling rate** in 12 months, with 14% and 19% of projects

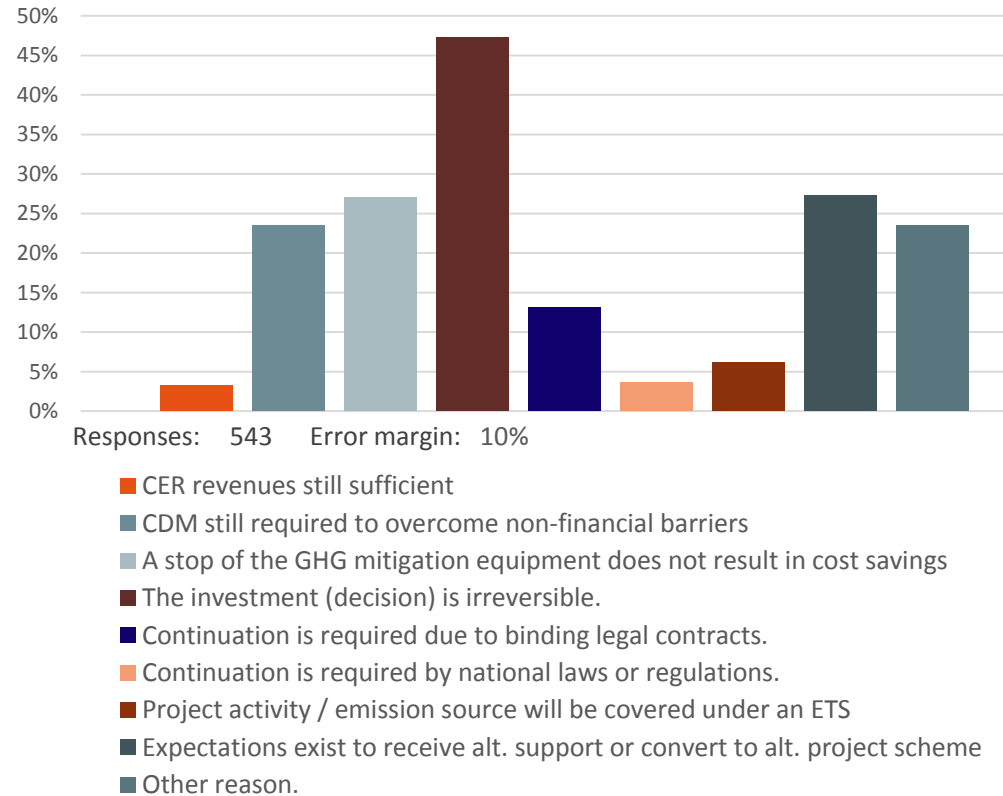
# Operational projects in 2014

Share per county	
China	89%
India	81%
Vietnam	73%
South Korea	73%
Thailand	71%
Central America	69%
Malaysia	58%
Indonesia	58%
Chile	55%
Peru	53%
Israel	53%
Colombia	45%
Brazil	39%
Sub-Saharan Africa	36%
South Africa	35%
Mexico	26%

Share per project type	
EE own generation	93%
Wind	92%
Fossil fuel switch	81%
Hydro	81%
Solar	80%
Cement	74%
EE industry	72%
CMM	71%
HFCs	69%
Biomass energy	63%
EE households	58%
Landfill gas	54%
N2O	49%
Methane avoidance	48%

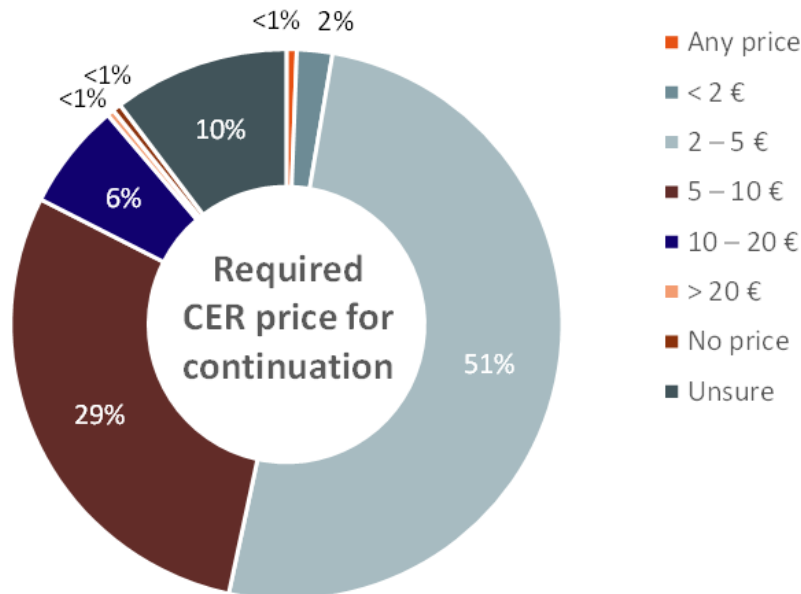
# Project continuation

Despite the recent drop in CER prices, what are the reasons to continue with the CDM GHG mitigation activity?



- » CER revenues are sufficient for fewer than 3% of implemented projects
- » High rate of irreversible investments (N2O lowest)
- » Expectations for altern. support
- » 63% of N2O discontinue before the end of the CP, 10% continue outside the CDM

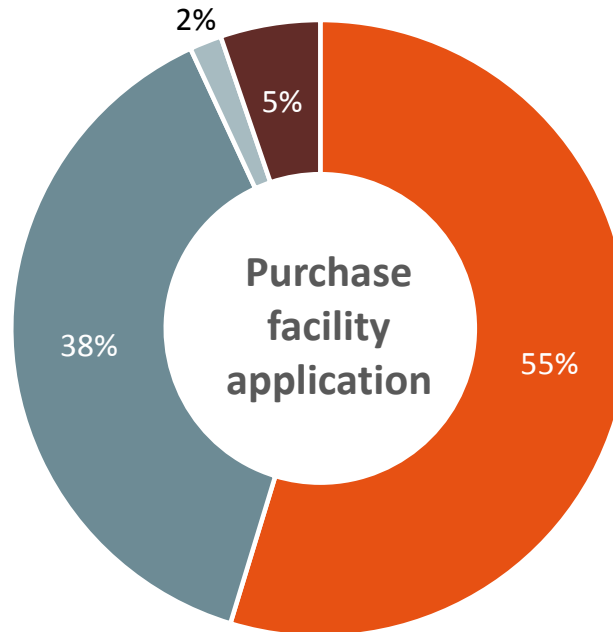
# Price requirements



What CER price level is required by the project to continue verification & issuance activities?

- » For 53% CER prices below €5 are sufficient to continue VI activities
- » Low price requirements might include acceptance of sunk costs
- » Asian countries show trend for being able to continue with lower prices
- » N<sub>2</sub>O, HFC and wind with lowest price requirements

Does the project take into consideration to marketing CERs to a CER purchase facility or governmental fund that purchases credits above market prices?

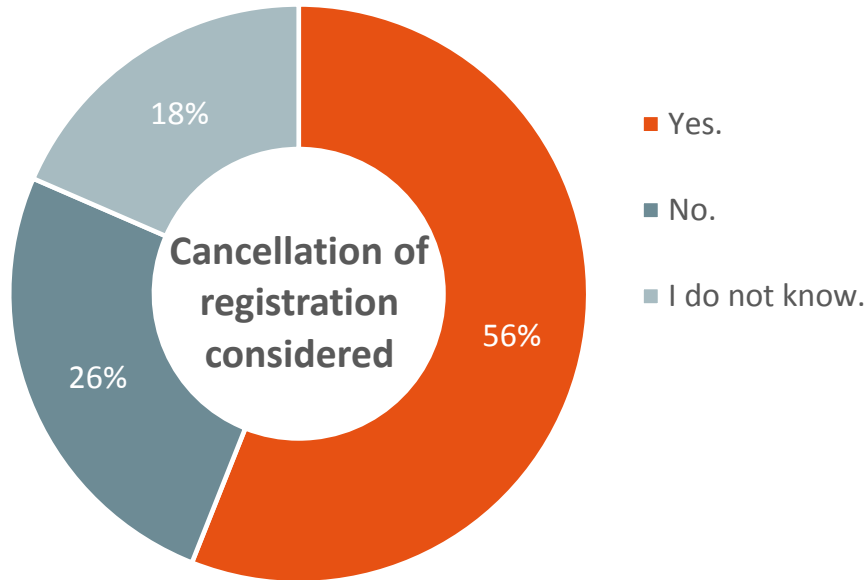


- Such possibilities are unknown.
- Such possibilities are known but an application was not considered.
- An application is being considered or is in preparation.
- An application was submitted.

Responses: 535  
Error margin: 11%

- » 55% report CER purchase facilities are unknown, only 7% in SSA group
- » Most commonly reported immediate support required are support for direct marketing of CERs and for identifying international support
- » Low CER prices and high costs of CDM procedures are the major barriers

# Registration cancellation



Would you consider a cancellation of the CDM registration in case feasible and a precondition to receive support or participate in alternative project schemes?

- » Significant regional variation to consider cancellation of CDM registration (81%-24%)
- » China 67%; India 39%, Brazil 38%

- » Substantial risk that loss in capacity, institutions and investor confidence becomes irreversible
- » Complexities and costs of CDM still need to be tackled and along with restoration of demand
- » Short-term demand and long-term ambition equally important to build a perspective for the CDM
- » CDM's positive impact for the climate still continues but significant risk of reduction in mitigation activity
- » Some low “hanging fruits” are at high risk to emit again
  - » Mitigation potential used for countries INDC's as of 2020?
  - » Nitric acid emissions could reach 200-300 MtCo<sub>2</sub>e (2016-2020)

## Thank you for your attention!

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### Sources:

Warnecke, C., Day, T. & Klein, N., 2015. Analysing the status quo of CDM projects: Status and prospects.

<http://newclimate.org/2015/05/16/analysing-the-status-quo-of-cdm-projects>