Towards CDM reform

Report of the IGES CDM Capacity Building Kyoto General Meeting

Institute for Global Environmental Strategies (IGES)

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Contents

Abbreviations

AAU	assigned amount unit
CDM	clean development mechanism
CER	certified emission reduction
CFL	compact fluorescent lamp
CME	coordinating or managing entity
CPA	CDM programme activities
DNA	designated national authority
DOE	designated operational entity
EB	CDM executive board
ERU	emission reduction unit
ETS	emissions trading scheme
GEF	grid emission factors
GHG	greenhouse gas
GIS	green investment scheme
IGES	Institute for Global Environmental Strategies
IRR	internal rate of return
JI	joint implementation
JISC	JI supervisory committee
LDC	least developed country
PDD	project design document
PIN	project idea notes
PoA	programme of activities
RIT	registration and issuance team
SB	Subsidiary Bodies
UNFCCC	United Nations Framework Convention on Climate Change

Foreword

The Institute for Global Environmental Strategies (IGES) was established in 1998 to undertake strategic policy research on policies and practical solutions to support sustainable development, particularly in Asia and the Pacific, and this year of 2010 is the thirteenth year since its commencement. The IGES CDM capacity building activities were started in 2003 and this makes 2010 the eighth year of engaging the CDM with all these years of growth and development. In this respect, it can be said that CDM capacity building has been one of the core activities in IGES from its foundation, and after many years of continued efforts and dedication by IGES researchers, it has become one of the most significant activities undertaken within IGES.

The year of 2010 marks the halfway point of the first commitment period of the Kyoto Protocol. The CDM was designed to provide benefits for both developed and developing countries, as well as for the global environment. IGES CDM capacity building activities have been dedicated to the achievement of such benefits through enhancement of the capacity, both human and institutional, for implementing the CDM throughout Asia. As of now, the success of the CDM has been well publicised, but at the same time we have also become aware that there are a number of aspects that require improvement.

I believe it is a key task for IGES, as a strategic policy research institute, to propose reform of the CDM towards achieving the triple benefits that the CDM was designed to provide. This report, which is rooted in our on-going and continued experience in CDM capacity building activities in Asia, aims to contribute towards the realisation of such benefits.

This report could not have been made without the valuable cooperation of partners of the IGES CDM capacity building activities and policy makers who have long been involved in our activities. I would like to express my sincere appreciation to all those who have engaged in our activities and hope this report will provide useful input toward effective CDM reform. IGES welcomes any comments as regards the content. It is our wish that the content of this report will be incorporated into policy formulation at both the national and international level.

Hayama, Japan
June 2010

Prof. **Hironori Hamanaka**
Chair of IGES Board of Directors
Institute for Global Environmental Strategies (IGES)

Proposals for CDM Reform

Needless to say, there is plenty of room to improve the CDM in order to encourage additional emission reductions as well as to assist in the sustainable development of developing countries. The rules of the CDM have been developed and improved under the so-called "learning by doing" process. Here, we would like to propose some ideas for CDM reform based upon our experience in implementing CDM capacity building in Asia over the past seven years.

Reducing uncertainty by shifting from judging to checking

We think the biggest barrier of the CDM is uncertainty. Uncertainty, such as whether it will be registered as a CDM project and whether CERs will be issued as expected, is preventing planning and investing in something ambitious that would not be implemented without the CDM. The origin of the uncertainty comes from the "judgment" carried out by different entities. Particularly, the additionality test and emission reductions calculation are the two most controversial issues that need to be individually judged by different entities. DOEs are the ones which are primarily asked to make their own judgment. However, some other entities, such as RIT, the UNFCCC secretariat, and the EB, also make their own judgments. Such judgment depends on how to interpret hypothesis, and different interpretations will eventually result in different consequences, which will also create confusion and delay. Removing the leeway in passing judgment could be achieved by introducing a more objective approach, one based on clear eligibility criteria and quantitative parameters; in other words, by introducing a checking system.

Introducing automation to the process will eliminate not only uncertainty but also reduce manipulation

Additionality can be proved not solely on a project-by-project basis but also by categories of project features. A positive list, which consists of specific project types of a specific size, can be established by the EB. Projects which fit those eligibility criteria can be automatically deemed additional, hence there is no need for judgment. The idea of a positive list had been discussed before the Marrakesh Accord was adopted, but it was dropped; however, that was before putting the CDM into practice. Now that CDM is actually in full swing, we have come to a different conclusion. For example, based upon the experience gained through implementation of the CDM, renewable energy projects with an output of only a few MW are clearly not economically attractive and they could and should be exempted from the additionality test.

Naturally, there are other project types that cannot be easily listed up for exemption of the additionality test. Even in such cases, setting default or common parameters can reduce uncertainties. Specifically, when demonstrating additionality, project proponents often calculate the internal rate of return (IRR) with and without CER revenue. But when calculating such figures, they must assume a certain CER price, foreign exchange rate, operation lifetime and so on. How to come up with such figures is not explicitly stated in CDM methodologies, which allows a lot of leeway in interpretation at the time of calculation. If there were default or common values, project proponents could save a lot of time, which would simultaneously eliminate the room for manipulation of the figures. Such default or common values could be established, regularly updated, and made publicly available from the host country of CDM projects, and confirmed by the EB. This would be done in a conservative manner and may reduce claimable CERs, but the merits of reduced uncertainty would outweigh such disadvantages.

In addition, it would be worth considering providing automatic calculation spreadsheets for CERs. This means the amount of claimable CERs from certain types of CDM projects would be automatically calcu-

lated by inputting several major parameters monitored into spreadsheets by project proponents. Actual examples are uploaded in the IGES website (see the back cover). Such spreadsheets would also reduce the burdens on stakeholders, and eliminate manipulation.

The calculation of some emission sources which are insignificant compared with the amount of claimable CERs could be performed by automatic calculation spreadsheets, based on certain premises instead of actual monitoring, or even curtailed. An example of such is the emissions from transportation of biomass, given that the amount of emissions is usually small and the burden of monitoring work is huge.

CDM reform is already underway

Currently, there have been a number of criticisms of DOEs for their performance from both project proponents and the EB. However, the role of DOEs might be better served if, instead of passing judgment based on subjective interpretation, they were to be involved in checking compliance with the existing rules. Therefore, the idea of automating the process can be said to be DOE friendly. Uncertainty of the CDM has been a big barrier for project proponents, but this is also true for DOEs, the UNFCCC secretariat and the EB. They have all been struggling to overcome this barrier; in other words, all of us need CDM reform in this respect.

Actually, the ideas proposed here are not new; similar measures have already been undertaken. There are several examples of the EB introducing default values into methodologies. It should be emphasized that this is going in the right direction, and more reform on this will be necessary for the CDM, which should play a meaningful role in the international climate regime.

Recent measures already taken by the EB and working groups

AMS-I.E. Switch from non-renewable biomass for thermal applications by the user
In March 2010, EB53 revised the methodology into version 2, and default efficiency factors for baseline cook stoves were introduced.

AMS-III.D. Methane recovery in animal manure management systems
In March 2010, EB53 revised the methodology into version 16, and a default value of 60% methane content can be used for the fraction of methane in the biogas.

AMS-II.G. Energy efficiency measures in thermal applications of non-renewable biomass
In December 2009, EB51 revised the methodology into version 2, and default efficiency factors for baseline cook stoves were introduced.

AMS-II.J. Demand-side activities for efficient lighting technologies
In May 2009, EB47 revised the methodology into version 3, and fixed average daily utilisation hours of CFL (3.5 hrs/day) was introduced.

GHG emissions from the sources related to A/R CDM project activities
In November 2008, EB44 agreed the GHG emissions from fossil fuel combustion, collection of wood from non-renewable sources to be used for fencing of the project area and N_2O emissions from decomposition of litter and fine roots from N-fixing trees, are insignificant in A/R CDM project activities and may therefore be neglected in A/R baseline and monitoring methodologies.

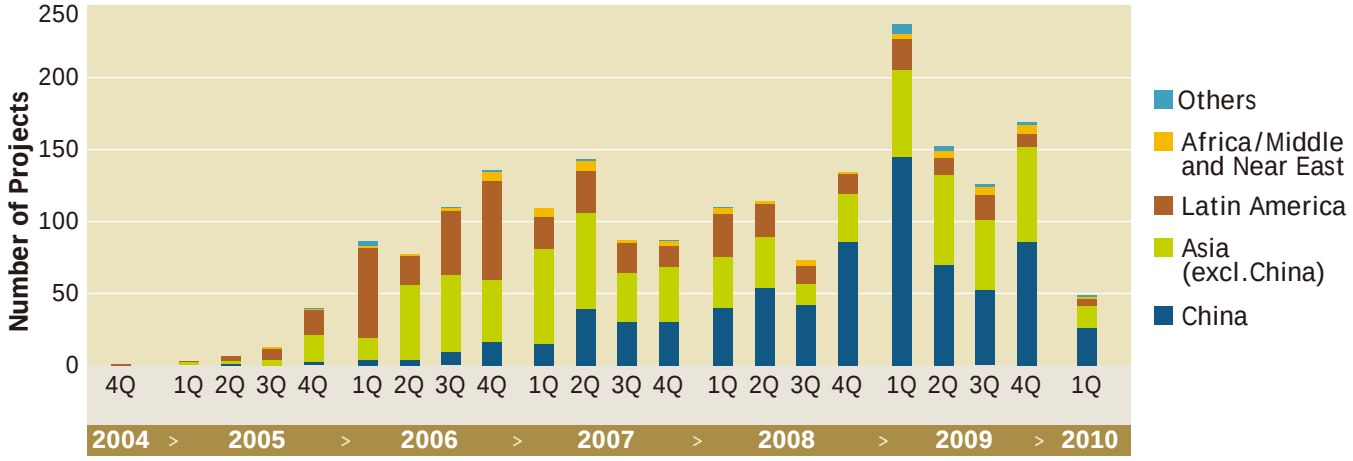
(Yuji MIZUNO)

2.1 How many emission reduction credits will the CDM deliver ?

The CDM is growing, but some concerns foreshadow further development

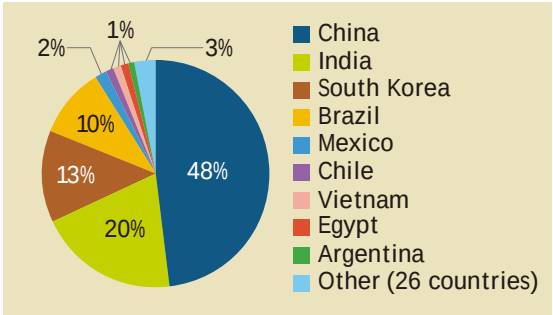
The CDM has grown rapidly, with the largest increase in terms of registration at the EB in 2009, and more than 2,000 projects have been registered at the EB so far. In addition, there are more than 2,500 projects still in the pipeline, which may expand the current CDM market to embrace the whole world. However, CDM growth relies heavily on the Asian market. Currently, Asia has 73% of CDM projects, followed by Latin America (22%). Since 2009, among Asian countries, China has hosted the largest number of projects.

Number of registered projects by region



For each country, the number of CERs anticipated to be generated by domestic projects reflects the number of registrations in each country. The number of tons of CERs already issued is 380 million, and almost half such CERs were generated by China, which has a greater than 80% share of Asian projects. According to UNFCCC data, this figure is expected to rise to 1.8 billion tons from registered projects until the end of 2012.

Volume of issued CERs by country



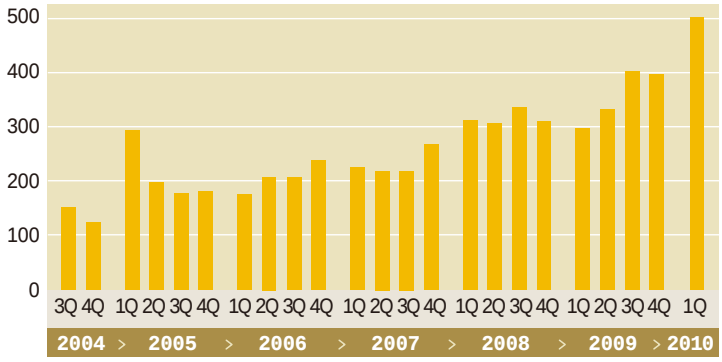
Overall, the CDM has steadily developed and expanded year by year, but at the same time a number of concerns related to unequal regional distribution of the CDM have been raised. Furthermore, some bottlenecks surrounding mainly CDM-related procedures foreshadow its steady development and lower the overall supply of CERs than that currently planned, throughout all development stages. Therefore, this section addresses such current bottlenecks in the CDM and analyses the impact of such bottlenecks on future CER supply up to 2012.

* All data source of figures and tables in section 2 are IGES databases as of April 1st, 2010, unless otherwise specified.

Validation is protracted, with a high dropout rate

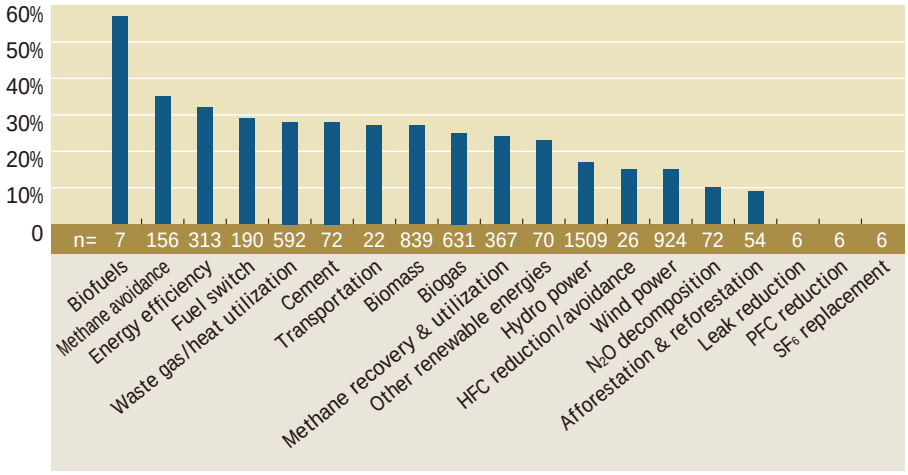
According to the IGES CDM Project Database, for recently registered projects, more time was spent on preparation before submission to the EB. Currently, the validation process up to the point where DOEs submit a request for registration takes half a year longer than it did three years ago. If this protracted validation process is continued, projects below the validation stage may have to reduce their estimates of emission reduction credits, especially up to 2012, due to the delay in starting the crediting period. Such reductions in estimates in PDDs equates to approximately 0.9 billion tons of emission reduction credits.

Average days from starting public comments until submission for registration



In addition, starting the validation process with DOEs does not mean that projects are allowed to move on to the next stage of registration. If projects are regarded as not eligible due to not sufficiently meeting CDM requirements, DOEs may provide negative comments or even decide to terminate contracts. In addition, there may be projects in the pipeline which have already been dropped during the validation process without any notification to the public. Taking into consideration such dropout cases based on past records by project type, our database estimates that a loss of 0.4 billion emission reduction credits may occur due to the possibility of dropout of several projects during the validation stage.

Dropout rate (%) during the validation stage



[Note] Dropout rate is calculated by project type, based on the sum of number of projects which are assumed to have been stopped at different stages of CDM procedures, based on the criteria below, divided by total number of projects which have been put in place for opening public comments under the validation stage.

1. Projects whose DOE contract are terminated: the standard deviation from the mean value of days from starting public comments until requesting registration

2. Projects on which a DOE made negative comments: double the standard deviation from the mean value of days from starting public comments until requesting registration

3. Projects ongoing but not submitted: Three times the standard deviation from the mean value of days from starting public comments until requesting registration

Registration process is longer, and risk of rejection is increasing

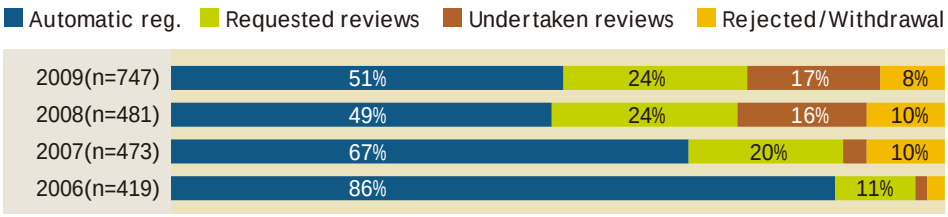
PPs and DOEs have to spend more time on the registration process than before. This protracted process is caused mainly by an increase of reviews undertaken by the EB before a project is finally

Average days from request until registration

Automatic registration	Requested reviews	Undertaken reviews
102 days	197 days	260 days

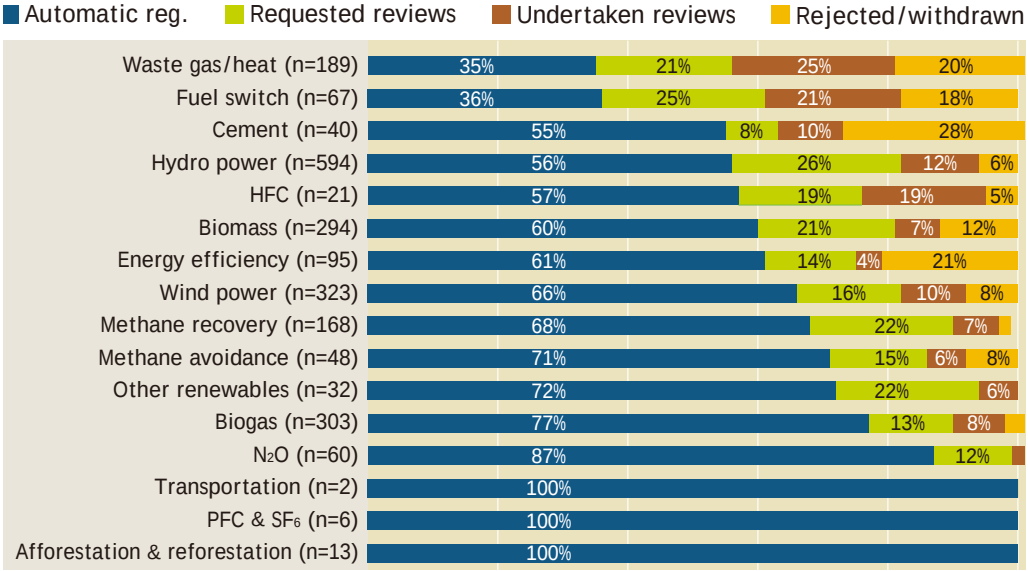
registered. If projects have been requested for reviews, the waiting period becomes almost 100 days longer than for projects that do not require reviews; if reviews have been undertaken for a project this increases to more than 150 days. Worse still, the proportion of projects for which reviews were requested, which stood at below 20% in 2006, has been rising continuously and stood at nearly half of all projects in 2008.

Ratio of automatically registered projects in recent 4 years



In addition, there is another risk during the registration process: after reviews are undertaken, the EB may decide to reject projects for registration if additional explanations by project proponents through DOEs are insufficient. As a whole, taking into consideration the results of probabilities for requesting reviews, undertaken review and rejection by project type and estimating possible delays of registration due to such decisions, about 0.2 billion tons of CERs may not be generated from projects in the pipeline at the validation and requesting registration stages.

Ratio of automatically registered projects by project type



[Note] Excluding 1 Leak Reduction project n: Total number of registered, rejected and withdrawn projects

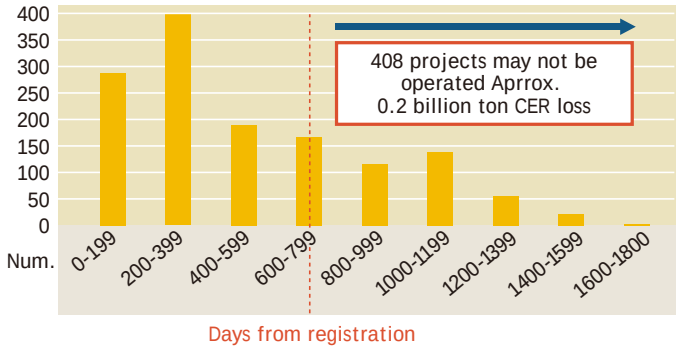
Operational risk still exists even after registration

Registration at the EB is not the end of the CDM project cycle. Project proponents have to monitor emission reductions during the operation and this has to be verified by DOEs until actual CERs are finally issued. On average it takes 441 days to receive the first actual CERs after registration, depending on the volume of emission reductions from the project. According to our analysis, around 408 registered projects out of 2,062 projects may not be operated or may be fatally delayed due to serious monitoring- or issuance process-related problems.

Taking into consideration such circumstances, about 0.2 billion tons of CERs may not be generated from projects in the pipeline at the operational stage.

Elapsed days after registration among registered projects which have not received the first issued CERs yet

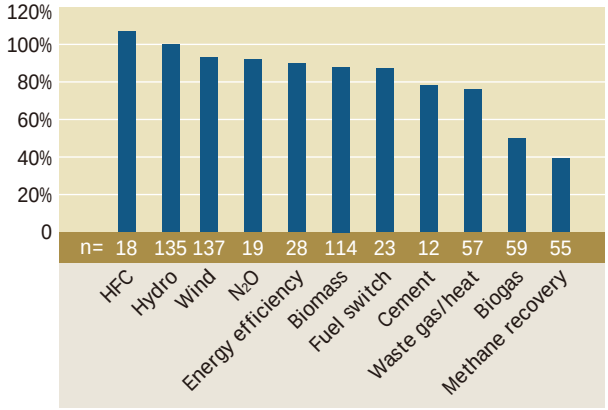
[Note] Projects that did not request the first issuance of CERs within one standard deviation from the mean value of the days for first request for issuance of CERs after registration among CDM projects which already received issued CERs, were deemed to have been stopped for some reason.



Most projects may receive less CERs than expected

The emissions reductions that were originally estimated were simply assumptions based on approved methodologies, as well as feasibility studies. Actual CERs verified and issued at the EB did not always agree, depending on actual operational hours, monitoring accuracy and so on. On average, 83.2% of CERs originally planned in the PDD were issued from the registered projects. While HFC or N_2O projects resulted in a very high success rate in terms of issuance (106% for HFC and 92% for N_2O), methane recovery and utilization projects resulted in a less than 40% issuance success compared with the original amount in the PDDs.

CER issuance success rate (%)



n = number of registered projects with CER issuance
[Note] Methane avoidance, other renewable energies, and transportation projects with issued CERs are excluded.

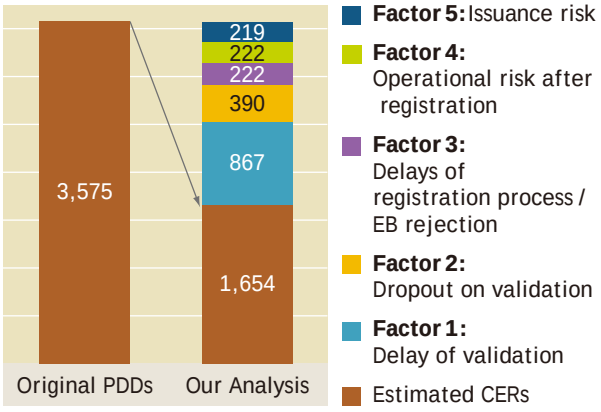
Taking into consideration such issuance success level according to project type, about 0.2 billion tons of CERs may not be generated from projects in the pipeline at the issuance stage.

Actual CERs supplied may be half that originally planned up to end of 2012

As a result, the figure of approximately 3.6 billion tons of CERs which was originally planned in the PDD from all CDM projects, including those still in the validation stage, may finally end up being less than 1.7 billion tons, due to the risks previously explained. Owing to the short period of time to the end of 2012, as well as the protracted validation process, projects now in the validation stage may not be able to supply the expected number of CERs before 2012 (14% compared with original PDDs). Our analysis reveals that the current prolonged CDM procedures are fatal to CER supply, especially up to the end of 2012; therefore, further streamlining of procedures is necessary to bridge the gap between the project proponents' expected CERs in original PDDs and the realistic amount of CERs issued.

Forecasted CER supply up to the end of 2012

Unit: million t-CO_2e



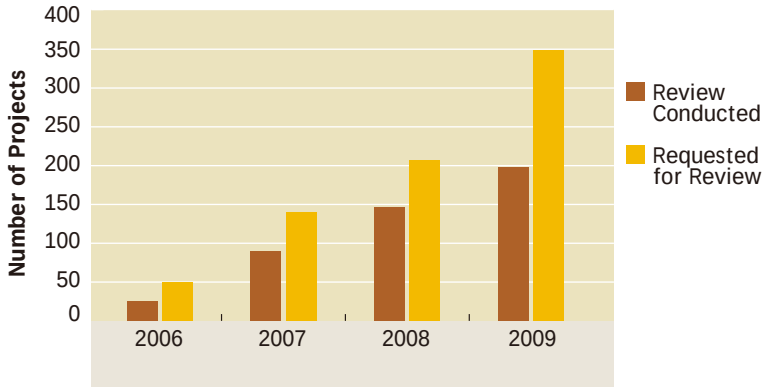
(Keisuke IYADOMI)

2.2 What guidelines would streamline the CDM process ?

Number of requests for review in the current project registration process is surging

Between 2005 and 2010 April, a large number of projects did not proceed as planned. In 2009 more than 50% of the projects applying for the CDM received a request for review before registration. The request for review is a process of clarification of the proposed CDM projects. In this process the DOE and project proponents have to respond to questions raised by EB members for review request anonymously. If a response to a query triggered by the review is considered insufficient, the project is subject to further scrutiny. This process involves a review conducted by specially-appointed members of the EB (hereafter referred to as "review conducted").

Trend of request for review and review conducted



Current status of projects related to registration review and rejection (As of April 1, 2010)

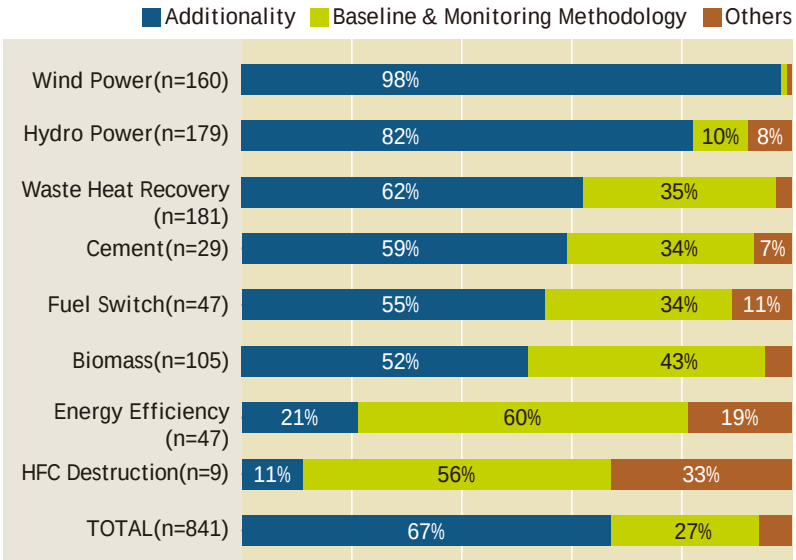
Status of projects	Number of projects
Projects requested for a review	1,024
Projects reviewed	512
Projects rejected	152
Projects withdrawn after undertaking review	49
Project submitted for registration	2,504

Additionality is the main reason for conducting the review

The reasons for reviewing projects vary according to project type; however, of the total number of reviews conducted, additionality was the major factor (67% of all the reasons mentioned). This is particularly true for wind and hydro power projects.

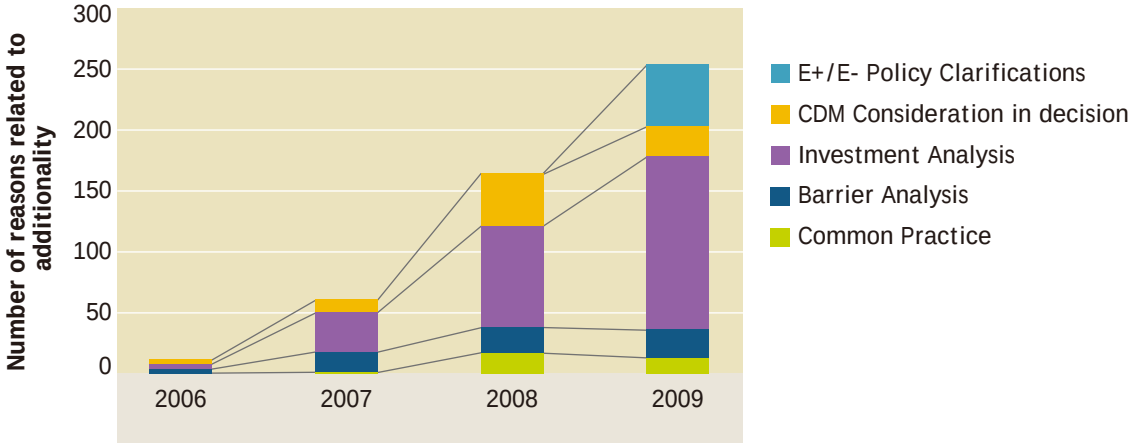
Of the specific reasons for the review conducted with regard to additionality, more than half (56%) related to clarification of investment analyses; prior consideration of the CDM was another reason. Clarifications of implementation of E+/E- policies (national and/or sectoral policies that

Categories of reasons for the Review Conducted, by project type



give comparative advantages to more/less emission intensive technologies) increased in 2009, particularly for evaluations of the additionality of wind power projects in China.

Specific reasons for the review conducted with regard to additionality

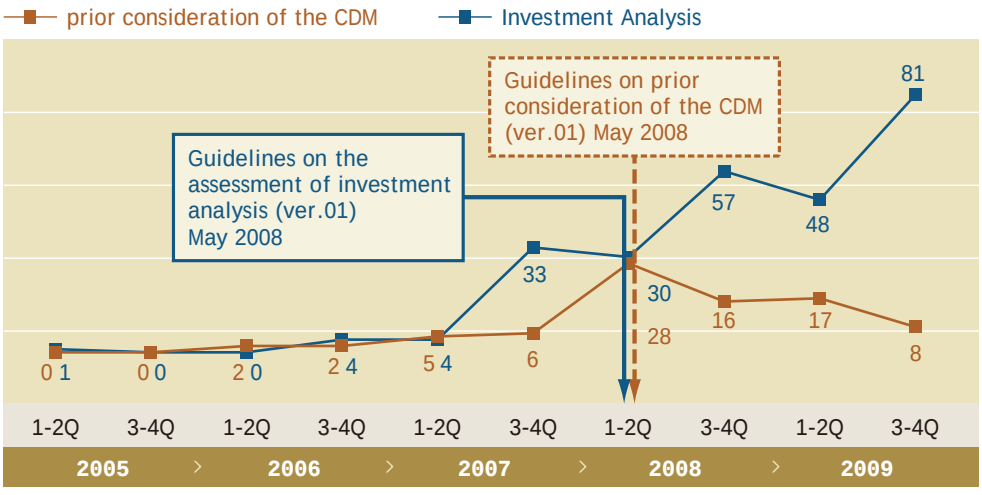


Reviews for investment analysis continued to increase while prior consideration on the CDM decreased

There are two specific guidelines that substantiate additionality provided by the EB. One is the "guidelines on the demonstration and assessment of prior consideration of the CDM", which was first introduced in August 2008. The other is the "guidelines on the assessment of investment analysis", introduced in May 2008 to address the issue of increasing requests for review related to such aspects.

Based on the examination of reasons for the review conducted, it was found that even after the introduction of the guidelines, the number of reviews conducted on investment analysis more than doubled, while reviews on the prior consideration of the CDM were halved after the introduction of the guidelines, as shown in the figure.

Impact of guidelines on prior consideration of the CDM and on the assessment of investment analysis



Specific actions with quantitative indicators is key to success of guidelines

Based on the empirical trend of review and analysis of the impact of guidelines, we observed that clear quantitative guidelines resulted in a trend towards reduced reviews; whereas qualitative descriptions in guidelines (e.g., investment analysis) did not.

For example, a review request on the prior consideration of the CDM typically questions whether the real and continuing actions to secure the CDM status had been taken by a project proponent. To address the issue, the guidelines on the demonstration and assessment of prior consideration of the CDM specifies actions (e.g., informing DNA in writing) with quantitative indicators (e.g., six months) for a project proponent.

On the other hand, reasons for review of the investment analysis typically involve questioning the suitability of the input values. The guidelines on the assessment of investment analysis consist of qualitative descriptions and do not provide a specific level of input values (e.g., IRR benchmarks) or data source to conduct analysis, as shown in the table.

Typical Reason for Review on prior consideration of the CDM and explanations in the guidelines

Typical Reason for Review	Explanations in the guidelines
" It has not been demonstrated that real and continuing actions were taken to secure the CDM status for the project activity"	**Specific Action**
	" The project participant must **inform** a Host Party DNA and the UNFCCC secretariat **in writing** of the commencement of the project activity and of their intention to seek CDM status (EB49 Annex 22 para 2) " ✓ ***Does provide specific actions***
	Quantitative Indicators
	" The Board decided that for project activities with a starting date **on or after 02 August 2008**" " Such notification must be made within **six months** of the project activity start date (EB49 Annex 22 para 2)" ✓ ***Does provide quantitative indicators***
	Specific examples
	" Evidence to support this (prior consideration) would include, *inter alia*, **minutes** and/or **notes** related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant (EB49 Annex 22 para 6(a))" ✓ ***Does provide specific examples***

(Source) Guidelines on the demonstration and assessment of prior consideration of the CDM, version 03, EB49 Annex 22

Typical Reason for Review on investment analysis and explanations in the guidelines

Typical Reason for Review	Explanations in the guidelines
" The suitability of the tariff, benchmark, input value applied in the investment analysis was not substantiated"	**Benchmark**
	" In cases where a benchmark approach is used the applied benchmark shall be **appropriate** to the type of IRR calculated (EB51 Annex 58 para 12)" x ***Does not provide specific level of IRR***
	Input values
	" Input values used in all investment analysis should be **valid** and **applicable** at the time of the investment decision taken by the project proponents (EB51 Annex 58 para 6)" x ***Does not provide suitable input values***
	Data Source
	" The benchmark should be based on **publically available data sources** which can be clearly validated by the DOE. (EB51 Annex 58 para 13)" x ***Does not provide suitable data***

(Source) Guidelines on the assessment of investment analysis, version 03.1, EB51 Annex 58

Number of requests for review decreased due to introduction of national grid emission factors

Another example of reducing the number of requests for review involves the publishing of the national grid emission factors (GEF), provided by the country governmental or national authorities. After examining the reasons related to the request for review regarding the methodological clarification on the GEF, it was also found that figures published by the national authorities helped reduce such methodological clarifications in India and China, since 2007. In 2009, there were no requests for review in relation to the calculation of GEF for these countries, thus this substantially reduces the time and cost for those involved in the proposed CDM projects.

[Note] The request for review on clarifications on the data vintage for GEF in China was excluded since this request is not for the methodological issues.

Guidelines for investment analysis have much room for improvement

What lessons can we draw? First of all, effective guidelines should contain specific actions and figures, including, for example, dates, terms, and specific level of input values to be used. Secondly, the host country DNA can facilitate establishing such indicators and benchmarks in this regards (i.e., GEF). In this respect, based on the lessons learnt so far, the guidelines on the assessment of investment analysis have much room for improvement, and overcoming this issue would greatly streamline the process as well as reduce the related time and resources required for the registration process.

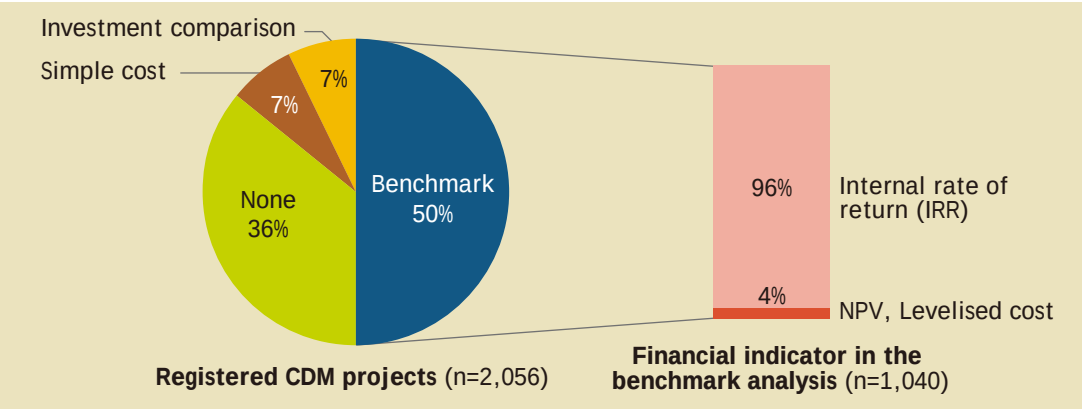
(Kazuhisa KOAKUTSU)

2.3 What will remove the obstacles to using investment analysis ?

Benchmark analysis is a common approach to demonstrate additionality

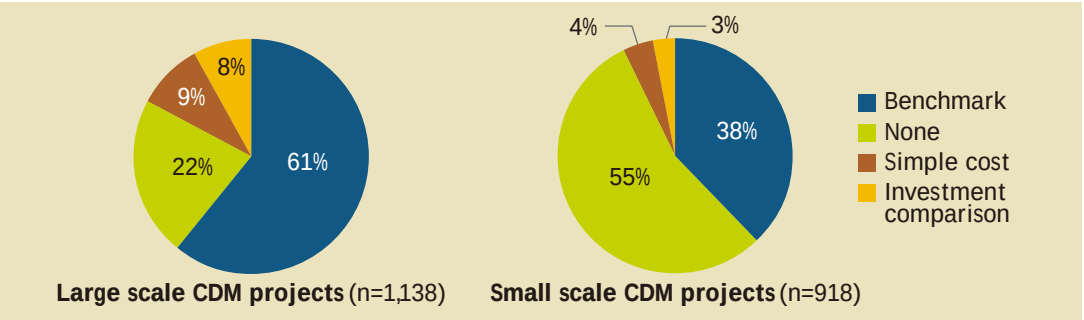
The tool for the demonstration and assessment of additionality stipulates three types of investment analysis options. For around half of the total registered CDM projects, a benchmark analysis that utilises comparison with the benchmark rate as the financial indicator was conducted. In the benchmark analysis, it is demonstrated that the proposed project is less than financially attractive in the absence of the CDM. Most of the projects which conducted the benchmark analysis utilized the internal rate of return (IRR) as the financial indicator.

Percentage of registered projects by type of investment analysis (left) and by type of financial indicator used in benchmark analysis (right)

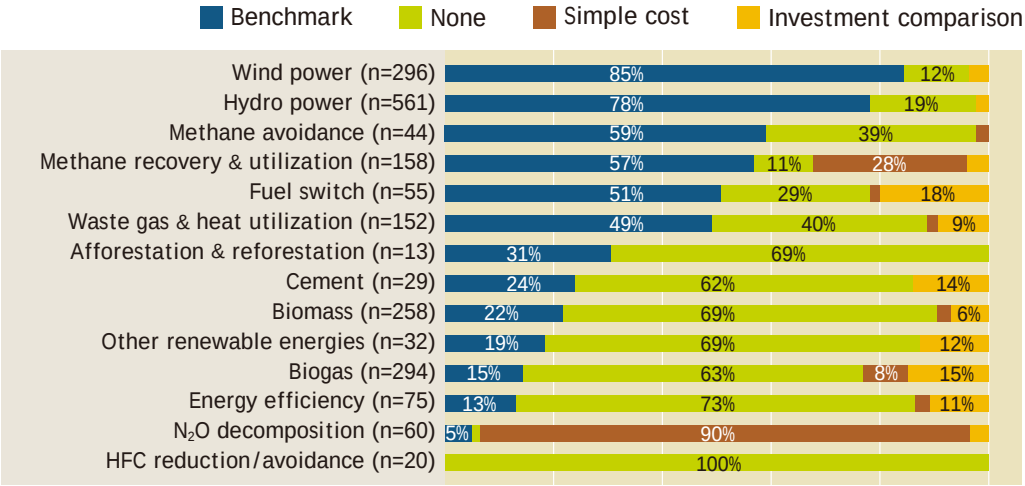


Benchmark analysis is a common approach for large scale projects, and has been used in 60% of all large scale projects. In addition, about 40% of all small scale projects implemented benchmark analysis even though it is not required for small scale projects under the current CDM rules. If we look at project type, hydro power projects (mostly from China, India and Brazil) and wind power projects (mostly from China and India) are two main project types which use benchmark analysis.

Percentage of registered large-scale (left) and small-scale (right) projects by type of investment analysis



Percentage of registered projects with benchmark analysis by project type



Registered CDM projects use various types of benchmark rate

Among registered CDM projects, many types of benchmark rate have been utilized for demonstrating the additionality when implementing investment analysis. In China, of the projects that conducted benchmark analysis, 96% of CDM projects selected two types of benchmark rate; the Government code and the power industry sector benchmark. Since such benchmark rates are officially published and easiliy obtained, it's very easy for project proponents to select them. In India, the Weighted Average Cost of Capital (WACC), Prime Lending Rate (PLR), Return on Equity (ROE) and Required Rate of Return (RRR), which must be prepared by project proponents, have been selected as benchmark rates.

Number of registered projects by type of benchmark rate

Type of benchmark rate	Projects	Country information
Government code	348	China 342, Others 6
Power industry's sector benchmark	280	China 277, India 3
Weighted average cost of capital (WACC)	77	India 41, Malaysia 9, Others 27
Government bond rate	30	Brazil 15, Others (13countries) 15
Prime lending rate (PLR)	23	India 19, Vietnam 4
Return on equity (ROE)	19	India 19
Interest rate	18	Indonesia 4, Malaysia 4, Others 10
Required rate of return (RRR)	19	India 16, Others 3
Government bond rate plus Risk premium	17	India 4, Mexico 4, Others 9
Others (Internal hurdle rate, etc.)	155	–
No data	28	–

Bechmark rate varies according to country and project type

The standard deviation (σ) of benchmark rates, which illustrates the variability in a set of data, was calculated by taking the square root of variance by country and project type. It was found that the range between maximum and minimum benchmark rates differed for each country.

Chinese projects showed the smallest value of standard deviation from benchmark rate. On the other hand, Brazil has the largest standard deviation compared to other countries. The small value for China indicates that benchmark rates tend to be very close to the mean and have a small range of values, while the large value for Brazil indicates that benchmark rates tend to have a large range of values. As for the project type, it was also found that the range of benchmark rates between maximum and minimum was very diverse. Hydro power projects have the largest standard deviation among all project types; conversely, waste gas and heat utilization projects have the smallest standard deviation.

Variability of benchmark rate by country

Country	Projects	Min [%]	Max [%]	σ*
Brazil	29	8.6	23.3	4.2
Indonesia	11	6.8	20.0	3.7
Thailand	11	6.6	15.0	3.2
Malaysia	32	6.2	15.0	2.9
India	163	8.3	20.0	2.8
Vietnam	10	6.9	14.6	2.7
Mexico	12	9.2	16.0	2.5
China	653	4.4	18.0	1.7

* σ: Standard deviation (Projects which have no data are excluded in calculating standard deviation)

Variability of benchmark rate by project type

Project type	Projects	Min [%]	Max [%]	σ*
Hydro power	432	6.5	20.9	5.4
Biomass	54	8.0	30.0	4.3
Methane recovey and utilization	86	4.4	23.3	4.0
Fuel switch	24	8.0	18.7	3.5
Wind power	246	5.2	17.7	3.0
Biogas	41	6.6	16.0	2.9
Methane avoidance	20	6.2	15.0	2.8
Waste gas and heat utilization	71	8.0	20.0	2.5

* σ: Standard deviation (Projects which have no data are excluded in calculating standard deviation)

Why a unified benchmark rate in China?

China is well known as the largest host country in the CDM. Among the six types of project in the table below, it was found that the value of standard deviation of hydro power, wind power, biomass and fuel switch projects is quite small compared to other project types. Two benchmark rates are usually selected for hydro and wind power projects in China: 8%, which is the rate published by the state power corporation of China, and 10%, which is the rate published by the National Development and Reform Commission (NDRC), the Ministry of water resources and the Ministry of construction. For the biomass and fuel switch projects, the benchmark of 8% is also used, the same as that for the power industry. The availability of such benchmarks which have been approved officially by government and state companies would reduce the burden of project proponents and contribute to lower transaction costs for preparation.

Variability of benchmark rate by project type in China

Project type	Projects	Min [%]	Max [%]	σ*
Methane recovery and utilization	45	4.4	15.0	2.4
Waste gas and heat utilization	50	8.0	18.0	2.3
Hydro Power	358	7.0	10.0	0.9
Wind Power	158	8.0	10.0	0.2
Biomass	13	8.0	8.0	0
Fuel switch	18	8.0	8.0	0

* σ: Standard deviation (Projects which have no data are excluded in calculating standard deviation)

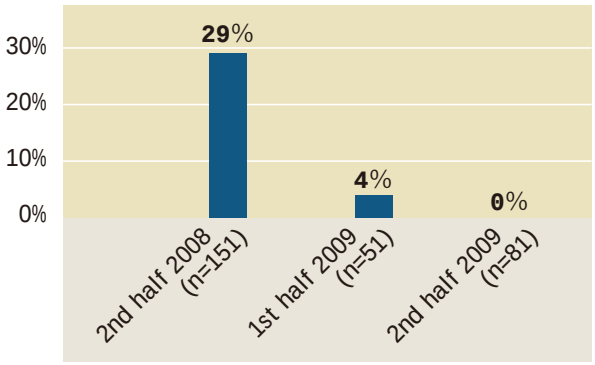
Number of registered projects in China by type of benchmark rate

Project type	Type of benchmark rate	Projects
Hydro power	Government code	266
	Power industry's sector benchmark	88
	Others	4
Wind power	Power industry's sector benchmark	145
	Government code	10
	Others	3
Biomass	Power industry's sector benchmark	13
Fuel Switch	Power industry's sector benchmark	18

Streamlining of common benchmark rates can further promote CDM projects

During the latter half of 2008, many hydro power projects in China received requests for reviews by the EB, which pointed out the suitability of the 10% benchmark rate published by the Ministry of Water Resources in 1995. Project proponents made reference to announcements of the validity of benchmark rates set by the Chinese government on their websites. Official announcements such as those above have also had an impact on similar hydro power projects, which has resulted in a dramatic drop in the number of requests for review.

Ratio of projects requested for review regarding benchmark rate to total of projects requested for registration in Chinese hydro power CDM projects (%)



As a result, it can be said that common benchmark rates approved officially by the government and industry sectors streamlined the assessment of validity on benchmark rates under the current registration procedure, which thereby contributed in the promotion of CDM projects in China. Thus, development of common benchmark rates that can be published officially by the government and/or any other regulating body for the CDM, taking national circumstances into consideration, may remove the obstacles to using investment analysis for potential CDM projects.

(Kentaro TAKAHASHI)

2.4 Can programmatic CDM improve equitable distribution ?

Advantages of the CDM Programme of Activities (PoA)

The procedures for the CDM Programme of Activities (PoA) were adopted in the EB meeting in June 2009. The new programme has some specific advantages over the normal CDM. One of them is the existence of the Coordinating or Managing Entity (CME) of a PoA. A CME coordinates the projects under a PoA, or CDM Programme Activities (CPAs), and manages their operations and CER issuances.

In addition to the existence of a CME, the PoA has other interesting original features. There is no limit on the number of CPAs under a PoA and no requirement for additional registration fees after the registration of its first CPA. Also, each CPA can set its own crediting period. This individual crediting period may reduce losses of CERs issued out of the uniformly-set crediting period for a bundled normal CDM project and be more beneficial to a CME.

Original features of the PoA

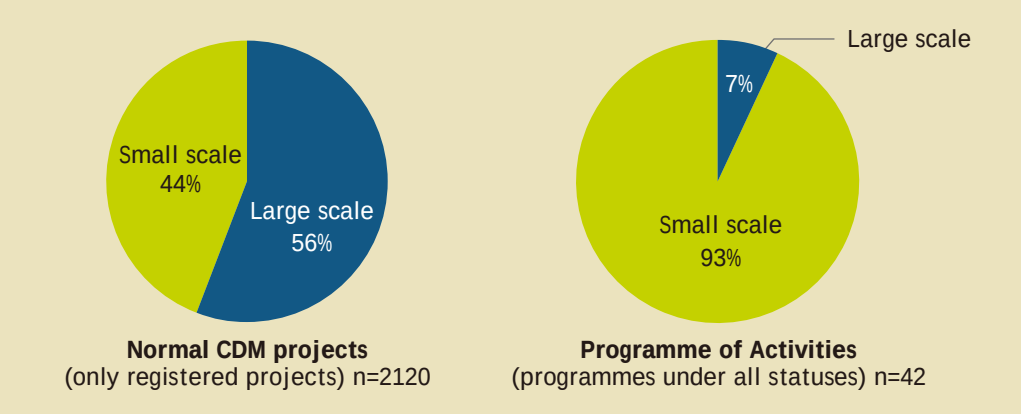
Key point	Normal CDM	PoA
Who is in charge of project implementation?	Project participant (PP) (Private/public)	**Coordinating/ managing entity (CME) (Private/public)**
Adding projects after registration	Not allowed	**Unlimited number of CDM programme activities (CPAs) are allowed**
Payment of the registration fee	Once at the time of registration	**Once at the time of registration of a PoA**
Crediting period	One crediting period for all the sites	**Individual crediting period for each CPA**

Small-scale PoAs represent the largest share of the total number of programmes

There were 42 Programmes of Activities in the pipeline as of April 1, 2010: two programmes had been registered, one was at the request for registration stage, corrections were requested for another, and the rest were under validation. On the other hand, the number of registered normal CDM projects came to 2,120. Considering such a big difference in number, it may be too early to conduct analyses between the two, but the results of the analyses reveal interesting trends of the current PoA.

First, it is an interesting fact that the majority of PoAs are small-scale, while both small- and large-scale projects have almost the same share in the normal CDM. The PoA gives project developers some advantages in the form of exempting registration fees for additional CPAs. Therefore, it is reasonable that CMEs try to register the same type of small-scale projects as CPAs, which are normally unprofitable individually.

Analysis of normal CDM projects and PoAs by scale



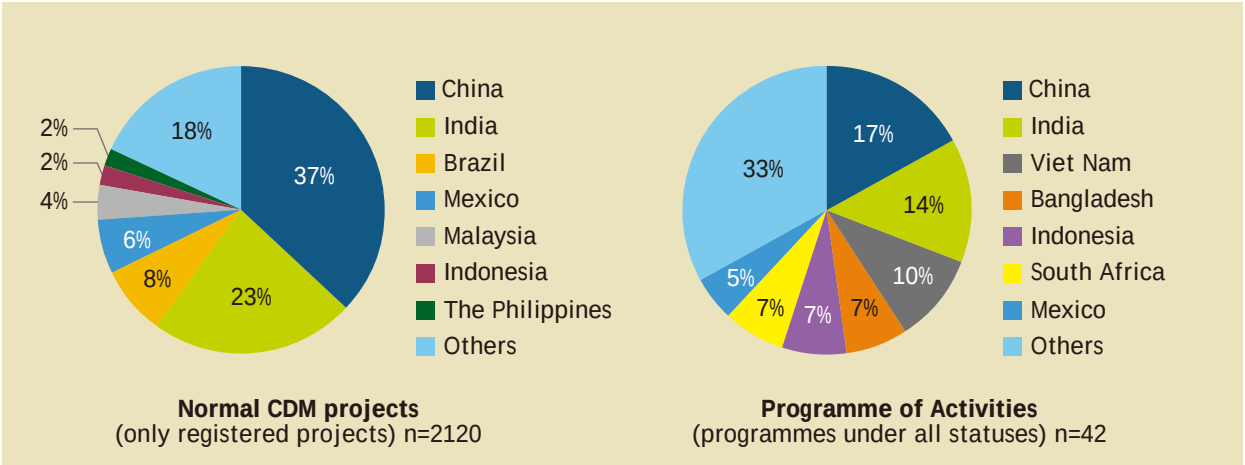
Normal CDM projects
(only registered projects) n=2120

Programme of Activities
(programmes under all statuses) n=42

The PoA may alleviate regional disparities under the normal CDM

One of the well-known facts of the normal CDM is that the majority of host countries are in Asia. It is also said that the normal CDM does not provide big benefits to least developed countries (LDCs). The PoA tries to overcome such disadvantages in LDCs both through economic and institutional approaches. If a CME succeeds in getting a PoA registered, it may register a project which is economically unfeasible by itself as an additional CPA. In other words, rules of no additional registration fees and no limit on the number of CPAs under a PoA may reduce the total costs for project registration, thus a group of very small-scale projects can generate benefits as a whole. Further, allowing individual crediting periods for each CPA may reduce CER losses as a PoA.

Analysis of normal CDM projects and PoAs by country (1): Number

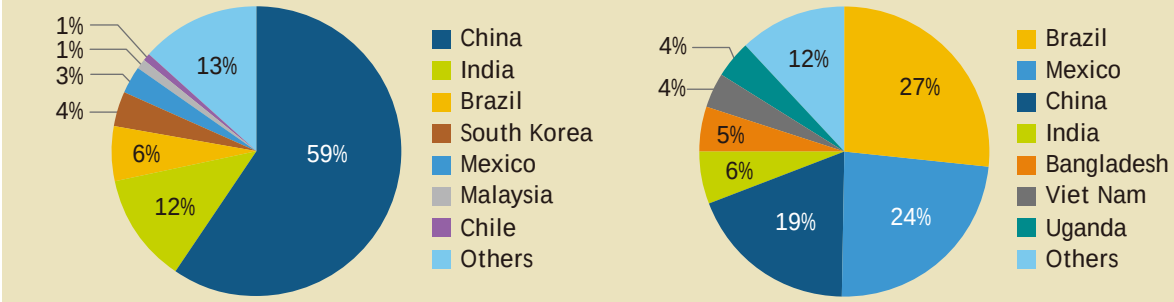


Normal CDM projects
(only registered projects) n=2120

Programme of Activities
(programmes under all statuses) n=42

In terms of emission reductions by PoAs, countries in Latin America account for 53%, followed by Asia (40%), Africa (3%) and Middle East (0%). In Latin America, Brazil and Mexico contribute to the biggest shares. It is assumed that this fact reflects the trend in which annual emission reductions increase after passing a validation stage. For example, annual emission reductions achieved via a compact fluorescent lamp (CFL) scheme in India (PoA 3223) increased from 21,297t-CO_2/y to 34,892t-CO_2/y before and after the validation process. Currently registered PoAs come from Brazil and Mexico.

Analysis of normal CDM projects and PoAs by country (2): Annual emission reductions



Normal CDM projects
(only registered projects) n=2120

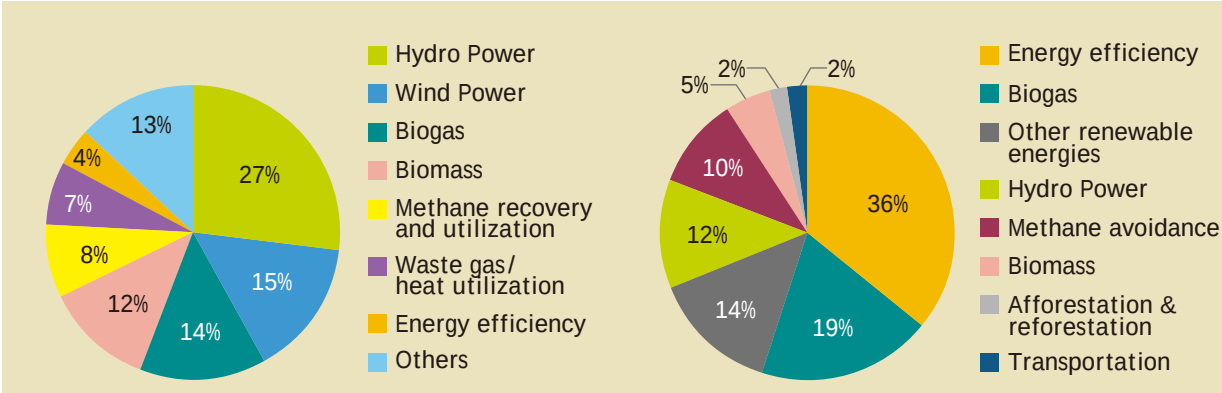
Programme of Activities
(programmes under all statuses) n=42

Energy efficiency programme is the most common PoA

Third, the results of analyses of the number of project/programme types show a big difference in the compositions of the top three between the normal CDM and the PoA. Only biogas and hydro power are ranked within the top five in both types of CDM. The most common normal CDM project, hydro power, is ranked in the fourth share in the PoA, and energy efficiency, which has the biggest share in the PoA, decreases to the seventh share in the normal CDM.

Energy efficiency is a remarkable area with heavy demands in developing countries. For example, ten out of 15 energy efficiency PoAs target commercial and household sectors and most of them aim to improve the energy efficiency of cooking stoves and lighting in households. These are closely related to everyday life of people in developing countries and therefore such PoAs could be easily understood by targeted participants and could contribute to achieve their sustainable development. Also, such projects tend to be too small to be developed as a normal CDM project, thus it is reasonable for a CME to develop these projects as a CPA. As a result, the most common PoA is now one based on energy efficiency.

Analysis of normal CDM projects and PoAs by type (1): Number

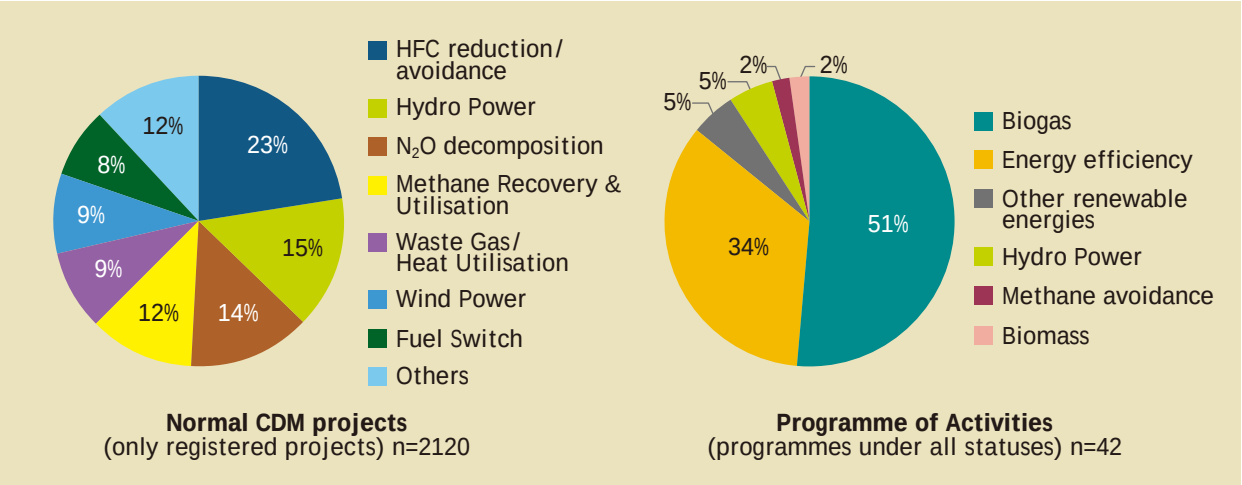


Normal CDM projects
(only registered projects) n=2120

Programme of Activities
(programmes under all statuses) n=42

In addition, there is a proportional relationship between the number and annual emission reductions in the PoA. The proportions of biogas and energy efficiency are greater than half in number and their proportion increases to over 80 percent in annual emission reductions. Note that the currently registered PoAs are biogas and energy efficiency programmes, which might have had increases in their annual emission reductions after validation.

Analysis of normal CDM projects and PoAs by type (2): Annual emission reductions



Reducing financial risk is the key for PoA promotion in the future

While the PoA is expected to give more opportunities for participation by LDCs than the normal CDM, it is also true that currently big developing countries lead in PoA development. PoA financial providers, such as banks, are likely to refuse providing money to PoAs because of their lower experience in PoA loans. Even in the normal CDM, project proponents are having difficulties in convincing banks about the future income expectations for CERs. But if we look at the features of PoAs described in this section, it can be said the PoA is compatible with micro finance. Micro finance has been contributing to the increase in quality of everyday life of people in developing countries, and the same is true for the PoA. Micro finance institutions have knowledge of credit exposure management, which means they can identify those people who will use the money as intended, and make a return. The PoA also requires such people to conduct projects and monitor the results continuously. Hence, close collaboration between CMEs and micro finance institutions may promote PoAs which can contribute to sustainable development of ordinary life in developing countries.

(Chisako URAYAMA)

2.5 Where does the CDM stand in the transfer of Kyoto units ?

The CDM has contributed most to Kyoto unit transfer up to 2009

The CDM has played the most important role in the transfer of Kyoto units up to 2009. When compared with JI, another project-based mechanism which takes place between Annex I countries, the CDM was issued with ninety times as many Kyoto units by the end of 2009. According to the estimates of issuance, this tendency will likely be weakened but remain during the first commitment period.

Comparison of Kyoto unit issuance between CDM and JI [Unit: million t-CO_2]

	Issued by 2009	Forecast of 2008-2012
CDM (CERs)	364	1,700
JI (ERUs)	4	180*

* (Source) UNEP Risoe "JI Pipeline overview"

Average days taken from the start of public comment at the end of 2009

	Up to registration/ determination	Up to the first issuance of CERs/ verification of ERUs
CDM	409	748
JI (Track2)	655	864

The significant gap in the amount of issuance results from the fact that it has been more than four years since the first issuance of CERs, whereas ERUs have been issued for only about a year. In addition, JI is still in the teething phase of establishing and implementing its rules and procedures, causing slow progress in project development and ERU issuance. There are two types of process under JI; one with rules and procedures developed by host countries, and the other under the UNFCCC with a committee which accredits projects, called the JI Supervisory Committee (JISC). In the former process, it has taken a long time for many host countries to carry it out, which has caused delays in developing JI projects in those countries. The latter process is similar to that of the CDM, but it takes longer on average for JI projects until registration and issuance of ERUs than CDM projects.

Rapid increase in contracts made under GIS in 2009

The green investment scheme (GIS) is another market mechanism which is based on emissions trading with efforts to improve the environment. Through GIS, AAUs are transferred between Annex I countries and the revenues raised from selling AAUs are to be utilized to reduce greenhouse gas emissions in the seller country. In 2008 few contracts were made under GIS, but the scheme began to take effect in 2009, in which contracts to transfer about 416 million AAUs in total were made. Little of the contracted amount was transferred in 2009, but GIS will soon likely bring about significant impact on supply and transfer of Kyoto units.

Vigorous transfers made between EU countries, Japan, and Switzerland

Except for AAUs transferred under the EU ETS, which cancelled each other out between EU countries, there were not many AAUs transferred in 2008. Under GIS, reportedly less than 10 million AAUs were transferred in total. Other transfers of AAUs were mainly made either from or to Switzerland. As for CERs, the main transfers were made from the CDM registry to EU15 countries, Japan, and Switzerland as well as between these countries. EU15 countries transferred the majority of the total amount under the EU ETS, while most CERs purchased by Japan were from the CDM registry. The large amount of transfers to and from Switzerland can be attributed to the fact that many foreign companies had their accounts opened in the Swiss national registry and eventually transferred CERs to the national registry of their own country.

Summary of AAUs transferred in 2008 [Unit: 1,000 t-CO_2]

Transferred from: \ Transferred to:	Total	EU15	EU27 (Excl. EU15)	Ukraine	Japan	Switzerland
Total	938,357	14,874	0	16,611	42,859	
EU15	818,267	±787,371	10,896	0	0	20,000
EU27 (Excl.EU15)	78,121	71,993	±3,978	0	150	2,000
Ukraine	22,320	0	0	–	1,461	20,859
Japan	0	0	0	0	–	0
Switzerland	22,000	7,000	0	0	15,000	–

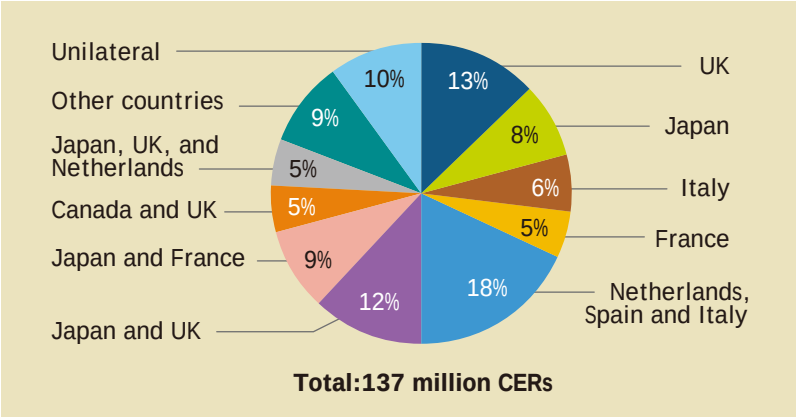
Summary of CERs transferred in 2008 [Unit: 1,000 t-CO_2]

Transferred from: \ Transferred to:	Total	EU15	EU27 (Excl. EU15)	Japan	Switzerland	Other
Total	346,483	9,715	40,145	114,865	77	
CDM Registry	195,649	134,036	0	26,427	35,134	52
EU15	206,953	±124,809	6,785	3,371	71,989	0
EU27 (Excl.EU15)	967	309	618	0	40	0
Japan	10,686	2,983	0	–	7,703	0
Switzerland	97,016	84,331	2,313	10,347	–	25
Other	156	15	0	0	0	–

CER purchasing countries and participant countries of CDM projects are not necessarily the same

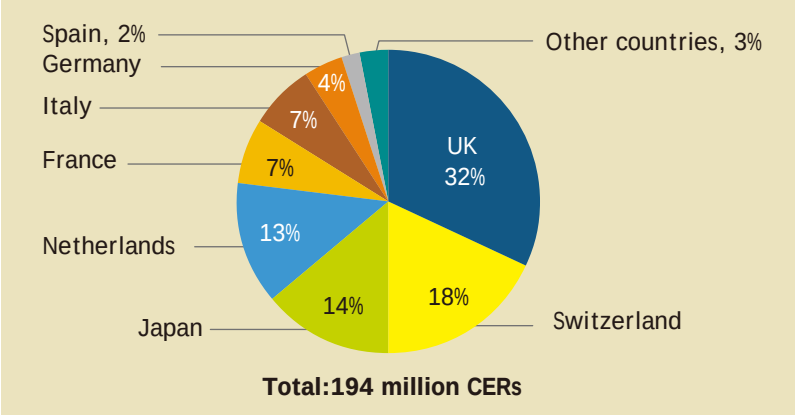
A comparison between how much a country accounts for in the amount of purchased CERs from the CDM registry and as a CDM project participant of issued CERs shows whether major CER purchasing countries tend to acquire CERs from CDM projects they participated in. Although the UK and Switzerland account for about half of purchased CERs in total, these countries do so much less as participants of CER-issued CDM projects, especially Switzerland, which participated in the CDM projects with less than 1% of total CERs issued in 2008. Smaller CER purchasing countries such as Japan, the Netherlands, France and Italy filled the gap instead, showing that the countries purchasing CERs are not necessarily the ones who participated in the CER-issued CDM projects. Since there is a difference in the amount of purchased CERs and issued CERs in 2008, this analysis may not be accurate but the result can basically be considered as reflecting the actual situation.

Percentage of CERs issued in 2008 by participant country



Total:137 million CERs

Percentage of CERs purchased by each country from CDM registry in 2008



Total:194 million CERs

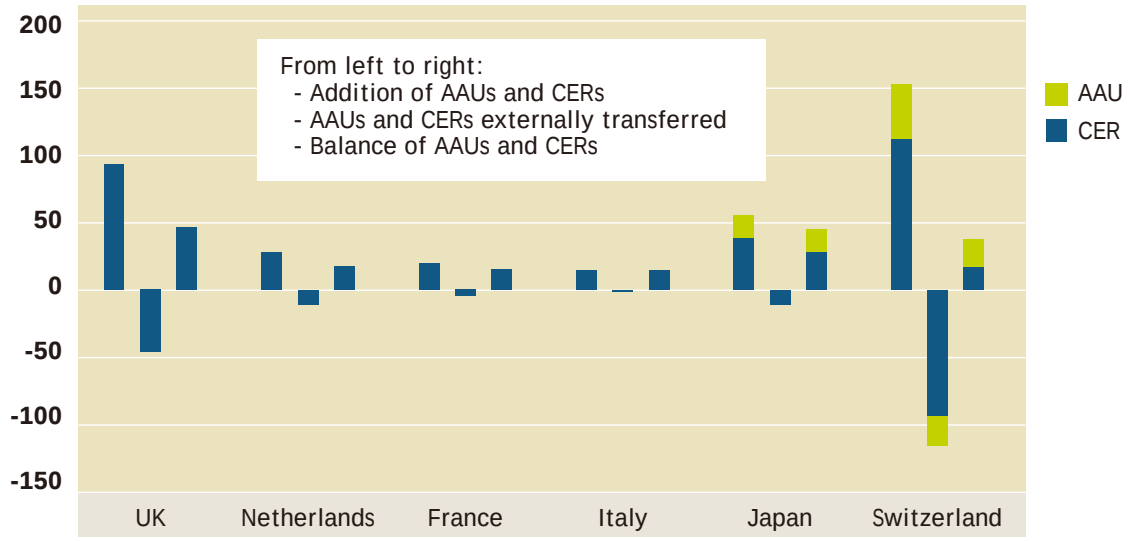
In 2008 Japan used Kyoto units for compliance while UK and Switzerland used them for further transfer

The graph in the right page shows the amount of AAUs and CERs remaining in the national registry of major purchasing countries at the end of 2008, excluding the cancelled or retired units. From this graph, whether a country tends to utilize these Kyoto units to comply with its Kyoto

target or for further transfer can be observed. The UK and Switzerland externally transferred about 50% and 80% respectively of the Kyoto units they acquired in 2008. On the other hand, such countries as Japan, the Netherlands, France and Italy transferred a lower percentage to foreign countries. Among these countries, Italy had the lowest percentage of external transfer, which was almost 0%, followed by Japan with 19%. Therefore, the UK and Switzerland can be considered mainly as points of transfer of Kyoto units, and Italy and Japan as compliance buyers.

The graph also indicates that, excluding the influences from the EU ETS, CERs were the main Kyoto unit procured in 2008. With few ERUs from JI projects issued and little movement to make contracts under GIS yet to be started in 2008, the CDM was almost the only source of supply of Kyoto units.

Balance of CERs and AAUs by country in 2008 [Unit: million t-CO_2e]



* Amounts of AAUs and CERs added and subtracted do not include those transferred between EU 27 countries.

Important to streamline CDM process for better predictability of CER issuance

In analyses of the results of Kyoto unit transfers, it was observed that the CDM contributed most to the supply of Kyoto units in 2008. This is attributed to the fact that the CDM is more established and more widely utilised compared to the other two market mechanisms, JI and GIS. In addition, it has gained value for its contribution to sustainable development of non-Annex I countries. But as contracts and transfers under GIS started to take off in 2009, it is likely that GIS will soon compete with the CDM in terms of amount of supply of Kyoto units. Furthermore, the large amount of uncertainty surrounding how many CERs a CDM project will be issued with, as discussed in detail in section 2-1, might drive an Annex I country to acquisition of AAUs under GIS. Streamlining the CDM procedures to give all the stakeholders a certain amount of security in acquisition of CERs is important in satisfying the demand for CERs by those who really need them.

(Nozomi OKUBO)

Cambodia

Partner: Ministry of Environment, Cambodia [MOE-C]

What we did

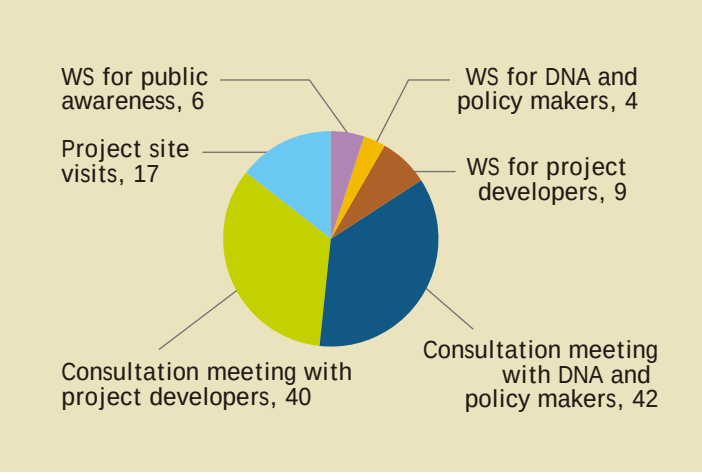
IGES activities in Cambodia started in 2003. Since then 19 workshops have been organized in various places: Phnom Penh, Battam Bang province, Kampong Cham province, Kampot province, Siem Reap province, and Sihanouk Ville. Workshops mostly targeted those involved in project development but also in operating the DNA.

IGES has made substantial inputs to the establishment of the approval process of Cambodia as well as actively engaged Cambodia towards reforming the current CDM rules and procedures. IGES, together with MOE-C, jointly submitted three proposals to the EB aiming at removing bottlenecks faced upon implementing CDM projects in LDCs, like Cambodia. Two of them were actually reflected in the current rules, which is expected to lead to more active involvement of LDCs in the CDM.

What we learnt

Through field surveys and consultations with project owners we have learnt that the CDM actually contributes towards sustainable development and provides benefits to local communities. At the same time, we also learnt that CDM projects in LDCs are highly vulnerable to any changes in environment, including increases of associated costs of the CDM, which may sometimes cause long delays in construction. Therefore, we believe further additional incentives or preferential treatment, especially for LDCs, are necessary.

Capacity Building Activities in Cambodia



China

Partner: Tsinghua University [Tsinghua]

What we did

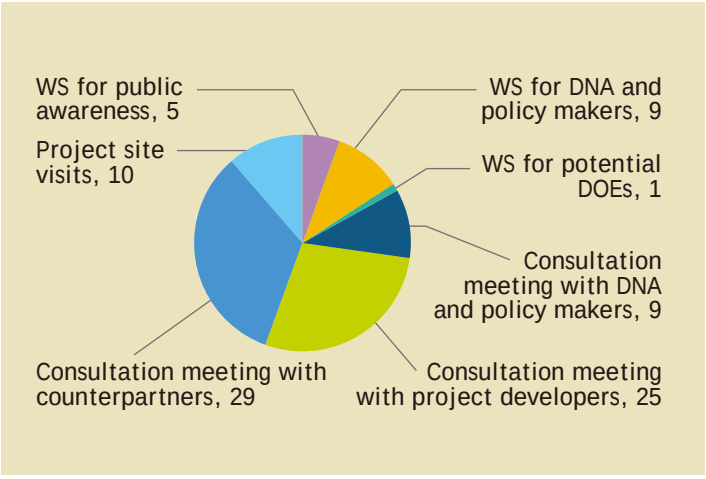
IGES activities in China started in 2005. Since then direct assistance in PDD development and national approval has been conducted for various projects in various places: waste heat recovery and coal mine methane in Shaanxi, wind power and biomass in Inner Mongolia, hydro power in Guizhou, and a district heating system, PV, and small-scale hydro in Gansu. Ten PDDs were completed and seven out of them have been approved by the Chinese DNA.

IGES and Tsingua worked closely with the National Development and Reform Commission (NDRC) of China and the Ministry of the Environment, Japan in order to facilitate CER acquisition between China and Japan through this programme. Government officials from both countries were engaged in regularly discussing their views on the CDM, and agreement of CER acquisition from this programme was successfully concluded.

What we learnt

We found that a lack of local DOEs causes significant delays in the validation process due to the misunderstanding of local regulations and situations. This also relates to miscommunication or insufficient explanation to the EB during the registration process. Therefore, we think that capacity building for local DOEs is important in order to accelerate the validation and registration processes.

Capacity Building Activities in China



India

Partner: The Energy and Resources Institute [TERI]
Winrock International India [WII]

What we did

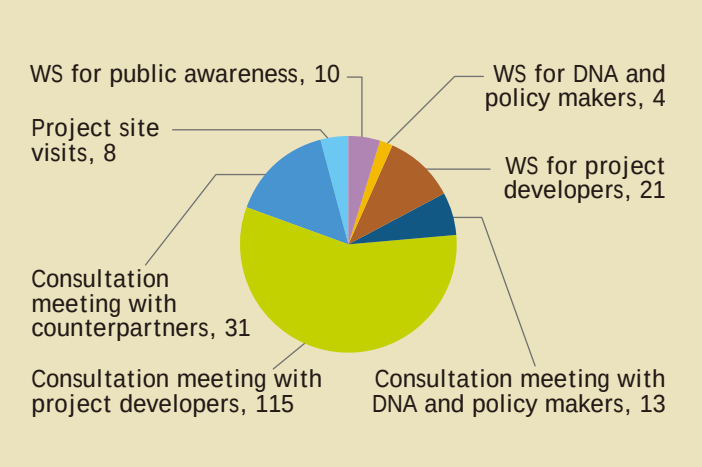
IGES CDM capacity building activities in India started in 2003. Since then 35 workshops and seminars have been held across the country: New Delhi, Ahmadabad, Jaipur, Vadodara, Mumbai, Pune, Hyderabad, Bangalore, Coimbatore, Visakhapatnam, Kolkata, and Durgapur. The workshop topics have focused on such sectors as waste management, cement, steel, and power generation, and were targeted at municipalities, small and medium-sized enterprises, financial sectors, etc. In addition, a Japan-India CDM seminar was held in Tokyo in 2008.

One of the contributions IGES has achieved is the development of a number of PINs and PDDs. So far, IGES has supported the development of around 30 PINs and PDDs of potential CDM projects.

What we learnt

In India, many CDM project proponents are capable of developing project ideas but problems arise in the implementation stage. For example, when a project utilizes technology which is "first-of-its-kind", it cannot attract a loan from banks. It is also difficult for project proponents in India, which are often small scale entities, to go through the CDM process, which requires tasks beyond their resources. We think it is important to contribute to the development of clearer guidelines and streamlining of the CDM process so that local banks can be more easily convinced to finance challenging CDM projects.

Capacity Building Activities in India



Indonesia

Partner: Carbon and Environmental Research [CER-Indonesia]
Yayasan Bina Usaha Lingkungan [YBUL]

What we did

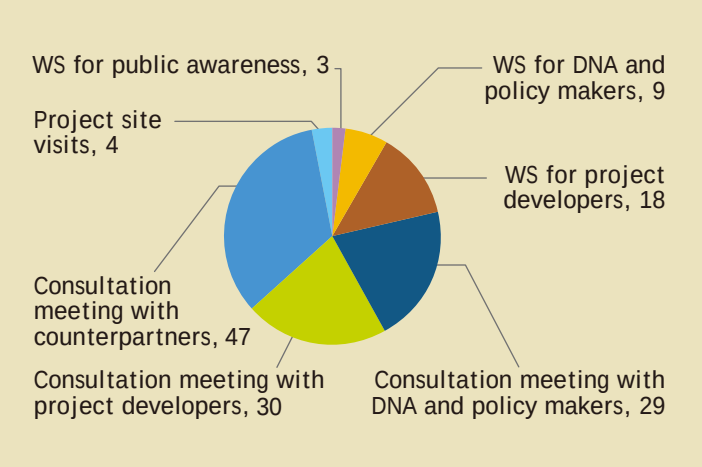
IGES capacity building activities in Indonesia started in 2003. Since then 30 workshops and consultation meetings have been held across the country: Jakarta, Bali, Balikapapan, Bogor, Kupang, Lampung, Makassar, Malang, Medan, Pontianak, and Surabaya. IGES workshops have provided training for project proponents and government officers to promote CDM projects, and around 40 PINs and PDDs were developed.

We have also published several useful tools, such as CDM in charts and emission reductions calculation sheets in the Indonesian language, which helped clarify the rules and procedures of the CDM to those who were exposed to the CDM for the first time in Indonesia.

What we learnt

Although we have supported many types of potential CDM projects since 2003, we frequently faced difficulties in starting the validation. One of the reasons for this is that it was not easy for project proponents to bear the cost for validation, and that was partly caused by the lack of local DOEs. In addition, project proponents sometimes faced difficulties during verification, which is the final stage before issuance of CERs. Therefore, capacity enhancement of monitoring and verification for both project proponents and DOEs is needed to fully utilize CDM benefits in Indonesia.

Capacity Building Activities in Indonesia



Lao PDR

Partner: Prime Minister's Office,
Water Resources and Environment Administration [WREA]

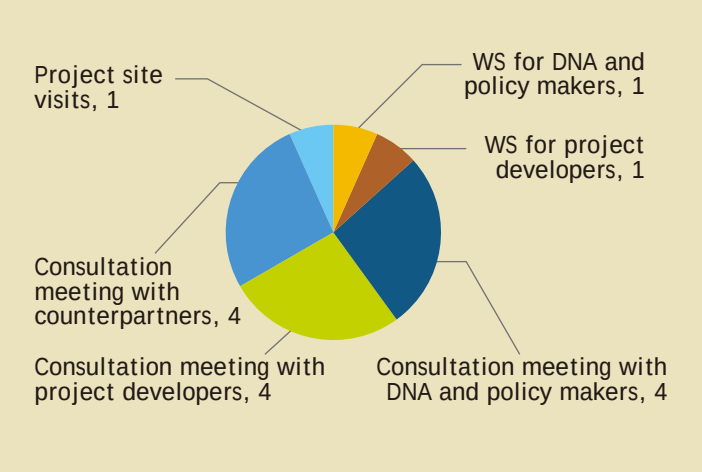
What we did

IGES launched CDM capacity building activities in Lao PDR in 2008, including the preparatory stage. As a start, we organized a DNA workshop in Vientiane in August 2009 for government officials to strengthen the potential of CDM implementation in Laos. The second workshop we held in February 2010 targeted potential CDM projects and invited participants from domestic energy companies, banks, CDM consulting firms, international institutes such as the Asian Development Bank, World Bank and UNEP, and government agencies related to climate change.

What we learnt

Currently, one CDM project is registered in Laos. However, we believe Laos has considerable CDM potential. We understand that the current CDM rules do not accommodate special circumstances of countries like Laos in developing emission reduction projects. Therefore, it is important for Laos to propose CDM reform in order to fully utilise the benefit of the CDM toward sustainable development.

Capacity Building Activities in Lao PDR



Philippines

Partner: Department of Environment and Natural Resources,
Environmental Management Bureau [DENR-EMB]
Ateneo de Manila University-School of Government [ASOG]

What we did

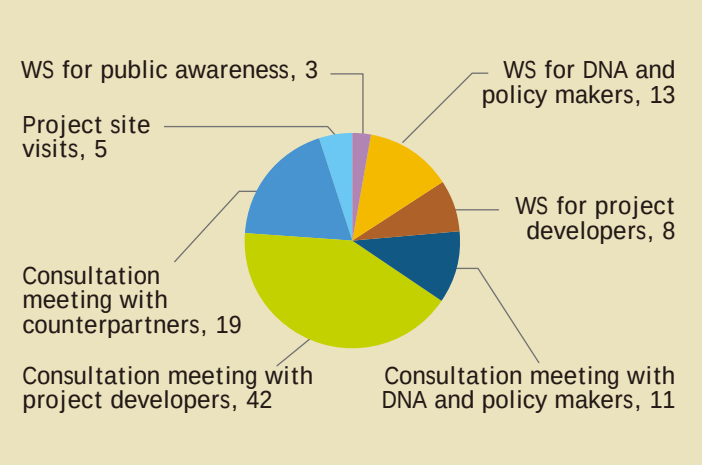
IGES CDM capacity building activities in the Philippines started in 2003. For the last seven years, a total of 34 workshops, including one-on-one tutorial meetings, were held throughout the nation, which includes Manila, Cebu, Bacolod city, Bolinao, Angeles-city in Pampanga, Cagayan De Oro, Tagaytay city, and Tarlac city.

Throughout the activities, IGES supported the institutional capabilities of the DNA by organising a series of technical workshops for the DNA to formalise the Implementing Rules and Regulations for the establishment of DNA. In recent years, we have emphasized the improvement of current CDM rules based on the experience gained with all types of CDM stakeholders, and the experimenting of the monitoring of post-registration phase through having visited the actual project sites with DNA member staff. We have also provided technical expertise to the actual development of CDM projects in different sectors, such as renewable energy development by local companies, waste management by local government units, and energy efficiency in industrial sectors.

What we learnt

Based on the activities so far, we have the view that the CDM has created the momentum to develop projects that will reduce GHGs while assisting the country in achieving sustainable development. Nevertheless, there is still much room to improve the function of the DNA, such as in the strengthening of sustainable development assessment, promoting the country's own default emission factors, and to provide clear guidance so as to enhance the efficiency of the DNA system. This is particularly true when it comes to dealing with new types of CDM project, like the programme of activities (PoAs).

Capacity Building Activities in the Philippines



Thailand

Partner: Thailand Greenhouse Gas Management Organization [TGO]
Thailand Environment Institute [TEI]

What we did

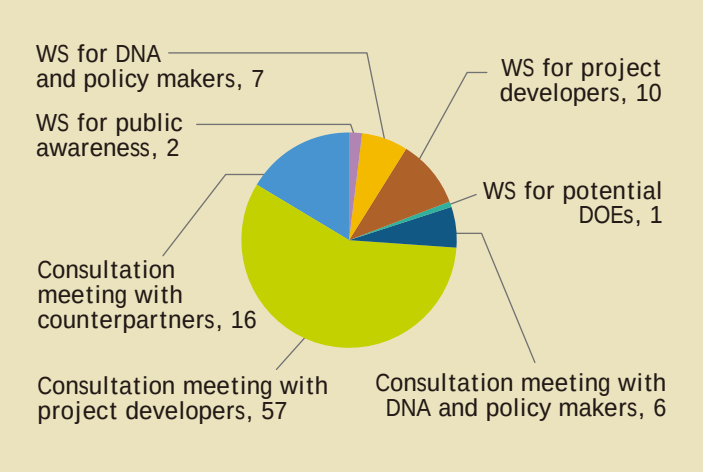
IGES activities in Thailand started in 2005. Since then 18 workshops have been organized in various places: Bangkok, Nonthaburi, Chiang mai, Chiang rai, Surat Thani, Udon Thani, and Krabi. Most of the time workshops targeted those involved in project development, but in some cases they were also held for the capacity building of those who check and evaluate proposed projects, such as Thai DNA and potential DOEs.

IGES made substantial inputs to the establishment of the approval process of Thailand while DNA staff were designing the approval process. The process was formally established in 2007 and since then more than 100 proposed CDM projects have been approved by TGO as Thai DNA. IGES and TEI have tailored their workshops to the sectors where the potential of project development is expected to be high in Thailand, and more than 1,400 participants in total have attended the workshops.

What we learnt

We learnt that, although the capacity of Thai CDM project proponents is basically high, capacity building is still required to expand the CDM in Thailand, especially in such new areas as programmatic, transportation and city-wide CDM projects. Establishment of local DOEs will also encourage project development and capacity building training for potential DOEs will play an important role.

Capacity Building Activities in Thailand



International and regional activities

What we did

IGES has conducted various kinds of international and regional events, including side events during the COP and SB. Recently, IGES has been focusing on discussing policy proposals with a view to reform the CDM.

What we learnt

Through the discussions during such events, especially in recent years, we recognised that many stakeholders were having the same thoughts as explained in this report, whereas there were also a number of stakeholders whose views differed from ours. We learnt that it is important to utilise empirical analysis and quantitative data in discussions.

International and regional workshops and events related to CDM reform organised by IGES

Date	Title	Venue
16 May 2007	**SB26 Side Event:** Lessons Learnt from CDM Capacity Building - Is There a Need to Reform International and Domestic Rules?-	Bonn, Germany
10 December 2007	**COP13 Side Event:** Lessons Learnt from CDM capacity building - Is There a Need to Reform International and Domestic Rules?-	Bali, Indonesia
20-21 March 2008	IGES CDM Capacity Building - Kyoto General Meeting	Kyoto, Japan
10 Jun. 2008	**SB28 Side Event:** CDM reform - Proposals Based on Lessons Learnt from IGES CDM Capacity Building-	Bonn, Germany
6 December 2008	**COP14 Side Event:** Where Do Market Mechanisms Go from Here? -Demonstrating the Co-benefits of Climate Change Mitigation and Proposals for CDM Reform Based on Experiences in Asia- (Co-organised with the Ministry of the Environment Japan and Overseas Environmental Cooperation Center (OECC))	Poznań, Poland
9 June 2009	**SB30 Side Event:** Reforming the CDM for the future climate regime	Bonn, Germany
10 December 2009	**COP15 Side Event:** Low-Carbon Asia -Visions and Actions- (Co-organised with National Institute for Environmental Studies (NIES) and Japan Center for Climate Change Actions (JCCCA))	Copenhagen, Denmark
5-6 March 2010	IGES CDM Capacity Building - Kyoto General Meeting	Kyoto, Japan

About the IGES CDM Capacity Building Kyoto General Meeting

The IGES CDM Capacity Building Kyoto General Meeting was held over March 5 and 6, 2010 in Kyoto, Japan, with the support of the Ministry of the Environment of Japan. Around 30 policy makers, as well as experts of the CDM from countries IGES has been collaborating with, participated. The objective of the meeting was to share the experiences and lessons learnt from the CDM capacity building activities in each collaborating country, and then, using this as a springboard, discuss options to further improve the CDM.

The meeting consisted of three sessions. The first session, "Report of FY2009 CDM Capacity Building Activities" was chaired by Professor Hironori Hamanaka, the Chair of the Board of Directors, IGES. The participants made presentations on the activities implemented in each country during 2009 and suggested future prospective activities. The participants agreed that CDM capacity building activities have greatly contributed to the development of the CDM in the host countries so far. Nevertheless, there is an ongoing need for capacity building, especially in new areas such as programmatic CDM.

In the second session, "IGES Presentation: Findings from CDM Databases" was chaired by Dr. Yuji Mizuno, Director of the Market Mechanism Group of IGES. Researchers of IGES presented their findings from IGES CDM databases, which they have developed and regularly updated. Presenters delivered trends and features of the current CDM projects from various points of views, and new findings based on the quantitative data and analysis were introduced.

In the final session, "CDM Reform" was chaired by Mr. Taka Hiraishi, member of the Board of Directors of IGES. The participants discussed the areas and options to improve the CDM. The discussion included, among other items, aspects and co-benefits of sustainable development, transboundary CDM projects, new verification approaches and relationships between the CDM and other crediting mechanisms.

During the two day session, the participants actively contributed to the technical debate related to the CDM.

■ Participating countries and organisations

Cambodia	Ministry of Environment
China	Tsinghua University
India	The Energy and Resources Institute (TERI)
	Winrock International India (WII)
Indonesia	National Council on Climate Change
	Carbon and Environmental Research (CER-Indonesia)
	Yayasan Bina Usaha Lingkungan (YBUL)
Lao PDR	Water Resources and Environment Administration (WREA)
The Philippines	Environment Management Bureau, Department of Environment and Natural Resources
	Ateneo de Manila University, Ateneo School of Government (ASOG)
Thailand	Thailand Greenhouse Gas Management Organization (TGO)
	Thailand Environment Institute (TEI)
UNFCCC Secretariat	
Japan	Ministry of the Environment
	Institute for Global Environmental Strategies (IGES)
	Global Environment Centre Foundation (GEC)
	Overseas Environmental Cooperation Center, Japan(OECC)

About this report

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Scope of the report:

This report aims to propose ideas for CDM reform, targeting international negotiators of the CDM. The Market Mechanism Group of IGES has been implementing IGES CDM capacity building activities in Asia as well as developing IGES CDM databases for quantitative analysis. The group organised the IGES CDM Capacity Building Kyoto General Meeting in order to discuss, among other items, ideas for CDM reform, based upon the experience gained through the activities and results of the data analysis. This report presents the findings of the meeting, based mostly on materials presented by IGES researchers at the meeting.

Acknowledgements:

The authors wish to sincerely thank all the participants of the IGES CDM Capacity Building Kyoto General Meeting for their contributions to the meeting. The authors would also like to thank Mr. Sum Thy and Mr. Uy Kamal (Ministry of Environment, Cambodia), Dr. Sheng Zhou (Tsinghua University), Mr. Suresh Krishna Ishwara Palar (The Energy and Resources Institute), Mr. Dicky Edwin Hindarto (National Coucil on Climate Change, Indonesia), Dr. Lolo M. Panggabean (Yayasan Bina Usaha Lingkungan), Ms. Syahrina D. Anggraini (Carbon and Environmental Research), Ms. Charmion Grace Reyes (Environmental Management Bureau, the Philippines), Ms. Marina T. Mallare (Ateneo School of Government Ateneo de Manila University), Dr. Grant A. Kirkman (United Nations Framework Convention on Climate Change secretariat), Mr. Makoto Kato (Overseas Environmental Cooperation Center), Prof. Hironori Hamanaka, Mr. Hideyuki Mori and Mr. Taka Hiraishi (IGES) for the valuable comments they provided.

The ideas expressed in this report, however, are those of the authors and do not necessarily represent views of the participants, partners or those who provided comments.

Questions and comments should be sent to:cdm-info@iges.or.jp

IGES Market Mechanism Group publications

CDM in CHARTS
CDM Project Database
CDM Project Data Analysis
CDM Review and Rejected Project Database
CDM Review and Rejected Project Data Analysis
CDM Investment Analysis Database
CDM Programme of Activities (PoAs) Database
CDM Country Fact Sheet
(Cambodia, China, India, Indonesia, Lao PDR, the Philippines, Thailand)
Emission Reductions Calculation Sheet (Grid Emission Factors)
Emission Reductions Calculation Sheet (ACM0010, ACM0012, ACM0014, AMS-III.H, AMS-III.D)
JI Project Database
GHG Emissions Data
Registry Data
Options on the Future Market Mechanisms under the International Negotiation

All the quoted publications are downloadable from http://www.iges.or.jp/en/cdm/report.html

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