



## Current Status of CDM in India

### Basic Information (as of 1 May 2009)

Project Status	Number of projects	New since 1 Feb 2009
CDM projects registered at CDM executive board	420	28
CDM projects at or after the validation stage	1,495	75
CDM projects approved by India	1,114 *	-

Source:  
IGES CDM Project Database  
< <http://www.iges.or.jp/en/cdm/report.html> > ,  
UNFCCC <<http://cdm.unfccc.int/index.html>> ,  
CDM India  
<<http://cdmindia.nic.in/cdmindia/projectList.jsp>>

\* This value is based on the information available on 1 May 2009 at CDM India website. The frequency and timing of update is not publicized.

### Basic data on CDM Projects (as of 1 May 2009)

	Registered CDM Projects				Review Conducted	Rejected
	N. of Projects	Average Annual Emission Reduction (tCO <sub>2</sub> )	Total ERs by 2012 (tCO <sub>2</sub> )	Amount of Issued CERs (tCO <sub>2</sub> )		
Biomass	133	34,751	31,668,655	4,994,670	32	15
Wind power	75	41,212	21,673,398	5,865,360	22	7
Waste gas / heat utilization	63	90,307	35,770,051	8,075,020	24	3
Hydro power	48	76,638	15,531,589	1,257,579	13	4
Energy efficiency	47	23,254	7,899,063	793,053	9	5
Cement	17	116,077	16,806,437	1,153,451	6	4
Fuel Switch	11	378,953	21,138,002	1,125,542	1	0
Biogas	11	18,990	2,282,160	372,312	0	0
HFC reduction	5	2,123,438	82,578,575	37,277,772	2	0
Methane avoidance	5	90,135	1,768,831	0	0	0
Methane recovery & utilization	1	64,599	569,990	75,896	0	0
Transportation	1	41,160	236,811	3,269	0	0
Afforestation & reforestation	1	2,967	6,740	0	0	0
Other renewable energies	1	562	3,936	0	0	0
<b>Total</b>	<b>420</b>	<b>85,004 **</b>	<b>237,934,238</b>	<b>60,993,924</b>	<b>109</b>	<b>38</b>

Source: IGES CDM Project Database <<http://www.iges.or.jp/en/cdm/report.html#db>> , UNFCCC <<http://cdm.unfccc.int/index.html>>

\*\* This value is not the total of average annual emission reduction of each project type, but average annual emission reduction of all the projects.

## Host Country CDM Approval Information

### Number of Approved CDM Projects \* (as of 1 May 2009)

State	Number of approved CDM projects
Andhra Pradesh	102
Chattisgarh	68
Gujarat	120
Himachal Pradesh	38
Jharkhand	19
Karnataka	125
Madhya Pradesh	27
Maharashtra	160
Orissa	49
Punjab	55
Rajasthan	56
Tamil Nadu	128
Uttar Pradesh	96
Uttaranchal	22
West Bengal	49
Total	1114

Source: CDM India <<http://cdmindia.nic.in/cdmindia/projectList.jsp>>

\* This table is based on the information available on 1 May 2009 at CDM India website. The frequency and timing of update is not publicized.

Since the establishment of the Indian DNA (Designated National Authority) in 2003, it has approved a significant number of projects. 420 projects have been registered by the CDM executive board, which account for close to 40% of all the registered projects (as of 1 May 2009).

In the initial stage of CDM development in India, biomass utilisation projects, waste gas/heat utilisation projects, and renewable energy (wind, hydro) projects were mainly being implemented. Other than those projects, India has varieties of registered CDM projects that include energy efficiency projects (cement, steel and etc.), fuel switch projects, HFC reduction projects and transportation projects.

CDM promotion cells have been established at a state level. They conduct supportive activities such as information dissemination on CDM and coordination between local and national governments.

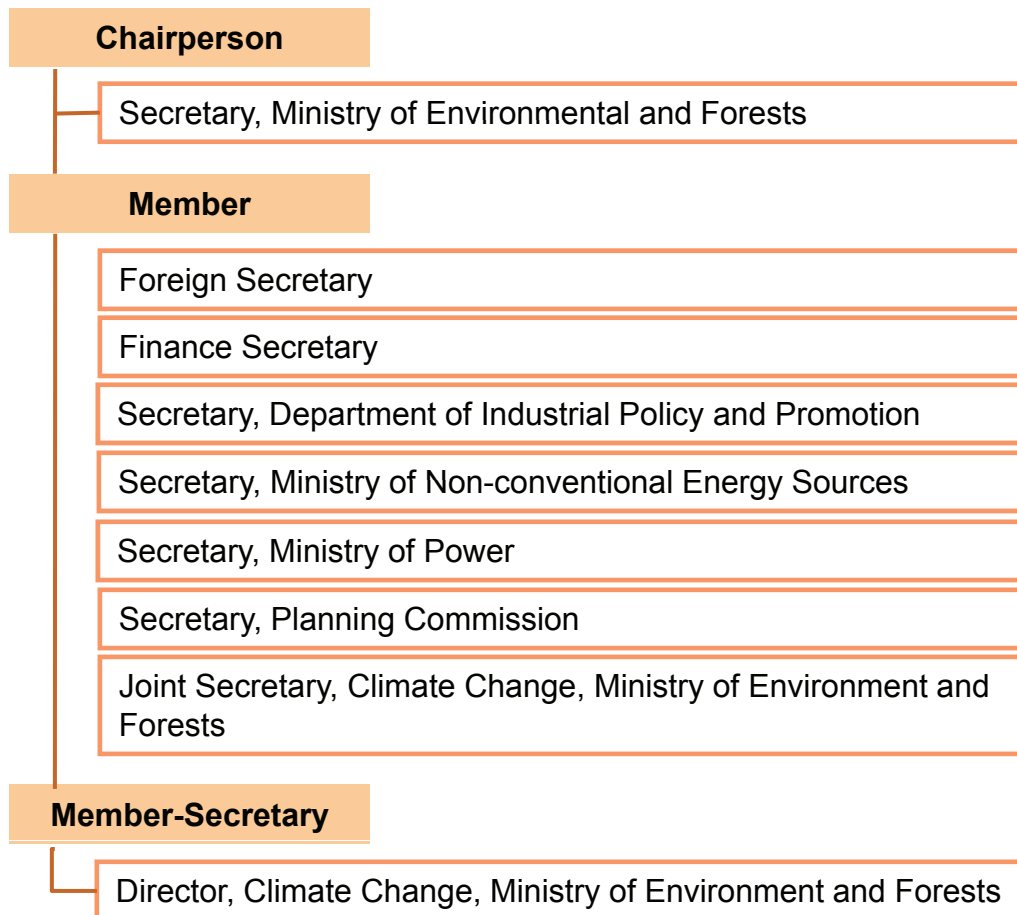
One of the features of CDM in India is its large share of unilateral CDM projects, CDM project developed by Indian stakeholders without the involvement (finance, technology) of Annex I countries. Indian project developers implement the project by bearing transaction costs of CDM and taking on the risks of the projects. Therefore, the price of credits issued by unilateral CDM projects tends to be higher than bilateral or multilateral CDM projects.

Among five states that have over hundred approved CDM projects, three states – Tamil Nadu, Karnataka, and Andhra Pradesh – are located in South India. In Tamil Nadu, where the best wind resource in India is available, about 40% is wind power generation projects. Most of the projects in Karnataka are renewable energy generation, especially by wind and small or mini hydro energy. In Andhra Pradesh, about 30% is biomass projects utilizing residues generated from agricultural activities. It also has the same percentage of energy efficiency projects. Maharashtra is the state with largest number of projects, of which over hundred is renewable energy projects.

# DNA Structure , Approval Procedures, and Criteria

## (1) DNA Structure

The Indian Designated National Authority is the National Clean Development Mechanism Authority (NCDMA), which consists of 6 ministries and agencies and the Planning Commission. The main role of the NCDMA is to evaluate and approve proposed projects and disseminate information related to all aspects of CDM.



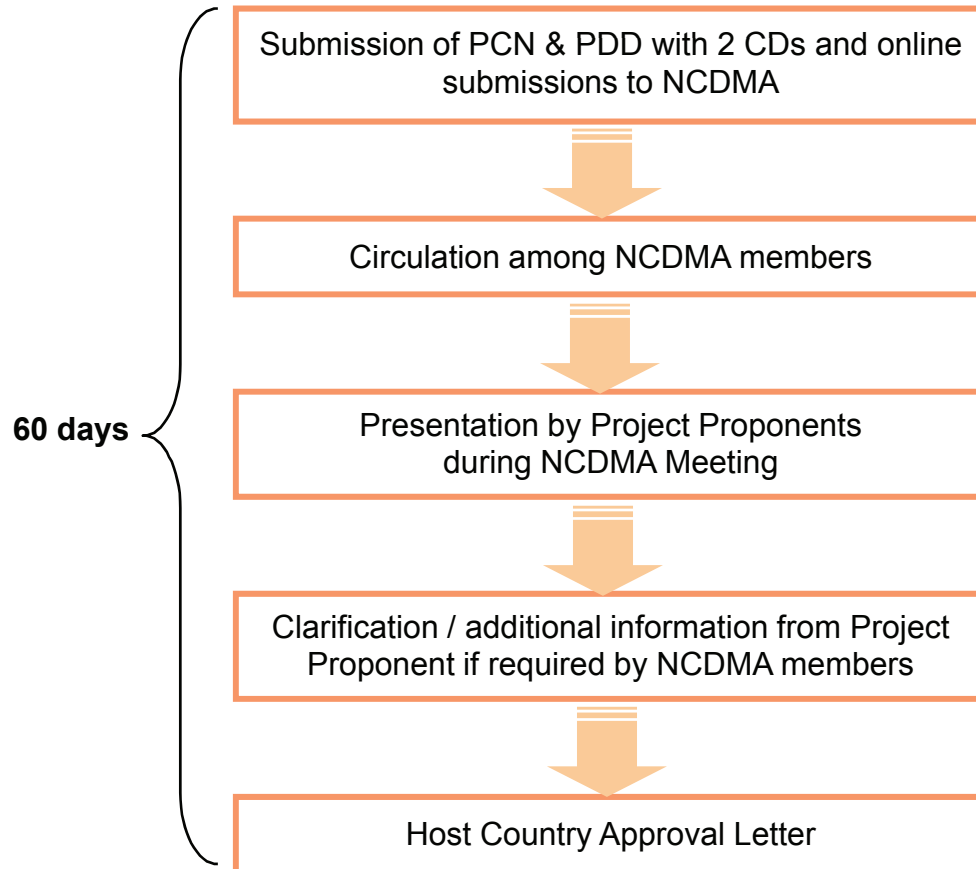
NCDMA has the powers:

- ❑ to invite officials and experts from Government, financial institutions, consultancy organizations, non-governmental organizations, civil society, legal profession, industry and commerce, as it may deem necessary for technical and professional inputs and may co-opt other members depending upon need.
- ❑ to interact with concerned authorities, institutions, individual stakeholders for matters relating to CDM.
- ❑ to take up any environmental issues pertaining to CDM or Sustainable Development projects as may be referred to it by the Central Government, and
- ❑ to recommend guidelines to the Central Government for consideration of projects and principles to be followed for according host country approval.

Source: CDM India <[http://cdmindia.nic.in/cdm\\_india.htm](http://cdmindia.nic.in/cdm_india.htm)>

## (2) DNA Approval Procedure

Approval procedures in India are straightforward and project developers could get host country approval letters within 60 days unless proposed projects have questions from NCDMA. An NCDMA meeting for project approval is held every month.



1. Project proponent is required to submit the following for application:

- Cover letter signed by the project sponsors
- Project Concept Note (PCN) (one submitted through online form and 20 hard copies)
- Project Design Document (PDD) (one submitted through online form and 20 hard copies)
- Two CDs containing PCN and PDD

2. Approval procedures in DNA are as follows

- Application documents submitted by project proponent are circulated among NCDMA members.
- If NCDMA members have any preliminary queries the same is asked from the project proponents.
- The project proponent and his consultants are normally given 10-15 days notice to come to the Authority meeting and give a brief power point presentation regarding their CDM project proposals. NCDMA members mainly evaluate if the project meets the national sustainable development priorities and seek clarifications during the presentation.
- In cases when it is requested by NCDMA members, the project proponent should prepare and submit some additional clarifications or information.
- Once the members of the Authority are satisfied, the Host Country Approval is issued.

Source: CDM India <[http://cdmindia.nic.in/host\\_approval\\_criteria.htm/](http://cdmindia.nic.in/host_approval_criteria.htm/)>

## **(3)DNA Approval Criteria**

### **1. Sustainable Development Indicators**

Social well being	The CDM project activity should lead to alleviation of poverty by generating additional employment, removal of social disparities and contribution to provision of basic amenities to people leading to improvement in quality of life of people.
Economic well being	The CDM project activity should bring in additional investment consistent with the needs of the people.
Environmental well being	This should include a discussion of impact of the project activity on resource sustainability and resource degradation, if any, due to proposed activity; bio-diversity friendliness; impact on human health; reduction of levels of pollution in general.
Technological well being:	The CDM project activity should lead to transfer of environmentally safe and sound technologies that are comparable to best practices in order to assist in upgradation of the technological base. The transfer of technology can be within the country as well from other developing countries also.

### **2. Additionality**

Emission Additionality	The project should lead to real, measurable and long term GHG mitigation. The additional GHG reductions are to be calculated with reference to a baseline.
Financial Additionality	The procurement of CERs should not be from Official Development Assistance (ODA)

### **3. Baselines**

Baselines should be precise, transparent, comparable and workable

Baselines should avoid overestimation

The methodology for the determination of baselines should be homogeneous and reliable

Potential errors should be indicated

System boundaries of baselines should be established

Interval between updates of baselines should be clearly described

Role of externalities should be brought out (social, economic and environmental)

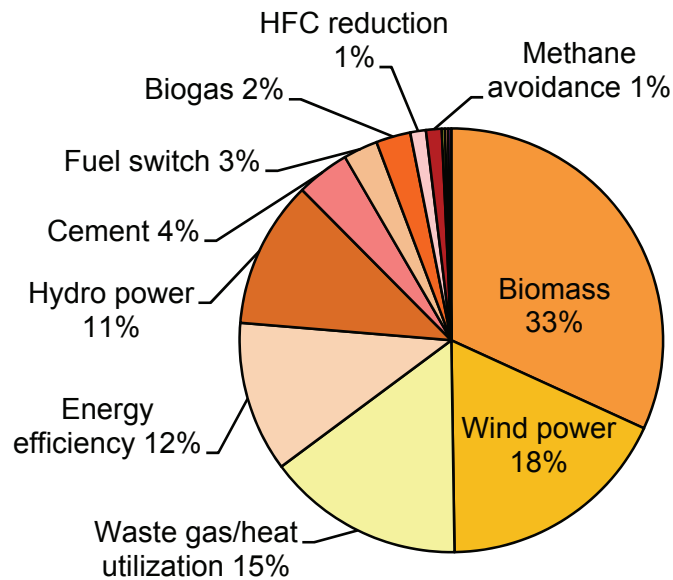
Baselines should include historic emission data-sets wherever available

Lifetime of project cycle should be clearly mentioned

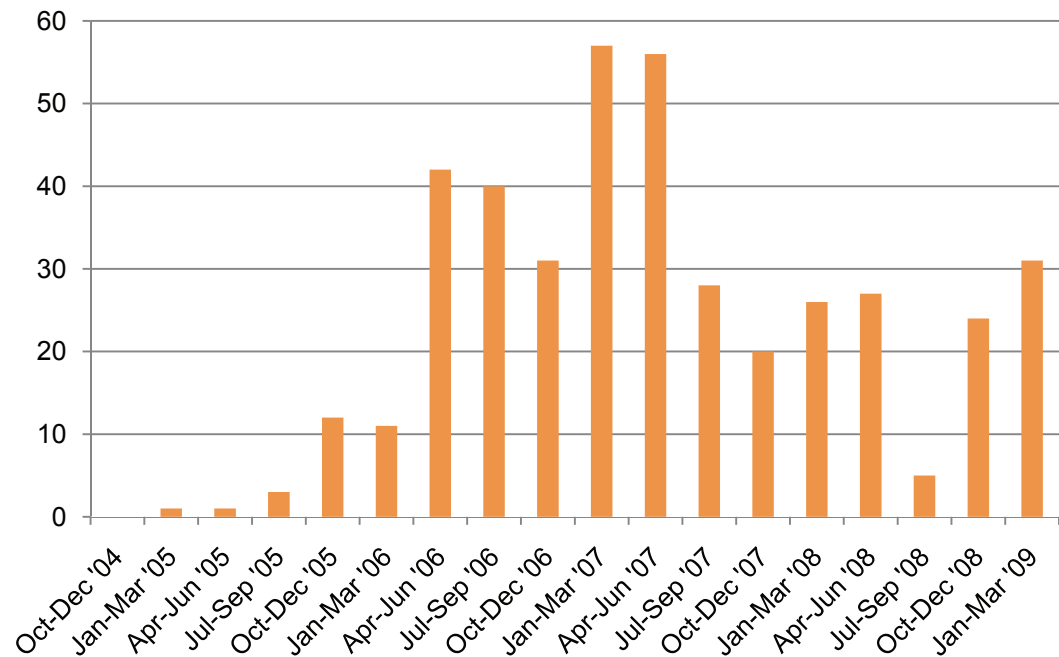
# CDM Project Information

1. The number of CDM projects registered at the CDM executive board (as of 1 May 2009): **420**
2. The number of registered unilateral CDM projects (at the time of registration) (as of 1 May 2009): **351 (80 %)**
3. The number of registered multilateral CDM projects (at the time of registration) (as of 1 May 2009): **69 (20 %)**

## 4. Type of registered CDM Projects (as of 1 May 2009)



## 5. Number of registered CDM Projects per quarter



Source: IGES CDM Project Database <<http://www.iges.or.jp/en/cdm/report.html#db>> , UNFCCC <<http://cdm.unfccc.int/index.html>>

## CDM Relevant Information

### Type\* and sizes of projects/activities requiring EIA (Environmental Impacts Assessment ) report

(a) New start of, (b) expansion/ modernization/ addition of capacity of, and (c) any change in product of the projects/activities in the table below shall require prior environmental clearance from:

- The Central Government in the Ministry of Environment and Forests for those under Category 'A' , and
  - The State Environment Impact Assessment Authority (SEIAA) for those under Category 'B' ,
- before any construction work, or preparation of land by the project management except for securing the land, is started on the project/activity:

Project or Activity	Category with threshold limit	
	A.	B.
Mining, extraction of natural resources and power generation (for a specified production capacity)		
Offshore and onshore oil and gas exploration, development & production	All projects	-
River valley projects	(i) $\geq 50$ MW hydroelectric power generation; (ii) $\geq 10,000$ ha. of culturable command area	(i) $< 50$ MW $\geq 25$ MW hydroelectric power generation; (ii) $< 10,000$ ha. of culturable command area
Thermal Power Plants	$\geq 500$ MW (coal/lignite/naphtha & gas based); $\geq 50$ MW (Pet coke diesel and all other fuels -)	$< 500$ MW (coal/lignite/naphtha & gas based); $< 50$ MW $\geq 5$ MW (Pet coke, diesel and all other fuels)
Materials Production		
Cement plants	$\geq 1.0$ million T/yr production capacity	$< 1.0$ million T/yr production capacity. All stand alone grinding units

Project or Activity	Category with threshold limit	
	A.	B.
Material Processing		
Petroleum refining industry	All projects	-
Coke oven plants	$\geq 250,000$ T/yr	$< 250,000$ & $\geq 25,000$ T/yr
Manufacturing / Fabrication		
Chemical fertilizers	All projects	-
Petro-chemical complexes	All projects	-
Distilleries	(i) All Molasses based distilleries (ii) All cane juice/non-molasses based distilleries $\geq 30$ KLD	All cane juice/non-molasses based distilleries $< 30$ KLD
Pulp & paper industry	Pulp manufacturing and pulp & paper manufacturing industry	Paper manufacturing industry without pulp manufacturing
Sugar Industry	-	$\geq 5,000$ tcd cane crushing capacity
Physical Infrastructure including Environmental Services		
Common Effluent Treatment Plants (CETPs)	-	All projects
Common Municipal Solid Waste Management Facility (CMSWMF)	-	All projects

Source: Environmental Impact Assessment Notification by Ministry of Environment and Forests < <http://envfor.nic.in/legis/eia/so1533.pdf>>

\* Excerpt of projects/activity types relevant to CDM.

## CDM Relevant Information cont.

### Kyoto Protocol Ratification Status

Date of signature of Climate Change Convention	10 June 1992
Date of ratification of Climate Change Convention	1 November 1993
Date of signature of Kyoto Protocol	—
Date of ratification of Kyoto Protocol	26 August 2002
Establishment of DNA	December 2003

Source: UNFCCC

<<http://maindb.unfccc.int/public/country.pl?country=IN>>,  
IGES CDM Country Guide for India  
<<http://www.iges.or.jp/en/news/topic/0512cdm.html>>

### India Regional Grid Emission Factors (Unit: t-CO<sub>2</sub>/MWh)

Regional Grid	2005-2006		2006-2007		2007-2008**	
	OM*	BM*	OM*	BM*	OM*	BM*
Northern	0.99	0.60	1.00	0.63	1.00	0.60
Western	0.99	0.63	0.99	0.59		
Eastern	1.13	0.97	1.09	0.93		
North-Eastern	0.70	0.15	0.70	0.23		
Southern	1.01	0.71	1.00	0.71	0.99	0.71

Source: The Central Electricity Authority. <<http://www.cea.nic.in/>>

\*OM: Operating Margin, BM: Build Margin. Figures include inter-regional and cross-border electricity transfers.

\*\* Emission factors of Northern, Eastern, Western, and North-Eastern regional grids have been integrated since the publication of the 2007-2008 data.

### References

- CDM India (Designated National Authority in India)  
<http://cdmindia.nic.in/>
- Market Mechanism Project / Climate Change Area, Institute for Global Environmental Strategies (IGES) :  
<http://www.iges.or.jp/jp/cdm/index.html>