



Renewable energy project – bundling and PoA, Sources for further information

2nd CDM Capacity Building Workshop in the Pacific

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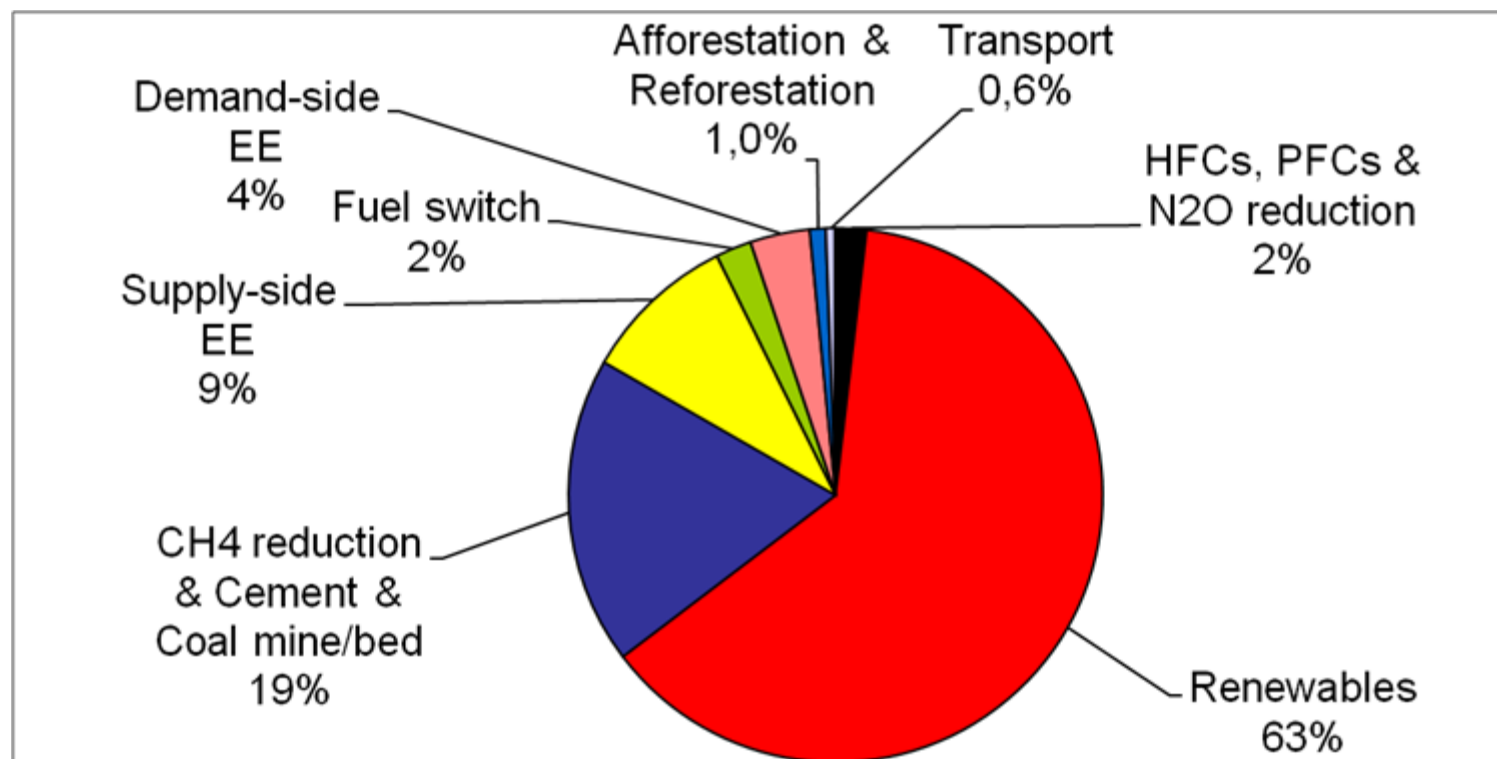


Renewable Energy in CDM

Type	Biomass	Hydro	Solar	Tidal	Wind
Sub-types	Combustion of biomass residues	Run-of-the-river	Solar thermal	Tidal	Wind
	Household installations	High-efficiency	Solar water heating		
	Biofuels	Dams	Solar PV		
	Industrial biomass options		Solar PV water disinfection		
			Solar thermal power		
CDM projects	755	1661	96	1	1423



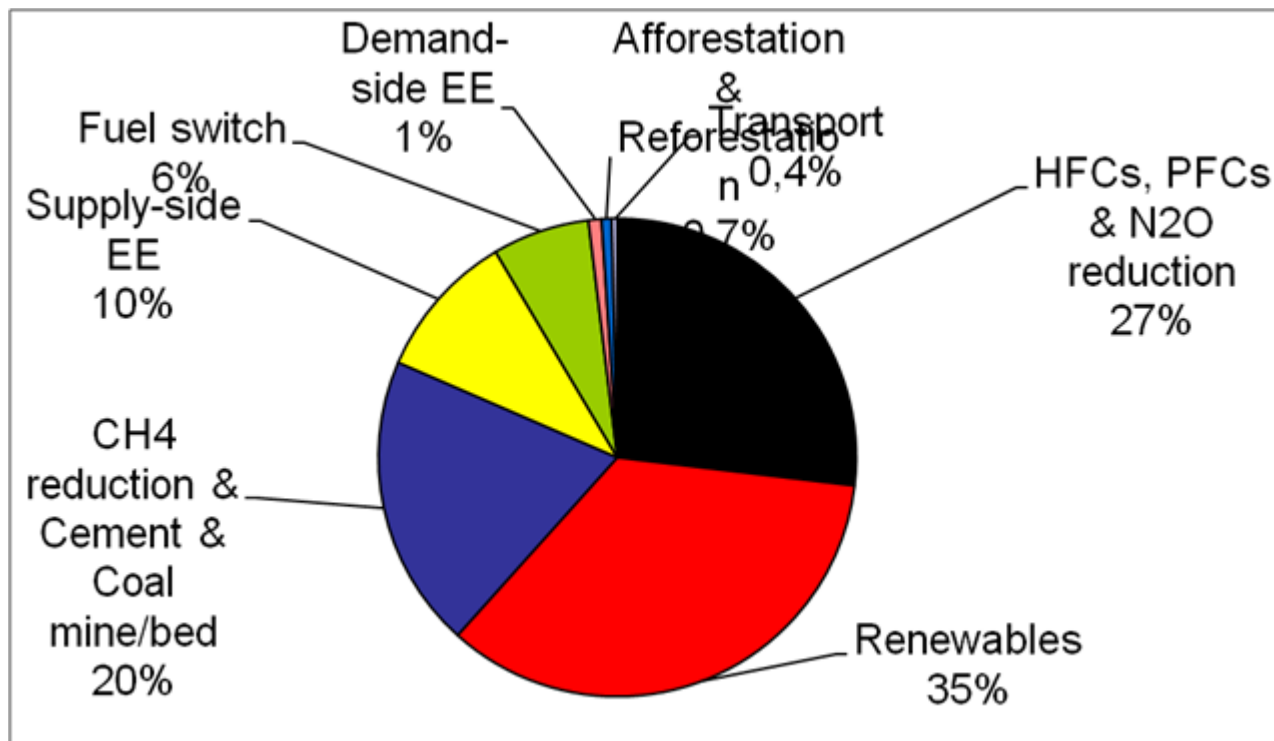
61% of existing CDM projects are renewable energy ones



Source: UNEP Risoe CDMpipeline, 1 June, 2011



Renewable Projects accounts for 35% of the CERs until 2012





Small sizes of renewable projects vs. high fixed transaction costs in CDM

- The average annual CER generation of each renewable projects is much lower
- In CDM, there is high fixed transition costs, the process is time consuming and complicated.



Needs to pool or combine project activities for cost-effectiveness!

Bundling and PoA are two ways to pool or combine project activities in CDM



The rationale for bundling and PoA CDM – many small emission reduction opportunities

Large stand alone emission reduction opportunities (i.e. Energy efficiency by large industry facilities, large biomass projects, landfill gas etc)

Area for single CDM project

Among the 6292 CDM projects submitted to the UNFCCC that are still active, 46% are small scale.

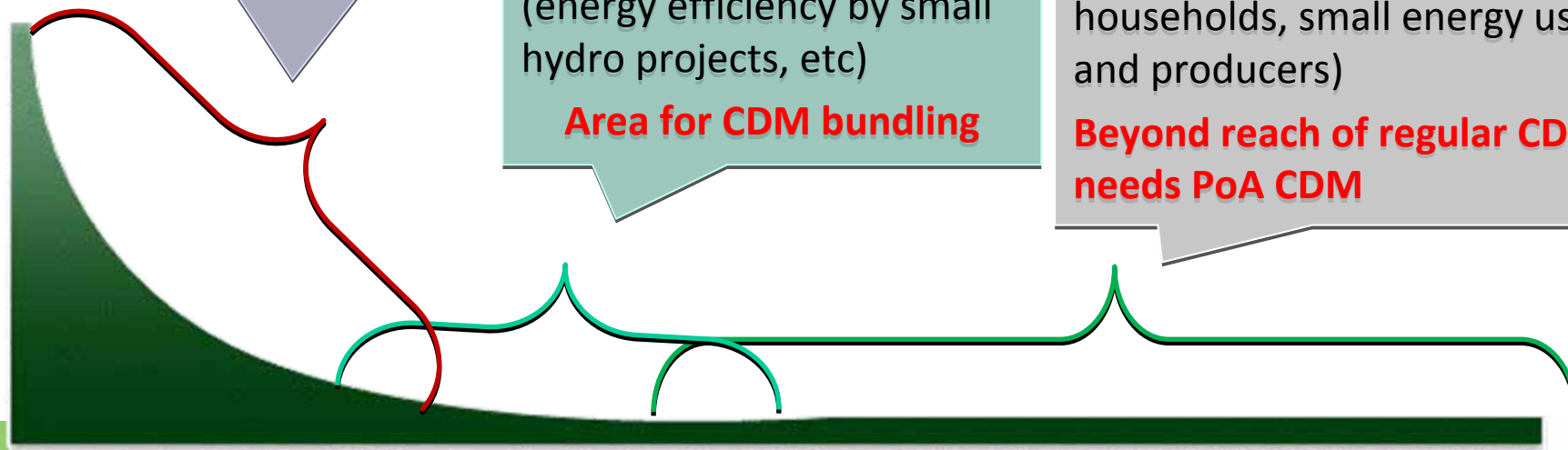
Medium-sized emission reduction opportunities (energy efficiency by small hydro projects, etc)

Area for CDM bundling

Large number of small emission reduction opportunities (by households, small energy users and producers)

Beyond reach of regular CDM, needs PoA CDM

Reduction / Unit



Number of units



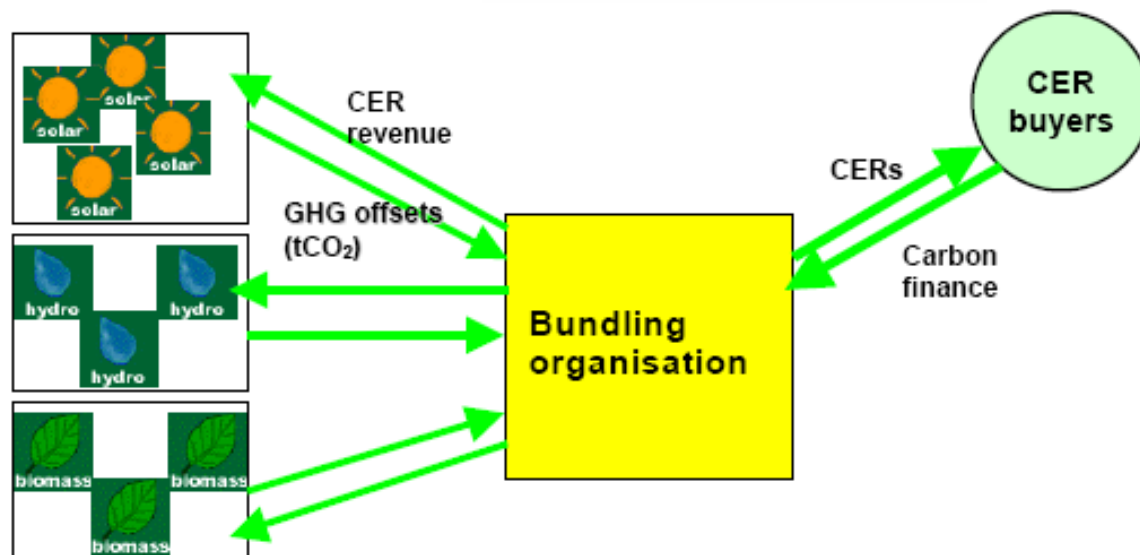


What is a bundle?

“A group of things fastened together for convenient handling.”



Bundling in CDM is putting similar small project activities together to form one project. In a bundle, each activity can be undertaken as a single CDM project.





Bundling – the principle

- In a bundle, each activity could be undertaken individually (e.g. 3 wind farms): the project activities are only bundled together in order to reduce the CDM-related transaction costs
- 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
- Bundling is, in principle, applicable to large-scale projects. However, the main emphasis (and utility) of bundling is on small-scale projects



General requirements for bundling (applicable to both large and small scale)

- Project activities wishing to be bundled must indicate this at the registration stage
- All project activities to be included in a bundle must be submitted at the same time, and project activities cannot be withdrawn or added
- Once projects are bundled, they cannot be debundled except in exceptional circumstances:
- A form for bundled small scale projects must be filled and included in the request for registration



Small-scale limits (for SSC)

- The entire bundle (or where the bundle is divided into sub-bundles, the entire sub-bundle) must remain under the limit for the type of project every year during the crediting period
- Project Participants must demonstrate that these limits will not be exceeded
- If the bundle does exceed these limits, the amount of CERs that can be received will be capped at the maximum estimated emission level in the bundle form (in the PDD)



PDD (for SSC)

- If all projects in a bundle are of the same type, technology and measure, a single PDD may be submitted covering all projects
- If a bundle contains small-scale project activities of:
 - ✓ the same type, same category and different technologies/measures; or
 - ✓ the same type, different categories and different technologies/measures; or
 - ✓ different types,separate PDDs are required.
- In reality, some projects use two or three methodologies, they are often put in one PDD, with contents for different methodologies one after another in each sub-section of the PDD



Host country approval and Registration

- The host Party LoA must indicate acceptance of the fact that the projects will be bundled
- At the time of registration, Project Participants must submit a written statement agreeing to bundle the project activities and identifying a focal point for communications with the EB & UNFCCC Secretariat



Debundling

- Debundling is the fragmentation of a large-scale project activity into smaller parts
- Debundling is forbidden – a large-scale project activity or any component of a large-scale project activity should follow the regular CDM modalities and procedures
- Judging criteria: debundling is deemed to occur if there is already a registered small-scale CDM project or a request for registration by a small-scale project activity:
 - By the same project participants
 - In the same project category and technology/measure; and
 - Registered within the previous 2 years; and
 - Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity allowed



Criteria for identifying illegal debundling

A proposed small-scale project activity shall be deemed to be a debundled component of a large project activity if there is a registered small-scale CDM project activity or an application to register another small-scale CDM project activity:

- With the same project participants;
- In the same project category and technology/measure; and
- Registered within the previous 2 years; and
- Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point



Exception for de-bundling check

- For transport sector project activities/PoAs with mobile boundaries, the '1 km at the closest point' distance criterion does not apply.
- **Exceptions for PoA of small systems/measures, if in the PoA:**
 - a) each of the independent subsystems/measures (e.g. biogas digesters, residential solar energy systems) included in one or more CDM project activities is no greater than 1% of the SSC thresholds; and
 - b) the subsystems/measures are indicated in the PDDs to be each implemented at or in multiple locations (e.g., installed in multiple homes)



PoA is suited to small-scale, dispersed activities

Small solar PV, solar water, wind, and biogas units



Efficient lighting



Cooking stoves



Transportation





PoA is more flexible and open-ended than bundling

- For bundles, the project activities and sites are known by the time of registration, and shall remain the same during the project life cycle, all activities have same crediting period
- For PoA: sites and emission reduction unknown by time of PoA registration, PoA registration with one real CPA, unlimited number of CPAs can be added afterwards. Only DOE check is needed for such addition, so fast and simple
- The PoA coordinating entity often provides incentives for others to implementing emission reduction activities, instead of directly doing these activities itself

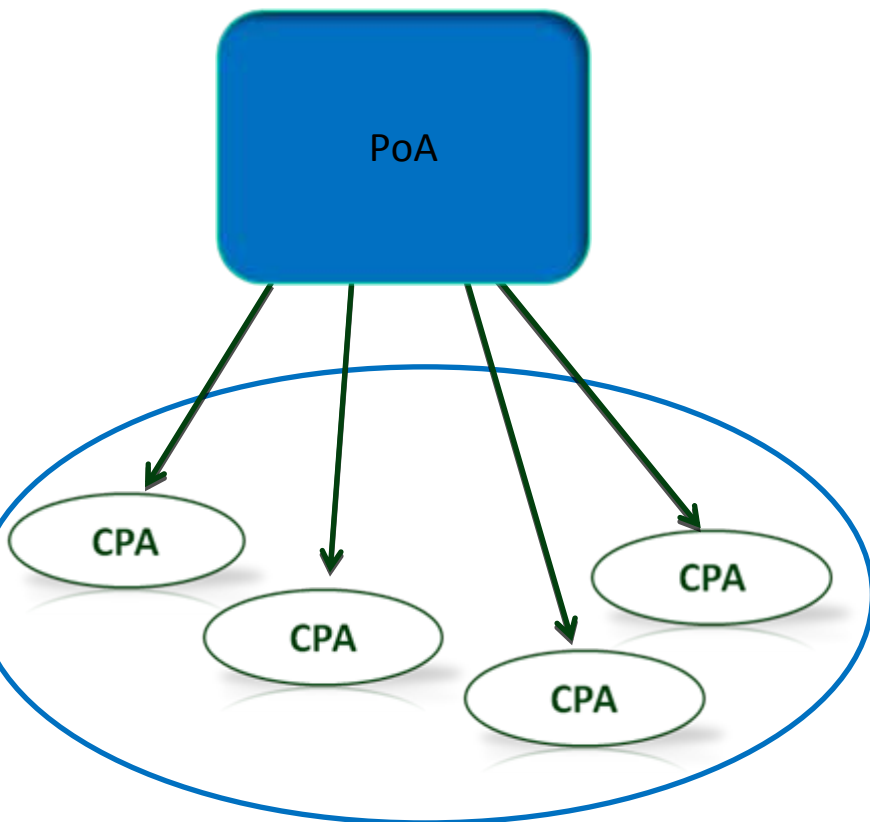


Programme of Activity (PoA) CDM

- **A way introduced to overcome the above barriers to CDM implementation**
- **Definition: A PoA is a**
 - ✓ A voluntary action,
 - ✓ Implementing a policy, measure or stated goal,
 - ✓ Coordinated by a public or private entity,
 - ✓ Resulting in emission reductions or removals that are additional,
 - ✓ Consisting of an unlimited number of CDM programme activities
- **Difference from regular CDM:**
 - ✓ A programme of activities rather than a project activity can be registered
 - ✓ Many similar CDM project activities coordinated by a private or public entity
 - ✓ Flexible schedule: The activities can take place in many different locations (including multi-country) over a period of up to 28 years



What is a PoA and What is a CPA?



Programmatic CDM occurs at two levels:

Programme Level → Programmatic CDM (PoA):

- One Coordinating/Managing Entity (CME) who coordinates/manages the PoA.
- PoA provides a Framework to implement CPAs (PoA can be up to 28 years for non-forestry, 60-year for forestry), can cover more than one country

Activity Level → Individual CDM Programme Activity (CPA):

- Implementing Partners carry on individual CPAs
- Achieves GHG reductions or removals by sinks using CDM methodologies
- Each CPA has crediting period of max. 10-year or 7x3 years (or 30 yr. max. fixed or 20x3 years for forestry CPAs), but need to end when PoA duration expires



PoA & CPA – An example

Programme of Activities (PoA)		CDM Programme Activities (CPA)	
Content	example	Content	Example
Coordinating entity	Rural electrification office		
Participants	Households with no access to electricity	Identification	Programme Activity 2
Description	Use subsidies and micro-finance to promote solar-PVs (100 W, 200 W)	Description	8000 50-W + 7000 100-W solar PVs
Boundary	Whole Nepal	Geographic scope	A region in Nepal
Starting date	1 Oct 2010	Starting date	1 May 2011
Duration	28 years (2010-2038)	Crediting period	10 years May 2011-2021
Eligibility	Only low-income households get support from the program	Eligibility	Contracts with households and other evidence



PoA implementation progress (May 2011)

Type	Sub-types	Number of PoAs		
		At validation	Registered	Total
Renewable energy	Irrigation	1		1
	Biomass	3	1	1
	Hydro	7	1	8
	Solar	12	1	13
	Geothermal	1	0	1
Energy efficiency	Electricity distribution	2	1	3
	Own generation	1		1
	Households (Stoves, lighting, insulation)	22	2	24
	Industry	3		3
	Service (HVAC & lighting)	4		4
	Transport	1		1
Fuel switch	Oil to LPG	2		2
Landfill gas		6	1	7
CH4 avoidance	Manure and waste	17	1	18
Coal mine CH4		1		1
Forestry		1		1
Total		84	8	92



Further information

1. Website for easy understanding of the CDM rules: www.cdmrulebook.org

2. EB Decisions on bundling, debundling, and PoA registration & Issuance Procedures.

<http://cdm.unfccc.int/EB/index.html>

A. Bundling

- EB 21, Annex 21 – General Principles for Bundling
- EB 54, Annex 13 – Guidelines on Assessment of Debundling for SSC Project Activities

B. PoA

- EB 55, Annex 38 – Procedures for Registration of a PoA as a Single CDM project Activities and Issuance of CERs for a PoA (Version 4.1)
- EB 32, Annex 38 – provides guidance on the registration of project activities under a PoA as a single CDM project activity.

3. PoAs submitted to the UNFCCC;

<http://cdm.unfccc.int/ProgrammeOfActivities/registered.html>



Project website

www.acp-cd4cdm.org

Contact

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