



'Guidance to the CDM & JI Pipelines' February 2008

By Joergen Fenhann, UNEP Risø Centre Denmark, Phone (+45)46775105, j.fenhann@risoe.dk

General content and criteria's of the CDM & JI Pipelines spreadsheets.

The CDM Pipeline web-site contains 2 downloadable spreadsheets that contain a line with the key information about for projects and several the graphs and tables.

1) The CDM Pipeline includes CDM projects from the validation stage (start of the 30 days public comment period), through registration and until issuance of Certified Emission Reductions (CERs). (So no Project Idea Notes (PINs) or projects at a stage before validation are included). All data is taken from the UNFCCC CDM web-site (<http://cdm.unfccc.int/>) and from the Project Design Documents (PDD) of the projects that all are accessible there.

2) The JI Pipeline includes both Track 2 and Track 1 Joint Implementation projects (no projects yet), which have been for public comment on the UNFCCC JI web-site (<http://ji.unfccc.int/>).

1. Description of the content and design of the CDM Pipeline

The CDM Pipeline is an Excel workbook with 12 sheets, which include data about Clean Development Mechanism projects, DOE's and methodologies. Some sheets contain analysis, where the data for specific projects, countries etc. are connected in order to give an overview and reveal the development within certain areas. Each of the sheets is described below.

Methods

The sheet contains an overview of all the new methodology (NM's) proposals that have been submitted to approval by the CDM Executive Board (CDM EB). The sheet is updated after every meeting in Methodology Panel (Methpanel) and Executive Board.

In the cell in upper left corner the total number of methods is shown.

The sheet content three tables, that both deals with the CDM methodologies.

Table 1

The first and biggest table is placed in the left side of the sheet. This table contains rows with all the methodologies submitted. In the following the information in each column is described. The information is from the "Methodologies" section at (<http://cdm.unfccc.int/>).

- The column '*round*' indicate in which round of meetings of the Methpanel the methodology was first evaluated.
- The column '*Meth. No.*' shows the number the methodology has been given by the UNFCCC Secretariat (e.g. NM152), according to its arrival to the Meth Panel.
- The column '*Type*', is the name of a homogeneous group of projects given by UNEP Risoe.
- The column '*Description*', is the name given to the projects in the PDD accompanying the methodology proposal.

- Column '*AM/ACM*' lists the official number all the approved methods gets (e.g. AM7). The logic behind the given numbers is illustrated in sheet 'Approved Methods' see below.
- Column '*GHG Reductions /year*' shows the expected reduction per year in CO₂equivalents (CO₂e).
- The column '*Host country*' lists the name of the host country where project activities used for development of the methodology takes place.
- Column '*Credit buyer*' is the name of the country or carbon fund expected to buy the credits resulting from the project.
- Column '*Consultant*' tells the name of the involved consultants, which were used for developing the methodology and the PDD.
- The column '*Title*' is the name of CDM project attached to the methodology.
- The set of columns '*Submission date*' until '*Days to end mark*', is a tool to show the approval process of the individual methodology. The first data is the date of submission of the methodology to the Meth Panel; here the deadline set by the Meth Panel for the round of submissions is used. The letters used in the marks stems from the rating systems used by Meth Panel. In this rating system, an A indicate approval by Executive Board, B indicate that projects member or the Executive Board must make some changes, and C that the methodology is rejected. Some projects have no mark because they are 'withdrawn'.

If the CDM Pipeline is issued between a meeting of the Meth Panel and the CDM EB some marks takes the form of METH-A, METH-B etc. These marks indicate the recommendations given by Meth Panel to the EB.

The next columns show the 1. marks given to the methodologies, the date for this which is the last day of the CDM EB meeting evaluating the methodology, and next the number of days between submission and issuance of 1. marks. The number of days is used for further analysis of methodologies in sheet 'MethCharts' which will be described below.

- The last column '*End mark*' and rest of this set of columns in the block contain the information related to the issuance of the final marks for the methodologies. Some methodologies have a 'Con' as the final mark, this means that the CDM EB has included the methodology into an approved consolidated methodology (ACM).

The colors used in the scheme indicate whether the methodology has been approved by the EB (yellow) or are being processed (blue). Description of abbreviations used can be found right below the scheme.

Table 2

This table is located below table 1 and contains the same information for new proposed small scale methodologies (SSC-NM1...). The input is from the "Small-Scale Working Group" section at (<http://cdm.unfccc.int/>).

Table 3

This table is a small table placed to the right of table 1.

This table gives an overview of the number of methodologies submitted in each round total and cumulative and number of methodologies approved (A's), rejected (C's) and pending (B's) the marks given to these, in each round. If a methodology is withdrawn it is counted together with the rejected methodologies. The table also includes calculations of the average time of initial decision, rejection and approval. The information in this table is used to generate the graphs in the following sheet.

MethCharts

This sheet contains four charts¹. They analyze how many new methodologies were submitted to the CDM EB (Meth Panel), and how many have been approved, rejected or not yet decided (pending). In all charts afforestation and reforestation methodologies (A/R) are excluded.

Chart 1

This chart show the number of new methodologies submitted up to every meeting of the CDM Executive Board, where the Meth Panels recommendations of the new methodologies are finally confirmed (or changed). The chart at the same time shows how many of the submitted methodologies that are approved, rejected or pending (still not given an 'A' or 'C') in each round.

Chart 2

This chart shows the same information as chart 1. but with the rounds accumulated. The final columns therefore show the total number of methodologies approved/rejected/not final at the moment the CDM Pipeline was issued.

Chart 3

This chart shows for each submission round the time elapsed between the deadline for submission and the date of the 1. mark.

Chart 4

This chart shows for each submission round the time elapsed between the deadline for submission and the date of the end mark.

The last columns in the chart show the average time for all approved/rejected methodologies.

A-R Methods

This sheet show almost the same information as the sheet 'Methods' (no time lag information), but for afforestation and reforestation methodologies submitted to the CDM EB. The input is from the afforestation/reforestation part of the "Methodologies" section at (<http://cdm.unfccc.int/>).

- The column '*round*' indicate in which round of meetings in the Afforestation / Reforestation Working Group (A/R WG) the methodology has been submitted for approval.
- The column '*Meth. No.*' shows the number the afforestation reforestation new methodology (e.g. ARNM1) has been given due to it arrival to the A/R WG.
- The column '*Description*', is the name of the methodology. .
- The column '*1. Mark*' shows the rating the approved methodology has received from EB. (Or in some cases if it has been withdrawn).
- Column '*2. mark*' lists the official number if the methodology is approved (e.g. AR-AM2). The logic behind the given numbers is illustrated in sheet 'Approve Methods' see below.
- The column '*Size (ha)*' shows the size of the forest in ha.
- The column '*CERs*' shows whether long term CERs (l-CERs) or temporary CERs (t-CERs) has been chosen.
- Column '*GHG red./yr*' shows the expected reduction per year in CO₂e.

¹ The charts have all been developed together with Erik Haites

- The column '*Host country*' lists the name of the host country where project activities used for development of the methodology takes place.
- Column '*Credit buyer*' is the name of the organization, company or whatever that are expected to buy the credits resulting from the project.
- Column '*Consultant*' tells the name of the involved consultant, that who has developed the methodology.
- The name of the project activities coupled to the methodology is listed in column '*Title*'
- The column '*Title*' is the name of the CDM project attached to the methodology.

The colors used in the scheme indicate whether the methodology has been approved **yellow**. Description of abbreviations used can be found right below the scheme.

Approved Methods

This sheet contains four tables. All of them are dealing with approved methodologies. The input is from the approved methodologies part of the "Methodologies" section at (<http://cdm.unfccc.int/>).

Table 1

This first and largest table, placed in the upper left corner of the sheet, contains an exhaustive list of all the approved large scale methodologies, including version number. In this table the approved methodologies are grouped according to type.

- The left column is the number of the approved methodology (e.g. AM7).
- In the middle column is the names of the methodologies, which are organized, by the bold text, into the different sectors covered (Renewable energy, waste etc.).
- The third column in the right side of the table is number of projects where the methodology has been used. In the bottom of this column is the total amount of large scale methodologies used. This number might exceed the amount of large scale CDM projects, since some projects uses more than one methodology.

The use of **red** color illustrate that the methodology has been withdrawn (often because it has been included in a consolidated methodology).

Table 2

Below the Table 1 with large scale methodologies is the table with small scale methodologies.

- The left column contains the type of methodology (I to III).
- The middle column shows the category of the methodology, and its name.
- The right column in the table shows the number of CDM projects where the methodology has been used. This number might exceed the amount of small scale CDM projects, since some projects uses more than one methodology.

Table 3

Below the two other tables is an overview of the approved small scale LULUCF methodologies.

Table 4

In Table 4 placed to the right of the other three tables, contains an overview of all the approved methodologies and the number of times they have been used in CDM projects.

The methodologies are organized by number, starting with large scale, then consolidated, then Afforestation/Reforestation and at last small scale methodologies. The total number of

methodologies used, as showed in the bottom line, might exceed the amount of CDM projects, since some projects uses more than one methodology.

CDM_Projects

This sheet contains a list of all the CDM projects in the pipeline. The criteria for a CDM project to be included in this pipeline are that it has been available for public comment under validation or at a later stage in the project cycle.

If projects have been submitted more than one time, only the last version is included and counted.

The total number of projects in the pipeline can be found at the top of the table. The input is from the “Project activities” section at (<http://cdm.unfccc.int/>). When you have found an interesting project in the CDM Pipeline and want to read the PDD then do the following: Go the ‘Projects’ part of (<http://cdm.unfccc.int/>) – here you click at ‘project search’- if it is a project in the process of registration or registered insert the ‘ref’ number and all the information related to the project will pop-up. If it is a project under validation, then click on the ‘validation’ part and look for the ‘start comment date’.

- The first column ‘ID’ indicates the project specific identification number, assigned by UNEP Risø Centre. This has been issued at the start comment date of the public validation. The idea of ID number for CDM projects is to make it easy to keep track on a project no matter if name, method or other things changes during the project cycle.
- Column ‘Ref.’ shows the UNFCCC’s ID number of the project. This ID number is first given to CDM projects which have requested registration or which are further in the project cycle. It is valuable when the user want to find the project on the UNFCCC CDM web site.
- The columns from ‘Title’ until column ‘Methodology’ contain the basic information about each project including host country, province/state (this column is under construction), current status, project type (the definition of the types is explained in table 11 in the “Analysis” sheet), project sub-type (the list of sub-types can be found in table 7 in the “Analysis2” sheet), and approved methodology used.
- The column ‘Host country’ shows the country hosting the project.
- The column ‘Province/state’ shows the names of the largest units the country is divided in.
- Columns ‘ktCO₂/yr’ until ‘2030 ktCO₂’ are an overview of the certified emissions reductions (CER) **expected** to be generated by the projects. The first column in this block contains a calculation of the CER for each year the project runs. This is calculated as the total number expected CERs divided by number of credit years, which is either 7 or 10 years for normal CDM projects and either 20 or 30 for A/R projects. (This number might differ from the one published on UNFCCC’s CDM homepage since they sometimes use data for all 21 years for projects with renewable crediting period.)

The column ‘slope’ is needed to make a good calculation of the issuance success: It shows the slope of the straight line approximating the change over time of the expected CERs. The slope = 0 when there is no change over time.

The column ‘2012 ktCO₂’ contains a calculation of the amount of CERs expected to be accumulated by the end of the first commitment period in 2012. For projects producing the same amount of CERs every year these calculations have been made by taking the annually amount of expected CERs multiplied by the time from beginning of (first) credit period to end of 2012. For projects with CERs varying over the years, the actual numbers in the PDD have been added until the end of 2012.

For projects with a renewable seven year credit period that ends before 2012, calculations of expected CERs until 2012 does always assume a renewal of the credit period.

(For an analysis of how many projects has chosen a fixed or renewable credit period see the “Analysis” sheet).

- Column ‘*Validator*’ contains the name of the Designated Operational Entity validating the project.
- The six columns under ‘*CERs issued*’ shows the date of the first issuance of CERs (this is needed to calculate how long time it takes for a project to get CERs issued), the amount of CERs issued so far, the end date of the period until which the CERs have been issued, the expected CERs in the same period, the issuance success (issued/expected CERs in this period), and the name of DOE doing the verification
- Column ‘*Credit buyer*’ contains the name of the countries that have issued the Buyer Letter of Approval(s) (LoAs). In the bracket after the country the buyers of the CERs of the project authorized by these countries are listed. This information is used for the analysis in the “Buyer” sheet.
- Column ‘*PDD Consultant*’ contains the name of the company, organization etc. who have contributed with calculations of baseline.
- Column ‘*Start Comment*’ contains the date when the 30 days public comment period under validation started.
- Columns. ‘*Submitted again later*’ contains start comment dates if the PDD has been resubmitted again later. This happens quite often due to change in methodology used, change of DOE etc.
- Column ‘*Host LoA*’ shows the date of issuance of the Letter of Approval from the Designated National Authority in the host country. This is only available for projects that have requested registration. A comment has been inserted into this cell if a buyer country has issued a Letter of Approval.
- Column ‘*Reg. Request*’ shows the date of request for registration of the project. We use the date in the letter from the DOE requesting registration.
- Next column shows the ‘*Date of registration*’.
- Column ‘*Review history*’ contains the information about how far the projects moved in the CDM review process. Only the last step is mentioned of: Request, Correction 1 (correction after request for review), Reviewed, Correction 2 (Correction request after a review). Rejected, Withdrawn. This information is used to make chart 10+11 in the “Analysis” sheet.
- Column ‘*Buyer LoA*’ shows the date of issuance of the LoAs from the buyer countries.
- Column ‘*MW*’ shows the amount of Megawatt expected to be installed by the project.
- Column ‘*Full time hours*’ is the production of electricity in the project in MWh divided by the installed MW in the former column. To get the production of electricity please multiply these 2 columns. The construction of this column is not finished; values are still missing for several projects.

The use of colors in the table: White is for projects at validation state (no matter if the period for public comments has expired). Light red is for projects which are in the process of registration: requested registration + request for review + under review + correction request. **Yellow** is for already registered projects, and **Pink** for the projects that have been withdrawn or rejected.

The entire table can be sorted by users as desired. In the published Pipeline, the table is sorted according to first country and second status.

DOE's

This sheet contains only one table, which is an overview of all the Applicant Entities (AE's) that have applied to become accredited by the EB (Accreditation Panel) as Designated Operational Entities (DOE's). The input is from the "DOE" section at (<http://cdm.unfccc.int/>).

- Column '*Short name*' is the commonly used abbreviation for the DOE.
- Column '*Name*' is the full name of the DOE.
- Column '*Country*' shows where the DOE is located.
- Column '*Status*' shows if the DOE has been provisionally accredited as an DOE, have got an indicative letter to be accredited, or have withdrawn their application. This is also illustrated by use of colors; see below.
- Column '*Scopes*' contains a list of all the scopes the DOE has been provisionally accredited to do either validation or verification within. The scope numbers stems from the official list from the UNFCCC CDM homepage. The use of normal font indicates if the DOE has been provisionally accredited to only validation. The Bold font indicates is the DOE is accredited to both validation and verification.
- Column '*Ind. Letter for*' is a list of the scopes the DOE also has applied to been accredited within, and which they have got an indicative letter for, meaning that they can do their first validation for a project in this scope which will be witnessed by an Assessment Team.
- Column '*Applied also for*' is a list of the scopes the DOE earlier has applied for but not has been accredited for/got an indicative letter for yet.

The use of **yellow** illustrates that the AE is provisionally accredited as a DOE. The use of **Orange** illustrates that the applications has been withdrawn. The Conference of the Parties (COP) and Meeting of the Parties (MOP) issues the final designating of the accreditation and has until now followed recommendations by the CDM EB.

Analysis

The sheet 'Analysis' contains 11 tables and 14 charts based on some of the tables. The different tables make an overview of all the CDM projects in the Pipeline, and make analysis of the projects by sector, country, DOE etc.

Table 1

This table is corresponding to the CDM project cycle. It gives an overall view of all the projects in the Pipeline, arranged by its stage in the projects cycle (Validation, request for registration etc.) The table is divided into three sections by colors. The input is from the "Projects" section at (<http://cdm.unfccc.int/>).

- The upper part in white is projects that are in a validation stage or have finished it, without yet moved to next stage in the project cycle.
- The middle section in **tan** is for projects which are in various stages of the process of registration, but have not yet been registered. The different reasons for this are listed in the left part of the table (A time matter, due to request for review, correction requested etc.)
- The two lines in the middle show the number of projects that have been rejected or have withdrawn (The UNFCCC web-site only shows projects that have been withdrawn after a request of registration).
- The lower **yellow** section of the table is for projects that have been registered. This part of the table also show the number of projects that have got CERs issued.

The total number of projects in this table is equal to the total amount of all CDM projects in the Pipeline.

Table 2

This table contains an analysis of all the CDM in the Pipeline by type and amount of expected CERs.

The left part of the table lists the different types of projects (agriculture, biogas, hydro etc.).

The four columns in the left side of the table shows for each type of the project the number of projects, the amount of CERs expected to be generated per year, and expected CERs accumulated until end of 2012. (All numbers are in kilotons = 1000 tons). The right side of the table show for each type the number of projects that have got CERs issued, the amount of CERs issued, and finally the issuance success. This is calculated as the expected CERs in the period of issuance divided by the amount of CERS issued in the period (the slope of the expected CERs are included in this calculation).

There are two lines below this table that show:

The average number of days from registration until the date of first issuance.

The average number of days from the date of last issuance until now.

Table 3

This table is an analysis of all the CDM projects in the Pipeline by type and status in the project cycle, including expected amount of CERs.

- The first column '*Region/Country*' lists all the countries that have CDM projects in the Pipeline. The types are organized alphabetically.
- The next three columns (*Validation Stage*) show the number of CDM projects in the validation stage, the amount of annual expected CERs, and the expected accumulated CERs until 2012 for each type.
- Columns '*Reg. Requested*' show the number of CDM projects that have requested registration, and the amount of expected annual CERs and by 2012 for each type.
- Columns '*Registered*' show the number of CDM projects that have been registered, and the amount of expected annual CERs and by 2012 for each type.
- The columns '*Total*' shows a sum of the number of projects in each type, including percentage share of all CDM projects. It also contains the annual expected CER's, the expected CER's until 2012 (including percentage share).
- The two columns under '*Issued*' show the number of projects that have got CERs issued and the amount.
- The columns '*Withdrawn*' and '*Rejected*' show in which country CDM projects have been withdrawn or rejected.
- The last 3 columns under '*Days*' show
 - 1) The average time form the first start comment period until the request for registration in the letter from the DOE.
 - 2) The average time from request of registration until registration (see graph 4 in the 'Timelagcharts' sheet how the time lag is increasing over time)
 - 3).The average time form the first start comment period until registration. (This is not the sum of the last two numbers because not all projects are registered).

At the bottom of the table all numbers are totaled.

Table 4

This table is an analysis of all the CDM projects in the Pipeline by country (region) and status in the project cycle, including expected amount of CERs.

- The first column '*Region/Country*' lists all the countries that have CDM projects in the Pipeline. The countries are organized alphabetically within the regions.
- The next three columns (*Validation Stage*) show the number of CDM projects in the validation stage, the amount of annual expected CERs, and the expected accumulated CERs until 2012 for each country.
- Columns '*Reg. Requested*' show the number of CDM projects that have requested registration, and the amount of expected annual CERs and by 2012 for each country.
- Columns '*Registered*' show the number of CDM projects that have been registered, and the amount of expected annual CERs and by 2012 for each country.
- The columns '*Total*' shows a sum of the number of projects in each country, including percentage share of all CDM projects. It also contains the annual expected CER's, the expected CER's until 2012 (including percentage share).
- The two columns under '*Issued*' show the number of projects that have got CERs issued and the amount.
- The columns '*Withdrawn*' and '*Rejected*' show in which country CDM projects have been withdrawn or rejected.
- The last 3 columns under '*Days*' show
 - 1) The average time from the first start comment period until the request for registration in the letter from the DOE.
 - 2) The average time from request of registration until registration. (see graph 4 in the 'Timelagcharts' sheet how the time lag is increasing over time).
 - 3) The average time from the first start comment period until registration. (This is not the sum of the last two numbers because not all projects are registered).

At the bottom of the table all numbers are totaled. This line shows the total number of small-scale projects, the number of registered small-scale projects and the attached CER's.

Table 5

This table is a condensed version of table 3, where total numbers of CDM projects and the attached CER's by regions are shown. The table includes the population per region and the 2012CERs per capita for each region.

Table 6

The table analyzes the number of CDM and JI projects each active DOE has validated and verified in total and in percentage share of the total amount of projects in the Pipeline.

- The left column '*Operational Entity*' lists the names of the DOEs (including short names).
- The columns '*Validated projects*' show the number of projects each DOE has validated, absolute and in percentages.
- The columns '*Verified projects*' show the number of projects each DOE has verified, absolute and in percentages.

At the bottom of the table the numbers are summarized (equal to the total amount of projects in the Pipeline).

Table 7

This table is an analysis of how many of all the CDM projects in the Pipeline that have chosen a renewable crediting period of 7 years, and how many have chosen a fixed 10 year period.

Table 8

This table analyzes the number of CDM projects each annex-I country has decided to issue LoAs to. The total number of projects might differ from the total number of CDM projects since some projects have more than one buying country.

In the last line 'not available' (n.a.) means that no buyer has been stated in the PDD or at the UNFCCC homepage.

The buyers authorized in the LoAs can be found on the "Buyers" sheet.

Table 9

The purpose of this table is to make a projection on the amount of CERs that will be issued at the end of 2012.

The top line repeats the amount of CERs that are **expected** to be available at the end of 2012.

The CERs from **registered projects** (minus those that already have CERs issued) are reduced by the issuance success. It is assumed that no issuance will occur in a period equal to the average number of days from registration until the date of first issuance + the average number of days from date of last issuance until the present. We therefore subtract an amount equal to this period times the expected annual CERs from the registered projects.

The CERs from **projects in the process of being registered** are reduced by the issuance success. It is assumed that no issuance will occur in a period equal to the average number of days from request registration until the date of first issuance. We therefore subtract an amount equal to this period times the expected annual CERs from projects requesting registration + to the average number of days from registration until the date of first issuance + the average number of days from date of last issuance until the present. We therefore subtract an amount equal to this period times the expected annual CERs from projects requesting registration.

The CERs from **under validation** are reduced by 15% (that will not request registration) and the issuance success. It is assumed that no issuance will occur in a period equal to the average number of days from start comment until the date of first issuance. We therefore subtract an amount equal to this period times the expected annual CERs from projects requesting registration + to the average number of days from registration until the date of first issuance + the average number of days from date of last issuance until the present. We therefore subtract an amount equal to this period times the expected annual CERs from projects under validation.

We add the CERs from **future projects** not yet in the pipeline: At the bottom of table 6 in the "Time" sheet the average amount of 2012CERs for the new projects entering the pipeline in the last 3 month is calculated. We assume the future amount entering will stay constant at this value, and that the projects entering the last two years will no have time to get CERs issued before the end of 2012.

The bottom of the table show the 2% of the issued CERs entering the Adaptation Fund and the amount of expected CERs from all the projects expected in 2030 (this means after the 10 or the 21 years crediting periods), and what is left over after 2012.

Table 10

In the right upper part of the sheet, is similar to the analysis in table 2. Here the total number of CDM projects is divided into type and expected amount of CERs and issued CERs. As an extension of Table 2 this table also calculates the percentage share of types and amount of CERs. The lines in the table are sorted according to the number of projects (descending).

- In the right part of the table, is a list of all the CERs issued within every type of project, as absolute number and as a percentage of all CERs issued.

- The lower part of the table is a categorization of all the different types of projects into eight broader categories, where number of projects and amount of expected CERs are also shown. This part of the table is the basis for chart 1-3.

Table 11

This table is similar to table 11, but shows only the number of new projects entering the CDM Pipeline in the last month.

It also contains a line showing how the project types are defined in the Pipeline.

Chart 1

This chart shows the distribution of the number of CDM project in 10 size categories. The input to this graph is in the small table to the left of the graph.

Chart 2

This chart shows the distribution of the number of CDM projects with issued CERs according the issuance success.

Chart 3

This chart shows a pie chart with the share of the total number of CDM project in the eight broader categories of types of CDM projects.

Chart 4

The chart shows a pie chart with the share of the total expected CERs until 2012 in the eight broader categories of types of CDM projects.

Chart 5

The chart shows the time development of the percentage share of the number new projects entering the CDM Pipeline each quarter for the 4 largest project categories.

Chart 6

The chart shows a pie chart with the share of the issued CERs in the eight broader categories of types of CDM projects.

Chart 7

The chart shows top ten countries ranked according to the number of issued CERs.

Chart 8

The chart shows the number growth over time of the expected accumulated CERs until 2012 in the six largest categories.

Chart 9

The chart shows the number growth over time of the expected accumulated CERs until 2012 in the five countries with the largest amount of expected CERs. The rest of the countries are grouped into one line.

Chart 10

The chart shows the accumulated issuance over time in the four largest categories of project types. The lines are stacked on top of each other. The input is from table 7 in the “Time” sheet, which contains number from all the old CDMPipelines.

Chart 11

The chart shows the total number of project requesting registration each month (we use the date of signature in the request registration letter from the DOE). The yellow part of the bar shows the number of these projects, that are registered automatically, and the line shows how this fraction has gone down in 2007. The upper part of the bars shows how many of the registered projects entered in the review process. Each of these projects has been given the highest of the following review levels: a request for review, a request for correction after a request for review (correction 1), a review, a request for registration after a review (correction 2), was rejected, or was withdrawn. To include all the projects requesting review, the two upper parts of the bars show the number of projects with no final decision from the EB after the request for review, and the number of projects with no request for review.

Chart 12

This chart is a simplified version of the review history in chart 11. It only shows annual values and for each year. The data added into three groups: 1) The share of projects with request for review and no review. 2) The share of projects that had a review. 3) The share of projects that were rejected.

Chart 13

The chart shows the accumulated number of registered projects over time. The input is from table 8 in the “Time” sheet, which contains number from all the old CDMPipelines

Chart 14

The chart at the bottom of the page shows the number of buyer authorizations from the buyer countries.

Analysis2

This sheet contains 8 tables. As supplement to analyzes in sheet ‘Analysis’ the different tables in this sheet make analysis of the projects by sector, country, MW etc.

Table 1

The first and biggest table is an analysis of all the CDM projects in the Pipeline by country (region) and by type.

- In the first column ‘*Region/Country*’ is the countries listed by regions. At the bottom of this column is the number for all regions (World).
The upper row lists all the different type. This makes it possible to see the exact number of a specific type of projects in a certain country.
- The column ‘*Total*’ in the right end of the table shows total number of projects in each country.

Table 2

This big table shows amount of CERs expected until 2012 by all CDM projects in the Pipeline, by type and by country.

- In the first column '*Region/Country*' are the countries listed by regions. At the bottom of this column is the amount of CERs for all regions (World).
The upper row lists all the different types. This makes it possible to see the exact number of expected CERs until 2012 in a specific type of projects in a certain country.
The column '*Total*' in the right end of the table shows total number of expected CERs in each country.

Table 3

This table is an analysis of the amount of Megawatt (MW) expected to be installed by all the CDM projects in the Pipeline.

The upper row lists all the sectors in which installation of MW is taking place.

The column 'Total' in the right side of the table is connected to Table 1 (to the left of Table 3), and summarize amount of MW by country, by regions and total for the world.

Table 4 – 6

These three small tables right of Table 3 is a country division of the total MW installed and the total number of projects for wind, biomass (both solid and liquid), and hydro sectors CDM projects in the Pipeline.

Table 7 – 8

These two tables, below Table 6 subdivide the number of CDM projects in some of the project types into sub-types: Biomass energy, landfill gas, biogas, hydro, solar, EE industry.

The total number of projects is split into projects under validation, projects in the process of being registered, and registered projects.

The last column shows the number of MW expected to be installed in all the projects in each sub-type.

Table 8 is the same as the biomass energy projects in table 7 except that some of the sub-types are added together.

Chart 1

This is a graph of the number of EE industry projects in table 7

Regions (Latin America) + (Asia Pacific DC)

The sheet 'Regions' is designed to give a regional overview of number of projects, CERs and activity of countries, for only Latin America and Asia, since there are not enough projects in the other regions yet for this kind of analysis. The sheet contains two tables and five charts for Asia and Latin America. (Tables and charts for Asia can be found in the lower part of the sheet). Africa is covered by only one table showing the number of projects hosted by African countries

Table 1 + Table 2

To the far left is an overview of the country in the specific region, the amount of CDM projects taking place their (as a percentage of all the projects in the region), and the expected amount of CERs generated from the project activities (as a percentage of all the expected CERs in the region). The tables are divided into countries, but in the middle is a summarization of all the less active countries into a category called 'others'. Below this category are the countries included in this listed. The total number of countries in the list can be found in the right corner just below the table.

Chart 1+2 and 3+4

The charts right to the tables are a visual illustration of the numbers from the tables. Here the countries with only few projects are, like in the table, merged into the category 'others'

Chart 5

This chart shows the new projects in Latin America entering the pipeline each quarter.

Time

This sheet only contains the time series used for the time series graphs in the 'Analysis' and the 'TimelagCharts' sheets.

See guidance to these below.

Timelagcharts

This sheet contains analyzes of three different aspects of time intervals between different stages of the project cycle. The graphs analyze all the CDM projects in the Pipeline.

Graph 1

The graph analyzes the total number of CDM projects that have entered the Pipeline each month according the start comment date. Each monthly column is divided into how many of these projects that have CERs issued, how many that has requested registration, and how many is still under validation.

Graph 2

This graph also, like Graph 1, analyzes the period between start dates of the public validation and the date for requesting registration. The red column shows the average time for this period for all the CDM projects submitted every month.

The blue line is a calculation of the so called 'time lag', which is the cumulative average numbers of days between start date for public validation and date for requesting registration for all CDM projects in the Pipeline.

Graph 3

This graph analyzes the time span between the start date of the public validation period, and the date of issuance of the host country Letter of Approval (LoA) for all the CDM projects that have requested registration or have been registered.

- The x-axis is the number of month either before or after the start date of the public validation. (When the LoA comes before the validation the value on the graph is negative).

Graph 4

This graph shows aggregate the information in graph 1. For each quarter the bars show the number of project starting, their comment period and the fraction submitted for registration. The line shows this fraction as a percentage. Over time this curve is gradually being lifted as more projects request registration.

Graph 5

This graph shows how the average time form the date of registration (in the letter from the DOE) until registration has increased over time.

2 Description of the content and design of the JI Pipeline

JI_Projects

This sheet contains a list of all the Joint Implementation projects in the Pipeline. The JI projects included in the Pipeline are some that are, or have been open, for public comments on the AIEs/DOE's websites. The projects in the Pipeline have been collected through announcement of public determination / validation on Climate-L mail forum.

The total number of JI projects in the pipeline can be found at the top of the table

- The first column '*ID*' indicates the project specific identification number, assigned by UNEP Risø Centre. This has been issued at the start comment date of the public validation. The idea of ID number for JI projects is to make it easy to keep track on a project no matter if name, method or other things changes during the project cycle.
- Column '*Ref.*' shows the UNFCCC's ID number of the project. It is valuable when the user want to find the project on the UNFCCC JI web site.
- Column '*Title*' is the official title of the project.
- Column '*Host Country*' contains the name of the host countries of the projects.
- The column '*Host country*' shows the country hosting the project.
- The column '*Province/state*' shows the names of the largest units the country is divided in.
- Column '*Track*' shows if the project belongs to track 1 or track 2.
- Column '*Status*' shows where the project is placed in the project cycle (at validation, registered etc.). The exact procedures in the JI project cycle have not yet been fixed.
- Column '*Type*' shows the type of project
- Column '*Sub-type*' shows the sub-type of project
- Column '*Methodology*' shows the methodology or the methodologies used in the project. Some of the JI projects use approved CDM methodologies and some projects are using non-approved methodologies with a certain name ex. 'Austrian format' or 'PCF format'.
- Column '*ktCO₂/yr*' shows the amount of Emissions Reduction Units (ERU) the project expects to generate. This number is calculated as average of the years 2008-2012.
- Column '*Credit start*' shows the date for the start of the crediting period.
- Column '*2012 ktCO₂*' contains the total amount of ERU the projects is expected to generate in the period 2008-2012.
- Column '*Determinator*' shows the name of the company determining the project.
- The six columns under '*ERUs issued*' shows the date of the first issuance of ERUs (this is needed to calculate how long time it takes for a project to get ERUs issued), the amount of ERUs issued so far, the end date of the period until which the ERUs have been issued, the expected ERUs in the same period, the issuance success (issued/expected ERUs in this period), and the name of EIA doing the verification.
- Column '*Credit Buyer*' shows the names of the countries, companies etc. that expect to buy (some of) the ERUs.
- Column '*PDD Consultant*' is the name of the company, organization etc. who have contributed with calculations of baseline.
- Column '*Start comment*' list the start date of the period for public comments.
- Columns. '*Submitted again later*' contains start comment dates if the PDD has been resubmitted again later. This happens quite often due to change in methodology used, change of AIE etc.

- Column ‘*Host LoA*’ shows the date of issuance of the Letter of Approval from the Designated National Authority in the host country. This is only available for projects that have requested registration. A comment has been inserted into this cell if a buyer country has issued a Letter of Approval.
- Column ‘*Reg. Request*’ shows the date of request for registration of the project. We use the date in the letter from the DAIE requesting registration.
- Next column shows the ‘*Date of registration*’.
- Column ‘*Buyer LoA*’ shows the date of issuance of the LoAs from the buyer countries.
- Column ‘*MW*’ shows the amount of Megawatt expected to be installed by the project
- Column ‘*Full time hours*’ is the production of electricity in the project in MWh divided by the installed MW in the former column. To get the production of electricity please multiply these 2 columns. The construction of this column is not finished; values are still missing for several projects.

Analysis (for JI)

The sheet ‘Analysis’ contains 10 tables and 5 charts based on some of the tables. The different tables make an overview of all the JI projects in the Pipeline, and make analysis of the projects by sector, country, DOE etc.

In the analysis of the JI projects we still use the CDM terminology: validation, verification, request registration, and registration. As JI develops we will start to use the word ‘determination’ more.

Table 1

This table is corresponding to the JI project cycle. It gives an overall view of all the projects in the Pipeline, arranged by its stage in the projects cycle (Validation, request for registration etc.)

The table is divided into three sections by colors. The input is from the “Projects” section at (<http://ji.unfccc.int/>).

- The upper part in white is projects that are in a determination stage or have finished it, without yet moved to next stage in the project cycle.
- The middle section in **Pink** is for projects which are in various stages of the process of registration, but have not yet been registered. The different reasons for this are listed in the left part of the table (A time matter, due to request for review, correction requested etc.)
- The two lines in the middle show the number of projects that have been rejected or have withdrawn (The UNFCCC web-site only shows projects that have been withdrawn after a request of registration).
- The lower **yellow** section of the table is for projects that have been registered. This part of the table also shows the number of projects that have got ERUs issued.

The total number of projects in this table is equal to the total amount of all JI projects in the Pipeline.

Table 2

This table contains an analysis of all the JI in the Pipeline by type, by track, and by amount of expected ERUs.

The first of the table lists the different types of projects (agriculture, biogas, hydro etc.).

The next four columns show the information for all JI projects, the next 3 for track 1 projects, the next 3 for track 2 projects.

The right side of the table show for each type the number of projects that have got ERUs issued, the amount of ERUs issued, and finally the issuance success. This is calculated as the expected ERUs in the period of issuance divided by the amount of ERUs issued in the period.

Table 3

This table is an analysis of all the JI projects in the Pipeline by type and status in the project cycle, including expected amount of ERUs.

- The first column '*Region/Country*' lists all the countries that have JI projects in the Pipeline. The types are organized alphabetically.
- The next three columns (*Determination Stage*) show the number of CDM projects in the determination stage, the amount of annual expected ERUs, and the expected accumulated CERs until 2012 for each type.
- Columns '*Reg. Requested*' show the number of JI projects that have requested registration, and the amount of expected annual ERUs and by 2012 for each type.
- Columns '*Registered*' show the number of JI projects that have been registered, and the amount of expected annual ERUs and by 2012 for each type.
- The columns '*Total*' shows a sum of the number of projects in each type, including percentage share of all JI projects. It also contains the annual expected ERUs, the expected ERUs until 2012 (including percentage share).
- The two columns under '*Issued*' show the number of projects that have got ERUs issued and the amount.
- The columns '*Withdrawn*' and '*Rejected*' show in which country JI projects have been withdrawn or rejected.

At the bottom of the table all numbers are totaled.

Table 4

This table is an analysis of all the JI projects in the Pipeline by country (region) and status in the project cycle, including expected amount of ERUs.

- The first column '*Region/Country*' lists all the countries that have JI projects in the Pipeline. The countries are organized alphabetically within the regions.
- The next three columns (*Validation Stage*) show the number of JI projects in the validation stage, the amount of annual expected ERUs, and the expected accumulated ERUs until 2012 for each country.
- Columns '*Reg. Requested*' show the number of JI projects that have requested registration, and the amount of expected annual ERUs and by 2012 for each country.
- Columns '*Registered*' show the number of JI projects that have been registered, and the amount of expected annual ERUs and by 2012 for each country.
- The columns '*Total*' shows a sum of the number of projects in each country, including percentage share of all JI projects. It also contains the annual expected ERU's, the expected ERU's until 2012 (including percentage share).
- The two columns under '*Issued*' show the number of projects that have got ERUs issued and the amount.
- The columns '*Withdrawn*' and '*Rejected*' show in which country JI projects have been withdrawn or rejected.

At the bottom of the table all numbers are totaled.

Table 5

The table analyzes the number of JI projects each active Accredited Independent Entity (AIE) has determined and verified in total and in percentage share of the total amount of projects in the Pipeline.

- The left column '*Accredited Independent Entity*' list the names of the AIEs (including short names).
- The columns '*Determined projects*' show the number of projects each AIE has determined, absolute and in percentages.
- The columns '*Verified projects*' show the number of projects each AIE has verified, absolute and in percentages.

At the bottom of the table the numbers are summarized (equal to the total amount of projects in the Pipeline).

Table 6

This table analyzes the number of JI projects each annex-I country has decided to issue LoAs to. The total number of projects might differ from the total number of JI projects since some projects have more than one buying country.

In the last line 'not available' (n.a.) means that no buyer has been stated in the PDD or at the UNFCCC homepage.

Table 7

This table shows the number of track 1 and track 2 projects by host country.

Table 8

The purpose of this table is to make a projection on the amount of ERUs that will be issued at the end of 2012.

The top lines repeats the amount of ERUs that are **expected** to be available at the end of 2012 from the projects under determination, projects in the process of being registered, and registered projects.

The total amount of ERUs **issued** at the end of 2012 is then the sum of the:

- 1) The issued ERUs
- 2) The expected ERUs accumulated from existing projects until 2012 minus the expected annual issued ERUs the last two years
- 3) ERUs from future projects calculated as the average issued ERUs from the JI projects entering the Pipeline in the last 3 months multiplied with the number of month until the end of 2012 (minus 2 years)

All values are multiplied with the 85% chance to be registered and an issuance success of 90%.

Table 9

In the right upper part of the sheet, is similar to the analysis in table 2. Here the total number of JI projects is divided into type and expected amount of ERUs and issued ERUs. As an extension of Table 2 this table also calculates the percentage share of types and amount of ERUs. The lines in the table are sorted according to the number of projects (descending).

- In the right part of the table, is a list of all the ERUs issued within every type of project, as absolute number and as a percentage of all ERUs issued.
- The lower part of the table is a categorization of all the different types of projects into eight broader categories, where number of projects and amount of expected ERUs are also shown. This part of the table is the basis for Chart 1-2.

Table 10

This table is similar to table 9, but shows only the number of new projects entering the JIPipeline in the last month.

It also contains a line showing how the project types are defined in the Pipeline.

Chart 1

This chart shows a pie chart with the share of the total number of JI project in the six broader categories of types of JI projects.

Chart 2

The chart shows a pie chart with the share of the total expected ERUs until 2012 in the six broader categories of types of JI projects.

Chart 3

The chart shows number of JI projects host by each country.

Chart 4

The chart shows the number growth over time of the expected accumulated ERUs until 2012 in the six categories.

Chart 5

The chart shows the number growth over time of the expected accumulated ERUs until 2012 in Russia, Ukraine, Eastern Europe, and others.

Time (for JI)

This sheet only contains the time series used for the time series graphs in the ‘Analysis’ and the ‘TimelagCharts’ sheets.

See guidance to these below.

Timelagcharts (for JI)

This sheet contains analyzes of three different aspects of time intervals between different stages of the project cycle. The graphs analyze all the JI projects in the Pipeline.

Graph 1

The graph analyzes the total number of JI projects that have entered the Pipeline each month according the start comment date. Each monthly column is divided into how many of these projects that have ERUs issued, how many that has requested registration, and how many is still under determination.

Graph 2

This graph also, like Graph 1, analyzes the period between start dates of the public validation and the date for requesting registration. The red column shows the average time for this period for all the JI projects submitted every month.

The blue line is a calculation of the so called ‘time lag’, which is the cumulative average numbers of days between start date for public validation and date for requesting registration for all JI projects in the Pipeline.

Graph 3

This graph analyzes the time span between the start date of the public validation period, and the date of issuance of the host country Letter of Approval (LoA) for all the JI projects that have requested registration or have been registered.

- The x-axis is the number of month either before or after the start date of the public validation. (When the LoA comes before the validation the value on the graph is negative).

Graph 4

This graph shows aggregate the information in graph 1. For each quarter the bars show the number of project starting, their comment period and the fraction submitted for registration. The line shows this fraction as a percentage. Over time this curve is gradually being lifted as more projects request registration.