

CDM Methodologies and their Application

Outline

- What is a CDM methodology
- The main contents
- One example
- Where they come from?
- Existing CDM methodologies and their application

An Approved CDM Methodology

Definition: Methodologies are **standardised procedures** how to **measure and calculate** emission reductions in a CDM project. Each CDM methodology consists of two parts:

- **A baseline methodology**, which is the emissions that would have been created in the most plausible alternative scenario to the implementation of the project activity (called the baseline scenario)
- **A monitoring methodology**, which refers to the method used by project participants for the collection and archiving of all relevant data necessary for the implementation of the monitoring plan

What is a CDM methodology

- Extensive elaborations on
 - Formulas
 - Definition of project boundaries
 - Monitoring requirements
 - Leakage
- Compulsory to use
- Project type specific
- Approval by the Executive Board needed
- Different sets for large scale and small scale projects

Methodology - Main Contents

An approved methodology contains information on:

- Source, Approach
- Applicability
- Identification of baseline scenario
- Additionality
- Project boundary
- Emission reduction formulas
- Leakage
- Monitoring methodology

The Application of a Baseline Methodology

During CDM project development, **five steps** are identified for the definition of an emissions baseline:

1. Set project **boundary**,
2. Define project **conditions**,
3. Discuss project **barriers**,
4. **Select** the most appropriate **baseline methodology**,
5. Calculate **baseline emissions**.

Baseline Methodology

- The baseline methodology is **key** to the proof of **additionality**
- The baseline represents the **reference scenario** and must be defined as follows:
 - In accordance with the provisions for the use of **approved or new methodologies**,
 - In a **transparent** and **conservative** manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors and additionality, taking into account uncertainty;
 - On a **project-specific** basis; and
 - Taking into account relevant **national and/or sectoral policies** and circumstances.

Monitoring Methodology

A monitoring methodology:

- is the means to **calculate the actual emission reductions** from the project, taking into account any emissions from sources within the project boundary.
- sets out **how** project proponents should **develop and implement a monitoring plan** for a particular project type, in order to gather the data required to calculate emission reductions from the project.

CDM Methodology – An example

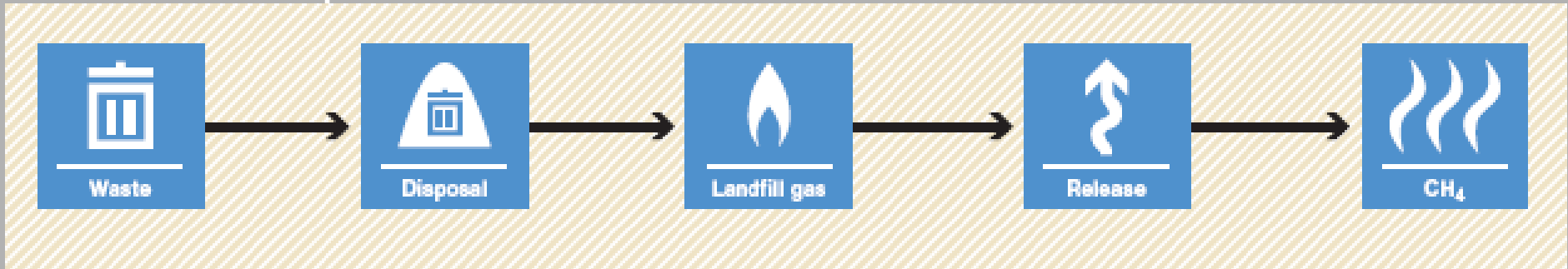
ACM 0001 – Consolidated Methodology for landfill gas project activities

Typical project(s)	Capture of landfill gas (LFG) and its flaring and/or use to produce energy and/or use to supply consumers through natural gas distribution network.
GHG emissions mitigation	<ul style="list-style-type: none">• GHG destruction. Destruction of methane emissions and displacement of a more-GHG-intensive service.
Applicability conditions	<ul style="list-style-type: none">• Captured landfill gas is flared, and/or;• Captured landfill gas is used to produce energy, and or;• Captured gas is used to supply consumers through natural gas distribution network.
Important parameters	To be monitored: <ul style="list-style-type: none">• Amount of landfill gas captured;• Methane fraction in the landfill gas;• If applicable: electricity generation using landfill gas.

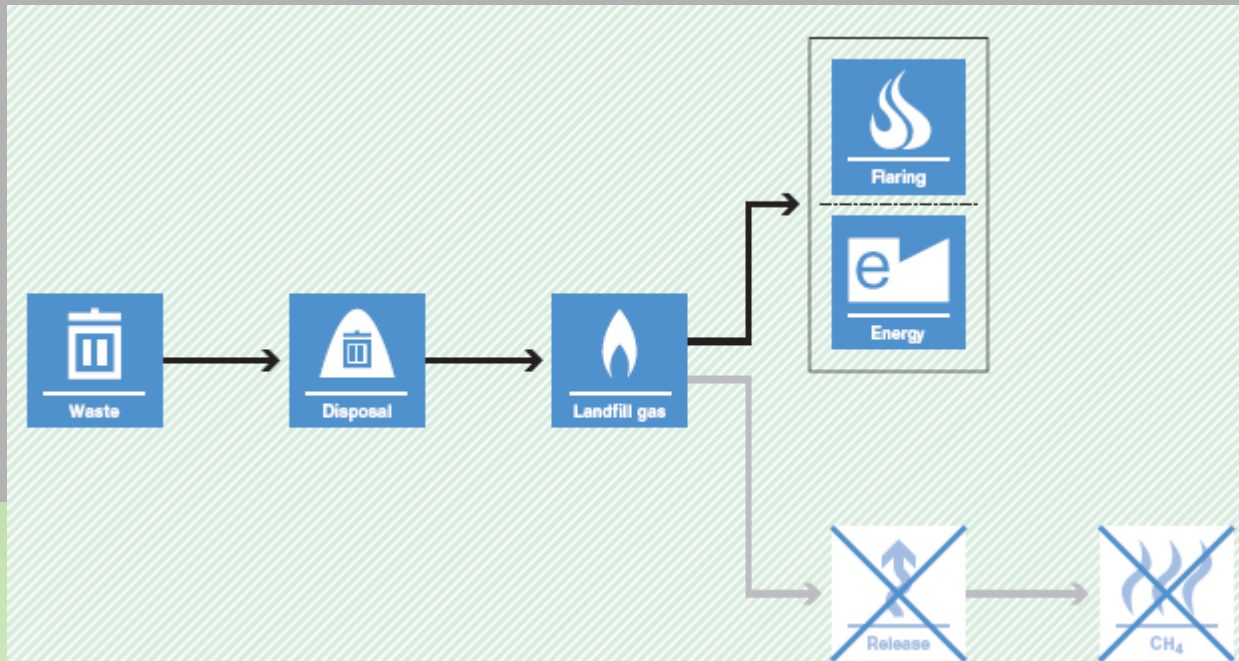
CDM Methodology – An example

ACM 0001 – Consolidated Methodology for landfill gas project activities

- **Baseline Scenario:** LFG from the landfill site is released to the atmosphere



- **Project scenario:** LFG from the landfill site is captured and flared; and/or used to produce energy (e.g. electricity /thermal energy); and/or supplied to consumers through natural gas distribution network



Where does an CDM methodology comes from?

- It is submitted by a CDM project developer using an approved new methodology template and approved by the CDM EB
- To have a methodology approved, a project developer must present a Project Design Document (PDD) that defines the baseline technology, shows how emissions reductions will result from the project, and how these reductions will be measured.

Methodology vs Project Development

- A PDD must be written based on an **approved methodology** or if there is no approved methodology, the project developer can **propose a new methodology**
- The **availability of an applicable approved methodology** can significantly influence the **time taken and costs** of developing a CDM projects
- **New comers** are often advised to limit their project development types with **existing approved methodologies**
- Some donors or organisations offer support to the development of **methodologies of high relevance to them**

Revision to an approved methodology

The CDM EB may approve **revisions to an approved methodology** for the following reasons

- To address **over- or under** estimation of emission reductions, so as to ensure emission reductions are real, measurable and verifiable;
- To **broaden the applicability conditions** to include more potential project types or conditions for use;
- To address **inconsistencies, errors and/or ambiguities** in the language and/or formulae used within or between methodologies
- To **simplify and clarify** the methodology for higher user-friendliness

Existing CDM Methodologies

- 81 large-scale approved methodologies exist (AM's)
- 19 large-scale consolidated methodologies exist (ACM's)
- 72 small-scale approved methodologies exist (AMS's)
- 11 large-scale afforestation methodologies exist (AR-AM)
- 7 small-scale afforestation methodologies exist (AR-AMS)

Active CDM Methodologies and their application

Type	No. of meth.	No. of projects submitted	No. of PoAs
Forestry	17	57	1
Agriculture	1	4	0
Biofule	6	11	0
Biomass	10	383	12
Cement	3	66	0
CO2 capture	2	2	0
Coal bed/mine methane (including other mines)	3	93	0
Energy distribution	4	22	3
Energy efficiency - households	8	101	14
Energy efficiency - industry	19	240	11
Energy efficiency – own generation of electricity	5	460	1
Energy efficiency – service	6	98	13
Energy efficiency – supply side	14	103	0

Thank You