

Project Design Document

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World Bank Carbon Funds & Facilities

Total funds pledged = US\$ 2.1 billion (16 governments, 67 firms)



- **Prototype Carbon Fund.** \$180 million (closed). Multi-shareholder. Multi-purpose.



- **Netherlands Clean Development Mechanism Facility.** (closed). Netherlands Ministry of Environment. CDM energy, infrastructure and industry projects.



- **Community Development Carbon Fund.** \$128.6 million (closed). Multi-shareholder. Small-scale CDM energy projects.



- **BioCarbon Fund.** \$89.9 million (Tranche 1 closed @ \$53.8 million; Tranche 2 open). Multi-shareholder. CDM and JI LULUCF projects.



- **Italian Carbon Fund.** \$155.6 million (closed). Multi-shareholder (from Italy only). Multipurpose.



- **Netherlands European Carbon Facility.** (closed). Netherlands Ministry of Economic affairs. JI projects.



- **Spanish Carbon Fund.** \$282.4 million (closed). Multi-shareholder (from Spain only). Multipurpose.



- **Danish Carbon Fund.** \$69.4 million (closed). Multi-shareholder (from Denmark only). Multipurpose.



- **Umbrella Carbon Facility.** \$737.6 million (Tranche 1 closed – 2 HFC-23 destruction projects in China).



- **Carbon Fund for Europe.** \$65 million. Multi-shareholder. Multi-purpose. Managed with EIB.

PIN

- See WB template, example

Elements of PDD

- **Main elements of the PDD:**
 - A. Description of the project
 - B. Baseline and emission reduction analysis
 - Define project boundary
 - Choose methodology accepted by EB or propose new one
 - Calculate GHG emission reduction ; What would have happened without the project (baseline); Forecast/assess future emissions from the project
 - Establish 'additionality'
 - C. Crediting period (duration)
 - Maximum 10 years or 3 times 7 years
 - D. Assessing environmental impacts
 - E. Stakeholder involvement and comments
 - Annexes
 - Info on participants and public funding, baseline info and monitoring plan

Elements of PDD

- **General description of project activity**
 - A.1. Title of the project activity**
 - A.2. Description of the project activity**
 - A.3. Project participants**
 - A.4. Technical description of the project activity**

Elements of PDD

- **Application of baseline and monitoring methodology**
 - B.1. Title and reference of the approved baseline methodology applied to the project activity**
 - B.2. Justification of the choice of the methodology and why it is applicable to the project activity**
 - B.3. Description of the sources and gases included in the project boundary**
 - B.4. Description of how the baseline scenario is identified and description of the baseline scenario**
 - B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity**
 - B.6. Emission reduction**
 - B.7. Monitoring technology and description of monitoring plan**
 - B.8. Date of baseline study and name of responsible person/entity**

Baseline and additionality

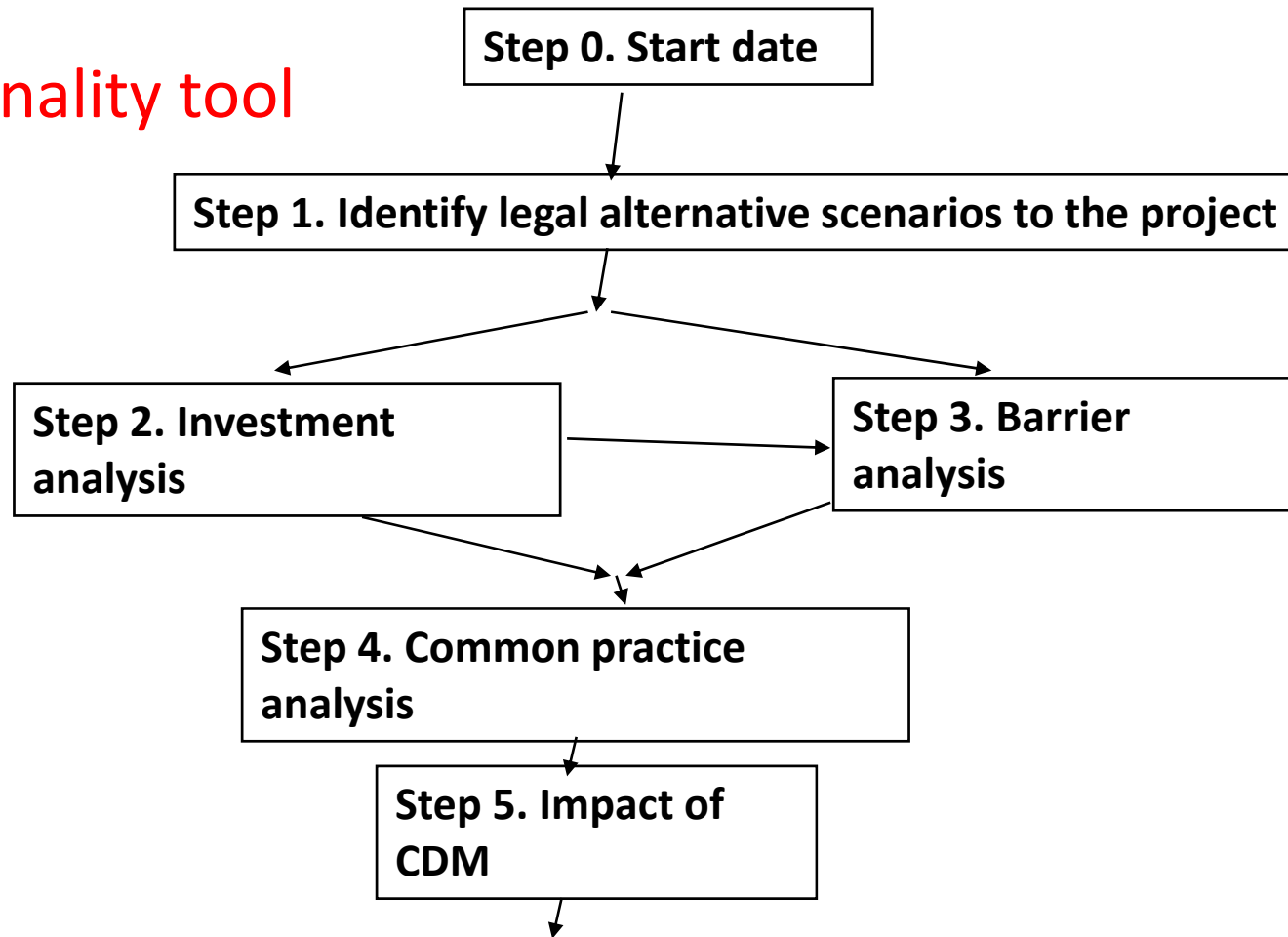
- **Additional**
 - Reductions in emissions that are additional to any that would occur in the absence of the certified project activity
 - Assessment of additionality intrinsically linked with baseline establishment. The baseline scenario is defined as the most probable future development in the absence of the proposed CDM activity. Different scenarios may be elaborated.
 - Has been defined as:
 - Environmental additionality – ie – actual reductions in absolute emissions
 - Financial additionality – ie – project only happens because of financial incentive due to carbon credits
 - legal additionality – ie – project is more than (above) what is required by (local) law
 - Definition of additionality in CDM is somewhat vague. This has made the interpretation of additionality difficult and subjective in many cases, and has been contentious.

Baseline and additionality

- **Additional**
 - PPs have to write explanation of how and why this project activity is additional and therefore not the baseline scenario in accordance with the selected baseline
 - If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity.
 - “The tool for the demonstration and assessment of additionality“ provides a general framework for demonstrating and assessing additionality. PPs may also propose other tools
- **Baseline**
 - A baseline (scenario and emissions) shall be established:
 - In a transparent and conservative manner
 - On a project-specific basis;
 - In the case of small-scale CDM project activities, in accordance with simplified procedures developed for such activities
 - Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation;
 - Baseline emission under the selected baseline scenarios shall be calculated by PPs in accordance with approved methodologies (AMs) or new methodologies (NMs).

Baseline and additionality

- **Additionality tool**



The proposed CDM project activity is additional

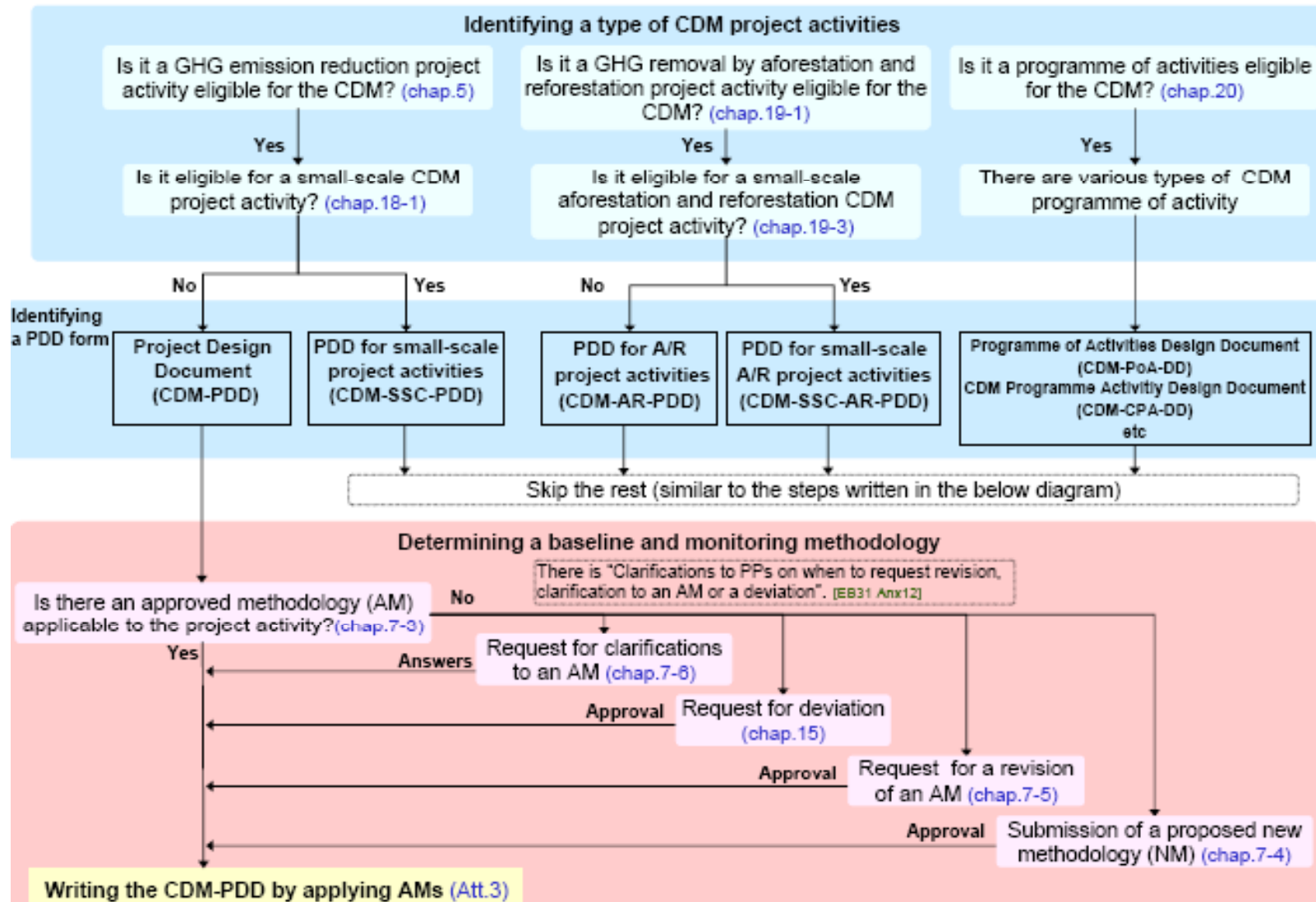
Methodology

- **Approved methodology**
 - A baseline methodology approved by the EB is publicly available along with relevant guidance on the UNFCCC CDM website
 - If proposed project activity intends to use a new baseline methodology, it shall, prior to the submission for registration of this project activity, forward the proposed methodology to the EB for review, i.e. consideration and approval
 - Baseline approach:
 - Existing actual or historical emissions, as applicable
 - Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment;
 - The average emissions of similar project activities undertaken in the previous 5 years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category.
 - More than one methodology in CDM-PDD is possible (now also in PoA)

Methodology

Source: IGES

6. Making PDD



Methodology and forms

PDD and methodology related forms

		Normal-scale CDM project activity		Small-scale CDM project activity	
Emission Reduction	PDD	CDM-PDD ver.3.1 (Att.1-1)	CDM Project Design Document	CDM-SSC-PDD ver.3 (Att.1-2)	CDM Project Design Document for Small-Scale project activities
		CDM-PoA-DD ver.1 (Att.1-4)	Programme of Activities Design Document	CDM-SSC-Bundle ver.2 (Att.1-3)	Form for submission of bundled Small Scale project activities form
		CDM-CPA-DD ver.1 (Att.1-5)	CDM Programme Activity Design Document	CDM-SSC-PoA-DD ver.1	Small-Scale CDM Programme of Activities Design Document
	Methodology	F-CDM-AM-Subm ver.1	Form for submission of queries from DOEs to the MP regarding the application of approved methodologies	F-CDM-SSC-Subm ver.3	Form for Submissions on Small Scale Methodologies and Procedures
		F-CDM-AM-Rev ver.1	Form for submission of requests for revisions of approved methodologies to the MP		
		CDM-NM ver.3.1	CDM Proposed New Methodology: Baseline and Monitoring	F-CDM-SSC-NM ver.1	Form for proposed New Small-Scale Methodologies
A/R (chap.19)	PDD	CDM-AR-PDD ver.4	CDM Project Design Document for A/R project activities	CDM-SSC-AR-PDD ver.2	Project Design Document Form for Small-Scale A/R project activities
		CDM-PoA-DD-AR ver.1	Programme of Activities Design Document Form for A/R project activities	CDM-PoA-DD-SSC-AR ver.1	Programme of Activities Design Document Form for SSC-AR project activities
		CDM-CPA-DD-AR ver.1	CDM Programme Activity Design Document Form for A/R project activities	CDM-CPA-DD-SSC-AR ver.1	CDM Programme Activity Design Document form for SSC-AR project activities
	Methodology	F-CDM-AR-AM-Subm ver.1	Form for submission of queries from DOEs to the AR WG regarding the application of Approved A/R Methodologies		
		F-CDM-AR-AM-Rev ver.1	Form for submission of requests for revisions of Approved Methodologies to the AR WG		
		CDM-AR-NM ver.3	CDM Proposed New Methodology: Baseline and Monitoring for A/R		
Deviation (chap.15)	F-CDM-DEV ver.2	Form for submission of requests for deviation	Source: IGES		

Boundary and leakage

- **Project boundary**
 - encompass all anthropogenic emissions by sources of greenhouse gases (GHG) under the control of the project participants that are significant and reasonably attributable to the CDM project activity;
- **Leakage**
 - net change of anthropogenic emissions by sources of greenhouse gases (GHG) which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity
 - Examples:
 - Transmission losses
 - Shifting in grazing from a forestry project

Elements of PDD

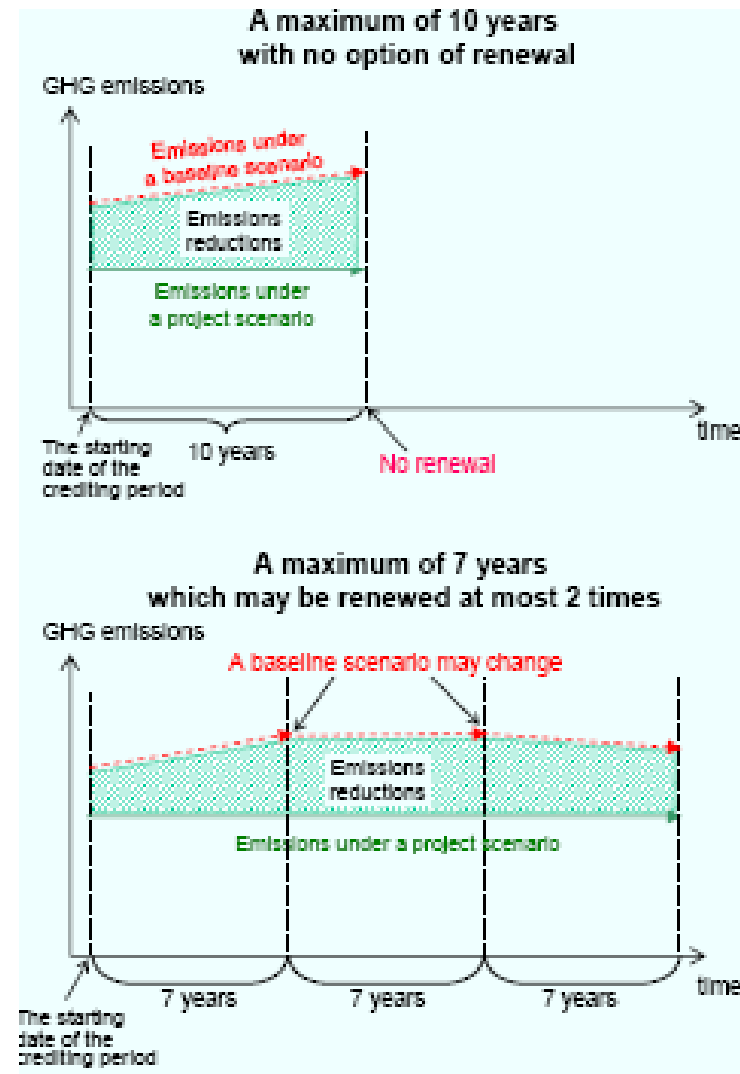
- **Crediting period**

- D.1. Duration of the project activity**

- C.2. Choice of the crediting period and related information**

Crediting period

- **Crediting period**
 - Single period of 10 years
 - Renewable period of 3 * 7 years
 - Check of validity of the baseline
 - Check of validity of assumptions (e.g. additionality)
 - Update the baseline
 - A/R projects: 30 years or 3 * 20 years
 - Crediting period starts after registration
- **Starting date**
 - Should be indicated
 - Day that implementation or construction starts
 - Project starting before validation: show that CDM was seriously considered



Elements of PDD

- **Environmental impacts and stakeholder comments**
 - D.1. Analysis of the environmental impact, including transboundary impacts**
 - D.2. EIA, as required by the host Party**

 - E.1 Brief description how comments by local stakeholders have been compiled**
 - Following local procedures

 - E.2 Summary of comments received**
 - Who was invited and how
 - Who was there
 - What information was provided
 - How discussion was organised
 - Which comments were given and concerns were raised

 - E.3 Report on how due account was taken of any comments received**

Small-scale PDD

- **Small-scale CDM projects benefit from:**
 - Simplified Project Design Document
 - Simplified baseline methodologies
 - Simplified monitoring plans
 - Simplified consideration of leakage
- **Also:**
 - Use of same DOE for validation and verification
 - More rapid registration processing by the CDM Executive Board (4 weeks, not 8 weeks)

Forestry PDD

- **Very similar, but...**
 - Greater attention paid to environmental and socio-economic impacts
 - Details of land tenure and land use required
 - Choice of tCERs or ICERs
 - Detailed geographical delineation of project boundary – e.g. GIS polygons
 - Details of ex ante stratification scheme and baseline estimation for each stratum
 - Greater focus on leakage

Pitfalls in PDD writing

- **Frequency more than 20%**
 - Starting date is not correct. Lack of proof of CDM consideration
 - Evidence of EIA and other required construction/operating permits/approvals are not provided
 - Delays in the validation process
 - Lack of logic and consistency in the PDD
 - Deviation from selected calculation methodology and/or monitoring not sufficiently justified; Application of incorrect formulas
 - Insufficient information on the stakeholder process
 - Absence of baseline data
 - General poor quality of the PDD

Pitfalls in PDD writing

- **Frequency less than 20%**
 - SSC methodology selected for a large-scale project
 - No written confirmation that public funding will not result in a diversion of ODA
 - Non-compliance or insufficiently explained compliance with the applicability conditions
 - Project participants not identified
 - The modalities of communication with the CDM EB in terms of CERs, issuance and allocation instructions, not stated clearly, or not signed by all project participant
 - Insufficient description of technology, baseline scenarios, additionality
 - Baseline info not sufficiently supported and major risks are not described

Source: UNEP Risoë

Pitfalls in PDD writing

- **Frequency less than 20%**
 - Project boundaries are not defined clearly
 - Project and/or crediting start date unclear
 - Monitoring and project management procedures not defined
 - Claims in PDD do not match with the actual situation
 - Insufficient info on measurement methods and source of data (monitoring plan)
 - Insufficient info on physical location

Available tools

- **Methodological tools**

- For emission reduction

- Tool for demonstration and assessment of additionality
- Combined tool to identify baseline scenario and demonstrate additionality
- Tool to calculate project and/or leakage CO₂ emissions from fossil fuel combustion
- Tool to determine CH₄ emissions avoided from disposal of solid waste
- Tool to calculate baseline, project, leakage emissions from power consumption
- Tool to determine project emissions from flaring gases containing methane
- Tool to calculate emission factor for an electricity system

- For A/R:

- 13 tools

Bundling and PoA

- **Principle bundling**
 - Similar projects can be bundled into one CDM project
 - In a bundle, each activity could be undertaken individually (e.g. 3 wind farms)
 - The project activities are combined in one PDD. Baseline development, monitoring plan, host country approvals, validation and verification apply to all projects in the bundle
 - The fixed costs remain largely unchanged, while the CER potential of the bundle (and hence the revenue) is scaled up
 - SSC projects: be careful the bundle does not exceed the SSC limit
 - Project activities wishing to be bundled indicating
 - The agreement of all the project developers to bundle their individual project activities; one project developer who represents all the project developers

Bundling and PoA

- Principle PoA
 - Terminology
 - PoA: Programme of Activities
 - CPA: CDM Programme Activity
 - At two levels:
 - At the *programme level*, the PoA is the organizational and financial framework that provides structure to the effort, and is managed by a coordinating entity
 - At the programme activity level, the CPA is a single measure or a set of measures to reduce greenhouse gases that is applied to many plants / installations of the same type over a period of time
 - A CPA could be a stand-alone solar water heater(for example) – but, typically, would be an area of a city or a region

Bundling and PoA

- PoA rules

- Multiplicity and management

- PoA can be in cities, regions, even countries

- Note: each country DNA must approve

- Managed by one entity

- Coordination with CDM EB; distribution of CERs

- Note necessarily that achieves reduction

- CPAs and duration

- Unlimited number of CPAs that must be of the same type

- crediting period the same as for other CDM projects

- Duration of max 28 years (A/R 60 years)

- CPAs can be added during that period at any time

- Monitoring

- Total volume of emission reductions to be achieved by a PoA may not be known; statistically sound sampling procedures are permitted

- Special PDDs

- PoA DD and CPA DD; SSC PoA DD and SSC CPA; similar for A/R

- A policy cannot be presented as a PoA as such

Bundling and PoA

- **PoA rules**

- A policy, regulation, standard cannot be presented as a PoA as such
 - But implementation under a PoA (and eligible under CDM), it can be presented
- PoA resulting from mandatory policies, regulations can be submitted
 - Mandatory policies, regulations and or standards are adopted but not implemented due to lack of effective enforcement; or implementation goes beyond the mandatory level
- Voluntary initiatives
 - Demonstrate additionality

- **Examples**

- CFLs, improved stoves, solar water heater, EE chillers, fuel EE or switch in vehicles