



SCI-Pak

**Sustainable and Cleaner Production in the
Manufacturing Industries of Pakistan**



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Developing Clean Development Mechanism Project Design Document (CDM-PDD)

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Project Design Document

- Project Design Document (PDD) serves as the basis for the CDM project evaluation by an Designated Operational Entity (DOE) and finally by CDM executive board.
 - It contains important information regarding the key aspects of a CDM project activity such as, technical, financial, environmental, additionality, monitoring, etc.
 - A quality PDD will ensure
 - Smooth validation
 - Positive validation report from DOE
 - Quick CDM registration of the project with CDM EB
 - On time completion of verification by DOE and issuance of CERs by CDM EB
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Layout of the PDD

- PDD is composed of the following sections:
 - A. General description of project activity
 - B. Application of a baseline and monitoring methodology
 - C. Duration of the project activity / crediting period
 - D. Environmental impacts
 - E. Stakeholders' comments
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Section A: General Description of the Project Activity

- Title of the Project Activity, Version Number, Date
 - General Description:
 - Introduction of the Project Proponent.
 - Brief description of baseline (existing installations)
 - Purpose of the project activity;
 - Details of the technology being employed and other measures that explain how the project activity will reduce GHG emissions;
 - Sustainable Development
 - View of the project participants on the project activity's contribution to environmental, social, economic and technological development
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Section A: General Description of the Project Activity

- Project Participants
 - List of the Parties and participants involved in the project, including contact information to be included in Annex I of the PDD
 - Technical Description of the Project Activity:
 - Location of the project activity including GPS coordinates
 - Category of the project activity, in accordance with the list of sectoral scopes available on UNFCCC's website
 - Technology to be employed by the project activity, including a description of how the necessary expertise and clean technologies will be transferred to the host country
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Section A: General Description of the Project Activity

- Emission Reductions Estimate
 - Estimated amount of emission reductions over the chosen crediting period, including annual estimates
 - Public Funding
 - Information regarding involvement of public funding or official development assistance (ODA) in the project, if any. The details can be provided in Annex 2.
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Section B: Application of a Baseline and Monitoring Methodology

- Selection and Applicability of Methodology
 - Reference of the UNFCCC approved large-scale or small-scale methodology applicable to the project activity, its version number and validity.
 - Choice of the methodology with respect to type and category of the project activity
 - Compliance of the proposed CDM project activity with all the applicability conditions of the chosen methodology
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Section B: Application of a Baseline and Monitoring Methodology

- Clear understanding of the project's baseline, additionality, boundary and leakage is essential for calculating the net GHG emission reductions promoted by a CDM project activity
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Section B: Application of a Baseline and Monitoring Methodology

Identification of Baseline Scenario

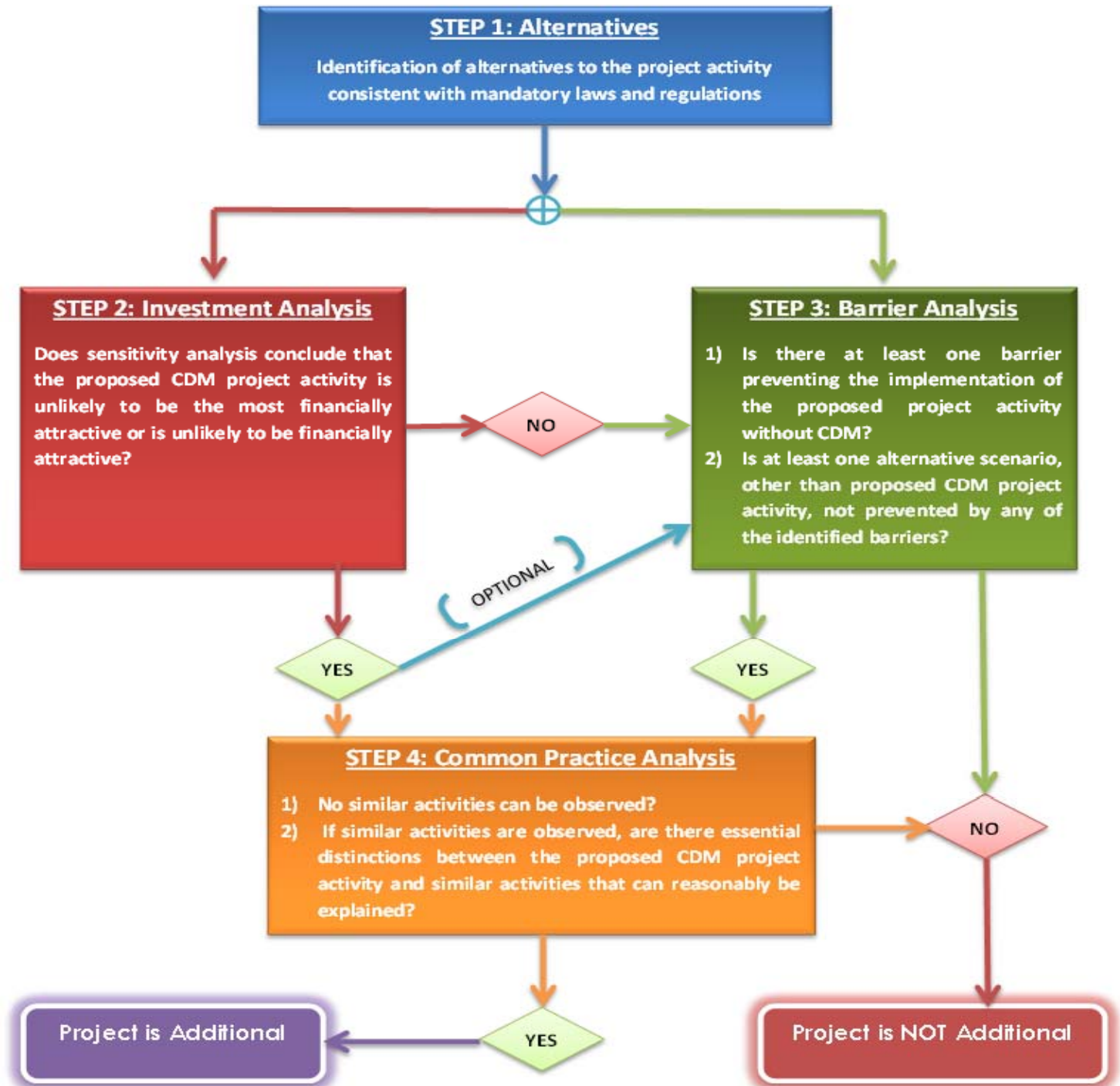
- The baseline scenario of a CDM project activity refers to the most likely scenario that would occur in the absence of the proposed project activity.
 - The baseline thus corresponds to the business-as-usual scenario.
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Section B: Application of a Baseline and Monitoring Methodology

Demonstration of Additionality

- Additionality is the requirement that the greenhouse gas emissions after implementation of a CDM project activity are lower than those that would have occurred in the most plausible alternative scenario to the implementation of the CDM project activity.
 - Project participants must demonstrate the project activity's additionality in a transparent and conservative manner, allowing interested parties to rationally reproduce the project in accordance with the scope and details presented in the PDD.
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Demonstration of Additionality

- Step 1: Alternatives

- In this step all realistic, **credible and technically feasible alternatives to the proposed project activity** are identified. Alternatives also include the baseline scenario
 - The identified alternatives are then checked if they are in **compliance with mandatory laws and regulations** of the host country
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Demonstration of Additionality

- Step 2: Investment Analysis
 - In this step an investment analysis is conducted to check if the project activity is economically or financially not attractive without the revenue from the sale of certified emission reductions (CERs).
 - The investment analysis can be conducted in one of the following three ways:
 - Simple cost analysis
 - Investment comparison analysis
 - Benchmark analysis
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Investment Analysis

- Simple Cost Analysis
 - Document the costs associated with the CDM project activity and the alternatives identified in step 1 and demonstrate that there is at least one alternative which is less costly than the project activity
 - Investment Comparison Analysis
 - Identify the financial indicator, such as IRR, NPV, cost benefit ratio, and present a comparison of these indicators calculated for all alternatives identified in step 1
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Investment Analysis

■ Benchmark Analysis

- In this case only the project scenario is compared with the baseline based on an identified financial indicator (IRR, NPV)
 - A relevant benchmark is identified for the project activity such as local commercial lending rates, WACC of the company
 - It is then established that the project's financial indicators without CDM income are below the relevant established benchmark
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Demonstration of Additionality

- Step 3: Barrier Analysis
 - In this step it is determined whether the proposed project activity faces barriers that:
 - Prevent the implementation of this type of proposed project activity; and
 - Do not prevent the implementation of at least one of the alternatives.
 - The barriers may include
 - Investment barriers
 - Technological barriers
 - Barriers due to prevailing practice
 - Other barriers
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Demonstration of Additionality

- Step 4: Common Practice Analysis
 - In this step it is checked if projects similar to the proposed project activity are already prevalent in the region.
 - If similar projects are observed in the region then project is not additional. However, if the similar projects can be distinguished from the proposed project activity, the project can be proved as additional.
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Section B: Application of a baseline and monitoring methodology

Calculation of Emission Reductions

- Once the additionality of the project is established, the next step involves determination of baseline emissions, project emissions and/or leakage as per the procedures, algorithms or formulae as described in the applicable methodology.
- The net reduction is estimated in accordance with the following equation:

$$\text{Net Emission Reductions} = \text{Baseline Emissions} - \text{Project Emissions} - \text{Leakage}$$

Section B: Application of a Baseline and Monitoring Methodology

- **Baseline and Project Emissions**
 - Baseline and project emissions relate to those emissions under the control of the project participants which are significant and reasonably attributable to the project activity.
 - In this regard, baseline and project boundaries have to be defined in the PDD in which all sources of GHG emissions should be clearly identified.
 - **Leakage Emissions**
 - Leakage is defined as the increase in GHG emissions occurring outside the boundary of a CDM project which are both measurable and attributable to the project activity.
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Section B: Application of a Baseline and Monitoring Methodology

■ Parameters Available at Validation

- A list of parameters that are determined ex-ante for the entire crediting period is presented in this section.
 - These parameters include such data which will be calculated/measured only once and will remain fixed throughout the crediting period.
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Section B: Application of a Baseline and Monitoring Methodology

■ Monitoring Plan

- A detailed description of the monitoring plan is then presented in this section which includes the description of the operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects generated by the project activity.
 - The responsibilities for and institutional arrangements for data collection and archiving are clearly indicated.
 - The monitoring plan should reflect good monitoring practice appropriate to the type of project activity.
 - Any relevant further background information can be provided in Annex 4.
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Section B: Application of a Baseline and Monitoring Methodology

■ Monitoring Parameters

- A list of all parameters which will be monitored during the crediting period is presented in this section with following details:
 - Measurement methods and procedures
 - Accepted industry standards or national or international standards will be applied
 - Equipments to be used for measurements
 - How the measurement is undertaken
 - Calibration procedures
 - Accuracy of the measurement method
 - Measurement, recording and calibration frequency
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Section C: Duration of the project activity / crediting period

- Start date
 - Start date of the project, in general, is date of the signing contract between the project proponent and the technology supplier.
 - Expected operational life time
 - Expected lifetime of the project relates to technical lifetime of the project activity.
 - Type of the Crediting Period (fixed or renewable)
Chosen for the Project
 - The crediting period may either be fixed for 10 years or renewable after every 7 years.
 - In case of renewable crediting period, the maximum length of the crediting period can be up to 21 years.
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Section D: Environmental Impacts

- Detailed assessment of the environmental impacts of the proposed CDM project activity
 - In Pakistan, it is mandatory for the project proponent either to conduct an EIA (Environmental Impact Assessment) or IEE (Initial Environmental Examination) of the project, whichever applicable according to the scale of the project activity.
 - Based on the IEE or EIA, NOC is issued to the project activity by EPA Pakistan.
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Section E: Stakeholders' Comments

- Stakeholders
 - General public, including individuals, groups or communities affected that are likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity.

 - Details to be provided in PDD
 - Details of the invitation procedure, summary of the comments of the stakeholders, concerns, and conclusion should be summarized in this section of the PDD.
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Section E: Stakeholders' Comments

How to conduct stakeholder meeting

- Stakeholders should be invited for a consultation meeting on a given date through advertisement in the local media (e.g. newspaper advertisement, radio announcement, notice boards, etc).
 - Stakeholders should be briefed about the project scope, Kyoto protocol, CDM, and environmental impacts of the project activity.
 - Questions of the stakeholders should be answered by the project proponent, and comments and concerns of the stakeholders are recorded (in English or local language) on the forms.
 - Event should be captured in photographs, and minutes of the meeting should be recorded as evidences of the proceedings of the meeting.
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Annexes to PDD

Following annexes are included in a PDD:

- ❑ Annex 1: Contact information on participants in the project activity
 - ❑ Annex 2: Information regarding public funding
 - ❑ Annex 3: Baseline information
 - ❑ Annex 4: Monitoring plan
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Reference Documents and Guidelines

- Following reference documents are available at UNFCCC's website (<http://cdm.unfccc.int>):
 - CDM-PDD - Project Design Document form
 - CDM-SSC-PDD - Project Design Document form for Small-Scale project activities
 - Following guidelines related to PDD are available at UNFCCC's website:
 - Guidelines Project Design Document (CDM-PDD) and the Proposed new baseline and monitoring methodologies
 - Simplified Project Design document (CDM-SSC-PDD) and the form for proposed new Small Scale Methodologies .
 - Guidelines for completing the form for submission of bundled Small-Scale CDM project activities.
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