

## UNFCCC - United Nations Framework Convention on Climate Change:

It is an international environmental treaty produced at the 1992 Earth Summit in Rio de Janeiro with the objective to stabilize greenhouse gas concentrations in the atmosphere. Lebanon is a party to the UNFCCC since 1994.

### KP - Kyoto Protocol:

It is an international agreement linked to the UNFCCC adopted in Kyoto, Japan in 1997 that sets binding targets for industrialized countries to reduce their emissions. Lebanon became party to the KP in 2006.

### GHG emissions - Greenhouse Gas emissions:

Atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth's surface. They include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O).

### DNA – Designated National Authority:

The authority appointed by the government, which is responsible for granting approval to local projects.

### EB - Executive Board:

The board that supervises the CDM, processes and registration requests, develops guidelines and issues certified emission reductions (CERs).

### DOE – Designated Operating Entity:

Independent third parties which act as auditors for the project. They are certified by the EB to check and validate the Project Design Document (PDD).

# The Clean Development Mechanism (CDM)



## CDM definition

It is a market mechanism created by the UNFCCC that permits industrialized countries to invest in sustainable development projects in developing countries to reduce Greenhouse Gas emissions (GHG) through projects in energy efficiency (e.g., boiler replacement, CFL bulbs, etc.), renewable energy (e.g., solar, wind, etc.), industrial processes (e.g., blend additives), agriculture, forestry and waste thereby generating tradable emission credits.

For each **1** tonne of GHG reduced or avoided by a specific activity, **1** Certified Emission Reduction (CER) is issued, which can be traded in the carbon market at a price set by supply and demand. The industries should mobilize the required investments and once the CDM is accepted and the CERs are issued, the revenues are returned to the industries.

## Conditions to apply

**Reduction in GHG emissions** Any proposed project that results in a reduction or removal in GHG emissions (minimum 15,000 tonnes per year) is eligible for the CDM.

**Additionality** The project should be additional, i.e. the reduction of GHG emissions would have not occurred if the proposed project is not to be implemented.

**Sustainability** The project must conform to the sustainable development plans in Lebanon and must not have unacceptable negative impacts on other elements of the environment.

**Voluntary Process** The participation in a CDM project activity must be of voluntary nature.

## CDM Project Cycle

### Step 1 Project Idea Note (PIN) by PPs (Project Participants)

The Project Participants (PP) submits a PIN to the Lebanese Designated National Authority (DNA) at the Ministry of Environment (MoE) by using the template available upon request at [dna-cdm@moe.gov.lb](mailto:dna-cdm@moe.gov.lb).

The PIN should include:

- Contact information
- Overall description of the project
- Expected emission reduction and anticipated CERs
- Financial structure of the project
- Conformity with national plans
- Other relevant documentation/permits (e.g. power of attorney, letter of Intent from involved parties, etc.)
- Environmental (other than GHG reduction) and social benefits of the project

The PIN is then reviewed by the technical committee at MoE to ensure that the required sections are complete and that the project fits into the environmental policies of the Government of Lebanon. Comments are then shared with the Project Participants. Upon approval, the DNA will issue a letter of endorsement that allows the Project Participants to proceed to the next step, i.e. the preparation of the Project Design Document..

## Step 2 Project Design Document (PDD) by Project Participants

The PDD is a more elaborate project document that describes the activities to be undertaken by the project in a more detailed fashion (template: [http://cdm.unfccc.int/Reference/PDDs\\_Forms/index.html#reg](http://cdm.unfccc.int/Reference/PDDs_Forms/index.html#reg)). The PDD should include:

- Information on technical and organizational aspects of the project.
- Identification of the approved methodology and standardized baseline.

An **approved methodology** is a procedure to follow in order to be able to conduct a CDM project and that has already been used by other Project Participants across the world and approved by the EB (Executive Board). Customized approved methodologies exist for every sector such as energy industries, manufacturing and chemical industries, fugitive emission from fuels, transport, afforestation and reforestation, etc. A list of all approved methodologies is available at <http://cdm.unfccc.int/methodologies/index.html>.

A **standardized baseline** for a CDM project activity is the scenario that reasonably represents GHG emissions that would have occurred in the absence of the proposed project activity. These are established by the Project Participants following an approved baseline methodology to facilitate the calculation of emission reductions and removals and the determination of additionality for the CDM project. A list of all approved baselines methodologies is available at <http://cdm.unfccc.int/methodologies/PAMethodologies/approved>.

## Step 3 Approval by DNA

After checking the PDD for compliance with national development plans, the DNA approves the document and issues a letter of approval and authorization to be presented by the Project Participants to the Executive Board.

## Step 4 Validation by DOE

Project participants select and hire a DOE (Designated Operating Entity) which is a third party certifier from a pre-set list available at <http://cdm.unfccc.int/DOE/list/index.html>. The DOE reviews and confirms that the PDD has fulfilled the CDM requirements (see box 1), then posts the project document on the UNFCCC website to receive comments from parties, stakeholders and accredited NGOs (Non-Governmental Organizations). The period for comments is set to 30 days after which the validation is completed based on corrected observations.

### Box 1: Validation requirements

- ☑ The project participants are voluntarily involved in the CDM project
- ☑ The host country is a party to the KP
- ☑ Comments by local stakeholders are taken into account
- ☑ An analysis of the environmental impacts of the project activity is conducted
- ☑ GHG reductions are additional
- ☑ Baseline and monitoring methodologies are complying with the EB requirements
- ☑ An MRV (Measurable, Reportable, and Verifiable) system is established to monitor emission

Table 1: Registration fees by Executive

Expected Average Annual Emission Reduction (tonnes)	Registration Fee USD
10,000	-
15,000	1,500
30,000	1,500
100,000	18,500
1,000,000	198,500
1,757,000	350,000
3,000,000	350,000

## Step 5 Registration by Executive Board

After validation, the DOE submits the project to the Executive Board to complete checking the request. Project Participants must pay a registration fee corresponding to the expected average annual emission reduction in tons (see table 1). Since Lebanon has fewer than 10 registered CDM projects, PPs can pay the registering fee after issuing the first CERs.

### Step 6 Monitoring by Project Participants

Project participants should use all relevant data to monitor the reduction or removal GHG emissions according to the approved monitoring plan included in the used methodology on a yearly basis.

### Step 7 Verification and Certification by DOE

The DOE engages in a periodic independent review of the monitored reductions in GHG emissions that have occurred as a result of the registered CDM project activity.

Accordingly, a certification is prepared by the DOE to assure that during the specified time period, the project activity has indeed completed its claimed GHG emission reductions.

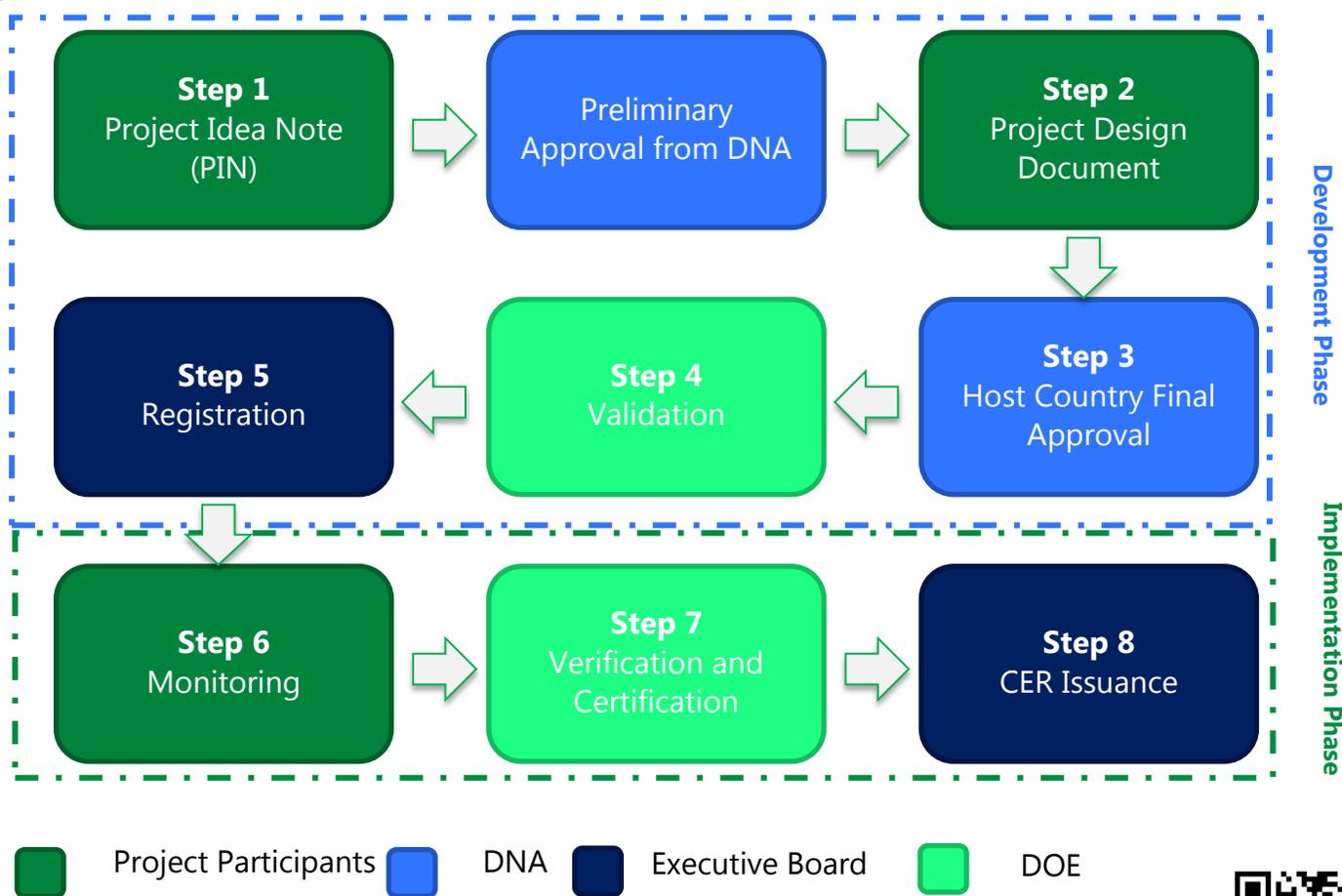
### Step 8 CER Issuance by Executive Board

This final step involves the Executive Board issuing a specified quantity of CERs equivalent to the amount of reduction in certified GHG. Consequently, the CERs are transferred to the project participants' registry account and the Project Participants will have achieved a return on their investment.

### Box 2: New Market Mechanisms

The CDM as the first market based instrument under the UNFCCC was and continues to be a tremendous success for the identification and financing of GHG emission reduction activities.

The international community intends to establish new market based instruments that would generate carbon credits that can be used to meet part of developed countries targets under the UNFCCC from which Lebanese industries can also benefit in the near future.



For more information: [dna-cdm@moe.gov.lb](mailto:dna-cdm@moe.gov.lb)

