

IGES CLIMATE DATABASES

About this Pamphlet










This pamphlet offers a description of IGES's set of Climate Databases. Having been developed in some cases over more than 10 years, the Databases compile unique data about climate change policies and sustainable development projects, and offer in-depth insights through analytics, summary and figures.

All Databases are freely accessible online using the link below:



www.iges.or.jp/en/climate-energy/database.html

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Introduction

Climate Database Portfolio

The Climate Databases of the Institute for Global Environmental Strategies (IGES) are developed and updated regularly by IGES researchers and analysts. The frequency of updates depends on the level of priority of each Database in its global context. We strive to provide added-value in connection with other activities of IGES, and base our product development and maintenance strategy on the principles of reliability, transparency and timeliness.

Above all, we try to adapt to the needs of users: we create new Databases when we identify a demand for it, and cease to update others when their value decreases. Our current strategy is to keep providing a wide diversity of Databases while moderating the frequency of updates, in order to maximise the content value of each update.

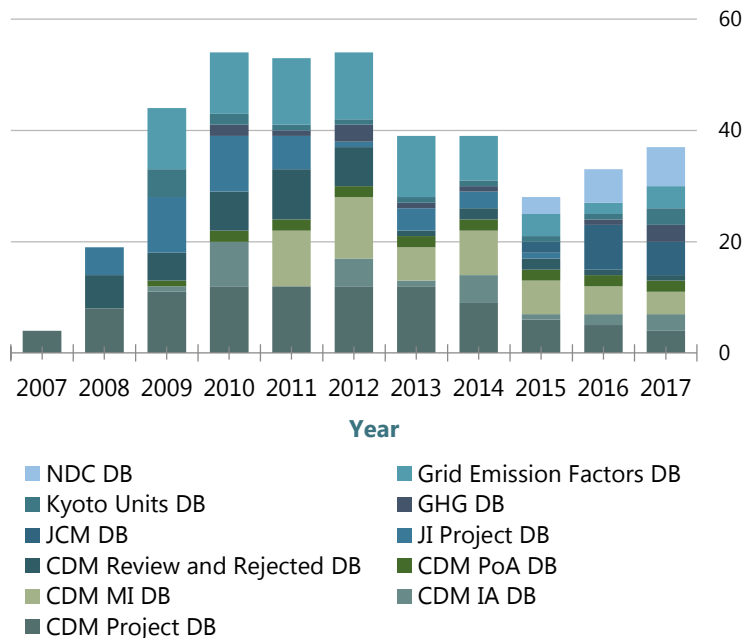


Climate Databases updated more than

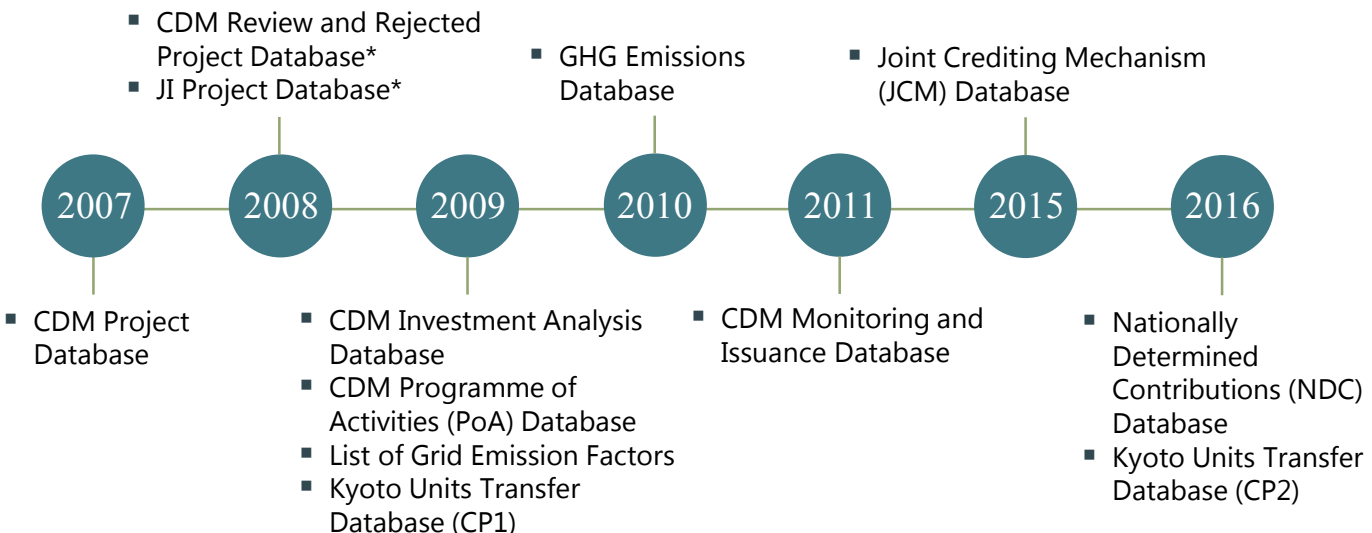
400

times in total since 2007

Number of Updates of the Databases over Time



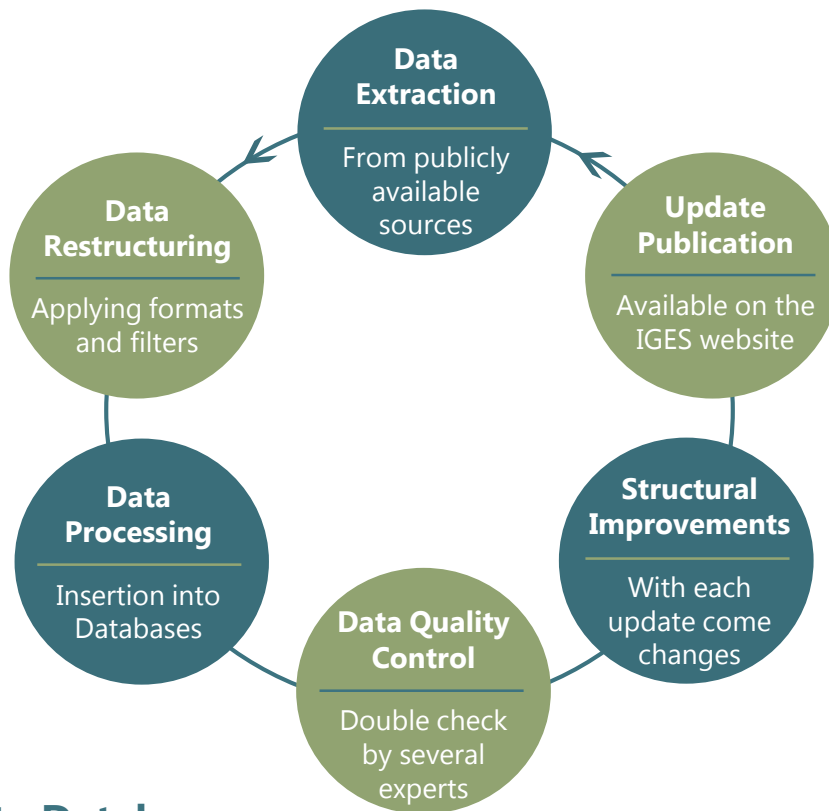
Databases History



* The Databases marked with this symbol are no longer updated and thus are not presented in this pamphlet.

Data Quality Management

The quality of the disclosed data constitutes the main added-value of IGES Climate Databases. From the reliability of its sources to a detailed data processing and double checking, we strive to follow a thorough development process in order to provide quality content to users.



Use of Climate Databases

Due to the variety of the data covered, the Climate Databases can be used for various purposes. In the past, the Databases have notably been used as below:

International policy-making	National policy-making	Research and analysis	Low-carbon project development
<p>The Databases have been used as a basis of recommendations for improving several international policy mechanisms.</p> <p>E.g. The CDM Project Database has been used to provide recommendations to the UNFCCC on how to improve the CDM.</p>	<p>The Databases have served as a trusted data source for several national policy reforms.</p> <p>E.g. CDM Databases were used to develop rules for CDM programmes in Mongolia and to introduce grid emission factors into the national policies of Cambodia and the Philippines.</p>	<p>The Databases are frequently used by researchers and cited in institutional papers and reports.</p> <p>E.g. The NDC Database have been cited by the Asian Development Bank and the List of Grid Emission Factors have been cited by the Global Environmental Facility.</p>	<p>The Climate Databases are regularly used by project developers to build low-carbon project proposals and implement them.</p> <p>E.g. The CDM Databases, JCM Database and the List of Grid Emission Factors are used by CDM and JCM project developers.</p>

Alexis R. Rocamora,
Analyst, Climate and Energy Area

IGES NDC Database

IGES NDC Database compiles the main features of the Nationally Determined Contributions (NDCs), which are communicated by the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) to present the national targets and measures that will be taken in order to implement the Paris Agreement.

Summarised data on

197

Parties to the UNFCCC

Financial and Technological Needs

The Database references the financial needs expressed by developing countries in order to fully implement their NDC targets. Whenever available, values are provided for financial needs in the sectors of mitigation and adaptation. Specific technology transfer needs highlighted in NDCs are also listed to provide insight into the potential market growth of each low-carbon technology in different countries.

Around

USD **5,700** Billion

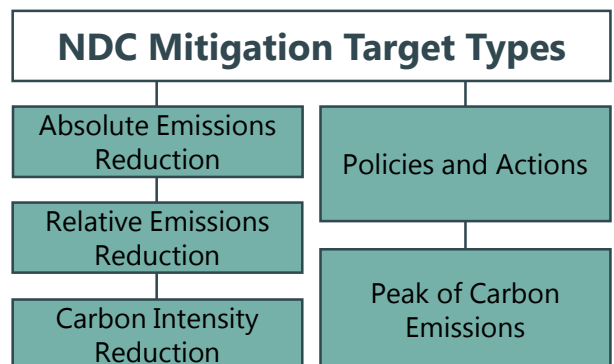
Financial needs identified in all NDCs, including around:

USD **2,700** Billion for mitigation and

USD **800** Billion for adaptation

Climate Pledges

The Database summarises the main climate pledges from each NDC concerning mitigation, or how countries intend to limit their GHG emissions to lessen their impact on climate change, and adaptation, or how countries are planning to adapt to the effects of climate change. Detailed information is provided regarding mitigation target and type, baseline, target year and main adaptation measures.



Country Status and Paris Agreement

Some more generic information regarding each country relative to the UNFCCC is provided such as GHG emissions and Annex country type.

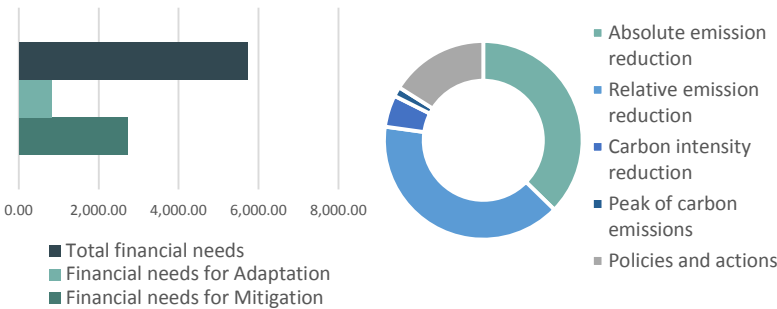
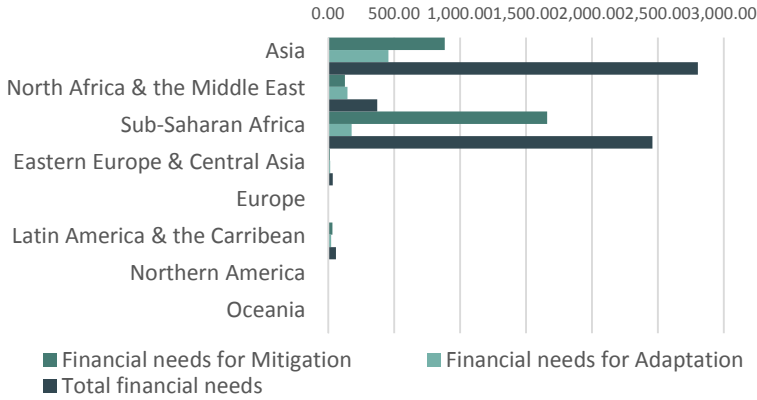
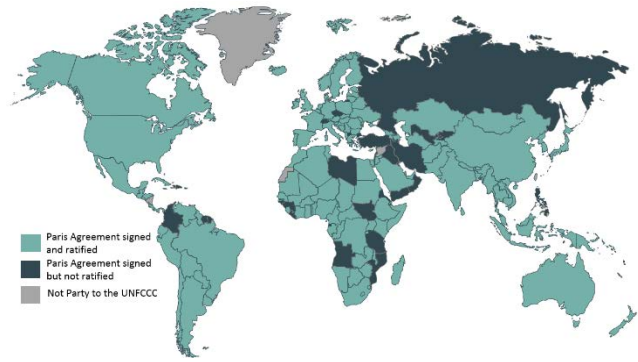
Moreover, up-to-date information relative to the signature and ratification of the Paris Agreement is available, along with links to each country's INDCs and NDCs on the UNFCCC's website.

NDCs in Maps

One unique feature of the Database is that it offers a visualisation of main data in maps, which can show the Database's findings to users.

Five maps are proposed, disclosing:

- Status of ratification of the Paris Agreement
- INDC and NDC submissions
- Mitigation target types in NDCs
- Mention of quantified financial needs in NDCs
- Main use of market-based mechanisms



Analytics

Users can also gain knowledge of summarised data regarding NDCs through the four Tables and eight Charts provided by the Database.

The summary tables and charts include notably:

- NDC submissions by region
- Types of mitigation target
- Baselines of mitigation pledges
- Target years of mitigation pledges
- Amount of financial need expressed in NDCs
- Use of market-based mechanisms

Use of Market-based Mechanisms

The Database references countries mentioning their intention to use market-based mechanisms to achieve their mitigation target. Specific information is provided regarding various types of market mechanism.

The Database specifies if markets will be used, or if their use will be considered, and also references countries who use markets but do not mention it in their NDC.

Around

100

Parties mention their intention of using market-based mechanisms in their NDC



IGES GHG Emissions Database

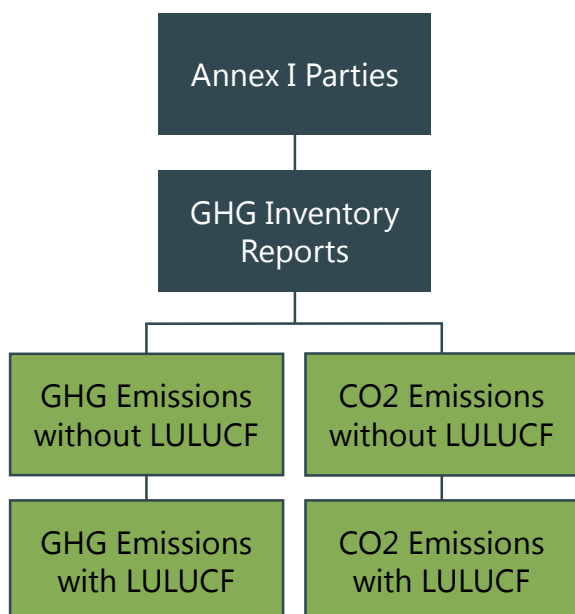
IGES GHG Emissions Database compiles the latest information on Annex I GHG emissions as reported to the UNFCCC. All Annex I countries to the UNFCCC submit their GHG emissions reports to the UNFCCC Secretariat by 15 April each year. The reports detail the GHG emissions and sinks for countries from 1990 up to two years before the submission date for the reports.

Four Types of Emissions

The Database compiles data extracted from the CRF (Common Reporting Format) of GHG inventory reports and supplementary information from SEF (Standard Electronic Format), which are submitted every year by Annex I Parties to the Kyoto Protocol. The data covers GHG and CO₂ emissions and removals, implied emission factors and activity data.

Four types of emissions are reported in CRF and SEF:

- GHG emissions without LULUCF
- GHG emissions with LULUCF
- CO₂ emissions without LULUCF
- CO₂ emissions with LULUCF



More than **25** Years of GHG Emissions data
From **44** Annex I Parties to the UNFCCC

Approximately

17 Billion

Tons of CO₂ emissions recently reported in total

A Set of Historical Data

The emissions data compiled in the Database starts with each country's base year, which usually corresponds to emissions reported for the year 1990, except for some Parties with economies in transition. Then data is listed for each year until the most recently reported year by type of emission.

An additional column provides information on the percentage of change between the base year emissions and latest reported emissions.

Emissions Reduction Targets for Benchmarking

For reference, the emissions reduction targets of each country under the Cancun Agreement and for the second commitment period of the Kyoto Protocol (KP-CP2) are mentioned on the last columns of the "GHG emissions without LULUCF" sheet. The mention of these targets allows to make a quick comparison between targeted emissions reduction and historical emissions reduction.

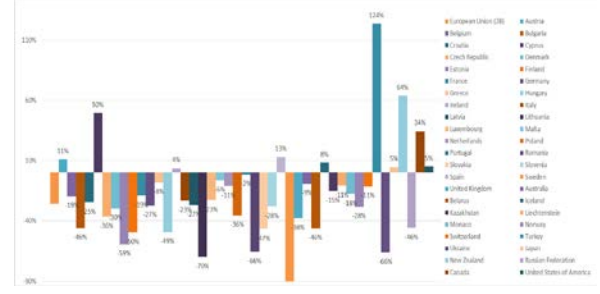
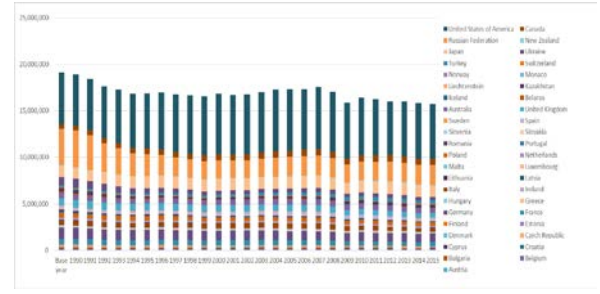
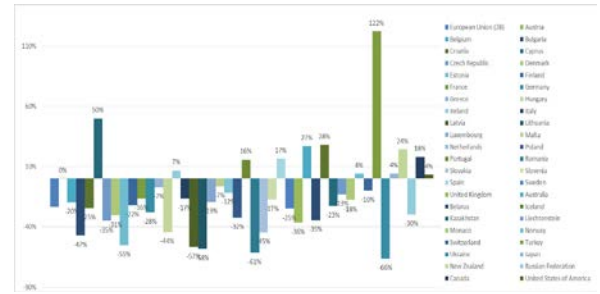
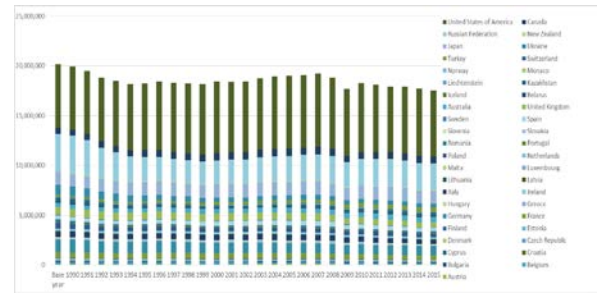
Analytics

Summary Charts are provided in order to give a visual representation of GHG and CO2 emissions as reported by Parties in their respective CRF and SEF.

Two types of charts summarise data for each type of emission:

- A chart representing the trends in historical emission data.
- Another chart showing the percentage of change between the base year emissions and latest reported emissions for each country.

Other charts represent the total GHG and CO2 emission trends and changes between the base year emissions and latest reported year.



Comprehensive Country Coverage

The Database covers all countries that are listed as Annex I Parties. They are divided into four categories as below: EU, other KP Parties, other non-CP2 and non-KP Parties:

EU

- European Union (28)
- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom

Other KP Parties

- Australia
- Belarus
- Iceland
- Kazakhstan
- Liechtenstein
- Monaco
- Norway
- Switzerland
- Turkey
- Ukraine

Others non-CP2

- Japan
- New Zealand
- Russian Federation

Non-KP Parties

- Canada
- United States of America

IGES Kyoto Units Transfer Database

IGES Kyoto Units Transfer Databases (CP1 and CP2) provide compiled information on issuance, international transfer, retirement, and cancellation of Kyoto units from each Annex I country or among different Annex I countries for the first and second commitment periods of the Kyoto Protocol (CP1 and CP2).

Two Commitment Periods

The Kyoto Units Transfer Database is composed of two Databases, one for each commitment period of the Kyoto Protocol.

The CP1 Database covers the first commitment period (2008-2012) and the CP2 Database covers the second commitment period (2013-2020). The information is extracted from publicly available sources on national registries from the UNFCCC website.

Around

20 Billion

Kyoto Units transferred internationally in total during CP1 and

230 Million

Kyoto Units transferred internationally in total during CP2

Four Types of Kyoto Units

Both Databases provide comprehensive data on all four types of Kyoto Units:

AAU

(Assigned Amount Units)

Units initially allocated to each Annex B Party in the first commitment period of Kyoto Protocol (2008-2012). The amount of the units equals to five times the amount of emissions of the base year multiplied by the target of each Annex B Party under Kyoto Protocol.

CER

(Certified Emission Reductions)

Kyoto units certified and issued by the CDM Executive Board for a CDM project implemented in non-Annex I Parties. CERs can be used by Annex B Parties to a meet a part of their emission reduction targets under the Kyoto Protocol.

ERU

(Emission Reduction Units)

Kyoto units converted from AAU and RMUs held by host Party for a JI project implemented in Annex I Parties. ERUs can be used by Annex B Parties to meet a part of their emission reduction targets under the Kyoto Protocol.

RMU

(Removal Units)

Kyoto units issued for LULUCF (Land Use, Land-Use Change and Forestry) such as forest management in Annex I Parties. RMUs can be used by Annex B Parties to meet a part of their emission reduction targets under the Kyoto Protocol.

Accounting of Transferred Units

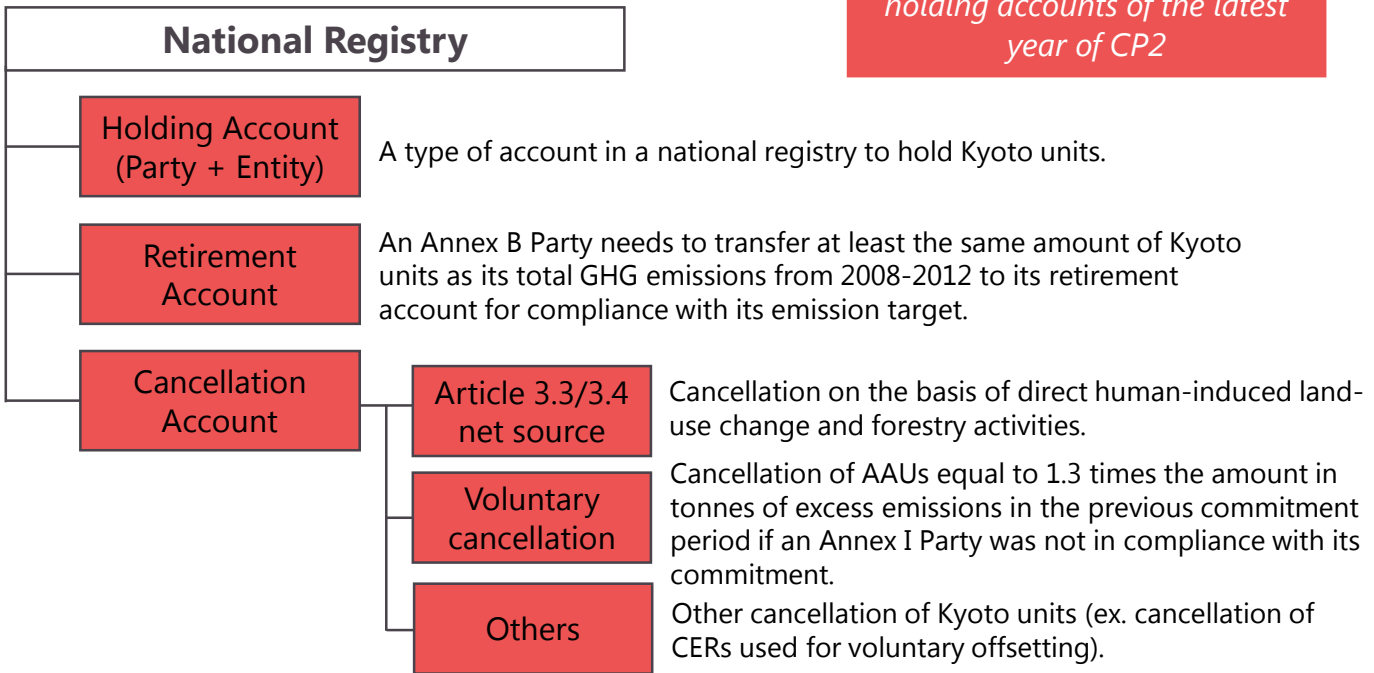
The two Databases compile the available data on transferred Kyoto Units, either through retirement of units or through external transactions (by addition or subtraction from and to Annex I Parties to the UNFCCC). Such data allows for efficient tracking of the international movement of carbon credits under the Kyoto Protocol. The Databases also account for units carried-over from the CP1 to the CP2.

More than
40 Million
CERs transferred from CP1 to CP2

Status of National Registries

The CP1 and CP2 Databases also extract data from National Inventory Submissions to the UNFCCC in order to provide information on Parties' national registries of Kyoto Units. Each registry is composed as follows:

More than
160 Million
CERs already registered in the holding accounts of the latest year of CP2

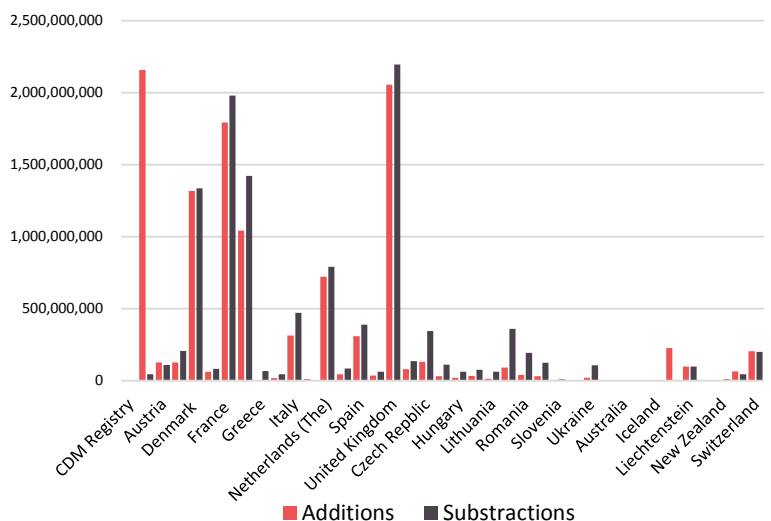


Analytics

For each Database, several charts help users to grasp the overall picture of Kyoto Units transfers across the two commitment periods.

The charts inform notably of:

- The total amount of Kyoto Units (AAUs, CERs, ERUs and RMUs) subject to external transactions from each country.
- The difference between added and subtracted Units for each country.
- The trends of holding accounts per Party.



IGES CDM Project Database

IGES CDM Project Database aims at providing data to be utilised for research and analysis on the process of CDM project development, credit issuance, and the status of its procedures. The information is extracted from the publicly available sources on the website of the United Nations Framework Convention on Climate Change (UNFCCC).

Collaboration with the UNFCCC Secretariat

IGES collaborates with the UNFCCC Secretariat to develop the CDM Project Database under a Memorandum of Understanding signed in 2008. IGES compiles data regarding CDM projects from thousands of documents submitted to the UNFCCC website, mainly the Project Design Documents (PDDs). It then inputs it in the Database, which facilitates comparison and analysis.

Around **9,000** Active CDM Projects / In approximately **110** Host countries

CER Issuance and CO2 Emission Reductions

The CDM Project Database allows to monitor the exact amount of Certified Emission Reductions (CERs) issued for CDM projects, as well as the estimated emission reductions resulting from the implementation of those projects by a certain date (2020, 2030 etc.).

The frequent updates of the Database also permit to show the total number of credit issuance over time for ongoing CDM projects.



Data exchange on detailed CDM project information

Comprehensive Data Coverage

Dating back from 2007, the CDM Project Database is the oldest of IGES Climate Databases. It comprises the largest amount of data and has received the largest number of updates (it has been updated more than 100 times in total). As such, the Database constitutes one of the most complete sources of information on CDM projects in the world.

Almost

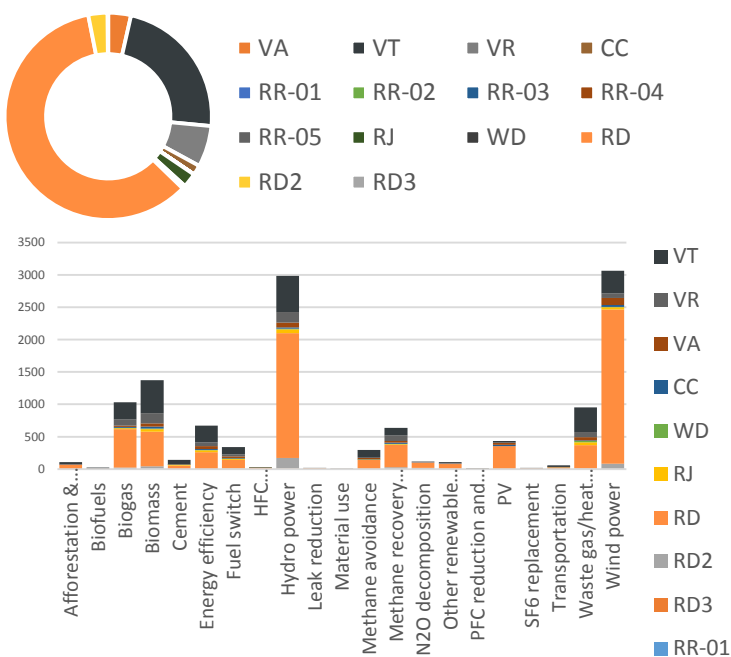
2 Billion Issued CERs (tCO₂)

And approximately

26 Billion tCO₂ of emission reductions estimated by 2030

Methodology and Technology Tracking

The Database keeps track of how many methodologies and which methodologies are applied for each project. This data allows for easy tracking of the accounting method used to measure emission reductions. Additionally, the Database references the type of technology used in each project, which provides an easy way for users to carry out technology needs assessment and market research.



More than

170 | 20

CDM
Methodologies
referenced

Technology
types used in
CDM projects

Analytics

The Database facilitates data analysis through several tables and charts, automatically updated from the main data. Summarised information notably includes:

- Number of CDM projects by registration status and by region
- Total number of CDM projects by project scale
- Total estimated emission reductions from CDM projects
- Total issued CERs from registered CDM projects
- Number of CDM projects by project type

In-depth Project Data

The Database is built on a wide variety of data extracted from documents submitted for CDM project development such as the PDDs. Each project comes with a description of its characteristics, categorised as follows:

Project Information	Methodologies and Additionality	Emission Factor	Registration Status	Emission Reductions
<ul style="list-style-type: none"> Region Host Party Project Participants Project type Project scale 	<ul style="list-style-type: none"> Number of methodologies used Methodology ID Investment analysis option Barrier analysis 	<ul style="list-style-type: none"> Emission Factor by type (EFOM, EFBM and EFCM) OM and BM data vintage OM calculation methods Weights of EFOM and EFBM (for CM calculation) 	<ul style="list-style-type: none"> Crediting period dates Validator Starting date of projects Period for public comments Registration date Date of first issuance 	<ul style="list-style-type: none"> Annual ERs (tCO₂) Total estimated ERs by a certain date Number of credit issuance Total of issued CERs

IGES CDM Investment Analysis Database

IGES CDM Investment Analysis Database provides organised information that has been used for investment analysis to demonstrate the additionality of project activities. The listed information helps users to search for specific information on each registered, rejected and withdrawn project more easily. It also enables them to use relevant data for their own analytical purposes.

A focus on the Additionality of CDM Projects

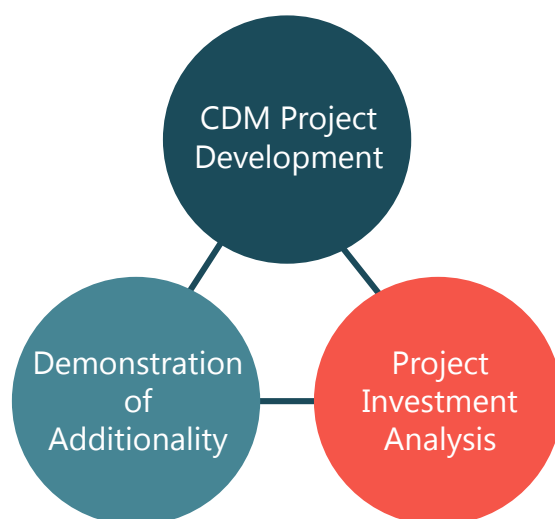
According to the rules of the Kyoto Protocol, only activities which would not have occurred in the absence of the CDM are eligible to be certified as offsets in the form of Certified Emission Reductions (CERs). As an offset mechanism, the CDM thus aims to achieve environmental integrity by ensuring that only real, measurable and additional emission reductions are generated.

Therefore, in order to secure issuance of CERs, which can be sold as offset credits, developers of CDM projects need to demonstrate the additionality of the proposed project. They often do so by conducting a project investment analysis. The CDM Investment Analysis Database compiles relevant information from Project Design Documents (PDDs) that are used to conduct this demonstration in each CDM project.

Around

6,000 CDM Projects from more than

80 Host Countries used Investment Analysis to demonstrate Additionality



Databases Synergies

The CDM Investment Analysis Database is developed by selecting data from the IGES CDM Project Database, made in collaboration with the UNFCCC Secretariat. It focuses on projects that have already been registered, rejected or withdrawn and that have conducted a benchmark analysis (notably using IRR) to demonstrate the additionality of projects.

We observed that, so far, 6,000 projects used investment analysis to demonstrate additionality, which represents approximately 65% of all active CDM projects.

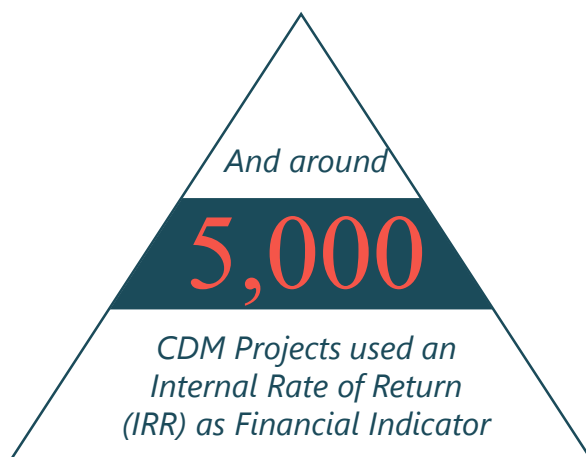
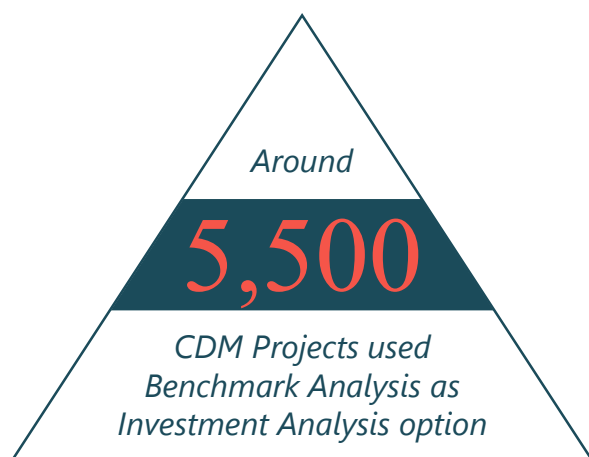
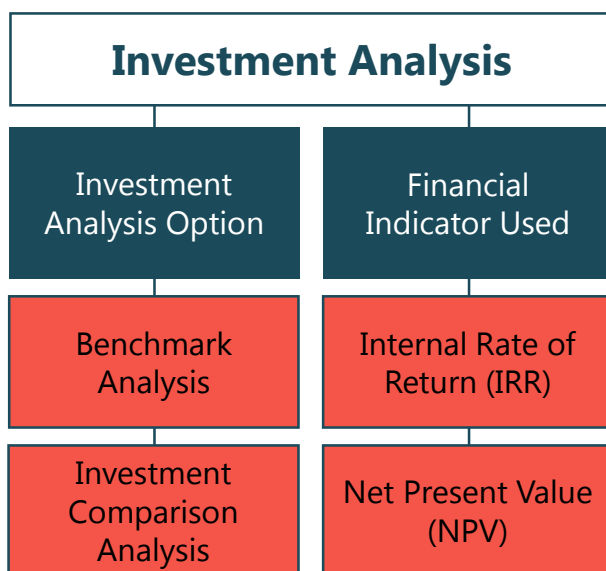
Detailed data on Investment Analysis

Two main sets of data constitute the core focus of the CDM Investment Analysis Database:

- The investment analysis option chosen in CDM projects' PDDs, and
- The financial indicator used in the financial analysis.

The investment analysis option listed in the Database varies between a benchmark analysis and an investment comparison analysis (or both).

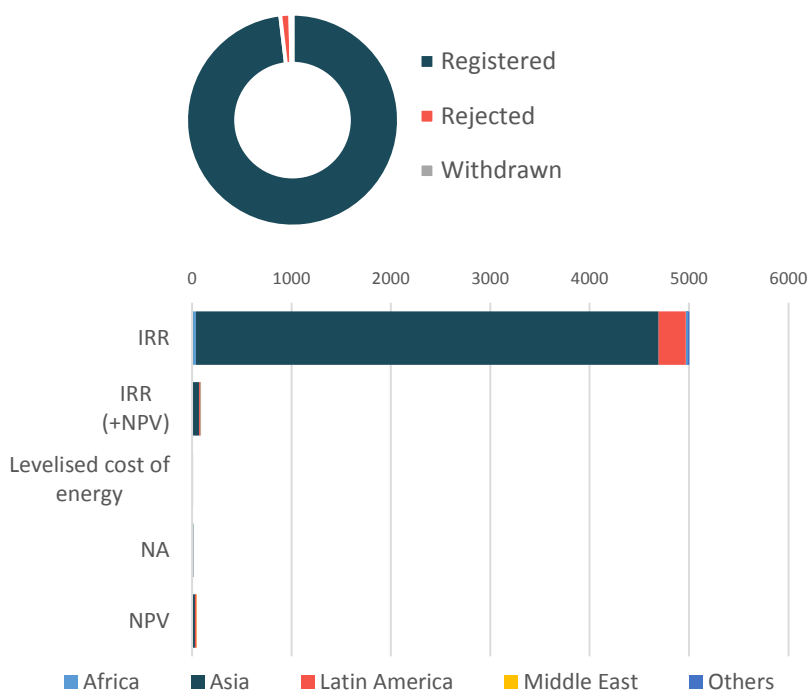
As for the financial indicator used by project developers, it usually consists of a traditional internal rate of return (IRR), a net present value (NPV), or a combination of both.



Analytics

The CDM Investment Analysis Database provides summary tables and charts in order to facilitate data analysis by users. The charts notably include:

- Total number of CDM projects that used investment analysis to demonstrate additionality
- Investment analysis option used in CDM projects
- Use of financial indicator by CDM projects



IGES CDM Monitoring & Issuance Database

IGES CDM Monitoring and Issuance Database provides comprehensive, organised information on the CDM projects registered by the CDM Executive Board (CDM EB). The listed information helps users to organise the results of the CER issuance procedures for project activities after monitoring.

Keeping Track of CDM Project Activity

Keeping track of registered CDM project activity can prove to be a challenging task, due to the number of projects in the pipeline at different stages of the registration process. The CDM Monitoring and Issuance Database aims to provide a comprehensive list of CDM projects registered by the CDM EB in order to facilitate this task.

Various data is compiled regarding project information, methodology, CER issuance and key dates (date of issuance, monitoring period, publication of monitoring report etc.).

This data allows users to easily analyse the ongoing progress of CDM projects around the world and to make regional and sectoral comparisons.

Around

2 Billion

CERs (tCO₂) issued over the CP1 and CP2 periods

Around

10,000

CDM Projects are registered by the CDM EB

In more than

70

Host countries

Databases Synergies

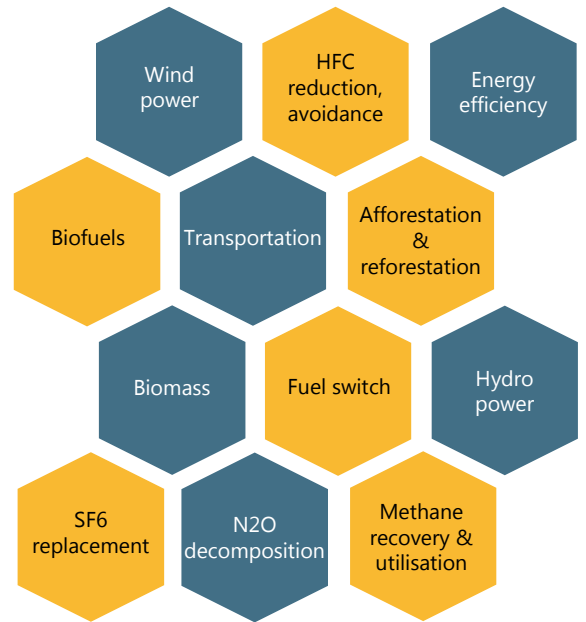
The CDM Monitoring and Issuance Database is developed by combining general project data from the IGES CDM Project Database with credits issuance requests data (issuance date, CER amount etc.), extracted from monitoring reports on the UNFCCC website. This synergy allows for reliable CDM data to be utilised.

So far, it has been observed that around 2 billion CERs have been issued over the first and second commitment periods of the Kyoto Protocol (CP1 and CP2) from projects registered by the CDM EB.

Access to Streamlined CDM Data

The main advantage of the CDM Monitoring and Issuance Database is to provide a set of streamlined data. While the CDM Project Database specialises in providing a wide variety of in-depth information on CDM projects, this Database offers a quick overview of the most relevant data for projects that already passed the majority of steps in the registration procedure.

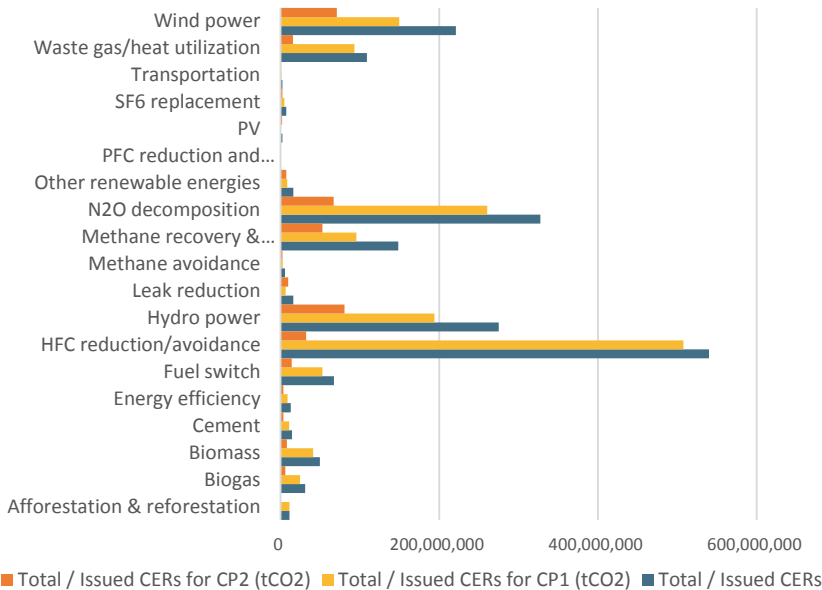
The Database notably puts emphasis on the types of CDM projects, which means which technology is primarily at the heart of the GHG emissions reduction project. This kind of technology-tracking allows for analysis on which technological sector is the most in demand in which geographical region.



Around

20

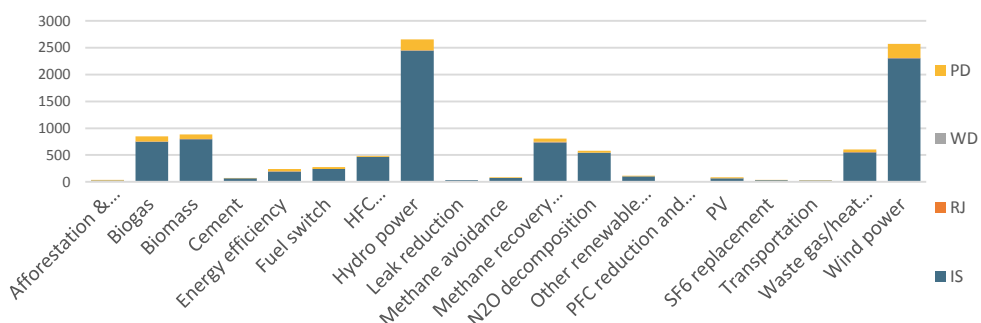
Different project types



Analytics

The CDM Monitoring and Issuance Database provides summary tables and charts in order to facilitate data analysis by users. The charts notably include:

- Number of projects by project type and registration status
- Total amount of issued CERs by type of project (tCO2)
- Number of projects by host countries



IGES Programme of Activities Database

IGES CDM Programme of Activities (PoA) Database provides comprehensive information on PoAs in an easy-to-understand way. It also compiles information on Component Project Activities (CPAs). The Database allows users to search for specific data on each project in the pipeline and enables them to use relevant information for their own analytical purposes.

A Unique Set of Data on PoAs

While the CDM is now common knowledge among sustainability practitioners, the PoA variation of CDM projects is much less known. The aim of PoAs is to allow several replicable projects with smaller-than-usual GHG emission reductions as a CDM project.

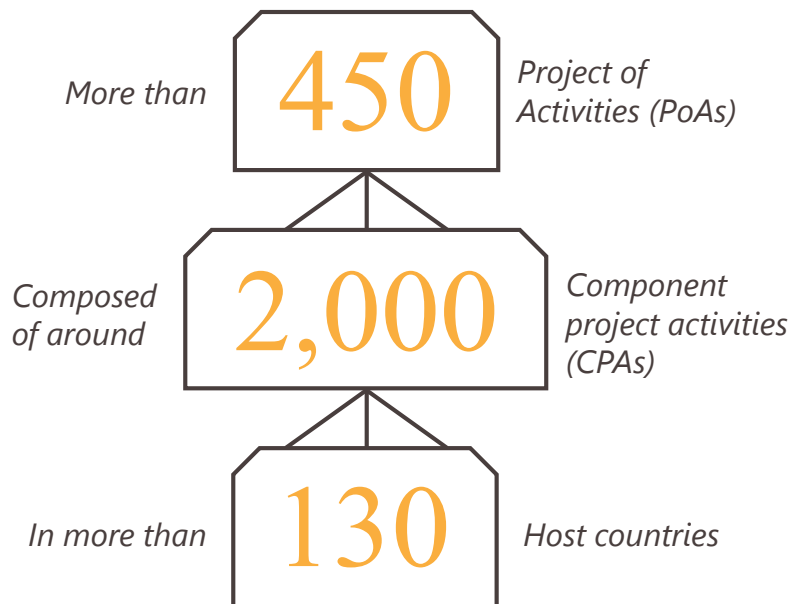
PoAs target in particular small-scale projects with high sustainability benefits but with a return on investment individually too low to pay back the transaction costs usually associated with the CDM process.

By bundling together several component project activities (CPAs) into one PoA, project developers can substantially reduce transaction costs. Additionally, the regional management of PoAs, as opposed to the centralised CDM process, allows to speed up projects' administrative approval process.

Around

10 Million

CERs (tCO₂) issued over the CP1 and CP2 periods from PoAs



Comprehensive Data Coverage

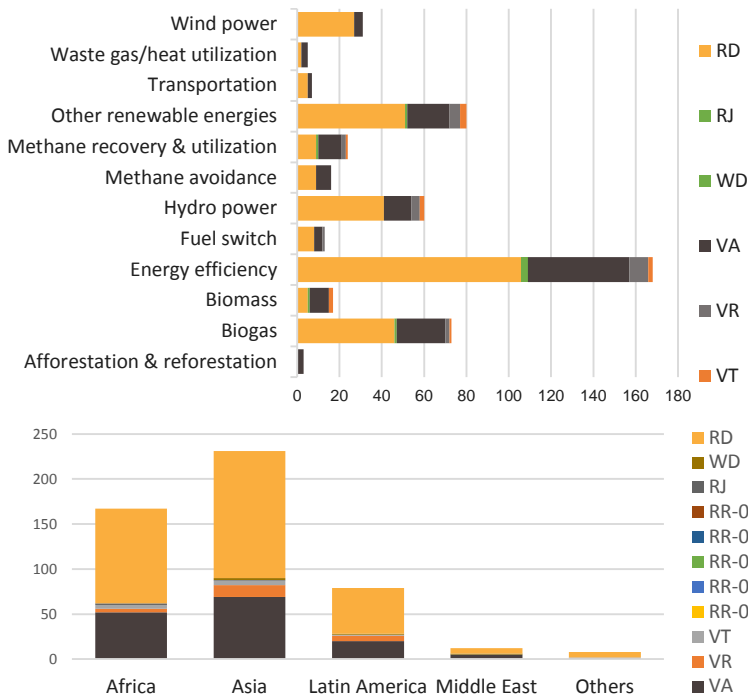
Similarly to the CDM Project Database, the CDM PoA Database aims to facilitate data analysis by users, by providing in-depth and comprehensive information about PoA projects, as well as each CPA.

Data is notably available for annual emission reductions from PoAs and CPAs, and for issuance of CERs.

Methodology and Technology Tracking

The PoA Database allows users to keep track of the technologies used in PoA projects, which can help consultants and researchers to have a deeper insight of the market demand of low-carbon technologies in certain countries and/or sectors.

Methodologies used to account for GHG emissions reductions are listed and categorised to help users in their assessment of projects' environmental integrity.



Around

70

Methodologies are used by PoA projects around the world

Analytics

The PoA Database provides summary tables and charts in order to facilitate data analysis by users. The charts notably include:

- Number of projects by registration status and region
- Number of component project activities (CPAs) by region
- Emission reductions and credit issuance from PoA and CPAs
- Number projects by project type

In-depth Project Data

The Database is built on a wide variety of data extracted from documents submitted for PoA projects development such as the PDDs. Each project comes with a description of its characteristics, categorised as follows:

Project Information	Methodologies and Additionality	Registration Status	Emission Reductions	Credit Issuance
<ul style="list-style-type: none"> ▪ Region ▪ Host Party ▪ Project Participants ▪ Coordinating Managing Entity (CME) ▪ Project type ▪ Project scale 	<ul style="list-style-type: none"> ▪ Number of methodologies used ▪ Methodology ID ▪ Investment analysis option ▪ Environmental Analysis (PoA or CPA Level) 	<ul style="list-style-type: none"> ▪ Crediting period dates ▪ Validator (DOE) ▪ Starting date of projects ▪ Period for public comments ▪ Host Party approval date ▪ Registration date ▪ Date of first issuance 	<ul style="list-style-type: none"> ▪ PoA Annual ERs ▪ Number of CPAs ▪ Current CPA total annual ERs 	<ul style="list-style-type: none"> ▪ Number of credit issuance ▪ Verifier ▪ Submissions for Deviations ▪ Total of issued CERs



IGES Joint Crediting Mechanism (JCM) Database provides detailed information on the JCM methodologies, projects and JCM feasibility studies to be utilised for research and development of JCM projects. The JCM is being implemented under bilateral cooperation between Japan and partner countries.

The First Database on the JCM

The JCM is a mechanism created by the Japanese government in 2013, which allows Japanese and foreign firms to invest in emission reduction projects and programmes in developing countries to earn offset credits. The JCM has quickly become one of the major climate policies of Japan, with a growing number of projects being developed and implemented in partner countries.

The Database developed by IGES is the first Database of its kind regarding the JCM. It compiles information on JCM projects, financing schemes and details on each methodologies from trusted governmental sources, and allows for an easy use of in-depth data by researchers, project developers, consultants and policy-makers.

More than

100

Active JCM financed projects

in

17

Partner countries

Comprehensive Data Coverage

The JCM Database contains three main types of data: financed projects, registered project data and methodologies. The two categories of financed and registered projects allows users to easily differentiate between projects in the pipeline (which have already received funding and started implementation) and registered projects (which have already started monitoring GHG emissions and emissions reduction).

The data on financed projects also informs on which financial support each project received, between the four main JCM financing schemes.

Finally, the Database provides a comprehensive list of feasibility studies that have been conducted for JCM projects.

More than

1 Million

tCO₂ per year of estimated emission reductions

JCM Financing Schemes

JCM Model Project

JCM REDD+ Model Project

JCM Demonstration Project

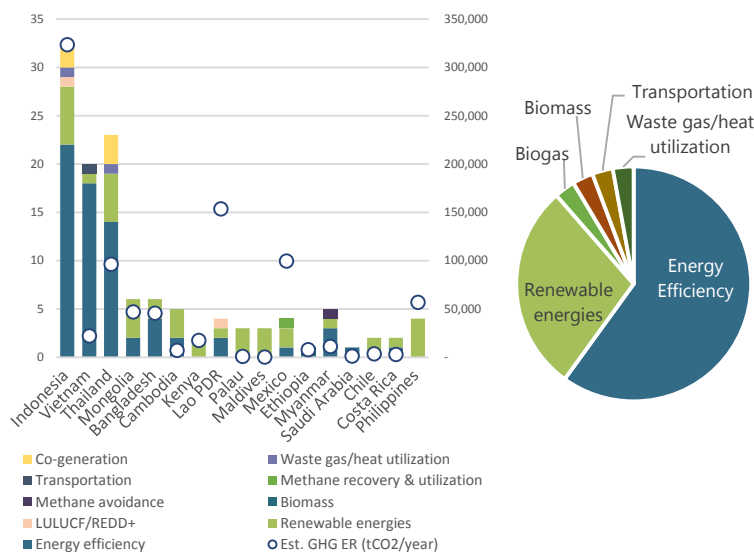
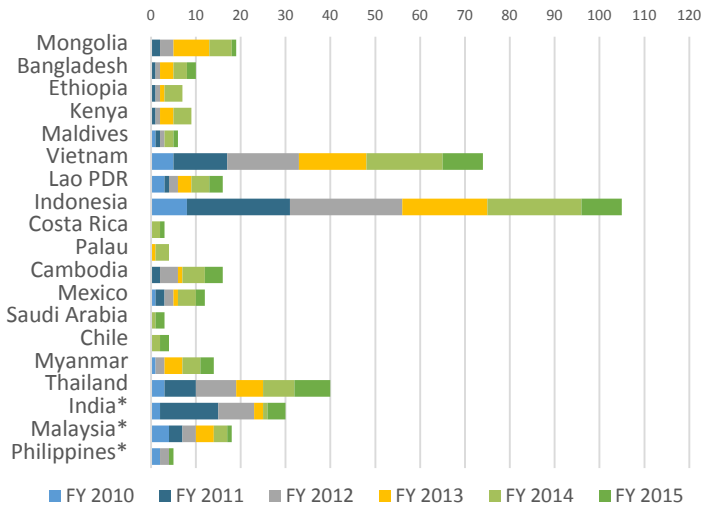
ADB Trust Fund JF JCM

In-depth Project Information

The JCM Database provides detailed data about each JCM project, such as project participants, host country, project status and starting date, project type, project location and coordinates. It also informs about the monitoring and verification process, with data concerning the time taken for administrative procedures, local stakeholder consultations, public inputs to project design documents (PDD), validation and monitoring reports, third party entities (TPEs) involved etc.

Finally, the Database provides data on estimated emission reductions (in tCO₂) for several years, annual and total emission reductions and credit issued from registered projects.

Overall, this compilation of detailed project data allows for easy tracking of the status of the whole JCM scheme as well as individual project evolution and technology demand in host countries.



More than

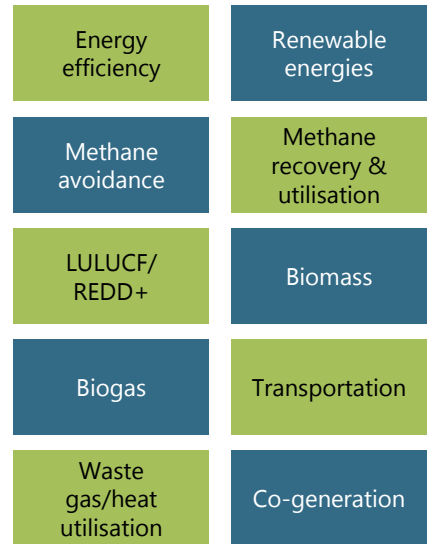


Methodologies

And around



Project Types



Analytics

The Database facilitates data analysis through several tables and charts, automatically updated from the main data. Summarised information notably includes:

- Type of project covered by approved methodologies
- Number of registered project by type, by country, and by technology
- Number of approved methodology by host country
- Monitoring points/parameters defined in methodology
- Duration of process for project registration
- Estimated emissions reductions by country

IGES List of Grid Emission Factors

IGES List of Grid Emission Factors provides information regarding grid emission factors to be utilised for research and analysis. Grid Emission Factor refers to the CO₂ emission factor (tCO₂/MWh) which will be associated with each unit of electricity provided by an electricity system. It is a parameter used to determine the baseline emissions for CDM projects in the renewable energy sector and waste heat/gas recovery sector.

Country Grid EF Data

The List of Grid Emission Factors (Grid EF) provides data regarding grid emission factors published by CDM host country governments or published as a CDM standardised baseline approved by the CDM Executive Board.

A standardized baseline is designed to simplify the determination of baseline and the demonstration of additionality of a CDM project activity. Project participants who do not wish to use standardised baselines alternatively estimate their own values for the grid emission factor, by applying the latest applicable version of the CDM grid tool.

The List of Grid EF offers a comprehensive overview of past and present grid emission factor data from a wide range of countries.

*Grid EF data
analysed from
approximately*

6,500

*CDM project
information*

*Detailed information on
Grid Emission Factors
from more than*



*Host country governments
(including CDM
standardised baselines)*

Project Grid EF Data

The List of Grid Emission Factors also contains all values of grid emission factors that are utilised by registered CDM project activities. Information is extracted from the UNFCCC website and inserted in the IGES CDM Project Database, which provides detailed information on individual CDM project activity. For users' convenience, basic project information is provided in the List of Grid EF regarding projects' region, host party, registration date and renewal date of crediting period.

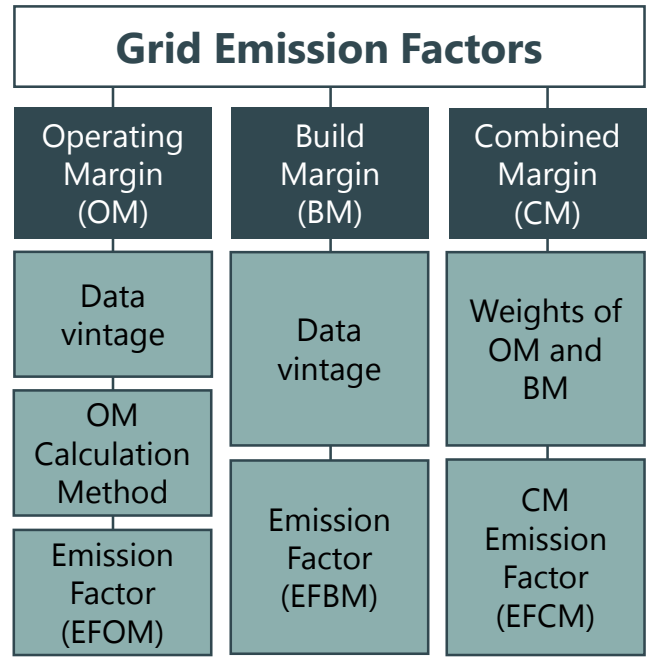
In-depth Grid Emission Factor Data

The main advantage of the List of Grid EF is that it provides comprehensive information on each type emission factors. The three kinds of emission factors are covered: operating margin (OM), build margin (BM) and combined margin (CM). Additionally, for each type, emission factor of project data also informs on the maximum, minimum and average emission factor per country and per region.

For projects that use a combined margin, weights are notably presented as a data range. For projects that use a build margin and an operating margin, the data vintage is provided (ex ante/ex post).

Regarding projects using an operating margin, detailed information is also provided regarding calculation methods, classified into the following categories:

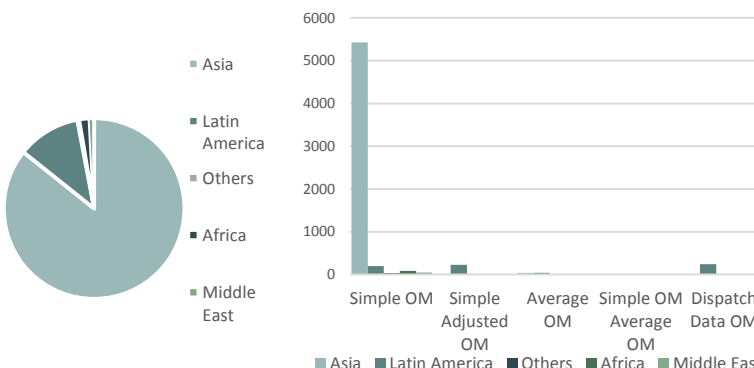
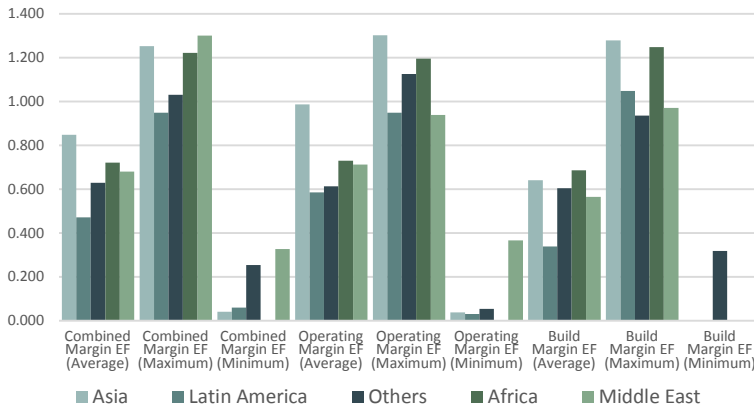
- Simple operating margin
- Simple adjusted operating margin
- Average operating margin
- Simple operating margin/average operating margin
- Dispatch data operating margin



More than

5,500

Analysed CDM Projects use a simple operating margin for their EF



Analytics

The List of Grid EF provides summary tables and charts in order to facilitate data analysis by users. The charts notably include:

- Emission factors of each country over the years
- Emission factor margin type per region
- Operating margin (OM) calculation method per region
- A grid summary is also available, aiming to provide compiled data of emission factors used in CDM projects by each country and region.

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About IGES Climate and Energy Area

The Climate and Energy Area of IGES aims to accompany the transition toward a sustainable and decarbonized society by conducting strategic research and supporting the development of low-carbon initiatives. Our team of international experts is engaged with various projects for the development and implementation of climate and energy-related strategies and policies, in particular international climate negotiations, bilateral and multilateral cooperation, carbon pricing initiatives, market-based mechanisms, and the development and maintenance of Climate Databases.

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