

Monitoring Plan

What is a monitoring plan?

Monitoring is defined in the *CDM Glossary of Terms* (Version 3) as follows:

Monitoring refers to the collection and archiving of all relevant data necessary for determining the baseline, measuring anthropogenic emissions by sources of greenhouse gases (GHG) within the project boundary of a CDM project activity and leakage, as applicable (CDM Glossary of Terms Version 3).

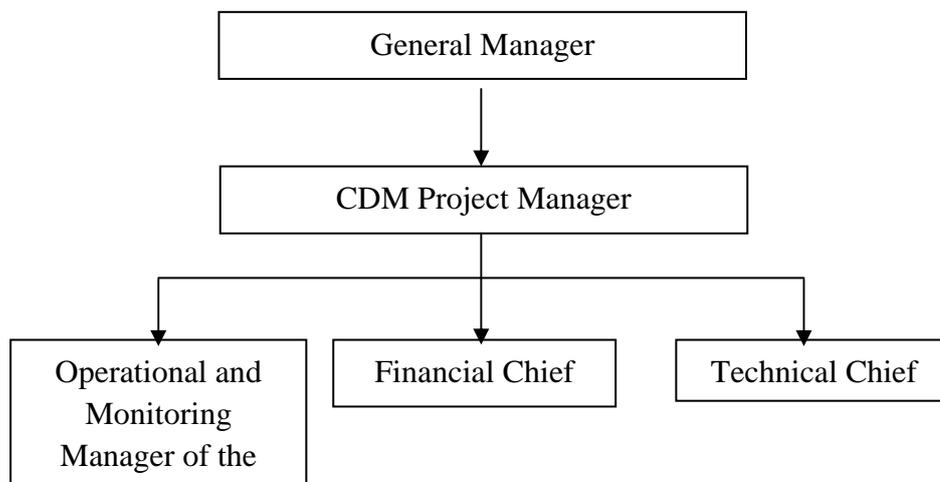
Therefore, monitoring refers to the measurement and analysis of greenhouse gas emissions from a project within its boundary to determine the volume of emission reductions that are attributable to the project.

Monitoring is implemented through the monitoring plan, which is included as part of the project design document (PDD) submitted for registration.

A monitoring plan for a proposed project activity shall be based on a previously approved monitoring methodology or a new methodology.

Who do the monitoring? – Management Structure

The following chart of the monitoring management of the CDM project demonstrates the structure of monitoring of the emission reduction project, whose performance will adhere to the guidelines set out in this monitoring plan to ensure that the monitoring is credible, transparent and conservative.



The responsibilities of the project staff are as follow:

General Manager: To be responsible for supervising the whole monitoring procedure.

CDM Project Manager: To be responsible for data management and compiling monitoring report.

Operational and monitoring manager: To be responsible for collecting data and do internal audit.

Financial chief: To be responsible for collection of sales receipts.

Technical chief: To be responsible for preparing operational reports of the project activity, recording the daily operation of the wind farm, including operating periods, equipment defects, etc.

How to measure the emission reductions? -

Monitoring Equipments

The equipment which can measure the emission reductions performance, such as the electricity meter and balance. All following details should be described:

- Equipment accuracy
- Monitoring frequency
- Calibration frequency
- Installation location

Specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures to be used for various parameters and variables should be identified in the project design document (PDD), along with detailed quality assurance and quality control procedures. The standards recommended must either be national or international standards.

Monitoring Procedure – What do you do during monitoring period?

Brief description of how the emission reductions happened, how are they measured, and how to get the emission reductions data. The number of certified emission reductions (CERs) to be issued to the project is calculated based on the data obtained from the monitoring plan, applying the registered methodology, subtracting actual emissions and adjusting for leakage:

Subsequent to the monitoring and reporting of reductions in anthropogenic emissions, CERs resulting from a project activity during a specified time period are calculated, applying the registered methodology, by subtracting the actual anthropogenic emissions by sources from baseline emissions and adjusting for leakage (3/CMP.1 Annex, paragraph 59).

How to ensure the quality? – Quality Assurance and Quality Control

- Workers Qualifications
- Data check procedure
- Emergency procedure.

The workers shall be trained to be competent and the metering equipments shall be calibrated and sealed as per the industrial practices at regular intervals, with the purpose to provide credible, accurate, transparent and conservative monitoring data and ensure the real, measurable, long-term GHG emission reduction from this project.

How to keep the data? – Data Management System

- Procedure of recording
- Certificate of the data (Sales receipt, invoice)
- Retention period

Relevant data necessary for determining the GHG emission within the project boundary and identification if and how such data will be collected and archived.

All data collected as part of monitoring should be archived electronically and be kept at least for 2 years after the end of the last crediting period. All measurements should be conducted with calibrated measurement equipment according to relevant industry standards.

Revisions to monitoring plan

These procedures state that if the monitoring plan is not in accordance with the monitoring methodology being used by a project, then revisions must be made to the monitoring plan:

If a DOE during verification finds that the monitoring plan is not in accordance with the monitoring methodology applied to the registered project activity and/or does not reflect the actual monitoring activity based on the registered PDD, the DOE shall request a revision of the monitoring plan (EB 49, Annex 28, paragraph 3).

Prior to requesting issuance of CERs, the DOE may submit a request for revising monitoring plans, containing:

- a request for revision of monitoring plan form (F-CDM-REVMVP);
- a revised monitoring plan (in clean and track change versions);

- the DOE's validation opinion; and
- other relevant documents;

Deviations to monitoring plan

A request for deviation is appropriate only if a change in the procedures for estimating or monitoring emissions was required due to a change in the conditions or circumstances of the proposed CDM project activity after it was registered as a proposed CDM project activity (EB 51 Annex 3, paragraph 208).

Where the monitoring plan is not in accordance with the monitoring methodology, a request for revision of the monitoring plan would be more appropriate:

A request for deviation is not suitable if:

(a) the monitoring plan is not in accordance with the monitoring methodology applied by the project activity; submission of a request for revision of the monitoring plan would be more appropriate (EB 51 Annex 3, paragraph 209).

A request for deviation from the monitoring plan cannot be used to request guidance on changes in the project design from the registered project design document (EB 51 Annex 3, paragraph 215).

Prior to requesting issuance of CERs, the DOE may submit a request for revising monitoring plans, containing:

- a request for deviation form (F-CDMDEV-ISS); and
- other relevant documents;