

PoA

Developing CDM Programmes of Activities: A Guidebook

prepared for:



by:



Developing CDM Programmes of Activities: A Guidebook

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Glossary

ACM	Approved Consolidated Methodology for (large-scale) CDM projects
AMS	Approved Methodology for Small-Scale CDM projects
CDM	Clean Development Mechanism
CER	Certified Emission Reduction (equivalent to 1t CO ₂ e)
CME	Coordinating and Managing Entity
CPA	CDM Programme Activity
CPA-DD	CPA Design Document
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
ERPA	Emission Reduction Purchase Agreement
GHG	Greenhouse Gases
PDD	Project Design Document
PIN	Project Identification Note
PoA	Programme of Activities
PoA-DD	PoA Design Document
UNFCCC	United Nations Framework Convention on Climate Change



Foreword

Since the adoption of the Marrakesh Accords in 2001, we have gained almost a decade of experience with the CDM Version 1.0. An interplay between bottom-up field experience and top-down policy refinement has allowed the CDM to mature. Today it is clear that in order to scale-up greenhouse gas mitigation actions—and serve underserved regions and sectors—we must embrace new mechanisms and reform the project-by-project CDM approach.

We appear to be moving in the direction of Nationally Appropriate Mitigation Actions (NAMAs) and sectoral approaches. But it will no doubt be a long time before we reach fully operational schemes. Programme of Activities (PoAs) are the concrete stepping stones on this journey. PoAs are already operational. This allows us the opportunity to gain valuable experience on our path towards a world of NAMAs and sectoral approaches. PoAs are a key pillar of the CDM Version 2.0.

South Pole Carbon Asset Management Ltd. was involved in the design and development of several pioneering PoAs. With this handbook we want to share our experience in order to contribute to the further development and scaled-up implementation of PoAs.

We are thankful to the generous funders and collaborators who made this publication possible. We hope that this handbook will be a valuable tool for practitioners and policy-makers who want to get an insight into the »nuts and bolts« of PoAs.



Dr. Christoph Sutter

CEO
South Pole Carbon Asset Management Ltd.



Notice

To make the guidebook more user friendly and interactive, the authors have emphasized some special PoA features. According to their nature, the features are presented as boxes with the following codes:



»Information symbol« denotes examples or the presentation of a specific PoA topic.



»Danger symbol« signals the most common PoA pitfalls and challenges.



»Academic hat symbol« summarizes the main takeaways from a section.



Preface

There are several potential ways forward for complementing the CDM in a post-Kyoto framework agreement. NAMA, sectoral approaches, no-lose targets: the list of candidates is long and nobody can predict right now what future carbon markets will look like. All possible alternatives, however, will share a »sectoral dimension« that a post-Kyoto agreement cannot ignore. The Programme of Activity (PoA), so far just an extension of the current CDM, is the closest tool to this »sectoral dimension« and offers a path towards making truly sectoral approaches a reality.

As an »extension of the CDM« or »way forward to complement the CDM«, the PoA is struggling to find its place in the CDM world. Initially designed to be the CDM arm of GHG mitigation policies, the PoA is a useful and suitable tool to capture emission reductions from micro-activities.

Despite new opportunities and experiences from CDM, PoA is progressing at a slow pace, and the role played by PoAs in the CDM world remains negligible. Two reasons, in our opinion, explain the shyness of PoA developers. First, the rules underpinning PoAs are unclear and continuously changing. But, with regard to CDM, this has always been the case. So the fact that the rules underpinning PoAs are unclear and constantly changing is not sufficient to explain the reluctance of CDM players to jump into PoAs. The biggest impediment to PoA centers on the fact that running and operating a successful PoA is different from managing a stand-alone CDM activity. It requires many operational and non-CDM capacities that CDM developers and consultants do not always have.

With the aforementioned in mind, this handbook documents implementation issues and pitfalls surrounding the CDM (to guide the PoA developer during his/her preparation of PoA documentation) and informs readers (hopefully future PoA operators) about new market opportunities and management and operational issues associated with PoAs.

Dr. François Beaurain





1. Why PoAs?

The Clean Development Mechanism (CDM) has (as of 1st November 2010) issued some 450m tCO₂e in emission reductions and mobilized billions of Euros for projects that reduce greenhouse gas emissions in developing countries. Yet, the project-by-project process for registering and verifying projects involves very high transaction costs, long times to market, and a high risk of non-registration. It is also very difficult to implement in least developed countries and small island states where average project sizes and the scale of national markets tend to be smaller, so relative transaction costs are higher.

In an effort to reduce transaction costs in the CDM and expand the mechanism's applicability to micro project activities, the CDM Executive Board launched the »Programme of Activities« (PoA) modality. Under this modality a PoA Coordinating/Managing Entity (CME), which can be a government agency, NGO or business, develops a PoA which defines broad parameters for project activities (referred to as »CDM Programme Activities« – CPAs) that are eligible for inclusion in the PoA. Whereas stand-alone CDM projects must be approved individually by the CDM Executive Board, a PoA needs to be registered only once by the CDM EB. After that it can include an unlimited and un-

specified number of individual projects without recourse to the CDM Executive Board (EB).

Programmes of Activity offer advantages over the prevailing project-based approach:

- Drastically shorter »time to market« for project operators who wish to secure CER revenues since the inclusion of CPAs in a registered PoA no longer require approval from the CDM Executive Board in Bonn.
- Substantially lower transaction costs because the registration and verification processes for CPAs are streamlined.
- Full scalability since, in contrast to a standard CDM project, a PoA does not need to define ex-ante the scale and location of each project activity. Thus, they can serve as the first step towards establishing sectoral approaches for reducing GHG emissions and can be seen as the CDM tool for implementing government policies.
- Opportunities to convert future carbon revenues into upfront carbon finance by reducing the risk of non-registration and shortening the lag before CDM income is realized.

Let's look at some of these advantages in more detail.



a. Develop large programme of micro activities

Under the CDM, there is at present only one methodology for micro-activities (AM0046 Distribution of efficient light bulbs to households). All other micro-activities can only be developed under the small-scale modalities. This makes the development of a large national or regional CDM programme almost impossible. Why? Because it would be rapidly constrained by the small-scale threshold. Thanks to the PoA modalities, it is possible to develop large programmes that can overcome the small-scale threshold. PoA, therefore, opens

the door to new types of project activities that have mostly been untapped in the past.

The most important technologies that can benefit from this improvement include improved cookstoves, solar PV, solar water heaters, household biogas and compact fluorescent light bulbs (CFLs). Not surprisingly, the current pipeline of PoAs is dominated by these applications which have the potential to reduce millions of tons of carbon dioxide equivalent.



Figure 1. Key distributed renewable energy and energy efficiency applications that are ideal for PoAs (from left to right: efficient cookstoves, solar lighting kits, household digester, compact fluorescent lamp, solar water heater). (icons © South Pole Carbon Asset Management Ltd.)

b. Making carbon revenues bankable

By reducing the risk of non-registration and drastically shortening the time to market, PoAs present an opportunity to make carbon revenues bankable at the moment of financial closure. Once registered, a well-designed PoA can include new CPAs within some 2-5 months. Hence, CPA owners can complete the inclusion process prior to achieving financial closure, which will then allow the projects to generate carbon credits dur-

ing the first year of operation. Provided that adequate provisions are made for ensuring sound monitoring and effective verification, the residual delivery risks associated with CERs are not much higher than the risks attached to obtaining power revenues under a power purchasing agreement (PPA). Thus, carbon revenues can become bankable (Figure 2).



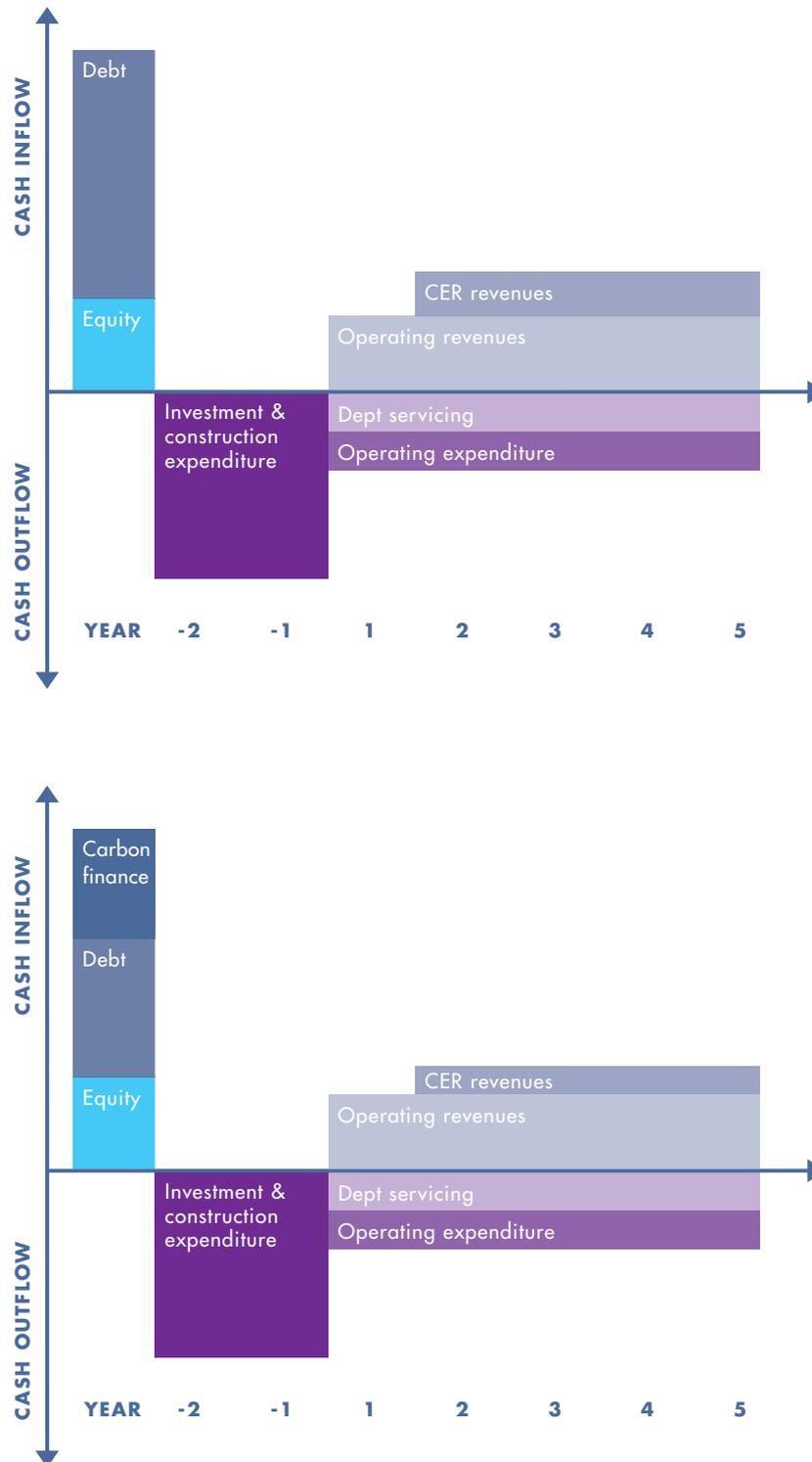


Figure 2. Shifting from carbon revenues towards carbon finance



Two options exist for securitizing such future carbon revenues. The first option centers on the fact that future CER revenues can be treated just like any other bankable source of revenue by local banks upon which credit lines can be opened. The limitation of this option is that local banks typically do not trade in CERs and therefore cannot manage the associated price risk efficiently. As a result, their ability to provide additional loans is typically limited by the amount of collateral that can be put up by the project developer. Consequently, projects will likely follow the second option that consists of forward-selling future CER flows into compliance markets – either directly to the final compliance buyer or through an intermediary, such as a bank or trader. Such counterparties are in a strong position to hedge price risks and can therefore securitize future carbon revenues more efficiently.

Critically, they can also offer loans or advance revenues denominated in Euro – the currency in which CERs are usually traded internationally – which in turn can drastically lower interest rate payments for a project owner in a developing country that decides to join a registered PoA.

In the case of small hydropower, future CDM revenues may be able to contribute some 10 percent of capital expenditure and thereby make a substantial contribution towards closing the equity gap. In several cases, CERs can make a substantial contribution towards the initial investment costs of projects. In other words, PoAs provide an attractive mechanism for leveraging development financing.

Truly bankable carbon revenues offer a tremendous opportunity for mobilizing

CAPITAL NEEDS	PROJECT CAPITAL REQUIREMENT	AVAILABLE FINANCING MECHANISM
LARGE PROJECTS (wind, large hydro...)	>> € 15m	Specialist PE, direct investments
SMALL / MEDIUM PROJECTS (hydro, biomass...)	€ 1-15m	???
MICRO ACTIVITIES (SWH, SME energy efficiency)	< € 1m	SME loans, microfinance

Figure 3. The »Missing Middle« of project finance



effective financing solutions to tackle the »missing middle« of project finance, that is, projects that are too small to attract international equity and too large to tap into SME credit lines (Figure 3). In view of the limited scalability of key renewable energy technologies (hydro-power, biomass, solar PV, etc...) projects falling into this missing middle account for an important share of future energy investments.

PoAs can help address the missing middle in several ways. First, a registered PoA can mobilize upfront carbon finance that will greatly assist financial closure for what is a heavily underbanked asset

class. Such carbon finance can be offered on highly competitive terms since the large scale of PoAs makes it possible to drastically lower transaction costs associated with inclusion/registration, monitoring and verification. Second, PoA Coordinating Entities will establish contractual relationships with all participating renewable energy projects that can facilitate aggregation to promote access to equity finance. Third, through its deep engagement in a particular sector, the Coordinating Entity can facilitate growth capital for technology providers and project developers to support the move to scale across the sector.

c. Extend the CDM to underserved countries

It is widely recognized that the Clean Development Mechanism is not delivering on its potential in Least Developed Countries (LDCs), Small Island Developing States (SIDS) and other parts of Africa. LDCs account for a mere 0.25% of registered CDM projects compared with 15% of the population and 11% of total greenhouse gas emissions in non-Annex I countries. Moreover, the few registered CDM projects in these countries tend to be either very small or make only modest contributions towards achieving the Millennium Development Goals, the world's shared goals for fighting poverty in all its forms. This stands in sharp contrast to the high financing needs for sustainable development activities in LDCs, the original intention

of the CDM to mobilize such financing, and studies that present a much higher potential for CDM projects in LDCs. Clearly, the general constraints that depress investments in LDCs, including high costs of doing business, cannot be overcome quickly. But the CDM can do a lot more to reduce its bias against project activities in LDCs. A central plank of any strategy to improve the regional representation of the CDM must focus on PoAs since they offer major advantages for LDCs and other underrepresented countries. Critically, PoAs provide a mechanism for regional programmes.

The CDM rules allow for international PoAs, so several African countries, such as members of the East-African Com-



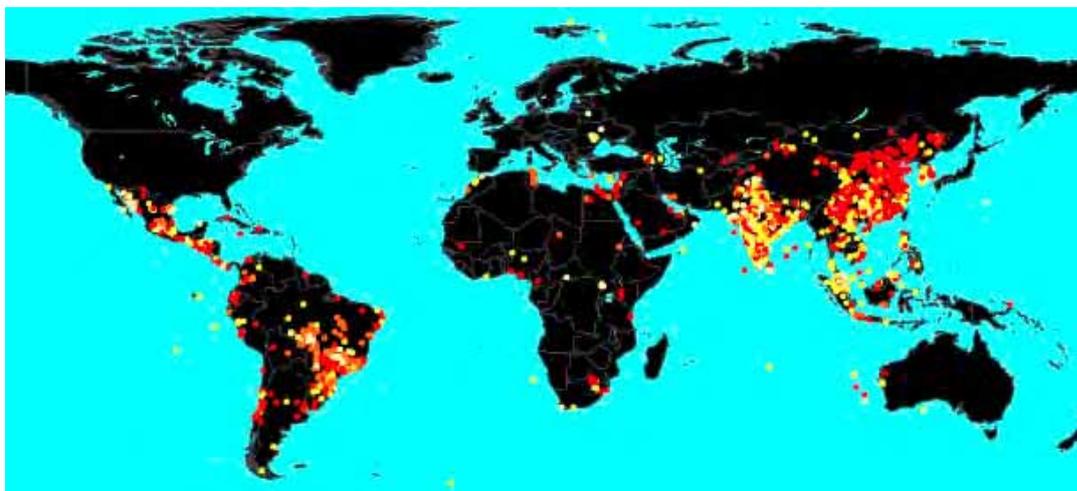


Figure 4. Distribution of registered CDM projects as of early 2010. Red dots denote large-scale projects; yellow dots denote small-scale projects
(source: <http://cdm.unfccc.int/Projects/MapApp/index.htm>)

munity or ECOWAS, could join forces to develop a regional PoA for, say, solar water heaters. Such regional programmes would further reduce the transaction

costs and generate economies of scale that would otherwise be impossible to achieve in smaller countries.

d. Where are the PoA opportunities?

As described in this handbook, PoAs are very complex and face major CDM and non-CDM-related challenges. Figure 5 provides a summary assessment of PoA opportunities. Main opportunities cen-

ter on micro-activities for which only small-scale methodologies exist and that can (thanks to PoAs) be developed on a larger scale.



	CER POTENTIAL	IMPACT OF CARBON FINANCE	SUSTAINABLE DEVELOPMENT BENEFITS	EASE OF IMPLEMENTATION
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1. Electricity's generation from renewable power

HYDRO	High, but depends on countries' grid factors	Potentially high, but depends on countries' grid factors	High	Straight forward
BIOMASS	High, but depends on countries' grid factors	Potentially high, but depends on the availability of «biomass baselines» and on countries' grid factors	High, but biomass needs to be sourced sustainably and nutrients must be returned to the soils	Sustainable source of renewable biomass needed & monitoring is complex
WIND	High, but depends on countries' grid factors	Modest and depends on countries' grid factors	High	Straight forward
GEOHERMAL	High, but depends on countries' grid factors	Moderate	High	Exploration leads to long timeframes
SOLAR PV	High, but depends on countries' grid factors & commercial viability of solar PV	Low, but will increase as price of solar comes down	High	Straight forward
CONCENTRATED SOLAR POWER (SOLAR THERMAL)	High, but depends on countries' grid factors	Low, but will increase as cost of technology comes down	High	Straight forward

2. Household applications

HOUSEHOLD BIOGAS	High, but depends on baseline use of biomass	Potentially very high, but depends on size of reactors and biomass availability	High	Complex baseline and monitoring issues
SOLAR WATER HEATERS	High	Modest	High	Installation, maintenance and monitoring of large numbers of SWH is complex
IMPROVED COOKSTOVES	High	High	High	Complex distribution and monitoring challenges
COMPACT FLUORESCENT LIGHT BULBS (CFLs)	High	High	High	Complex distribution, assignment of CER ownership and monitoring
HOUSEHOLD SOLAR PV DEVICES	High	Modest if high-emission fuels are displaced, low if baseline is grid emission factor	High	Relatively complex distribution and monitoring

3. Other PoA Opportunities

IMPROVED CHARCOAL PRODUCTION	High	High	High	Complex monitoring
JATROPHA BIOFUELS	Moderate	Moderate	High if planted on marginal land, low if in competition with food production	Complicated; requires captive fleet

Figure 5. The attractiveness and feasibility of PoA opportunities are assessed using a color intensity scheme (Source: Adapted from Africa Progress Panel 2009 (source: <http://www.africaprogresspanel.org/cdmworkshop/091202-APP%20Kick-Starting%20Africas%20Carbon%20Market%20FINAL.pdf>))





2. Historical background

The PoA originated from a decision made at the December 2005 COP/MOP where it was decided that local/regional/national policies or standards cannot be considered as CDM project activities, but project activities under a PoA can be registered as a single CDM project activity:

» The Conference of the Parties serving as the meeting of the Parties, ...Decides that a local/regional/national policy or standard cannot be considered as a clean development mechanism project activity, but that project activities under a programme of activities can be registered as a single clean development mechanism project activity provided that approved baseline and monitoring methodologies are used that, inter alia, define the appropriate boundary, avoid double-counting and account for leakage, ensuring that the emission reductions are real, measurable and verifiable, and additional to any that would occur in the absence of the project activity (7/CMP.1, paragraph 20). «

- By its thirty-second meeting (June 2007), the CDM Executive Board (EB) agreed on the basic rules for programmatic CDM.
- By its thirty-sixth meeting (November 2007), the EB approved the official templates for Project Design Documents suitable for Programme of Activities (PoA-DD), its constituent activities (CPA-DD), and issued procedures to register PoAs and issue CERs. It also amended small-scale CDM methodologies to make them suitable for programmatic activities.
- tBy its forty-seventh meeting (May 2009), an improved version of PoAs guidance was published. The new guidance, along with a grace period that allows retroactive PoAs to be submitted before the 31st December 2009, has allowed more submission of PoAs to the EB, which rose to around 40 by the end of 2009.

As of November 2010, after EB meeting 57, a total of 54 PoAs were under validation and 5 were registered.





3. PoA in a nutshell

The PoA is a complex tool that adds its own modalities to CDM rules. This section introduces the concept of PoA, provides the reader with the main PoA concepts and rules, and presents an overview of PoA challenges. PoA rules are evolving rapidly (the EB usually re-

vises PoA rules once a year). This section is, therefore, just a snapshot of the actual status of PoA rules. The authors hope that many points listed in this section as »challenges« will soon be »non-challenges« to allow the full-deployment of the PoA potential.

a. Definition

By definition, a CDM PoA is considered »a voluntary coordinated action by a private or public entity which coordinates and implements any policy/measure or stated goal (i.e. incentive schemes and voluntary programmes), which leads to GHG emission reductions or increases net GHG removals by sinks that are additional to any that would occur in the absence of the PoA, via an unlimited number of CDM programme activities (CPAs)« (Annex 38, EB32).

A PoA is made up of CDM Programme Activities (CPAs). Multiple CPAs can be included under a PoA at the time of registration, and a non-definite number CPAs can be added at any time during the duration of the PoA by the coordi-

nating/managing entity. A CPA is defined as a single measure (or set of interrelated measures) that reduces GHG emissions or results in net anthropogenic greenhouse gas removals by sinks, applied within a designated area as defined in the baseline methodology (EB 32, Annex 38, page 1).

In other words, a PoA is the framework that defines broad parameters for project activities (CPAs) that are eligible for inclusion in the PoA. All CPAs follow the same stated goal, and any CPA can be added to a PoA at any point of time.

PoAs are normal CDM (resp. JI) activities. They generate the same type of CERs (resp. ERUs) as CDM (resp. JI) projects.



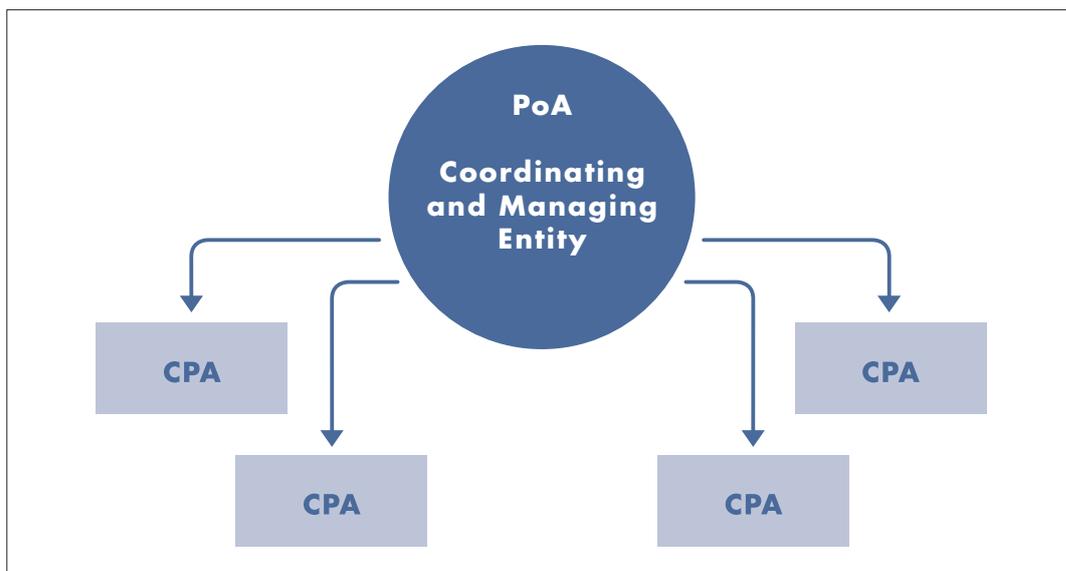


Figure 6. PoA is a framework where many CPAs sharing the same stated goal can be implemented.



PoAs can be located within several countries

Despite the fact that nothing prevents a CDM activity to be located in more than one country, only one international CDM project has been registered («Dagachhu Hydropower Project, Bhutan» between India and Bhutan). In order to extend international programmes, the EB has explicitly allowed international PoAs and specified that the physical boundary of a PoA can be extended to more than one country as long as a letter of approval is provided for each Host Party (EB 47, Annex 29, paragraph 7).

So far, no international PoAs have been submitted for registration. This modality could, however, be useful in the context of international development programmes (see also section c).



b. Small-scale PoA

In the case of CPAs which individually do not exceed the SSC threshold, SSC methodologies may be used. In such cases the PoA will be considered as a small-scale PoA (SSC-PoA) and benefit from all CDM small-scale modalities (the same DOE can validate and verify the PoA and small-scale methodologies can be used). If none of the SSC-CPA can exceed the small-scale threshold², the overall size of the SSC-PoA can overcome the small-scale threshold. It

is therefore possible to undertake very large activities under small-scale modalities.

In the drawing below, a Type I SSC-PoA (in this instance a renewable electricity generation PoA applying AMS-I.D), each SSC-CPA is below the 15 MW threshold for Type 1 projects but has an aggregated size of 24 MW over the threshold.

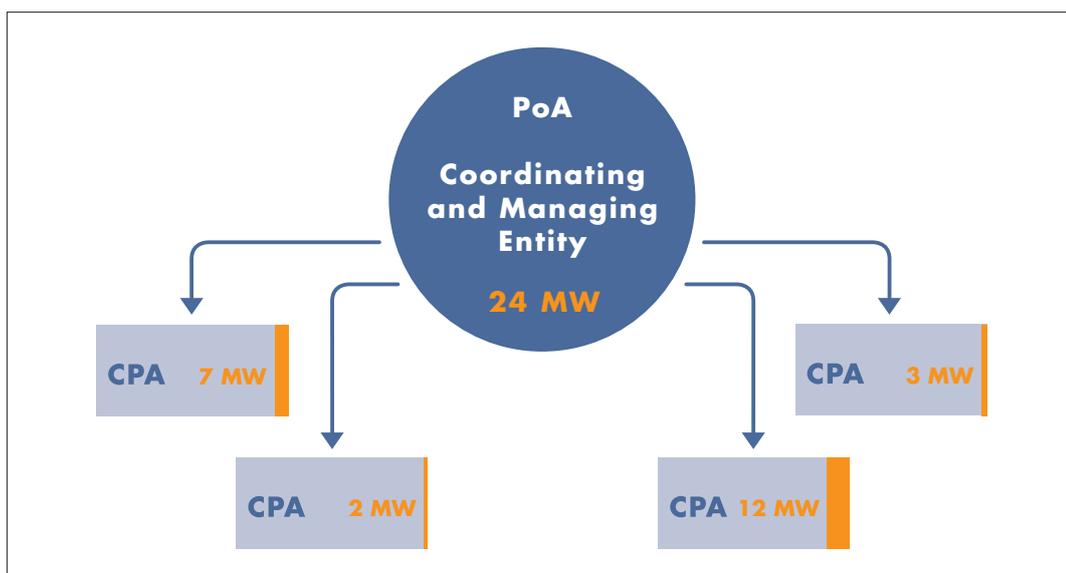


Figure 7. Example of a Type I SSC-PoA with an aggregated size over the small-scale threshold.

² 15MWel or 45MWth for type I projects, 60 GWhth for type II and 60 kCERs for type III

c. SSC-PoA debundling check

Just like SSC, SSC-PoAs must demonstrate that each SSC-CPA is not a debundled component of another CDM or CPA activity. The principle of a debundling check is more or less the same for SSC and SSC-CPA (but shows some difference; see the note below). It must show that a large project activity has not been split into several smaller ones in order to benefit from small-scale modalities.

For SSC-CPA, a proposed small-scale CPA of a PoA is deemed to be a debundled component of a large-scale activity if there is already an activity which satisfies both conditions (a) and (b) below (EB54, annex 13):

- (a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and
- (b) The boundary is within 1 km of the boundary of the proposed small-scale CPA at the closest point.



SSC-PoA and SSC debundling-check differences

As a reminder, for SSC, a proposed small-scale project activity is 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 (EB54, annex 13):

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

Because of the absence of the 2 years prescription, the SSC-PoAs debundling check is more restrictive than for stand-alone activities. The imprescribability of the CPA debundling check can be an issue for some type of PoAs and should be considered carefully. Let's take the example of a PoA targeting boiler efficiency measures in the industry and CPA implemented in an industry called A. If after a few years, the same industry A desires to scale-up its activities and install new boilers, because of the imprescribability of the debundling check these new boilers will not be eligible in the SSC-PoA even if they are built 10 or 20 years after the first energy efficiency measures.



Micro systems / measure are exempted from the debundling check



CDM activity or PoAs composed of independent subsystems/measures not greater than 1% of the SSC thresholds are exempted from the debundling check (EB54, annex 13 para. 10). This rule, designed for micro activities (CFLs, efficient cookstoves, small digesters, etc...), is a great breakthrough for these types of activities.

Note that one percent of the SSC threshold is equivalent to :

Type 1, renewable energy projects	150 kW _{el}	450 kW _{th}
Type 2, energy efficiency projects	600 MWh _{el} /year	1.8 GWh _{th} /year
Type 3, other projects	600 CERs/year	

Given that a cookstove saves only a few MWh per year, and a typical household's photovoltaic system ranges from a few watts to a few thousand watts, it is reasonable to conclude that most household CDM or PoA activities will be exempted from a debundling check.

d. Stakeholders

PoA stakeholders are the same as CDM stakeholders, the main difference resides in the Coordinating and Managing Entity which plays the role of a »super« project participant with extended prerogatives when compared to other project participants. The roles and functions of the CME are extensively described in the next chapter. As a reminder, the name and role of the PoA stakeholders are defined as follows:

- DNA (Designated National Authority), which is the Host Country administration responsible of the CDM. Among other things, the DNA is responsible for issuing the LoA of the PoA.
- EB: CDM Executive Board, which is responsible for PoA registration and CER issuance.
- DOE (Designated Operational Entity), which is responsible for PoA validation, CPA inclusion and PoA verification.
- Project participants, which is an authorized entity participating in a CDM project activity.
- CME (Coordinating and Managing Entity) which is the only project participant that is responsible for communication with the Board, including on matters relating to the distribution of CERs.
- Project implementer, which is an entity/individual responsible for the CPA. The implementer can, in some cases, also be a project participant.

e. PoA project cycle

Figure 8 illustrates the process for registering a PoA and including new CPAs. The registration of the initial PoA and its first constituent CPA is similar to the process for a stand-alone CDM project. Design documents for the PoA and the CPA must be prepared and validated by a Designated Operational Entity (DOE) before being submitted for registration by the CDM EB. This registration process will likely take a little longer compared with a stand-alone project since the documentation required for the vali-

dation of the PoA is more complex.

The documentation required for the PoA validation consists of:

- The PoA-DD (PoA Design Document), which describes the stated goal of the PoA and how baseline, additionality and monitoring will be applied in each CPA.
- The first CPA-DD (CPA-DD), which is the PDD of the CPA from a first concrete case.



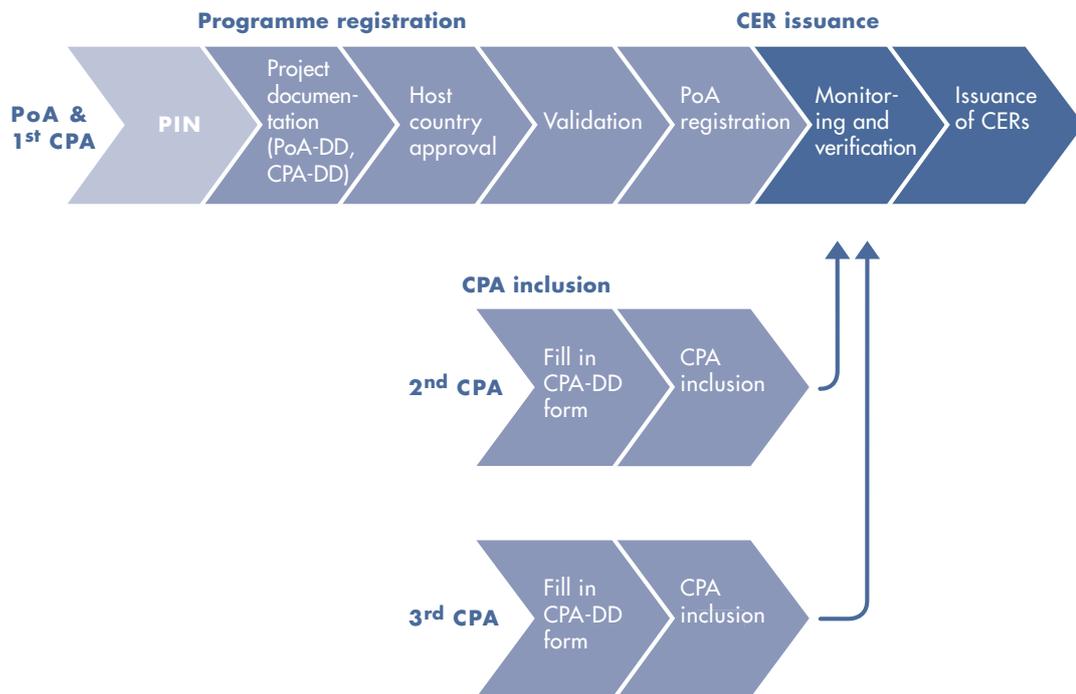


Figure 8. Registration of a PoA and inclusion of new CPAs (Source: own drawing)

- The CPA-DD template, which is the generic CPA-DD that will be applied to all CPAs to be included in the PoA.

Once a PoA has been registered by the CDM Executive Board, new projects that meet the requirements of the PoA can be included as CPAs using a process that does not require approval by the CDM Executive Board in Bonn. Instead, a project developer only needs to enter the CPA-specific parameters into a standardized CPA Form, which is then validated and included in the PoA by a DOE.

Since many parameters for the PoA and its constituent CPAs are defined at the programme level, the inclusion of new CPAs can be greatly streamlined and shortened.

The CME is responsible for preparing the monitoring report of the PoA. All CPAs included in a PoA are verified simultaneously by one DOE following a standardized process laid out in the PoA Design Document. So both monitoring and verification can be greatly streamlined to generate substantial economies of scale.

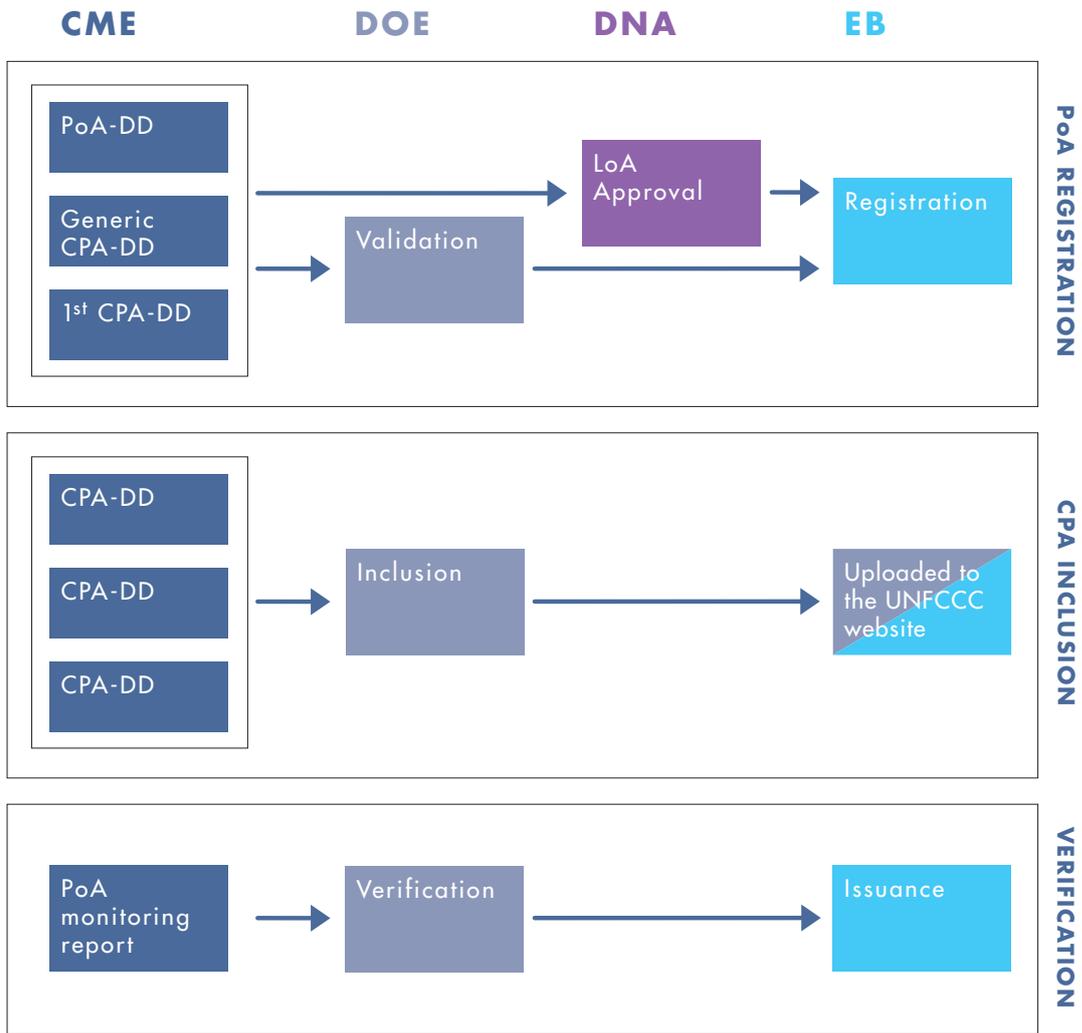


Figure 9. Role of the different stakeholders during PoA registration, inclusion and verification/issuance.

f. DOE liability

As seen in the above section, the ability given to the DOE to decide whether or not to include a CPA within the PoA is how PoA project cycle mainly differs from CDM rules. This responsibility transfer from the EB to the DOE has not been conceded without any guarantees taken by the EB. To avoid wrong inclu-

sion of CPAs within the PoA, the EB has prepared a set of rules (Annex 37, EB55) that allow the DNA or the EB to challenge the decisions from the DOE.



- the process of erroneous inclusion can be launched if there is a suspicion that a CPA does not meet the eligibility criteria.
- A single EB member or the DNA can request the initiation of a process for erroneous inclusion.
- The process for review of erroneous inclusion of a CPA can be initiated throughout the entire lifetime of a CPA («within one year after the inclusion of CPA into a registered PoA or renewal of the crediting period of the CPA, or within six (6) months after the first issuance of CERs for that CPA, whichever is the latter »).
- If the EB determines that a CPA has been erroneously included then all issued CERs from this erroneous CPA must be transferred by the DOE.
- The process of erroneous inclusion can be extended to other CPAs («A DOE, that has not performed validation, registration, inclusion or verification functions with regard to this PoA shall conduct the review referred to in paragraph 9, by assessing a random sample of 10% of all CPAs currently included »)

DOE liability for erroneous CPA inclusion

The DOE liability as currently framed is inoperable. First, erroneous inclusion is almost imprescriptible, a CPA can be put under review at any time, even many years after its inclusion into the PoA. It is also not clear what constitutes an erroneous inclusion. It can be anything, from wrong coordinates to severe DOE misconduct or fraudulent information.

Moreover, under current rules a DOE could be liable for returning many years of issued CERs that would have to be obtained at a market price that could be vastly higher than current prices. To the best of our knowledge it is therefore impossible to purchase insurance solutions to cover all or a significant part of the DOE liability. Many PoAs that are currently in validation have been launched in anticipation that the issue of DOE liability would be resolved, as also requested by CMP5. If the corresponding rules are not reformed then many of these PoAs will not be viable since DOEs will either be unable to include CPAs or the DOE fees charged will be too high. As a consequence, DOE liability has not contributed to make PoAs popular among DOEs. Many DOEs are unwilling to validate PoAs and reluctant to include new CPAs. To date, only one PoA has managed to perform CPA inclusion (PoA 2767). In a market where appointing a DOE is already a bottle-neck, the DOE liability issue makes the CDM life even more difficult for CME that are looking for a DOE.



g. Additionality

As for CDM, the additionality of a PoA is the demonstration that in the absence of CDM the PoA or one of its constituent CPAs would not have been implemented. The challenge surrounding PoA additionality derives from the fact that a PoA can be structured in many different ways or support measures as different as GHG reductions systems as well as policies.

As a consequence, the demonstration of additionality remains the most controversial topic at the EB when dealing with PoA. Several guidance documents have been submitted to the EB, but so far none have been adopted. Part of this confusion also comes from the EB47 decision (EB47 para. 73) which allows the demonstration of additionality »either at the PoA level or at CPA level,« suggesting that two routes can be used to demonstrate additionality:

- Route 1, »at PoA level«: Demonstrate that the measure/policy supported by the PoA would not have been implemented without the CDM (see EB47 annex 29 para. 4e for more details). Then demonstrate at CPA level, that the CPA would not have been implemented without the PoA. In this case, the CME must define »eligibility criteria« that ascertain the CPA would not materialize in absence of the PoA system

- Route 2, »at CPA level«: Demonstrate that each CPA cannot be implemented without the CDM. In this case, it is the additionality of each CPA that is tested individually.

The route 1 is mostly suitable for »small CPA« type (CFLs, cookstoves, etc...) or »policy type« PoAs. Indeed, in this case the PoA is supporting systems/measure that are individually very similar and which faces the same barriers (for instance, CFLs can be considered as additional since they are more expensive and less attractive than incandescent bulbs). For this type of PoA, eligibility criteria are structured to check whether the conditions defining the additionality are still true at the time of inclusion of the CPA (at the time the inclusion of the CPA, it can be checked that CFL is still more expensive than an incandescent bulb).



The route 2 is more suitable for a »large CPA« type PoA like an energy efficiency measure in an industry where the conditions from one CPA to another one can differ a lot. In order to adapt to the specific conditions of every CPA, additionality demonstration must be a dedicated demonstration specific to the CPA. For instance, in the case of a PoA supporting huge and tailor made solutions, the barriers can be significantly different from one site to another site or from one type of industry to another type. In this case, additionality for CPAs shall be demonstrated as for normal CDM activities.

Even if some eligibility criteria on how to frame the CPA additionality can be defined at PoA level, Route 2 puts the center of gravity of additionality demonstration on CPA level and therefore adds a lot of liability issues to the DOE which is responsible for CPA inclusion. In the context of absence of a PoA additionality guidance and clearer DOE liability definition, the second additionality route seems very risky.

PoA additionality

Additionality is the most subjective and therefore also the most sensitive topic in CDM. It is the most complex part of the PDD elaboration and the one leading to the greatest number of reviews/rejections at the EB. It has to be handled very carefully, especially in the context of PoAs where the EB delegates the responsibility of CPA inclusion to the DOE.



h. Sampling

In the PoA-DD section A.4.4.2, the opportunity is given to the CME to choose between sampling verification (only a representative sample of CPAs can be verified) instead of a systematic verification (all CPAs are verified). This is a source of substantial economy of scale for PoAs containing numerous CPAs and is a success key for large PoAs.

When opting for sampling, the CME is requested to provide a description of the proposed »statistically sound sampling

method/procedure to verify the amount of anthropogenic emissions reductions by sources or removals by sinks of GHG achieved by CPAs under the PoA«. It is therefore the role of the CME to define how the DOE will undertake sampling for the monitoring report of the PoA. In our understanding, this does not mean that the CME must prepare the monitoring report of a sample of CPAs, but that the CME must prepare the monitoring report of all CPAs from which only a sample will be verified.



To sample or not to sample?

Opting for verification by sampling presents some risks that a CME candidate should consider carefully.

During a »normal« verification, the DOE goes through the monitoring data from each CPA. If the DOE finds some errors within the data provided from a project, the CME still has the opportunity to correct the monitoring report. In this case, the CME can spend a lot of time and resources to correct the monitoring errors, but the opportunity is still given to the CME to maximize the quantity of verified CERs.

In a sampling approach, only a few CPAs will be checked. If no errors are found, the CME will get all CERs requested. But if some errors are found, the DOE will assume that the same errors are found in all CPAs and will deduct CERs from all CPAs. Sampling is therefore a risky game; it requires from the CME high quality procedures to ensure a low error rate.

In any case, the choice between systematic verification and systematic sampling depends on many factors (CPA monitoring requirements, number of CPAs within the PoA, access to monitoring data) and can be seen as a tradeoff between :

- the verification cost of one CPA by the DOE, and
- the cost of monitoring to reach a certain level of accuracy.



Whatever the decision, to sample or not to sample, a PoA containing many CPAs will be a monitoring challenge for a CME. In a mature PoA market with large programmes in operation, only CMEs having high quality monitoring procedures, automatic data collection systems, etc..., will be able to play a significant role.

Lack of guidance on sampling



In spite of tremendous potential to reduce transaction costs, there is thus far poor guidance on sampling under the UNFCCC. Only Annex 30 of EB50 provides some basic guidance on how to estimate »mean values of parameters used in the calculations of greenhouse gas emission reductions«, but this guidance does not address how eventual monitoring and calculation errors found in the sample should be taken into account.

i. CDM Methodologies and tools within a PoA

All methodologies (small-scale, large-scale, consolidated or not) and approved tools are suitable for PoA. And all CPAs within a PoA can apply the same CDM principles and tools (e.g. methodologies and monitoring protocols, additionality proof, emission baselines, etc...).

Initially limited to one methodology, PoA using a combination of methodolo-

gies is now allowed, but the combination must first to be approved by the EB (see EB47 annex 31 »Procedures for approval of the application of multiple methodologies to a programme of activities«). Moreover, if the combination of methodologies is chosen, it has to be applied consistently to all CPAs within the PoA (EB55 annex 38, footnote 1).

Limitations to PoAs using a combination of methodologies



There are several limitations surrounding the use of several methodologies under a PoA.

First, the process to get a combination of methodologies is long and risky. The request for using several methodologies must be submitted with the latest version of the CDM-POA-DD and CDM-CPA-DD by the DOE to the secretariat. Subsequently, the PoA documentation has to be examined by the dedicated working group (SSC-WG for small-scale PoA, Meth. Panel for large scale PoA) and then submitted to the EB for final decision. This means that the CME has to invest a lot of time and effort before being informed if the combination of methodologies is accepted by the EB.

Second, the combination of methodologies has to be applied consistently among all CPAs. This can be a limitation since methodologies do not always cover what can be implemented by the CME. Consider the following examples:

- A CME supporting the development of hydropower activities cannot include both off-grid and grid-connected CPAs within the same PoA because they require two different small-scale methodologies (AMS.I.A for off grid renewable electricity generation projects and AMS.I.D for grid connected ones). Despite the similarity of the two methodologies and the use of the same technology, such a programme will require two distinct PoAs, effectively doubling the CDM transaction costs of setting up the programme.
- Methane avoidance activities (landfill, wastewater treatment) are typically projects that require a combination of methodologies. For instance, a CME supporting the development of biogas plants with heat and/or electricity generation will need different methodologies (AMS.III.H for the digester to combine then with AMS.IC for heat or heat and electricity or AMS.I.D for electricity). Despite the fact that the generation of heat and/or electricity is a secondary measure (the main measure is the implementation of the digester), such a programme cannot be implemented as one PoA.



j. PoA and CPA timeline requirements

The duration of a PoA cannot exceed 28 years (7 years renewable 3 times) and is defined by the CME at the time of request for registration of the PoA.

After registration of the PoA, the CME can add a CPA at any point of time of the PoA. The crediting period of the CPA can be one time 10 years or 7 years renewed maximum twice (as for CDM) but is limited to the end date of the PoA regardless of when the CPA was added. Last but not least, the CPA start date cannot be before the date the PoA is being submitted for global stakeholder consultation (official validation start date).

In order to illustrate these requirements, we present in the figure below a fictive PoA with three CPAs. The PoA has applied to a 7 years crediting period renewed once (total of 14 years). All CPAs have their project start date after the validation start of the PoA and can therefore be included in the PoA.

- The first CPA (the one that is submitted along with the PoA for validation) has its CPA start date during validation and can start its crediting period just after PoA registration.

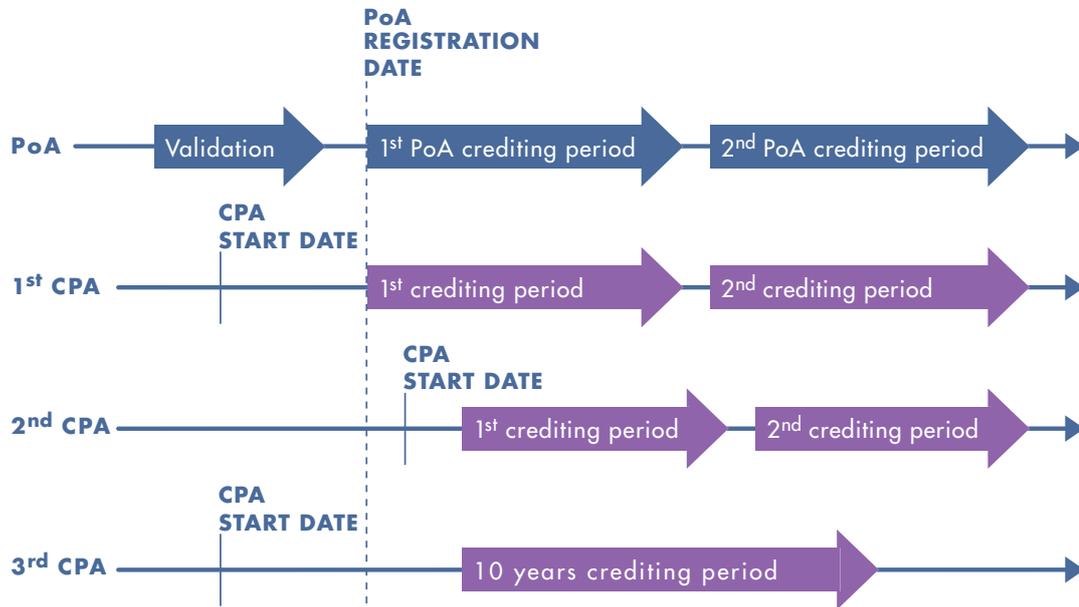


Figure 10. Example of fictive PoA illustrating PoA timeline constraints

- The second CPA has its project start date after registration of the PoA and can start its crediting period just after it has been included in the PoA, but its second crediting period has to be truncated because it cannot exceed the end of the 2nd crediting period of the PoA.
- The third CPA opted for a unique 10 years crediting period, which is allowed since no restrictions bind the CPA to have a renewable or non-renewable crediting period.



CPA starting date constraints for micro-activities PoAs

The definition of the start date of a CPA is the same as the start date of a CDM project activity. It is defined as »the earliest date at which either the implementation or construction or real action of a programme activity begins.«

This means that any CPA with a starting date before validation of the PoA cannot be included into the PoA. This rule is not only punishing some early movers who undertook the PoA before the definition of the CPA start date has been approved by the EB, it also constraints the deployment of the CPAs. A CME will have to »delay the project start date of its CPAs« until PoA validation starts. This is especially relevant for micro-activities which do not require construction or significant pre-project implementation and for which the project start date is usually chosen as the distribution date.

A fair and simple way to solve this issue would be to define a »PoA project start date« as the first real action towards the PoA and then limit the PoA to CPAs that have a project start date after the PoA project start date. If a PoA desires to include CPAs that have a project start date prior to validation start, the list of these CPAs could be indicated in the PoA-DD.



k. Letter of Approval

The letter of approval (LoA) is the authorization from a UNFCCC Party, i.e. the government(s) of the country(ies) where the PoA is located, of the participation by the project participant in the proposed project activity:

A written approval constitutes the authorization by a designated national authority (DNA) of specific entity(ies) participation as project proponents in the specific CDM project activity (EB 16, Annex 6, paragraph 2(c)).

For PoA, letters of approval are requested from Parties of each project participant and for all parties where the CPAs are located. This means that the letter of approval is only required at PoA level and will not be required individually for all CPAs. From the CME perspectives this is a simplification and a source for substantial economy of scale in countries with heavy DNA procedures.

On how to manage DNA to get an LoA



Getting a LoA for a PoA from a Party presents two different types of pitfalls that need to be addressed carefully :

- PoA is a new and rather complicate CDM modality. Some DNAs can have a poor understanding of PoA issues and/or no procedures in place to get a LoA. It can be therefore useful, in countries with no PoA, to capacitate the DNA on PoA rules.
- DNAs are sometimes reluctant to issue a LoA for a PoA since after its issuance the DNA will not have any word to say for any CPA. We therefore recommend offering the DNA to add some eligibility requirements that will follow DNA expectative to the PoA-DD. Like this, the DNA can be sure that only CPA in line with national sustainability requirements are included in the PoA.



I. Registration fees and share of proceeds

Registration fees

The amount of registration fees for a PoA and the procedures for payment are the same as for any CDM activity but are based only on yearly average expected volumes of the first CPA(s) submitted with the PoA for registration. No registration fee is required later in time for the inclusion of CPAs (EB 33, paragraph 60).

Since February 2010 (EB 52, paragraph 53) the registration fee is calculated based on the average quantity of CERs that will be generated during the crediting period using the following scale:

USD 0.10 per certified emission reduction issued for the first 15,000 tonnes of CO₂ equivalent for which issuance is requested in a given year,

USD 0.20 per certified emission reduction issued for any amount in excess of 15,000 tonnes of CO₂ equivalent for which issuance is requested in a given year,

No share of proceeds shall be due for project activities hosted in least developed countries or countries with less than 10 registered projects. The application of this exemption shall be based on the status of the country on the date of the publication of the request for issuance of certified emission reductions (EB 54, Annex 29, paragraph 10 and 11). The maximum registration fee payable based on this calculation is USD 350,000

and no registration fee must be paid for proposed project activities with expected average annual emission reductions over the crediting period below 15,000 tonnes of CO₂ equivalent (EB 52, Annex 52, paragraph 7) or located in LDCs (EB 52, Annex 53, paragraph 8).

Last but not least, please note that the registration fee constitutes an advanced payment of the share of proceeds from which it will be deducted during the first issuance (EB 52, Annex 53, paragraph 12).

Share of proceeds

Issuance fees, also known as the Administration Share of Proceeds, have to be paid upon issuance by the Coordinating and Managing Entity based on the following scale:

USD 0.10 per CER issued for the first 15,000 tonnes of CO₂ equivalent for which issuance is requested in a given calendar year;

USD 0.20 per CER issued for any amount in excess of 15,000 tonnes of CO₂ equivalent for which issuance is requested in a given calendar year (7/CMP.1, paragraph 37).



Example of PoA fees calculation



- A PoA along with a first CPA generating an average of 20 kCERs per year is submitted to the EB for registration. In this example, the PoA is supposed to be undertaken in a LDC, and the CME will have to bear the registration fee calculated as:

$$15'000 \times \text{USD } 0.10 + (20'000 - 15'000) \times \text{USD } 0.20 = \text{USD } 1'500 + \text{USD } 1'000 \\ = \text{USD } 2'500$$

- After the first monitoring period, 45 kCERs are verified. The share of proceeds to be paid at issuance by the CME can be calculated as follows:

$$15'000 \times \text{USD } 0.10 + (45'000 - 15'000) \times \text{USD } 0.20 - 2'500 \\ = 1'500 + 6'000 - 2'500 \\ = \text{USD } 5'000$$

- In the following years, if the same amount of CERs is verified, share of proceeds would be USD 7'500 since the registration fee has already been deducted from the first issuance.



m. Renewal of the crediting period

As for CDM the latest version of the »Procedures for Renewal of a Crediting Period of a Registered CDM project activity« shall be applied to a PoA every seven years. Any resulting changes to the PoA shall be applied by each CPA at the time of the renewal of its crediting period after such change to the PoA.

In order to illustrate how a PoA and CPA crediting period can overlap, let's take the fictive case described in the figure below. In this example, the PoA is being registered with the first version of a methodology. During the first crediting period, the methodology is being updated twice. At the renewal of the PoA crediting period, the PoA is therefore renewed with the version 3 of the methodology. We added two CPAs to this example showing two different scenarios:

- The first CPA is being registered along with the PoA and has therefore the same crediting period as the PoA and will be renewed along with the PoA and version 3 of the methodology.

- The second CPA is being included later in time during the first PoA crediting period. Despite that it is included at a time where the version 2 of the methodology is available, it will be included as per version 1 of the methodology. At the renewal of its crediting period, it will use version 3 of the methodology.

Please note that in this example that this PoA will have overlapping periods (symbolized with a bracket in the figure below) where CPA 2 will still be using the version 1 of the methodology, while CPA 1 will use version 3. Monitoring and verification of the PoA during these overlapping phases will be another PoA management challenge for the coordinating entity.



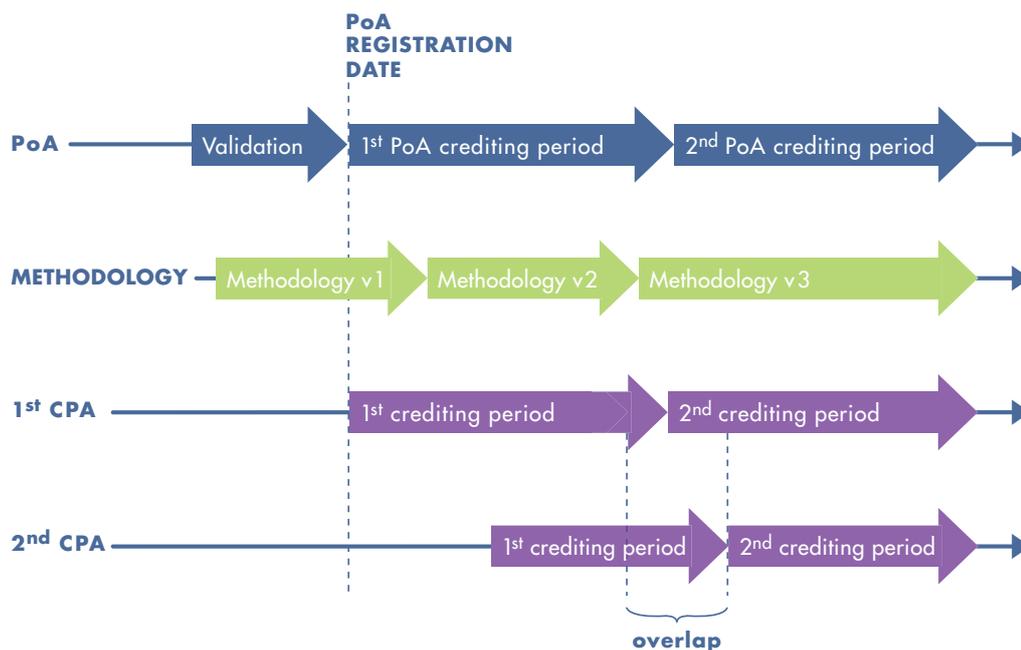


Figure 11. Example of a fictive PoA illustrating potential overlapping between two versions of the same methodology within one PoA.

Main takeaways



PoA is a CDM modality allowing the registration of several CDM project activities (CPAs) supporting the same measure/technology. The main characteristics of PoAs are as follows:

- a. PoA can incorporate an indefinite number of CPA.
- b. CPA project start dates must be after the date the PoA documentation is published for comments at the UNFCCC website.
- c. CPAs can be included at any point of time after the PoA is being registered.
- d. CPAs do not need to be known in advance. Location and specifications need only to be determined at the time of specific CPA inclusion.
- e. SSC-PoA can overcome the small-scale thresholds.
- f. DOE liability issue makes PoAs inoperable.
- g. EB rules are unclear when it comes to the demonstration of additionality of PoAs.
- h. Sampling modalities offer substantial economy of scale to the CME, but sampling rules are not defined yet.
- i. PoAs can be international.



4. Structure and management of a PoA

Compared with a stand-alone CDM project, a PoA raises the number of new operational challenges that must be addressed carefully if a programme is to be

successful. This section highlights some of structures that need to be put in place to create an effective PoA.

a. The role and responsibilities of the Coordinating and Managing Entity

The Coordinating and Managing Entity (CME), also called Coordinating Entity, is the cornerstone of the PoA. To successfully launch and manage a PoA, the CME may offer (either on its own or through contractual arrangements with other parties) five sets of CDM and non-CDM services (see Appendix [I] for more details):

1. Inclusion of new projects: A PoA Coordinating and Managing Entity can support the registration of large numbers of CPAs that may be developed by different project owners or the CME itself. The CME must, in this case, prepare CPA documentation and take care of the inclusion of the CPA in the PoA. The concurrent management of large numbers of projects represents a major operational challenge, so the CME must have robust project management systems in place that can effectively manage a large number of CPA inclusions at minimal cost and risk.

2. Full monitoring and verification support: The CME is also responsible for organizing and preparing the verification of all CPAs included in the PoA. It is the duty of the CME to collect the monitoring information and to manage relations with DOE and the EB during verification and issuance. With a great number of CPAs and/or challenging monitoring plans, the monitoring and verification of a PoA can represent a major operational challenge. To this end it may make sense for the CME to oversee monitoring of emission reductions in each CPA – perhaps drawing on standardized systems of remote sensing that can drastically reduce transaction costs.



3. Administration and commercialization of CERs: Under a PoA CERs are issued to the CME, which also assumes communication with the EB – not the owners of the project activities, i.e. the CPAs. This represents a major difference compared with the stand-alone project approach. Hence the Coordinating and Managing Entity must be competent in managing CDM registries and commercializing the CERs using a desired risk-return profile. The aggregation of CER streams offers important opportunities for increasing the financial returns to project promoters. For example, the CME can aggregate CERs issued by a PoA and sell/auction them on a spot and/or forward basis to attract better prices than could be achieved by a CPA owner alone. As necessary, the PoA Coordinating and Managing Entity will be able to segment the portfolio and sell senior tranches at attractive forward prices.
4. CER securitization and CER pre-payments: A registered PoA will substantially reduce inclusion times for CPAs as well as the political risk of non-registration by the CDM Executive Board. Hence the Coordinating and Managing Entity can, in cooperation with CER buyers and/or banks, offer CER pre-payments and other forms of CER securitization that will help finance the upfront capital costs of new CPAs. This will make a major contribution towards structured financing solutions.
5. Structured financing solutions: The PoA Coordinating and Managing Entity may collaborate with investors to offer standardized debt and/or equity financing solutions for CPAs on terms that will be more attractive than could be secured for stand-alone CPAs. For investors, a PoA offers an effective platform to pool the counterparty risk involved in a large number of discrete transactions.



In order to effectively provide these services, a perfect CME will combine several key characteristics:

- Deep knowledge of the particular sector/technology: The CME must be able to appraise individual CPAs and be well connected in the sector in order to effectively source and contract high-quality CPAs. Where the CME implements CPAs on its own it requires all necessary operational expertise and systems.
- A strong counterpart for governments: PoAs offer a means to implement government policies, so PoA CMEs need to have good working relationships with the corresponding government agencies. In most instances this will involve ministries or agencies beyond the country's DNA – the usual counterpart for CDM project developers.
- Large balance sheet: Since CPA owners sign over their rights to all future CERs to the CME, a large balance sheet may be required to minimize associated counterparty risks. This applies particularly to renewable energy and energy efficiency CPAs where substantial upfront investments are recouped over a long period of time.
- Ability to manage financial flows: CMEs need to receive and make large numbers of payments – particularly in the case of highly distributed PoAs.
- Deep CDM expertise: PoAs are very complex and will throw up new challenges at every stage (PoA-DD writing, CPA inclusion, monitoring, sampling, verification), so the CME must possess deep CDM expertise. Of course such expertise can be outsourced to CDM advisors, but in such cases CMEs must make sure that the advisor's incentives are fully aligned with those of the CME and CPA owners.
- Deep monitoring expertise: Closely related to the above, most CMEs will need to oversee or manage the implementation of the monitoring plan. Since future volumes of emission reductions and issuance risks are a direct function of the quality of the monitoring plan, CMEs will need to command the necessary process and technical knowledge to assume this responsibility.

Clearly, few organizations are able to perform all of the necessary functions required from an effective PoA Coordinating Entity. So creative solutions must be found to bring together the requisite pieces of the puzzle. This is an area where innovative public-private partnerships are required to advance the state of play.



b. Operational models for implementing a PoA

The CDM rules allow for a wide range of operational models under which PoAs can be developed. Two questions must be asked when deciding on the appropriate structure:

- How will the CME relate to individual CPAs?
- What will the relationship be between the CME and national governments?

With regard to the first question, PoAs can be structured as programmes that are implemented by one single entity. Under such a scenario the CME will manage and implement all CPAs to be included under a PoA. For example, a large hydropower developer may choose to launch a PoA to provide carbon asset management services to the projects that it develops. Similarly, most CFL PoAs tend to be set up in this way.

Alternatively, a CME may provide carbon asset management services to CPAs that are developed by third parties. For example, a hydropower PoA may target hydropower projects developed within a country or region. Under this model the CME may specialize in CDM registration and issuance services as well as associated financing, such as carbon prepayments, debt and equity solutions.

Naturally, these two models can be combined, and the CME may develop its own CPAs and include projects developed by third parties. Each model requires different types of expertise from the CME, so the structure for the PoA needs to be considered carefully before setting up the CME.

The second design question, namely the relationship between a PoA and government policies, will be of major interests to policy-driven PoAs. Three arrangements can be distinguished:

- Option 1: Government-owned and operated PoA. A government will set up and operate a PoA as a direct means to support the implementation of its policies (e.g. the promotion of renewable power generation or programmes for the distribution of compact fluorescent light bulbs). To be effective, governments will have to develop good solutions to addressing the operational management challenges. In contrast to the other options, this approach will be difficult to implement as part of an international PoA.
- Option 2: Government concession. Similar to Option 1, the government assumes the ownership of the PoA but licenses its operation out to private operators. Again, a natural monopoly may be established that



offers the benefits of scale and ease of implementation. But it must develop effective checks and balances to ensure high-quality service and manage associated principal agent problems.

- Option 3: Private PoA. In this case, governments award a letter of approval to a private company or NGO who will establish and own a PoA. It then becomes possible to issue letters of approval to more than one PoA in the same space to create competition. One challenge inherent in this approach lies in identifying effective ways for coordinating public policies (including possible

public co-financing for the establishment of the PoA) and the private interest in running the PoA.

PoAs are a relatively new modality, so it would be premature to draw definitive lessons on how to set up a CME. The current PoA pipeline provides examples for every option described above. Perhaps the biggest challenge lies in bringing together disparate types of expertise (operational/financial/CDM) into one CME, so this question and the appropriate operational arrangements should be considered carefully before launching a PoA.

	CME IMPLEMENTS EVERY CPA	CME IMPLEMENTS SOME CPAs	ALL CPAs IMPLEMENTED BY THIRD PARTIES
GOVERNMENT-OWNED & OPERATED PoA			
GOVERNMENT CONCESSION / PUBLIC-PRIVATE PARTNERSHIP			
PRIVATELY OWNED & OPERATED PoA			

Table 1. Options for designing a PoA

c. When to think about a PoA?

Generally, PoAs are most suitable for situations where small to medium-sized project activities are deployed in large number over a large area (e.g. a country) and long periods of time. Since PoAs can accommodate large numbers of project owners they are particularly advantageous in situations where many developers implement similar technologies and where the specifications and location of project activities cannot be known in advance.

In this way PoAs can be structured to suit a number of situations. Examples include:

- Government policy: PoAs can support the implementation of a government policy supporting low GHG measures or technologies, such as a rural electrification programme or energy efficiency promotion programme.
- Vendor finance: Use a PoA to generate carbon revenues for a technology or service (e.g. wind turbines). In this case the CME might be the technology provider, a project developer or a utility.
- Register large numbers of similar projects: In many cases PoAs offer a better solution to CDM registration for large numbers of projects than bundling.
- Reach neglected countries: Regional PoAs can be the tool of choice to include small or otherwise neglected countries in larger programmes. This applies, in particular, to Africa where many markets are too small to attract private CDM developers.



Main takeaways

PoAs offer many new opportunities and allow for the development of many new types of CDM activities (e.g. government policies or micro-activities). To successfully implement a PoA, the coordinating entity requires several types of expertise (operational/financial/CDM). To bring all these expertise together, the ideal CME shall be seen as a joint venture between several private entities or a public-private partnership.



5. Carbon strategy of CDM programmes

The aim of this section is less theoretical. It provides the reader with some consideration on how to develop a CDM programme. Several options proposed under the CDM rules allow the development of CDM programmes, among them being bundles, PoAs, and several

stand-alone CDM activities. In this section we review the main differences between these options. We also give advice to a candidate coordinating entity on how to choose the best option for its CDM programme.

a. Differences between bundles and PoAs

Bundling is a modality allowing the validation and registration of several project activities (small or large scale ones) within one CDM entry. Just like PoAs, bundles allow significant econ-

omy of scale while developing several CDM activities together. The table below compares three alternative programme strategies: (i) PoAs, (ii) bundles, and (iii) several stand-alone projects.

PoA	BUNDLE PROJECT	SEVERAL SSC STAND ALONE PROJECTS
CPA project start date must be after start of the PoA validation	No limitation on project start dates	No limitation on project start dates
CPAs can be included at any point of time	All activities included in a bundle must be predefined in the PDD	Each activity can be registered individually at any point of time
De-bundling check	De-bundling check	De-bundling check



Combination of methodologies has to be approved first by the EB	Combination of methodologies is allowed	Combination of methodologies is allowed
The size of the PoA can exceed the small-scale thresholds (not the CPAs)	For small-scale bundle, the overall size of the bundle cannot exceed the small-scale thresholds	The size of each project cannot exceed the small-scale thresholds
Sampling during verification is allowed	Sampling during verification is not allowed	No sampling possible
DOE liability makes the search of a DOE challenging	No difficulty for finding a DOE	No difficulty for finding a DOE
Each CPA has its own crediting period	All projects have the same crediting period	Each CDM activity can have its own crediting period

Table 2. Main implementation differences between bundles, PoAs and stand-alone projects.



b. Choosing the right CDM solution between bundle and PoA

As seen in the section above, the differences between PoA, bundles and even in some cases several single CDM activities are subtle. Before opting for a complex and expensive PoA set-up, one should carefully assess if bundles or several stand-alone projects would not be an easier option to get access to CDM revenues.

We provide below the simplified SSC-Bundle/SSC-PoA /Stand-alone decision tree that can be used for assessing the

opportunities of developing a SSC-PoA rather than a bundle. In some cases the decision process can be more complicated if complex methodologies are used or debundling issues arise.

The decision tree is articulated among the most important criteria to consider when selecting a programme: individual project size, total programme size, and to what extent project specifications are known ex-ante.

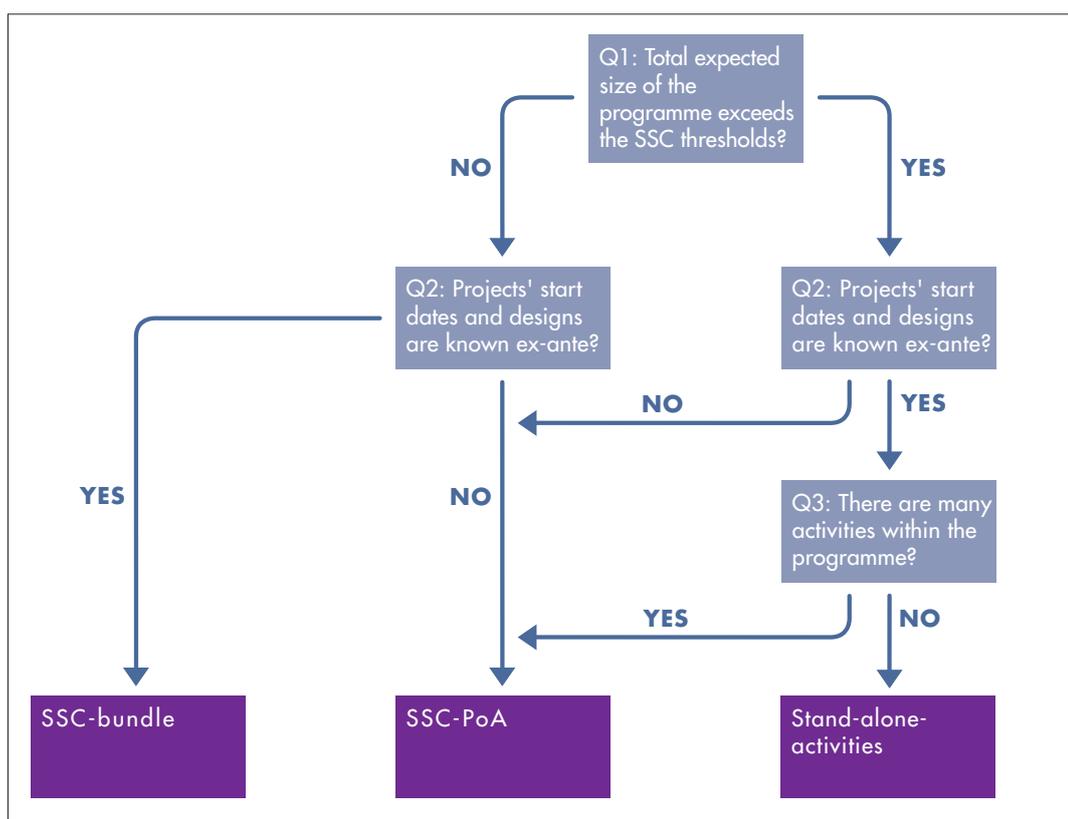


Figure 12. CDM bundle/PoA decision tree



The first thing to look at is the overall size of the programme. If the programme size does not exceed the small-scale threshold (Q1), going for PoA can be a useless complication, especially in cases where the project design is defined ex-ante (description, implementation schedule, location etc...) (Q2). For a programme that exceeds the SSC threshold, the choice for opting for a series of stand-alone activities or a PoA should be based on a cost-analysis basis. If many activities have to be developed, the PoA should make more sense. To the contrary, for programmes made up of few activities, registering each project separately can avoid the complication and the PoA associated risks.

To summarize:

- SSC-PoA shall be preferred for large programmes that involve a non-finite number of small-activities.
- SSC-Bundle shall be preferred for small programmes of projects that can be defined ex-ante.
- Several SSC activities shall be preferred for large programmes made up of relatively big activities.

In the above discussion, the definition of small or big, numerous or not numerous is determined on a programme by programme basis thanks to a simple cost analysis, as shown in the next section of this guidebook.



PoA is not always the most efficient CDM solution for programmes targeting very small systems.

Let's take the example of two similar CDM programmes both targeting rural communities and developed by the same entity in the same country. Programme A consists in distributing 1 million photovoltaic kits of 5W each and programme B 1 million of efficient woodstoves of 2 kWth, allowing 6 MWhth savings per year each.

While Programme A falls into category I (renewable energy generation) and will be developed according to methodology AMS-I.A, Programme B will be developed according to AMS-II.G («Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass») and falls into category II («Energy Efficiency Improvement Projects»).

At first sight, both programmes appear as ideal candidate for PoAs. But while Programme B overcomes significantly the 180 GWhth Type II SSC threshold ($1'000'000 * 6 \text{ MWhth} = 6'000 \text{ GWhth}$), programme A is expected to remain below the 15MW Type I threshold ($5 \text{ W} * 1'000'000 = 5 \text{ MW}$) and can therefore be easily developed as a single SSC.



The entity shall therefore develop one PoA and one SSC. The PoA is more suitable for programme B and will be composed of at least 34 CPAs (= 6'000 / 180). To the contrary, the 1 million kits will easily fit in one SSC which will make the development of the CDM component of programme A easier.

c. PoA development costs

The cost of setting up a PoA is significantly higher than the cost of setting up a normal CDM activity. There is first of all more paper work to complete (PoA-DD, 1st CPA-DD and generic CPA-DD) which as a first approximation can be considered as expensive as the preparation of two PDDs.

Then, based on the same assumption that there is twice as much information in PoA documentation than a PDD, DOEs usually charge two times more to validate a PoA than a CDM. Moreover, only few DOEs currently accept to validate PoAs. The scarcity of DOE that are willing to validate PoAs will not contribute to reduce their fees in the near future.

So far, no CPA inclusion has occurred. It is, therefore, very difficult to predict the costs associated with CPA-DD prep-

aration, and fees from the DOE for CPA inclusion. Moreover, this can vary a lot from one type of PoA to the other. For instance, for a PoA where baseline and additionality needs to be reassessed for each CPA, the cost will be very similar to CDM validation. In contrast, some PoAs with very standardized CPAs can lead to CPA-DD that can be no more complicated than filling in a form. In this case, the cost of CPA-DD preparation and CPA inclusion will be very low.

Monitoring and verification costs can also be very different from one PoA to another. The recourse to sampling modalities among CPAs can drastically lower monitoring and especially verification costs. Indeed, in the absence of sampling procedures the DOE will have to verify separately each CPA and conduct site visits to each CPA.

CDM development costs estimation and comparison.

As an example, we provide below the expected development costs of two PoAs with very different set-up. PoA A is a programme supporting the implementation of an energy efficiency measure in the industry. Baseline, additionality and monitoring plan are quite site specific and require some special care at CPA level. No sampling procedures are planned and the DOE will have to verify every CPA individually. On



the other side, PoA B is a programme that is supporting the diffusion of efficient cookstoves across a country. Parameters like cookstove efficiency and renewability of biomass have been defined as PoA level and do not require reassessment at CPA level. Moreover, the type of system deployed in this PoA is suitable for sampling across CPAs and among each CPA.

As a comparison, we also provide the costs of developing these PoAs as several individual CDM activities. For PoA cookstove, the breakeven point (number of CPAs to include in the PoA to make the PoA modality less expensive than CDM) can be reached since the second CDM activity. For a more complex structure as PoA A, the breakeven point shall be reached between 3 and 5 CDM activities.

	POA A: EE IN THE INDUSTRY	POA B: COOKSTOVES	CDM DEVELOPMENT COSTS
PoA documentation preparation	50-100 k€	50-100 k€	25-50 k€
PoA validation	50 k€	50 k€	25 k€
CPA documentation preparation	10 k€	5 k€	
CPA inclusion	10 k€	5 k€	
Monitoring report preparation	10 k€/CPA	15 k€	15 k€
Verification	10 k€/CPA	15 k€	15 k€
Total for 1 CPA*	120-170 k€	130-180 k€	80-105 k€
Total for 2 CPAs*	160-210 k€	135-185 k€	160-210 k€
Total for 5 CPAs*	270-320 k€	150-200 k€	400-525 k€

* includes the cost of the first verification



d. How long can it take to register a PoA?

It is difficult to estimate the time required to validate a PoA and to include a CPA. On one hand one can easily expect that a PoA takes longer to validate and register than a CDM. The structure of a PoA is more complex than a normal CDM, which will request more time before getting the approval from the EB and the DOE. On the other hand the inclusion time of a CPA within a PoA should be drastically reduced when compared to CDM. Two things can explain the reduced duration of CPA inclusion. First, the CPA-DD is established as per the CPA-DD template registered along the PoA-DD and first CPA-DD. The recourse to the CPA-template will, therefore, reduce uncertainties from both CME when filling up this form and from the DOE, who can also have established standardized procedures for the specific PoA. Second, inclusion is done without the consent of the EB, which can save up to a few months of procedures (completeness check, request for review etc...).

According to the IGES CDM database (www.iges.or.jp/), the average time from validation start to registration request is 422 days (and it is continuously increasing!). This can be split between 277 days for validation and 145 for registration. Assuming the high level of standardization of CPAs and the absence of request for review and completeness check, one can expect a CPA inclusion to take less than 6 months. Moreover, with a high level of standardization, the preparation of the CPA documentation will be drastically reduced. On the other hand, one can estimate that PoA validation and registration could take up to two years.

As for development costs, a CME should be aware that developing the PoA documentation and registering it is going to take significantly more time than for a single CDM activity. Benefits will occur only later for CPA inclusion.

Main takeaways

Developing a PoA is an investment in time and resources, the return is not always clear, and PoA should be developed only in cases where the CME has no viable alternative such as bundle and stand-alone activities. The choice between, PoA bundle or stand-alone should be based on individual project size, total programme size, and to what extent CPAs specifications are known ex-ante.





6. Non-regulatory challenges related to PoAs

In addition to the CDM challenges identified above, a number of non-CDM-related issues need to be addressed by the CME (see also Annex [I]). As described in Section [4.1] above, the most impor-

tant challenge is to establish a competent, effective and adequately resourced CME. Other issues are discussed in more detail below.

a. CPA sourcing & »incentive scheme«

In most instances PoAs represent a new »business« that must acquire clients or projects over time. It is therefore important to have a clear sense of the market potential for the technology/measure that is promoted under the PoA and the market share that can reasonably be attained.

Once operational, PoA CMEs typically need to devote substantial time and resources towards either developing CPAs or marketing the PoA and sourcing CPAs that can be included. Such marketing will often involve general awareness raising and CDM capacity development for project developers and cross-selling of CDM services with other services, such as project finance, monitoring, etc...

Importantly, CMEs should ensure that the incentives of CPA developers are fully aligned with those of the CME and the overall objective to maximize emission reductions. For example, if all or a large share of CER revenues accrue to the CME then the CPA developers may be inadequately incentivized to ensure proper monitoring of emission reductions, which may then lead to a shortfall in CER issuance. These considerations are particularly important for highly distributed systems, such as CFLs or cook stoves, where large numbers of users must be incentivized through very simple and cost-effective structures.



b. CPA funding & carbon prepayments

An obvious but sometimes overlooked requirement is that CPAs must be adequately funded to go ahead. This requires managing the carbon finance as well.

Under the project-by-project modality, future carbon revenues cannot be made bankable at the moment of a financial closure for a project, so they rarely contribute directly to the initial capital cost of a project. As discussed in Sec-

tion [1] this can change under a registered PoA. For this to happen, though, the following risks must be minimized and well understood: (i) non-inclusion, (ii) construction, (iii) issuance, and (iv) eligibility for compliance purposes and price of future CERs. Risks (i)-(iii) can be managed through a careful design of the PoA, while risk (iv) must be assessed and managed by the final buyer of the CERs.

c. Evolution of technologies/ measures implemented

The crediting period of a PoA can be up to 28 years long. Most technologies – particularly in the areas of energy efficiency and renewable energy – are likely to undergo fundamental change that is impossible to predict with any accuracy. Therefore the design of a PoA-DD and the CPA-DD form must strike a careful balance between two competing needs. On the one hand, the PoA-DD should be as detailed as possible so that a minimum of issues need to be addressed at CPA-DD level, which in turn will ensure rapid and low-cost inclusion processes.

It will also minimize the risk of erroneous inclusion of CPAs into a PoA and the resulting liability for CERs already issued. On the other hand, PoA-DDs should be as generic as possible in order to accommodate the anticipated evolution of technologies.

Currently, no procedures exist to revise PoA-DDs between their registration and the first extension of the crediting period. So getting the balance right will require a careful analysis of all CDM and technology-related issues.



Main takeaways

Running a PoA is long-term commitment. If CDM focuses on a project, one should think about a PoA as setting up, running, and managing a company. A PIN, summarizing all CDM issues is not sufficient to present a PoA. Some business considerations must be added to it like marketing, sourcing, and funding.





7. PoA pipeline analysis

There are only five registered PoAs at the UNFCCC (as of November 2010). It would be, therefore, audacious to make statistics out of such a tiny sample. On

the other hand, there are just over 50 PoA under validation, which is enough to understand the main PoA tendencies.

a. Submission timeline

The CDM pipeline published after each EB by the CD4CDM (www.cd4cdm.org) provides very useful information on PoA, among which is a graph which presents the number of PoA entering validation as a timeline. The graph shows that submissions have been scarce and scattered since 2007. Only the end of 2009 presents a peak of activity in the short history of PoAs. It corresponds to 31st of December 2009 deadline (set during EB47) for the submission of re-

roactive PoA (meaning PoAs with CPA starting before the validation start date of the PoA). Indeed, with clarifications on PoAs brought by the EB47 and the deadline, many project developers have speed up the preparation of their PoAs to meet this deadline. Since this deadline passed, the submission of PoA has returned back to a very low level, showing that EB47 clarifications on PoA are still insufficient.

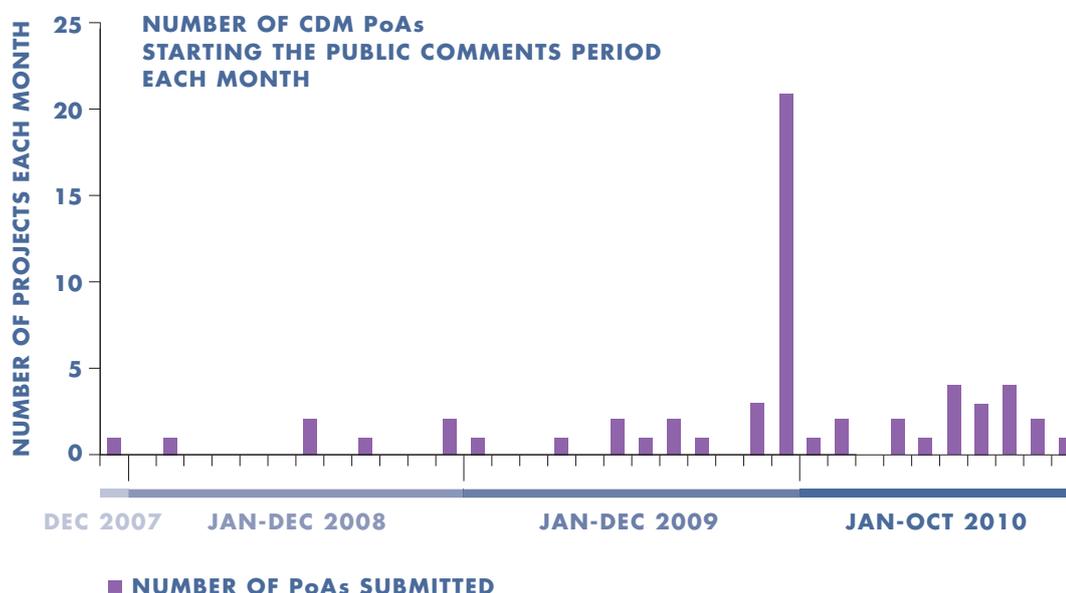


Figure 13. Number of CDM PoAs starting the public comments period each month (source: www.cd4cdm.org)



b. Geographic distribution

Out of 59 PoAs, 9 are located in Africa (15%), 1 in the Middle-East (2%), 38 in Asia (64%) and 9 in Latin America (19%). If at first sight the centre of gravity of PoAs activity remains in Asia, the unevenness between Asia and the rest of the world is not as strong as it is for CDM. In the PoA field, Africa does not play a minor role as in CDM (2% of the CDM pipeline). Similarly, Latin America hosts 3 of the registered PoAs and seems to play so far a leading role. A big expectation from PoA is to allow CDM redistribution which has thus far

mostly contributed to the economies of India and China (80% of CDM project are located in these two countries). It is too early to put two and two together, but at first sight PoA seems to allow a more even redistribution of CDM towards Africa and Latin America. More than 50% of African PoAs are supported by institutional donors who are more willing to support initiatives in Africa. It will be interesting to discover if, in the future, PoA private initiatives will take off of the ground without public funding.

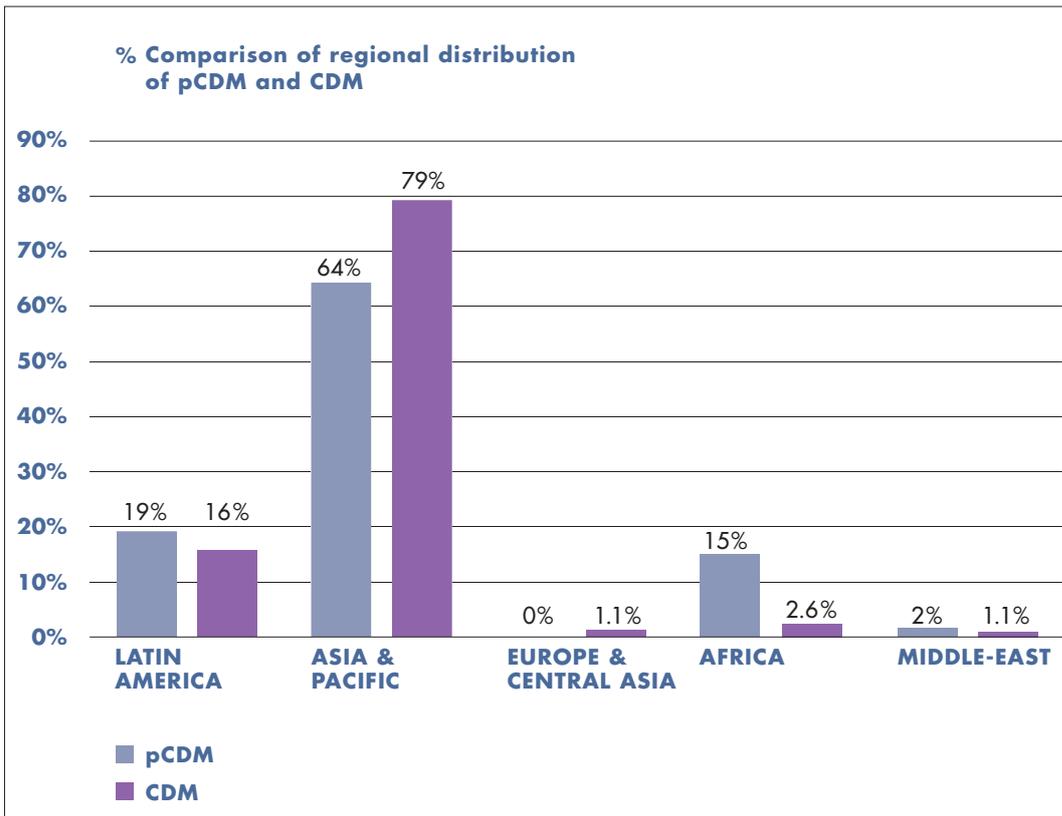


Figure 14. PoA distribution by region and comparison with CDM (source: www.cd4cdm.org)



c. PoA type and technologies

As for geographical distribution, PoA is giving a new deal to GHG mitigating technologies. Most PoAs submitted to date involve renewable energies and energy efficiency measures. With 37%, energy efficiency appears as the leading sector for PoA. In the CDM world it barely contributes to 11% of all CDM projects (source: CDM pipeline). The distribution by type of PoA looks, therefore, very different from the CDM one and appears to be an appropriate tool to capture other type of credits.

Moreover, about half of the PoAs are household-based programmes targeting manure digesters, efficient cookstoves, solar water heaters, etc... Here once again, the PoA seems to be the right tool to support small renewable and energy efficiency measures.

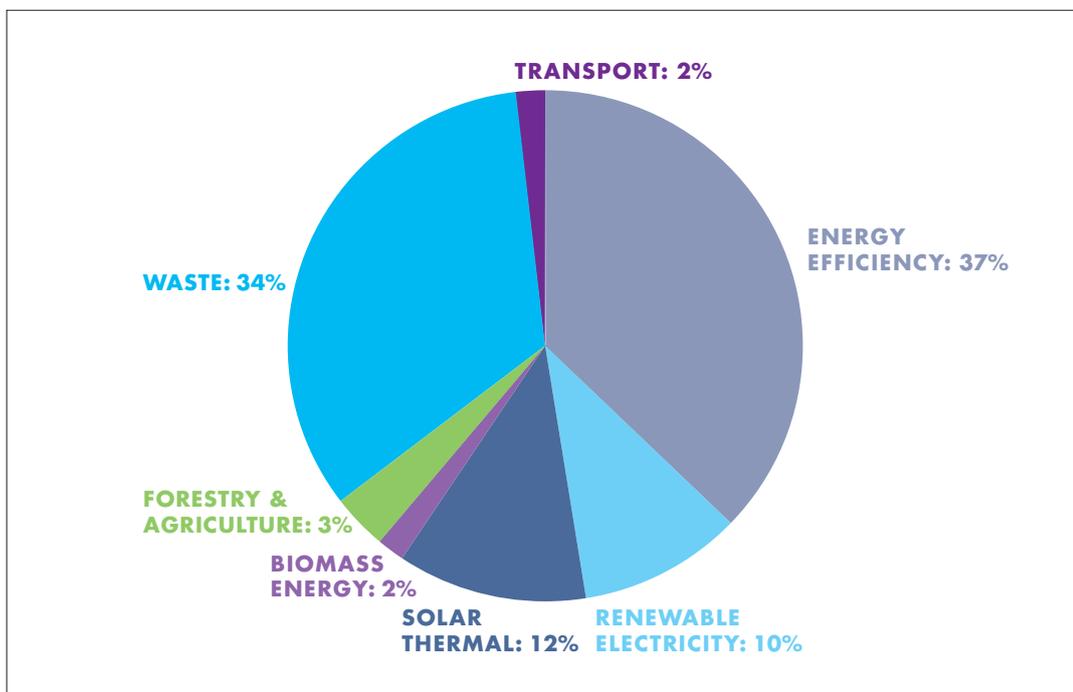


Figure 15. PoA distribution by type (source: www.cd4cdm.org)



The ability of PoA to develop large-scale activities as a cluster of small-scale ones is an enormous opportunity to scale up all these small measures systems initiatives that were limited by complicated de-bundling rules and capped by the SSC thresholds. Most of the biggest PoA opportunities are located here. Let's not forget that households, transports and

agriculture are all representing circa 15-20% of the world GHG emissions. Emissions from these three sectors are usually widely diffused and are completely untapped by CDM. Thanks to PoA, one the main barriers (the other one is the absence of methodologies) to this GHG reduction potential is now solved.



Opportunities offered by PoA to scale up CFLs programmes

A compact fluorescent lamp (CFL), also known as a compact fluorescent light or energy saving light use less power (up to 80%) and has a longer rated life than their older incandescent bulb sister. The distribution of CFLs in replacement of incandescent bulbs has always been considered as low hanging fruit in the CDM world. The potential is huge but almost untapped.

The technology is simple to implement and the supply of increasingly cheaper CFLs makes this type of activity fully financeable through carbon revenues. For instance, in the Mexican Cuidemos Programme (which is the first PoA ever registered) the CFLs are given for free to end users.

There are three methodologies under which CFL distribution activities can be undertaken, two small scale ones AMS-II.C, AMS-II.J and one large scale AM0046. Only 4 CDM projects have been registered to date, all using the small-scale methodology AMS-II.C. Since February 2007, it has been possible to develop large scale CFL initiatives thanks to AM0046 »Distribution of efficient light bulbs to households«. But no projects using this methodology have passed validation, and only two of them are under validation, showing the poor attractiveness of this methodology which has complicated default sampling and monitoring requirements. In contrast, CFL project developers have preferred to opt for the PoA modality which permits the development of a national PoA with all the benefits from SSC (two CFL PoAs are under validation and one is registered).



Main takeaways

Despite a huge potential and the promises to open new markets, PoA has not taken off, and registering a PoA remains experimental. But by allowing micro and widely spread activities, sectoral and geographical redistribution of CDM is on its way.



Appendix I: Indicative terms of reference of a PoA Coordinating Entity

TASK	REQUIRED COMPETENCE	CDM REQUIREMENT	COMMERCIAL REQUIREMENT	OPTIONAL SERVICE
POA Set up				
Develop PoA idea and Project Identification Note (PIN)	Knowledge of the technology and business, CDM expertise	X	X	
Develop business plan for PoA	Knowledge of the technology and business, financial expertise		X	
Establish PoA Coordinating Entity	Core Business, Capacity	X		
Promotion of the PoA	Capacity, relationships, network			X
Administration of PoA	Legal and commercial expertise	X		
POA REGISTRATION				
Prepare PoA Design Document (PoA-DD)	Programmatic CDM knowledge	X		
Obtain host country approval for PoA	CDM knowledge/experience	X		
Contract DOE for validation of PoA	CDM knowledge & track record or balance sheet (most DOEs require a solid counterparty for the validation contract)	X		
Conduct local stakeholder consultation(s)	CDM knowledge/experience	X		
Validate PoA and first CPA	CDM knowledge/experience	X		
Register PoA with UNFCCC	CDM knowledge/experience	X		



POA REGISTRATION				
Prepare PoA Design Document (PoA-DD)	Programmatic CDM knowledge	X		
Obtain host country approval for PoA	CDM knowledge/experience	X		
Contract DOE for validation of PoA	CDM knowledge & track record or balance sheet (most DOEs require a solid counterparty for the validation contract)	X		
Conduct local stakeholder consultation(s)	CDM knowledge/experience	X		
Validate PoA and first CPA	CDM knowledge/experience	X		
Register PoA with UNFCCC	CDM knowledge/experience	X		
CPA INCLUSION & MANAGEMENT				
Identify and source CPAs or develop new CPAs	Knowledge of the technology and business in the respective country		X	
Develop CPA Design Documents for new CPAs	CDM knowledge/experience	X		
Contract DOEs for inclusion of new CPAs & determine how the DOE liability for erroneous inclusion of CPAs will be handled.	CDM knowledge & track record or balance sheet (most DOEs require a solid counterparty for the validation contract)	X		
Communication with DOE regarding inclusion of new CPAs	CDM knowledge/experience	X		
Sign service contract with each new CPA determining the range of services to be provided by the Coordinating Entity	Knowledge of the business, CDM expertise, legal expertise	X	X	
Sign Emission Reduction Purchase Agreement (ERPA) with each new CPA	Knowledge of the business, CDM expertise, legal expertise	X		



TASK	REQUIRED COMPETENCE	CDM REQUIREMENT	COMMERCIAL REQUIREMENT	OPTIONAL SERVICE
MONITORING & VERIFICATION				
Implementation of monitoring plan	CDM knowledge/experience	X		
Carry out monitoring for each CPA and establish effective monitoring systems	Knowledge of the technology and monitoring requirements, CDM expertise, legal expertise			X
Contract DOE for verification of emission reductions (this DOE must be different from the DOE that validated the PoA)	CDM knowledge & track record or balance sheet (most DOEs require a solid counterparty for the validation contract)	X		
Communicate with DOE regarding verification	CDM knowledge/experience	X		
Implement incentive scheme to ensure that CPAs conduct effective monitoring	Knowledge of the business, CDM expertise, legal expertise		X	
Maintain and keep complete records, typically for at least two years	CDM knowledge, effective monitoring systems (data management)	X		
SALE OF CERs				
Distribute CERs to PoA Coordinating Entity	Expertise in UNFCCC registry systems	X		
PoA to (i) sell CERs and distribute cash to each CPA according to incentive plan, or (ii) distribute CERs to each CPA.	Expertise in trading CERs, financial management systems		X	
Forward-sell CERs or obtain advance payments	Expertise in trading CERs, financial management systems		X	X
Allocation of CERs to CPA developer, if required	Capacity and experience		X	



TASK	REQUIRED COMPETENCE	CDM REQUIREMENT	COMMERCIAL REQUIREMENT	OPTIONAL SERVICE
MONITORING & VERIFICATION				
Implementation of monitoring plan	CDM knowledge/experience	X		
Carry out monitoring for each CPA and establish effective monitoring systems	Knowledge of the technology and monitoring requirements, CDM expertise, legal expertise			X
Contract DOE for verification of emission reductions (this DOE must be different from the DOE that validated the PoA)	CDM knowledge & track record or balance sheet (most DOEs require a solid counterparty for the validation contract)	X		
Communicate with DOE regarding verification	CDM knowledge/experience	X		
Implement incentive scheme to ensure that CPAs conduct effective monitoring	Knowledge of the business, CDM expertise, legal expertise		X	
Maintain and keep complete records, typically for at least two years	CDM knowledge, effective monitoring systems (data management)	X		
SALE OF CERs				
Distribute CERs to PoA Coordinating Entity	Expertise in UNFCCC registry systems	X		
PoA to (i) sell CERs and distribute cash to each CPA according to incentive plan, or (ii) distribute CERs to each CPA.	Expertise in trading CERs, financial management systems		X	
Forward-sell CERs or obtain advance payments	Expertise in trading CERs, financial management systems		X	X
Allocation of CERs to CPA developer, if required	Capacity and experience		X	



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- IGES CDM data base analysis : <http://www.iges.or.jp/en/cdm/index.html>
- CDM pipeline from the Capacity Development for the CDM (CD4CDM): www.cd4cdm.org
- »A primer on CDM Programmes of Activity«: <http://www.cd4cdm.org/Publications/PrimerCMDPoA.pdf>
- KfW / Perspectives Blue Print Book: http://www.kfw-foerderbank.de/DE_Home/Klimaschutzfonds/PoA_Foerderzentrum_Deutschland/PoA_Blueprint_Book.jsp
- JIKO-Info 02-2010 : http://www.jiko-bmu.de/english/background_information/newsletter/doc/953.php

PPT presentations :

- PoAs an Overview: An update on regulatory requirements for PoAs – World Bank, Carbon Expo 2010.

For those who want a deeper understanding of PoAs, the below table provides references and short summaries of the main decisions and guidance on PoAs.



NAME OF CDM DOCUMENTS	VERSION	CONTENTS	REFERENCE
Glossary of CDM terms	5	<ul style="list-style-type: none"> Provides the definition of CPA project start date, PoA and CPA crediting period and of coordinating entity 	
Guidance on programme of activities		<ul style="list-style-type: none"> Clarifies that methodologies are approved for application both to CDM project activity and to CDM programme activities (CPA) under a Programme of Activities (PoA) 	EB 35 Report, Paragraph 15
Payment of a registration fee for a programme of activities (PoA)		<ul style="list-style-type: none"> Sets out that registration fee for a PoA is based on the total expected annual emission reductions of the CPA(s) that will be submitted together with the request for registration of the PoA and that for each CPA which is included subsequently, no fee is to be paid 	EB 33 Report, Paragraph 60
Guidelines on the registration fee schedule for proposed project activities under the clean development mechanism (version 02)		<ul style="list-style-type: none"> Sets out how to calculate registration fees 	EB 54 report, annex 29
Eligibility of activities under the CDM		<ul style="list-style-type: none"> Sets out that creating infrastructure (e.g. testing labs, creation of an enforcement agency) or capacity to enforce the policy or standard, as such, cannot be considered as CDM project activities 	EB 33 Report, Paragraph 30

<p>Procedures for registration of a programme of activities (PoA) as a single CDM project activity and issuance of certified emission reductions for a programme of activities</p>	<p>4.1</p>	<ul style="list-style-type: none"> • Paragraph 3 provides that a PoA must demonstrate real, additional and measurable emission reductions or removals. Paragraph 4(e) reflects the two situations envisaged by the Executive Board where a mandatory policy or regulation would provide a sufficient basis for a PoAs. • Paragraph 19 provides that multiple CPAs can be included under a Programme of Activities (PoA) at the time of registration and additional CPAs can be added at any point in the life of the PoAs. • Paragraph 20 provides that, if a CPA is consistent with the latest version of the PoA, the designated operational entity (DOE) can include it in the registered PoA by forwarding the project design document CDM-CPA-DD to the EB via uploading it through the dedicated interface on the UNFCCC website. • Paragraph 24 confirms that a Programme of Activities (PoA) should not exceed 28 years, and 60 years for afforestation and reforestation (A/R) PoAs. 	<p>EB55 Annex 38</p>
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NAME OF CDM DOCUMENTS	VERSION	CONTENTS	REFERENCE
Procedures for review of erroneous inclusion of a CPA	2	<ul style="list-style-type: none"> provides a possibility for members of the CDM Executive Board and the DNAs of Parties involved to request a review of the inclusion of a CPA into a registered programme of activities 	EB 55 Annex 37
Procedures for approval of the application of multiple methodologies to a programme of activities"	1	<ul style="list-style-type: none"> sets out how a request for approval to use several methodologies within a PoA shall be done 	EB 47 Annex 31
Guidelines on the de-bundling for SSC project activities"	3	<ul style="list-style-type: none"> provides the guidance for determining the occurrence of debundling under a PoA Paragraph 3 provide that if the combined size of proposed small-scale CPAs that are deemed to be debundled components of a large-scale CPA does not exceed the relevant limits for that type of small-scale project, the bundle will be eligible to use the simplified modalities and procedures. Paragraph 24 confirms that the latest version of the Procedures for renewal of a crediting period of a registered CDM project activity must be applied to a PoA every 7 years (or 20 years for A/R project activities) from the start date of the crediting period, subject to exceptions. 	EB 54 Annex 13

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