

Tool for selecting CDM Methodologies & Technologies

This free of charge tool for selecting CDM methodologies & technologies offers a simple and handy overview and is ideal for a quick review and consultation for general audience, especially for *policy makers*, to further the decision making process within a national context, in terms of *sector prioritization, CDM potentials* and design of *national strategies* (e.g. in long term energy planning).

The screenshot shows the website interface for the 'Tool for Selecting CDM Methodologies & Technologies'. It features a navigation menu with 'Home', 'Forums', 'Links', 'About', 'Contact', and 'Introduction'. A search bar is located in the top right corner. Below the navigation, there are several images illustrating various energy and environmental projects. The main content area includes a 'Welcome to CDM Methodologies & Technologies' section with a list of features: easy access to methodology options, sector-specific overviews, and a discussion forum. It also mentions that the site is updated monthly with the latest statistics. A 'Methodology updates - January 2011' section lists new methodologies approved, such as AR-AM12 and AMS-III.AQ. On the right side, there are two blue boxes: 'Methodology Selection Tool' and 'Technology Selection Tool', both providing lists of sectors and technologies available for selection.

Methodology Selection Tool
Go directly to specific methodologies:

- + Agriculture and Forests
- + Waste
- + Conventional Power Production
- + Heating Systems
- + Renewable Energy
- + Power Consumption
- + Industrial Production Processes
- + Transportation

Technology Selection Tool
Choose sector to see full site content:

- + Agriculture and Forests
- + Waste
- + Conventional Power Production
- + Heating Systems
- + Renewable Energy
- + Power Consumption
- + Industrial Production Processes
- + Transportation

Methodology Selection tool *and* Technology Selection tool

- The website is divided into a ***Methodology selection tool*** and a ***Technology selection tool***
- The two independent tools provide together concentrated information to all stakeholders and provide an overview of technologies, the applicable methodologies and a general perspective through concentrated statistics of all CDM project types in any given sector

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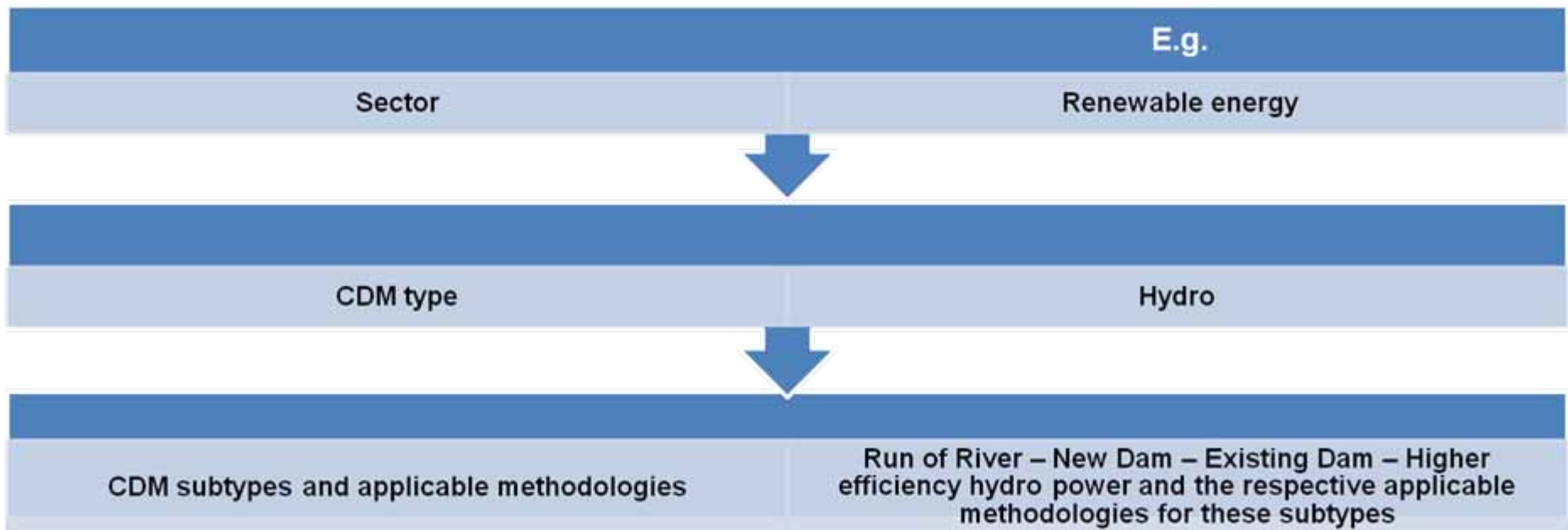
Technology Selection Tool

Choose sector to see full site content:

- ▶ Agriculture and Forests
- ▶ Waste
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- ▶ Power Consumption
- ▶ Industrial Production Processes
- ▶ Transportation

CDM Methodology Selection tool

Provides a complete overview of all methodology options for all existing project types. The tool guides the user to specific CDM subtypes and link them to the methodologies applicable for the respective project subtype through three steps:




CDM Methodology Selection tool


Provides information of each subtype on:

- Methodologies applied in unregistered projects
- Methodologies applied in registered projects
- Methodologies applied in projects with CERs issued
- No. of CDM projects
- Number of projects with CERs issued
- Average issuance success.

Methodologies and CDM data									
Sub-type	Methodologies applied in unregistered projects		Methodologies applied in registered projects		Methodologies applied in projects with CERs issued		No. of CDM projects	No. of CDM projects with CERs issued	Average issuance success
	Large-Scale	Small-Scale	Large-Scale	Small-Scale	Large-Scale	Small-Scale			
Existing dam	0 ACM2 25	0 AMS-I.D. 29	0 ACM2 11	0 AMS-I.D. 18	0 ACM2 7	0 AMS-I.D. 9	101	16	91%
Higher efficiency hydro power	0 AMS2 1						1	0	0%
New dam	0 ACM2 124	0 AMS-I.D. 67	0 ACM2 107	0 AMS-I.D. 40	0 ACM2 34	0 AMS-I.D. 13	381	47	79%
Run of river	0 AMS2 2 0 ACM2 219 0 ACM12 1 0 ACM11 1	0 AMS-I.D. 305 0 AMS-I.A. 2	0 ACM2 137	0 AMS-I.D. 229 0 AMS-I.A. 2	0 ACM2 50	0 AMS-I.D. 88 0 AMS-I.A. 1	1033	139	95%

Explanation: Point at the name of the methodology to see the name. Click to see the official description.

 shows the number of posts in the debate. Click to visit the debate.

 shows the number of projects in the category

CDM Technology Selection tool

Provides an entry point to identify relevant technologies for CDM projects from overall defined economic sectors.

- offers a short description of applied or applicable technologies in CDM projects
- examples of application of the technologies in a CDM context.

The screenshot shows the UNEP RISØ CDM4CDM website interface. At the top, the logo for UNEP RISØ CENTRE is displayed. The main heading is 'Tool for Selecting CDM Methodologies & Technologies'. A search bar is located in the top right corner. The navigation menu includes 'Home', 'Forums', 'Links', 'About', 'Contact', and 'Introduction'. The main content area is titled 'RENEWABLE ENERGY' and contains a detailed description of renewable energy as a response to climate change, listing various technologies like biomass, solar, wind, hydro, geothermal, and tidal. A sidebar on the right offers a 'Fujiper Renewable Energy Choose sublevel' menu with options for Biomass, Hydro, Wind, Solar, Geothermal, and Tidal. Below this, a 'Case' section highlights the 'Santa Cruz I Hydro Power Plant' project in Peru, including its location, capacity, and project details.

CDM Technology Selection tool

The technology selection tool guides the user to very specific descriptions of technologies currently applicable for CDM projects

WASTE

Proper handling of waste poses a great GHG emissions reduction potential. The potential for these reductions lies in two different areas of waste handling, namely either proper disposal of organic matter, that would otherwise emit primarily methane (CH₄) and the incineration of waste, that can serve to replace energy (both thermal and electric) that would have been produced using carbon intensive fossil fuels.

Methane emission reductions

Organic matter, for instance in the form of waste, emits great quantities of greenhouse gases, primarily

Explore Waste
Choose sublevel

- ▶ Agricultural Waste
- ▶ Liquid Waste
- ▶ Solid Waste



You are here: Home - Waste - Solid Waste

SOLID WASTE

...of important source for potential energy production. The inorganic fraction consists of combustible waste, depending on current recycling. The organic fraction is the source of methane and other emissions from the landfills, causing odour and risk of explosion. Collecting it has the potential to generate large amounts of Certified Emission Reductions either by utilising the methane for energy production or eliminating it through flaring. Otherwise, it may be eliminated altogether through composting.

Organic matter may also be gasified for the development of methane, which is combustible in gas engines or directly usable for cooking in households. In such cases, it typically replaces conventional sources of energy.

Technologies used in CDM projects concerning solid waste are presented under the following headings:

- Composting
- Gasification Options
- Incineration Options
- Landfills

Explore Solid Waste
Choose sublevel

- ▶ Composting
- ▶ Gasification Options
- ▶ Incineration Options
- ▶ Landfills

Cases:
Composting of solid biomass waste separated from the Palm Oil Mill Effluent through the use of AVC Sludge Dewatering System



You are here: Home - Waste - Solid Waste - Composting

COMPOSTING

Municipal solid waste contains large fractions of organic waste, particularly in developing countries where reuse of inorganic fractions is widespread. The organic fraction of the waste is the source of methane and other emissions from the landfills, causing odour and risk of explosion. Methane is a highly polluting Greenhouse Gas (GHG), with a global warming potential 21 times that of carbon dioxide. Therefore, it has the potential to generate large amounts of Certified Emission Reductions if the methane emissions can be eliminated e.g. through composting. In the process other sources of waste may be included, such as sludge from wastewater treatment or waste from the food industry. The palm oil industry has established a number of composting projects under the Clean Development Mechanism. Composting is also appropriate for liquid wastes and manure.

Description of technology

Composting

Composting can be used to avoid the production of methane by changing how organic waste is stored and decomposed, from anaerobic to aerobic conditions. Composting is essentially a technology where different kinds of waste and other materials are combined under aerobic conditions, whereby the waste gradually decomposes. In some cases the waste can be recycled or used in other parts of an industrial production line. Most commonly, however, it is used as fertilizer in agricultural production. The key to success is to find the correct combination of dry and wet waste combined with plenty of air to support the aerobic process where methane is produced.

Municipal Waste - Landfills

Household composting, well known to most people, is simply an open bin where organic waste is shredded and piled with worms and soil, which gradually turns into humus. On a larger scale, waste is established that need to be turned regularly with simple equipment to avoid heat generation and methane emissions. Composting is most efficient if the waste is free from inorganic fractions and removal of inorganic material can improve the process. Optimised treatment of municipal waste requires separation of usable raw materials such as metals and glass, composting of organic fractions and incineration of inorganic matter.

Composting is commonly used in the agricultural sector where agricultural waste – both plant material and animal manure – are being composted, thereby creating humus, which can be used as fertilizer.

Palm Oil Mill Effluent (POME)

...of biomass production avoidance is in the production of palm oil, which results in four types of biomass waste: empty fruit bunches, fibres, palm kernel shells and Palm Oil Mill Effluent (POME) – a liquid waste with a high content of Chemical Oxygen Demand (COD). In order to avoid methane production, high concentrations of oxygen are needed to create aerobic conditions. The most common way of treating POME has been to store it in open lagoons (ponds), where the waste sinks to the bottom and releases methane into the air. The water will gradually be released into a river, to keep a constant level in the pond. Composting POME is rather simple: the empty fruit bunches are collected and added together with the liquid POME, along with plenty of air, which initiates the composting process. The compost is ready in 10-12 weeks, depending on temperature, oxygen level, etc.

Sub-types

UNEP/Risoe's CDM Pipeline includes composting projects under the sub-types:

- Composting
- Industrial Solid Waste
- Landfill Composting



Tool for selecting CDM Methodologies & Technologies

You are here: Home - Waste - Solid Waste - Composting

Combining the two tools the www.cdm-meth.org offers comprehensive information that establishes linkages between CDM project types, technologies and methodologies. This information is targeted to both practitioners with little CDM experience and experts that need an overview

UNEP RISØ CDM4CDM
Tool for Selecting CDM Methodologies & Technologies

Home Forums Links

You are here: Home - Waste - Solid Waste - Composting

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Municipal Waste - Landfills

The most basic form of composting, well known to most people, is simply an open bin where organic household waste is combined with worms and soil, which gradually turns into humus. On a larger scale, waste is shredded and piles are established that need to be turned regularly with simple equipment to avoid heat generation and methane emissions. Composting is most efficient if the waste is free from inorganic fractions and removal of inorganic material can improve the process. Optimised treatment of municipal waste requires separation of usable raw materials such as metals and glass, composting of organic fractions and incineration of inorganic matter.

Composting is commonly used in the agricultural sector where agricultural waste – both plant material and, to a limited extent, animal material – are being composted, thereby creating humus, which can be used as fertilizer.

Palm Oil Mill Effluent (POME)

A common example of methane production avoidance is in the production of palm oil, which results in four types of biomass waste: empty fruit bunches, fibres, palm kernel shells and Palm Oil Mill Effluent (POME) – a liquid waste with a high content of Chemical Oxygen Demand (COD). In order to avoid methane production, high concentrations of oxygen are needed to create aerobic conditions. The most common way of treating POME has been to store it in open lagoons (ponds), where the waste sinks to the bottom and releases methane into the air. The water will gradually be released into a river, to keep a constant level in the pond. Composting POME is rather simple: the empty fruit bunches are collected and added together with the liquid POME, along with plenty of air, which initiates the composting process. The compost is ready in 10-12 weeks, depending on temperature, oxygen level, etc.

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Composting	16 AM29 9 10 AM25 5	10 AM20.F 16					59	0	0%
Industrial solid waste	10 AM25 1	10 AM20.D 1					2	0	0%
	10 AM25 9	10 AM20.F 8					31	0	0%
Palm oil waste	10 AM25 1	10 AM20.H 9 10 AM20.E 1 10 AM20.D 4 10 AM20.C 1 10 AM20.A 1					11	0	0%

Explanations: Point at the name of the methodology to see the name. Click to see the official description.

10 shows the number of posts in the debate. Click to visit the debate.

23 shows the number of projects in the category

CDM Methodology debate forum and Methodology updates

•The debate forum provides a platform for exchange of methodology related experiences that allow project developers and others to improve their understanding and be aware of barriers

•The Methodology updates gives an overview of the most recent approved methodologies and other relevant news about methodologies.

SEND YOUR OWN POST
Fill out the form below, if you want to add a message to this forum. You will shortly after receive an email, where you confirm your email address.
See the rules of this forum

Fields marked with (*) are required.

Your name: (*) Andrew W.	Country: Ghana
Occupation: Project Developer	Your email address: testmail@risoe.dtu.dk
Title of your message: (*) Experiences with AM25 and landfill ga	
Content of your message (hyperlinks will be shown as text):(*) I am project developer looking for existing methodologies for landfill gas capture/flaring projects? Has anyone experiences with AM25 and landfill gas projects and would this methodology still be appropriate if I want to flare the methane?	

I want to be kept informed about new posts via email (optional)
 I accept the terms and conditions

Methodology updates - January 2011

New methodologies:

One new A/R methodology has been approved:

- AR-AM12: "Afforestation or reforestation of degraded or abandoned agricultural lands"

Four new small scale methodologies have been approved:

- AMS-III.AO.: "Methane recovery through controlled anaerobic digestion"
- AMS-III.AP.: "Transport energy efficiency activities using post - fit Idling Stop device"
- AMS-III.AQ.: "Introduction of Bio-CNG in transportation applications"
- AMS-III.AR.: "Substituting fossil fuel based lighting with LED lighting systems"

Other news:

- Any combination of small scale methodologies used in registered project are allowed in PoAs as long as there are no cross effects (see Annex 23 to EB58).
- AM0001 (applicable to project activities that destroy HFC-23) is put on hold with immediate effect.

(Source: www.cdmpipeline.org)

www.cdm-meth.org

Based on statistics from the UNEPrisoe CDMpipeline
www.cdmpipeline.org