



## CDM and future carbon markets

Fenhann, Jørgen Villy

*Publication date:*  
2013

[Link back to DTU Orbit](#)

*Citation (APA):*  
Fenhann, J. V. (Author). (2013). CDM and future carbon markets. Sound/Visual production (digital)

---

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# **CDM and future carbon markets**

4th National Workshop for CDM and Multilateral  
Environmental Agreements

27 November 2013

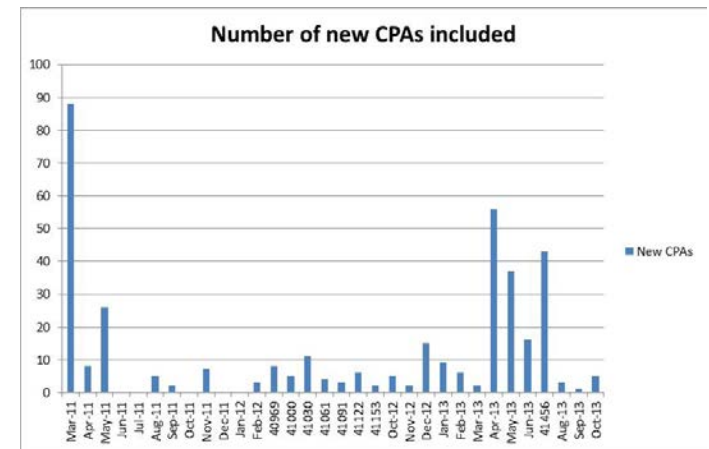
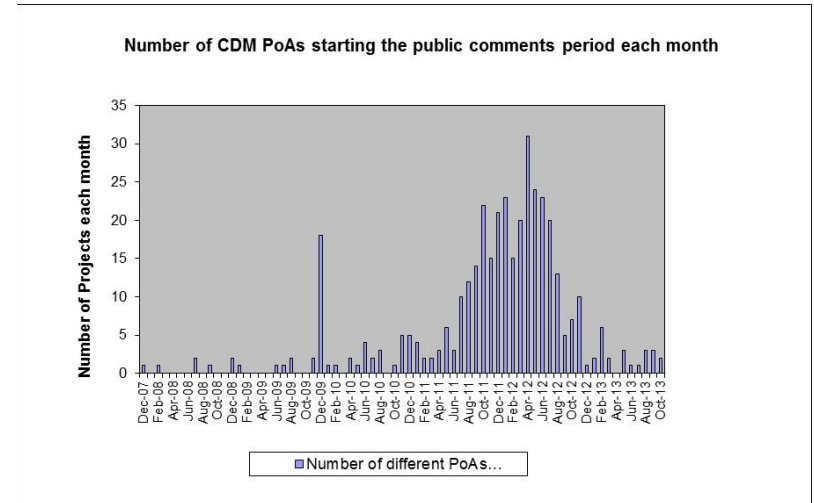
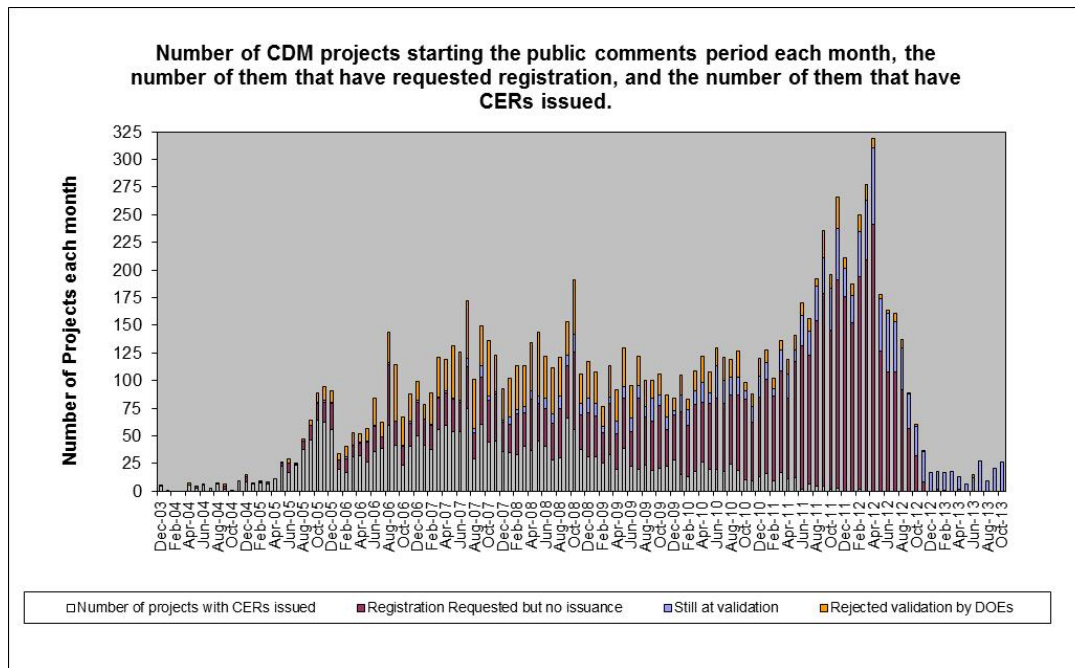
Cara Suites Hotel

Trinidad and Tobago

Joergen Fenhann, UNEP Risoe Centre

It takes about 3-4 years from a Mechanism is approved until it is mature.

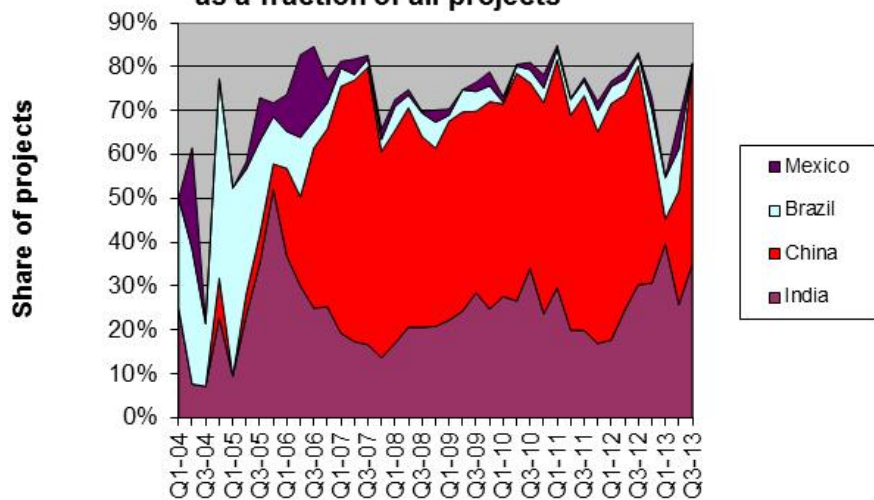
The market follows the regulation closely.



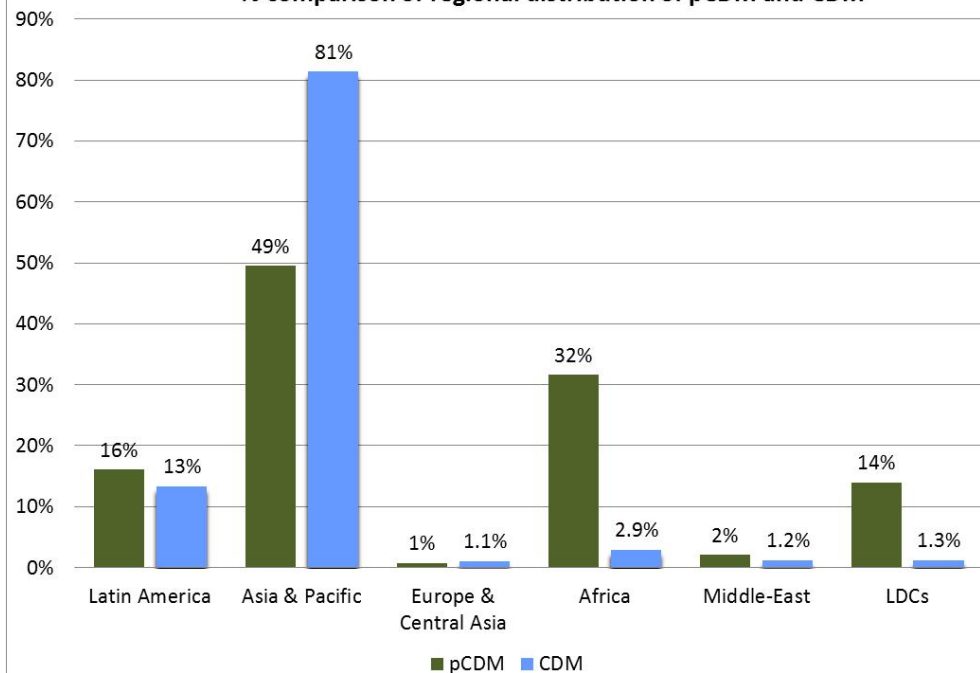
29 of 386 PoAs have include 1339 more CPAs:

Some regions were left behind in CDM, but PoAs work better.

**All CDM Projects in the Pipeline in Brazil + Mexico + India + China as a fraction of all projects**

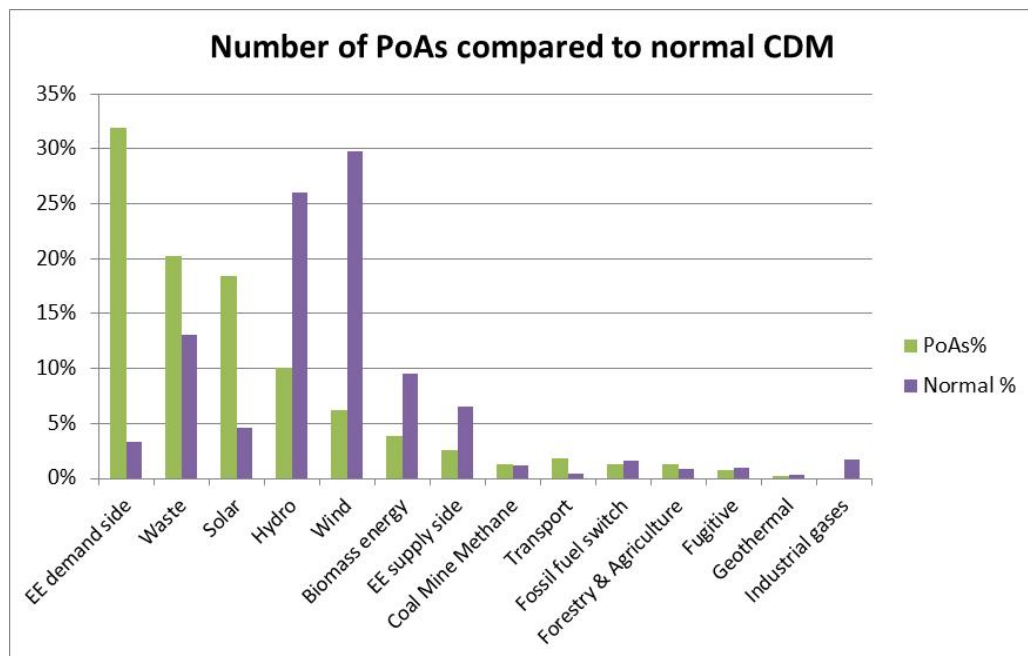


**% comparison of regional distribution of pCDM and CDM**



Some CDM types (like transport and forest) did not move:

But some types worked better for PoAs:



CDM has started to be sectoral.

Type	number		CERs/yr (000)	
Wind	2607	29%	237898	19%
Hydro	2285	26%	326092	26%
Biomass energy	850	10%	56721	5%
Methane avoidance	736	8%	31327	3%
EE own generation	437	5%	57485	5%
Landfill gas	423	5%	61892	5%
Solar	403	4.6%	13295	1.1%
EE Industry	150	1.7%	5853	0%
Fossil fuel switch	144	1.6%	74278	6%
EE Supply side (power plants)	124	1.4%	62046	5%
EE Households	104	1.2%	3896	0.3%
Coal bed/mine methane	109	1.2%	69214	6%
N2O	108	1.2%	57634	5%
Afforestation & Reforestation	71	0.8%	5135	0.4%
Fugitive	59	0.7%	47143	4%
EE Service	41	0.5%	1951	0.16%
Cement	38	0.4%	6118	0%
Transport	37	0.4%	5060	0.4%
Geothermal	35	0.4%	12401	1.0%
Energy distrib.	28	0.3%	10267	1%
HFCs	23	0.3%	81334	7%
PFCs and SF6	18	0.2%	5540	0%
Mixed renewables	10	0.11%	553	0.0%
CO2 usage	3	0.0%	80	0.0%
Tidal	1	0.01%	315	0.0%
Agriculture	2	0.02%	58	0.0%
<b>Total</b>	<b>8846</b>	<b>100%</b>	<b>1233587</b>	<b>100%</b>
HFCs, PFCs, SF6 & N2O reduction	149	1.7%	144508	12%
Renewables	6191	70%	647277	52%
CH4 reduction & Cement & Coal mine/bed	1370	15%	215831	17%
Supply-side EE	589	7%	129798	11%
Fuel switch	144	1.6%	74278	6.0%
Demand-side EE	295	3.3%	11700	0.9%
Afforestation & Reforestation	71	0.8%	5135	0.4%
Transport	37	0.4%	5060	0.4%

# The CDM has created a lot of knowledge

- The Pipeline shows that 2000 PDD consultants have been established
- The Pipeline shows that 625 CER buyers have been registered
- The Pipeline contains 46 Designated Operational Entities (64 applied)
- In the developed countries the knowledge level on GHG reduction has been improved
- A large number of methodologies have been developed:
  - 92 large-scale methodologies have been approved (361 submitted)
  - 22 consolidated large-scale methodologies have been approved
  - 88 small-scale methodologies have been approved (83 submitted)
  - 1 large-scale forest methodologies have been exists (39 submitted)
  - 1 consolidated large-scale forest methodologies exists
  - 2 small-scale forest methodologies exist

It takes a long time to develop methodologies (200-300 days), one is at version 19!

## It has been a learning process:

- The fraction of projects that are registered automatically is again close to the old 90% after the low of 31% in 2008.
- The total time to get a CDM projects registered are now down to about 50 days: (historic average 495 days).
- The time it takes to get the issuance is also decreasing.
- According to INTERPOOLS new report: An effective and comprehensive global regulatory system is needed to prevent crime. The CDM learned to do that.
- About 400 billion US\$ has been invested in constructing the registered projects. Of these, 44 billion US\$ happened in Latin America.

**Finally the most important lesson: There must be a balance between supply and demand for credits!**

About 1.4 Gigatonne of GHG emissions have been reduced by CDM in about 7 years, or about 0.2 GtCO<sub>2</sub>e per year. This is however much smaller than the global emission GAP of 7.4 GtCO<sub>2</sub>e.



## The Future

CDM has entered its 2<sup>nd</sup> crediting period 2013-2020

Voluntary Cancellations of CERs is now possible, 0.3 MtCO<sub>2</sub> has been canceled.

Quebec is joining the Californian carbon market and  
Australia is joining the EU-ETS.

Carbon Markets are starting in Chinese provinces (Hubei and Guangdong) and cities (Beijing, Tianjin, Shanghai, Chongqing, and Shenzhen), and an overall Chinese Voluntary market are using 52 approved CDM methodologies.



## The Future

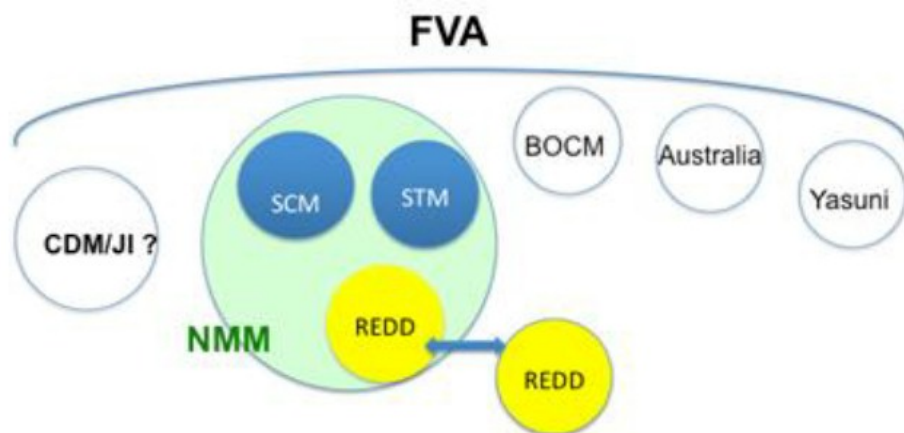
PMR = World Bank Partnership for Market Readiness is assisting the following countries in building carbon markets:

Brazil, Chile, China, Colombia, Costa Rica, India, Indonesia, Jordan, Mexico, Morocco, South Africa, Thailand, Turkey, Ukraine and Vietnam.

South Korea and Kazakhstan is building its carbon markets.

## Negotiation of NMM = New market Mechanisms & FVA = Framework for Various Approaches

Through the FVA, units created in a country can qualify, under certain conditions, to be used for compliance with UNFCCC obligations, by a jurisdiction other than the one where they were created.



SCM = Sectoral Crediting Mechanism  
STM = Sectoral Trading Mechanism

# National Appropriate Mitigation Action (NAMA)

NAMAs is a way to implement the GHG reduction pledge of your country.

UNFCCC has established a NAMA Registry for the submitted NAMAs now containing:

The table are from [www.namapipeline.org](http://www.namapipeline.org)

Submitted NAMAs	External support		For recognition	Total
	For preparation	For implementation		
<b>Latin America</b>	<b>3</b>	<b>9</b>	<b>3</b>	<b>15</b>
Chile		3	1	4
Dominica		1		1
Dominican Republic		2		2
Mexico		2		2
Uruguay	3	1	2	6
<b>Asia &amp; Pacific</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
Cook Islands		1		1
Indonesia		1		1
<b>Europe &amp; Central Asia</b>	<b>0</b>	<b>12</b>	<b>1</b>	<b>13</b>
Serbia		12	1	13
<b>Africa</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
Mali	2			2
Ethiopia	1			1
<b>Middle East</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>9</b>
Jordan	6	3		9
<b>Total</b>	<b>12</b>	<b>26</b>	<b>4</b>	<b>42</b>
<b>Least Developed Countries</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

Submitted NAMAs	Number
Sector or type	
Agriculture	2
Cement	1
EE demand side	6
EE industry	1
EE service	2
EE supply side	4
Forests	2
Fossil fuel switch	2
Fugitive	2
Geothermal	1
Renewable energy	6
Solar	3
Transport	3
Turism	1
Waste	3
Wind	2
All sectors	1
<b>Total</b>	<b>42</b>