

The background of the slide is a photograph of numerous blue metal drums, likely for industrial liquids or gases, stacked in rows. The drums are slightly out of focus, creating a sense of depth. The text is overlaid on this background in a white, bold, sans-serif font.

**RCC Kampala: An introduction**

**CDM Experience: The story so far**

**The future of CDM I: Options for  
Scaling Up, Standardized  
Baselines, PoAs etc.**

**The future of CDM II: Climate  
Financing initiatives for the CDM  
Discussion**

# The future of CDM I: Options for scaling up

**National Workshop on Clean Development Mechanism (CDM) as Global mitigation tool**

**09 -10 March 2015**

**Lilongwe, Malawi**

**Tim Cowman & Brenda Rwamahe**

**UNFCCC Regional Centre Kampala**





Programmes of Activity

Standardised Baselines



Programmes of Activity

Standardised Baselines

## CDM

- **Project based nature allows**
- a) Bottom-up development – developer driven
- b) Direct private sector involvement in design
- c) Extensive flexibility in approaches

## However ...

- ☐ Does not easily account for or integrate national policy frameworks
- ☐ Requires oversight of many small-scale projects

## Background

- [Decision 7/CMP.1 para 20](#)
- “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, and ensure that the emission reductions or net anthropogenic removals by sinks are real, measurable and verifiable and additional to any that would occur in the absence of the project activity”

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## What is a POA?

- A PoA is 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 anthropogenic GHG emission reductions or net anthropogenic greenhouse gas 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). [EB47, Annex 29, para 3]
- Therefore POA can be applied to any emission reduction concept:
- a) Public entities may use the programmatic approach to implement a policy
- b) Private entities may use the programmatic approach to implement a private objective



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## How can a PoA be structured?

- •There are no fixed rules regarding how a POA is to be structured.
- •There are no specified size limits or criteria for CPA
- a)CPA can be geographic (e.g. A certain city/province)
- b)CPA can be timebound (e.g. All activities commencing in a certain year)
- •The coordinating/managing entity (CME) is not restricted or defined
- a)Important that the CME is directly involved in driving the implementation of the programme





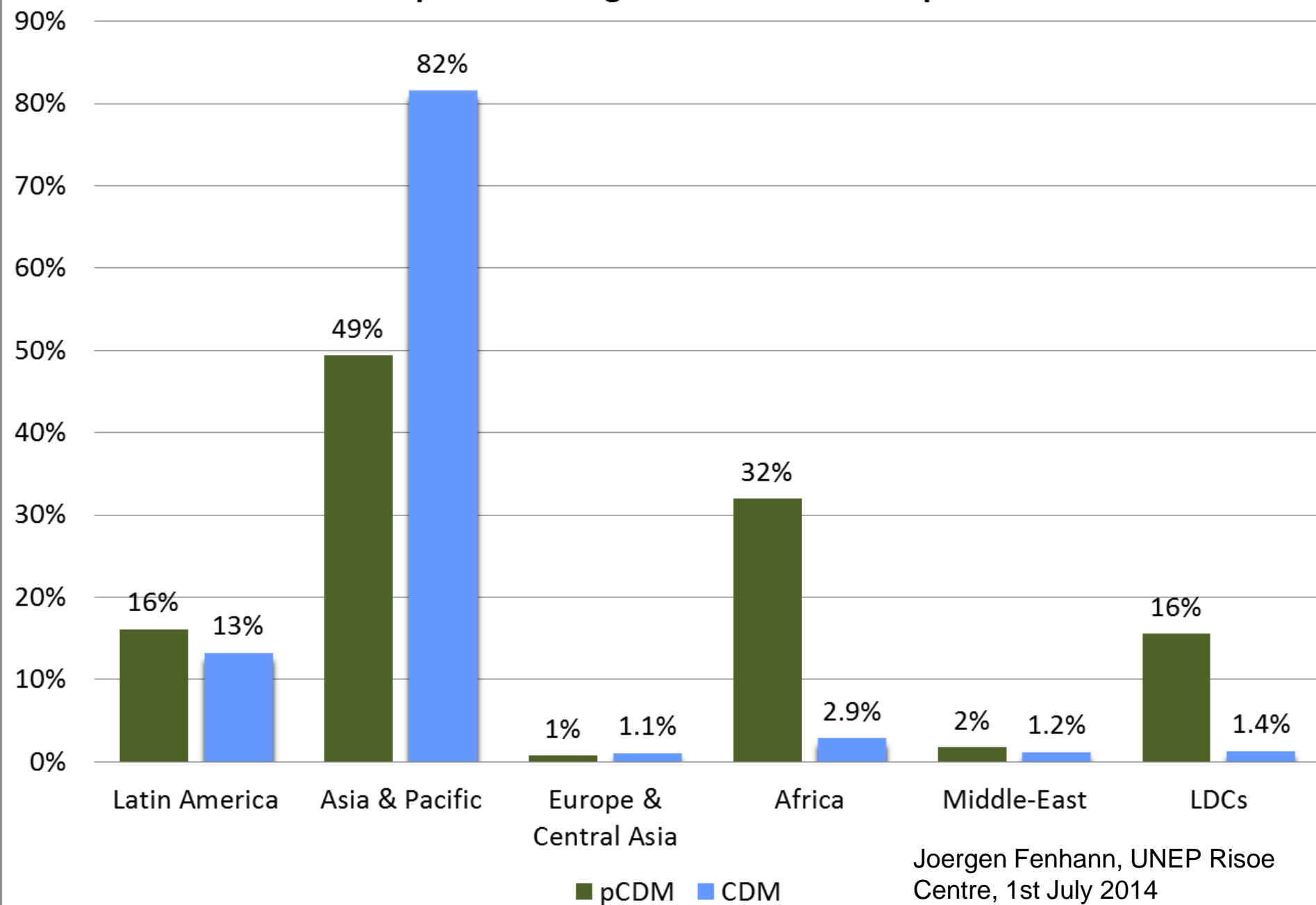
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## What are the benefits of this programmatic approach?

- •Allows the promotion of a policy goal, e.g. improved efficiency standards
- •Reduces the regulatory risks and uncertainties
- •Transaction costs can be lowered:
  - a)Verification can be done on a collective basis and can utilize a sampling approach
  - b)Individual project developers do not need to be directly engaged in the CDM process
- •Decentralizes decision making which can:
  - a)Speed up the approval process
  - b)Allow for the scaling-up of the emission reductions achievable through the CDM
- •Allows the CDM to be used to achieve emission reductions in more diffuse sources (e.g. household and small commercial level, transport, agriculture)



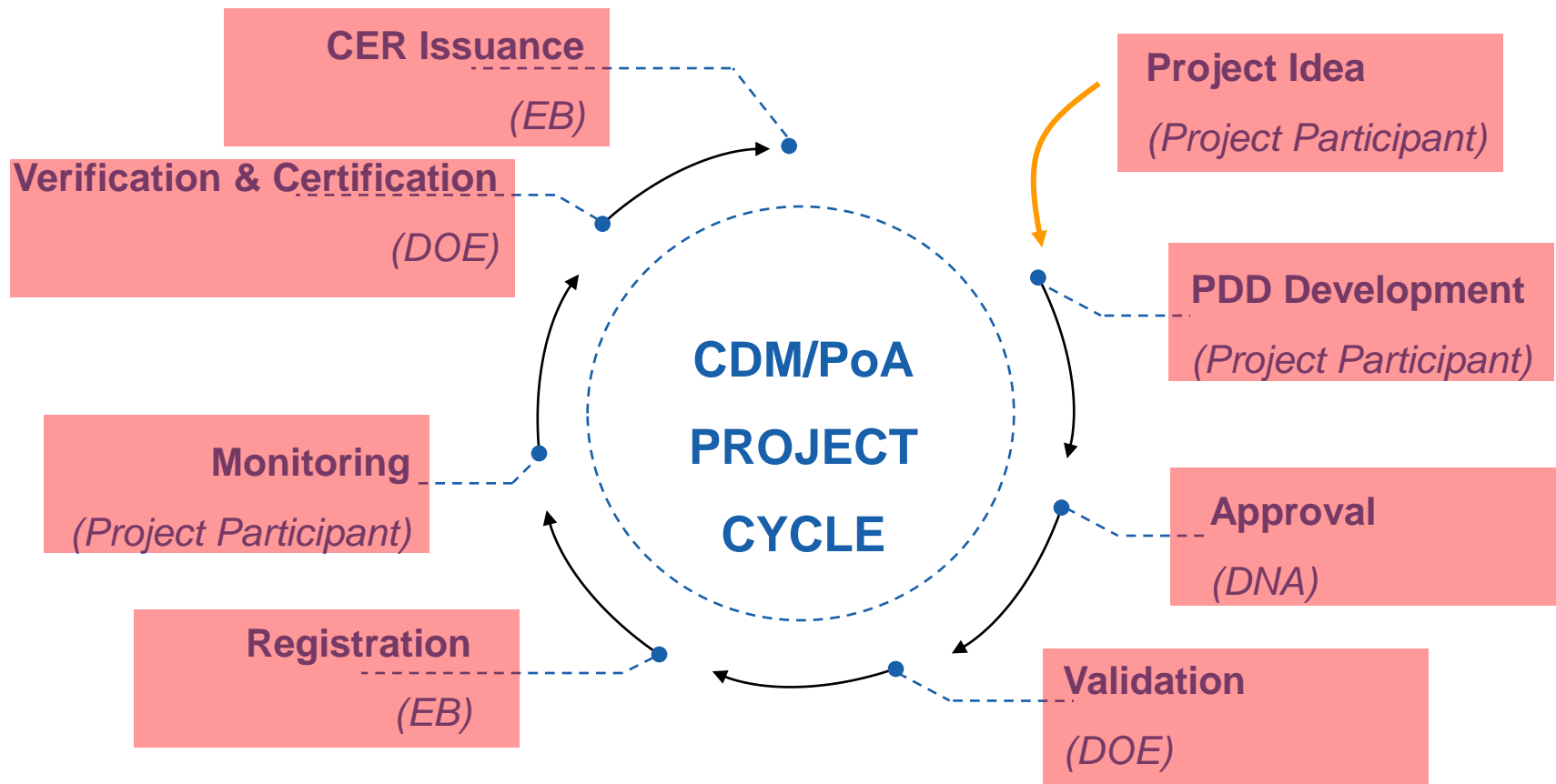
## % comparison of regional distribution of pCDM and CDM



Joergen Fenhann, UNEP Risoe  
Centre, 1st July 2014

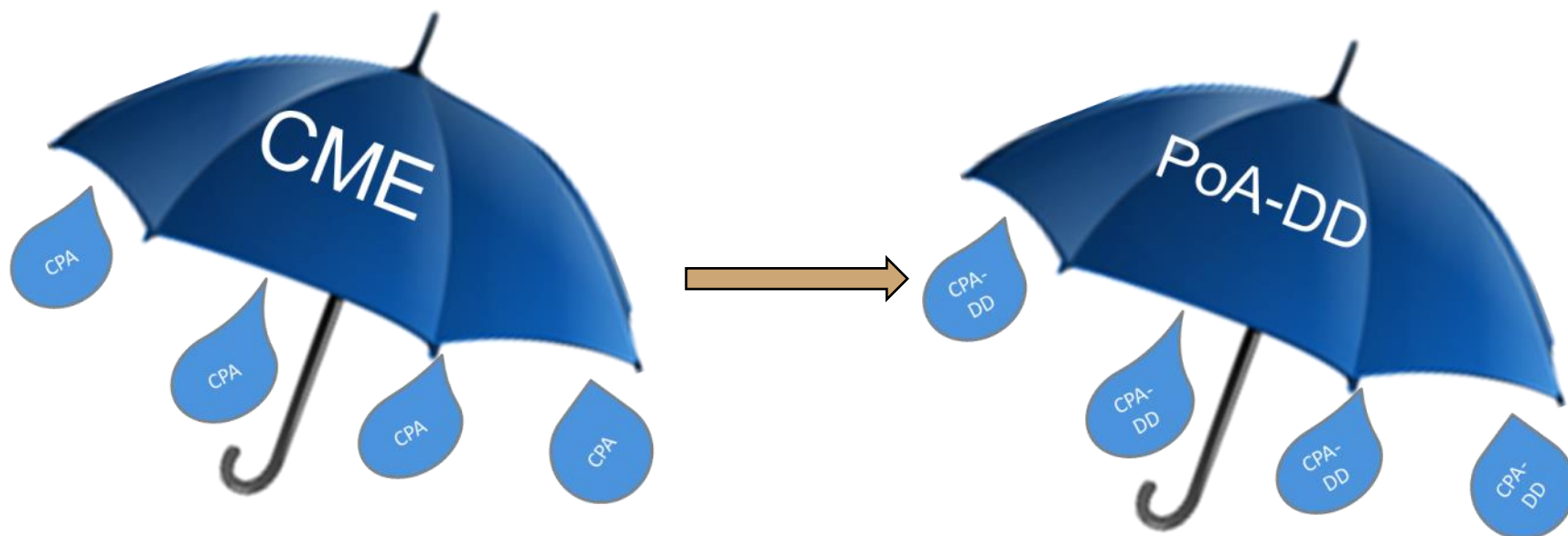
# CDM project cycle

Project Participant – Coordinating Managing Entity



## PoAs documentation

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CME – coordinating or managing entity

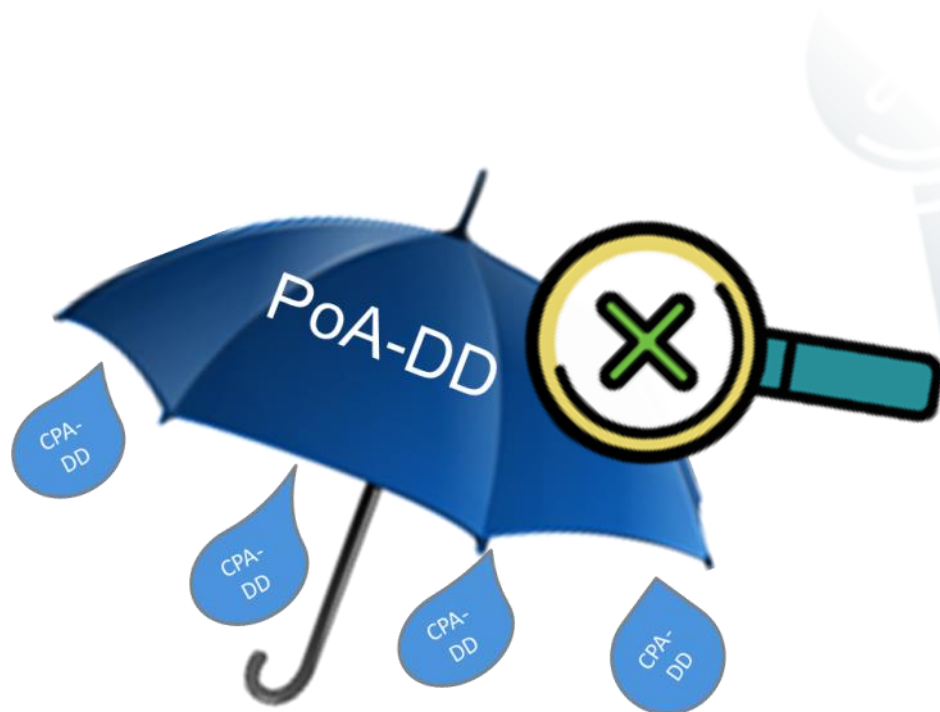
CPA – Component project activity

PoA-DD: PoA design document

CPA-DD: CPA design document

## PoAs documentation

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The PoA-DD consists of 2 parts:

- Part I: framework description, Additionality, Eligibility Criteria, Environmental impact, PoA duration, methodology applied etc.
- Part II: generic CPA-DD, information applicable to all CPAs to be included in the PoA.

PoA-DD: PoA design document

CPA-DD: (specific) CPA design document

**Part II serves as the TEMPLATE for future specific CPA**

# 1. PoA-DD and CPA-DD preparation

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## PoA-DD

### Part I Programme of activities (PoA)

- SECTION A. General description of PoA
- SECTION B. Demonstration of additionality and development of eligibility criteria
- SECTION C. Management system
- SECTION D. Duration of PoA
- SECTION E. Environmental impacts
- SECTION F. Local stakeholder comments
- SECTION G. Approval and authorization

# 1. PoA-DD and CPA-DD preparation

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Specific CPA-DD

SECTION A. General description of CPA

SECTION B. Environmental analysis

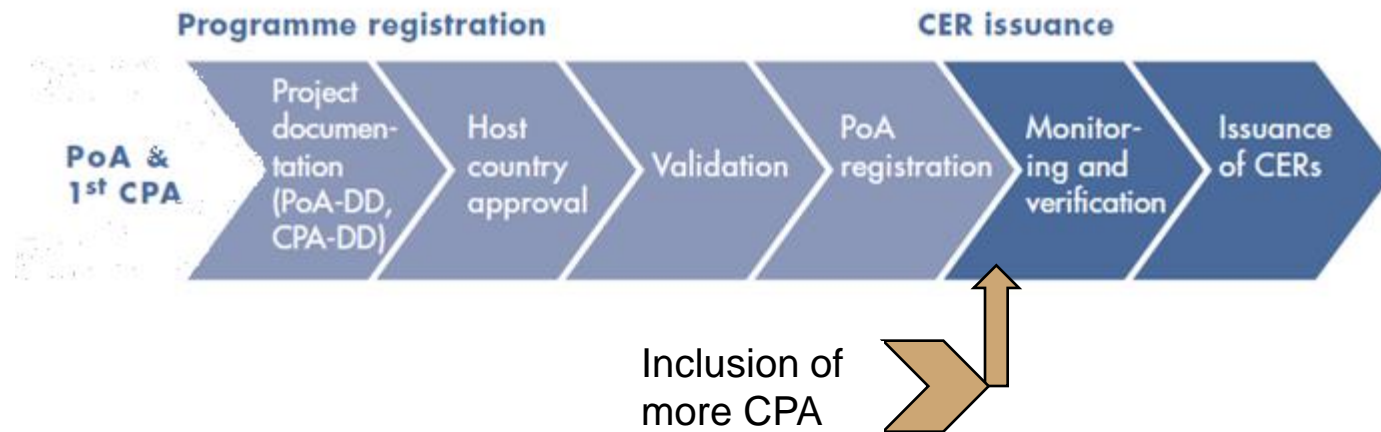
SECTION C. Local stakeholder comments

SECTION D. Eligibility of CPA and Estimation of emissions reductions

SECTION E. Approval and authorization

Virtually same to the normal project activity, except  
**eligibility criteria**

#### 4. CPA inclusion



- Step 1: CME ensures that the CPA meet the eligibility criteria;
- Step 2: CME submits CPAs to DOE
- Step 3: DOE confirms
- Step 4: DOE uploads to UNFCCC Website

**No need to submit to the Board for further check**





Programmes of Activity

Standardised Baselines

## Who may propose standardized baseline?

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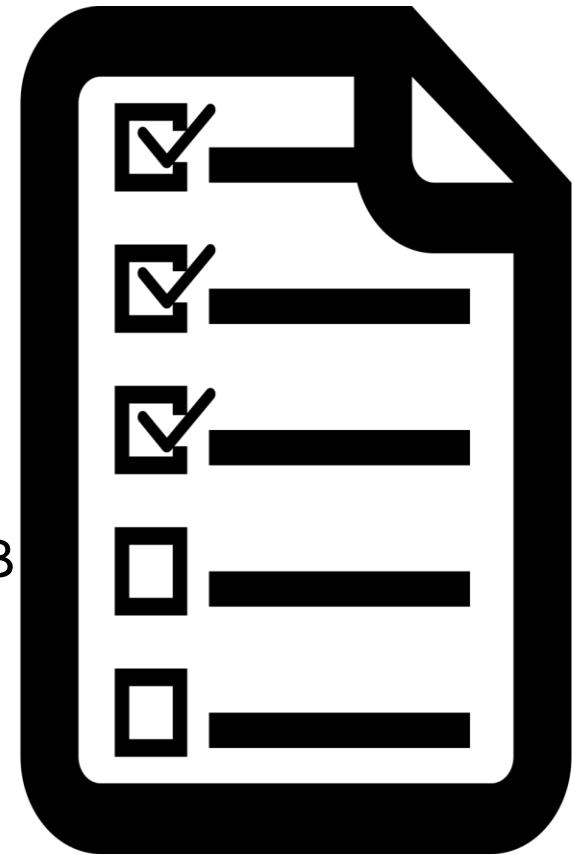
- Parties, project participants, international industry organizations or admitted observer organizations may propose a SB through the DNA of a Party for which the SB is proposed.
- The DNA shall subsequently submit the proposed SB to the secretariat.
- If the proposed SB is developed for a group of Parties, it shall be approved by the DNAs of all Parties and following the receipt of approval from all these DNAs, any one of the DNAs shall submit the proposed SB to the secretariat.



## Documents to be submitted

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- a) **Duly completed “Proposed standardized baseline submission form”** (CDM-PSB-FORM);
- b) All **applicable additional documentation** supporting the submission (e.g. relevant data, documentation, statistics, studies, etc.);
- c) If applicable, **an assessment report on the quality of the data collection, processing and compilation** to establish the proposed SB in accordance with the “Guidelines for quality assurance and quality control of data used in the establishment of standardized baselines”;
- d) **Letters of approval** from all the DNAs of the Parties to which it applies.



# Malawi potential Standardized baselines

1. Top Down Cookstove
2. Grid emission factor



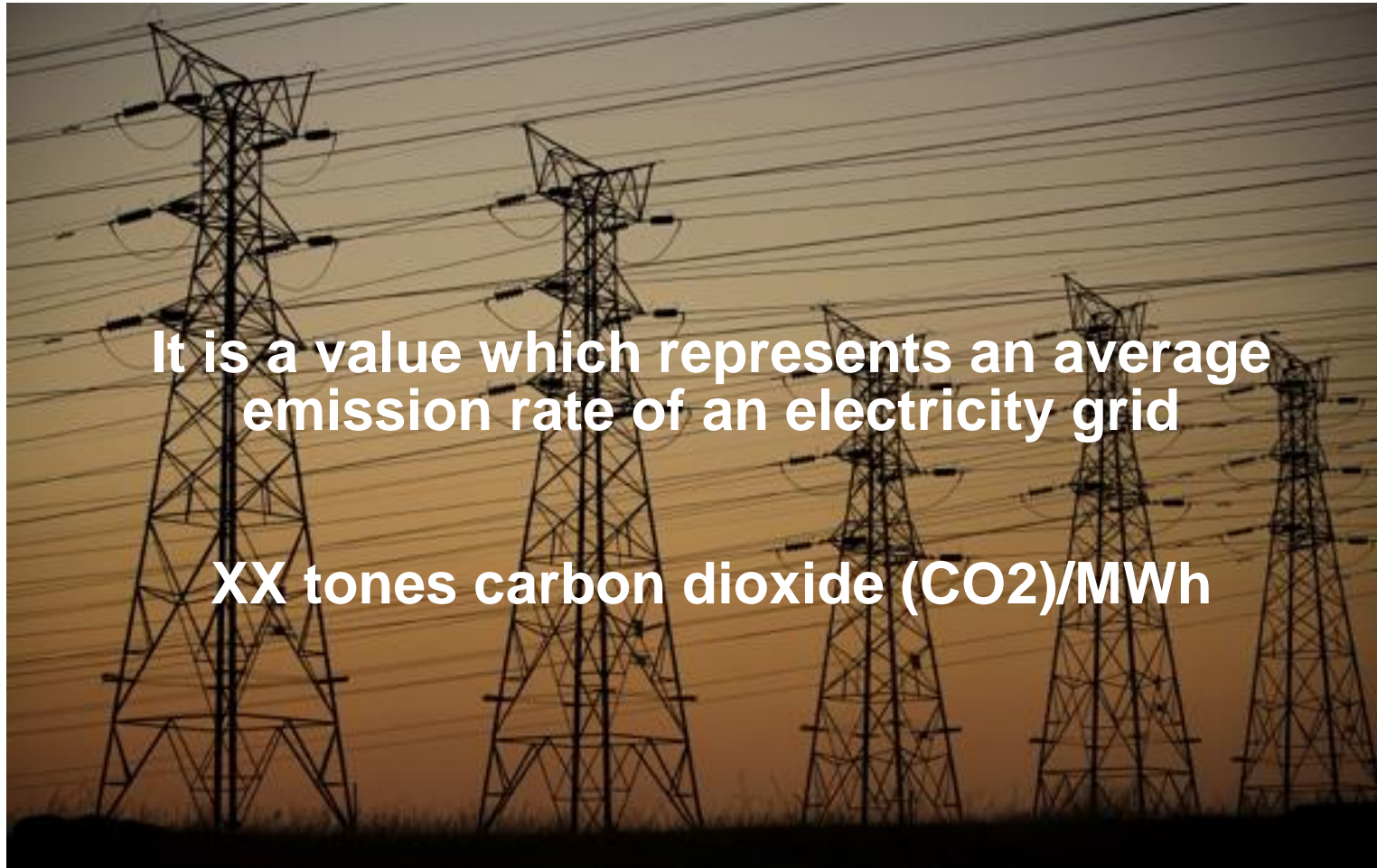


- Woody biomass consumption for cookstoves in Malawi
- Top down (2014)
- One of three
- Workplan

WEBINAR APRIL 27<sup>th</sup>

## What is the grid emission factor, GEF?

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## Potential revenues from a 20 MW solar PV

**GEF: 0.368 tCO<sub>2</sub>/MWh**

**Electricity to be generated: 40,000 MWh/year**

**Emission reductions: 14,040 tCO<sub>2</sub>/year**

**Carbon price: 2.88 – 4 US\$/tCO<sub>2</sub> (NEFCO, Gold Standard)**

**Potential annual revenue: 42,393 – 58,880 US\$/year**





## Why is the GEF important for carbon trading?

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### The GEF allows:

- To estimate emission reductions of energy related activities that are to be implemented – 90% of CDM methodologies need a GEF
- To forecast potential revenues from carbon trading



## How are GEF estimated?

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- **Grid tool, based on a large-scale methodology for renewable energy projects –**

**Requires grid data at unit level, to update regularly**

- **Sectoral standardized baselines approach, technology switch –**  
electricity sector. E.g. Renewable energy activity

**It allows to demonstrate:**

- **Additionality.** E.g.: Barriers due to absence of renewable energy technologies
- **Baseline technology.** E.g.: Diesel based as electricity is sourced from diesel engines

**And to determine:**

- **Grid factor** for baseline technology. E.g.: carbon emission factor (real or default IPCC value) for diesel oil

**Requires grid data at plant level, to update every 3 years**

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## Who are involved with the GEF?

- **Utilities** – providing grid data PUC
- **National authorities** – CDM DNA coordinating, clearing the estimation, proposing to the CDM EB, publishing the GEF
- **RCC** – estimating the GEF value
- **CDM Executive Board** – approving the approach used to estimate the value
- **Project developers/investors** – using the GEF value



## Calculating a GEF

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### **Tool to calculate the emission factor for an electricity system ver 4.0**

**Step 1:** Identify the relevant electricity systems;

**Step 2:** Choose whether to include off-grid power plants in the project electricity system (optional);

**Step 3:** Select a method to determine the operating margin (OM);

**Step 4:** Calculate the operating margin emission factor according to the selected method;

**Step 5:** Calculate the build margin (BM) emission factor;

**Step 6:** Calculate the combined margin (CM) emission factor.



# Calculating a GEF

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## Identify the relevant electricity system:

- GRID MAP? - [http://www.geni.org/globalenergy/library/national\\_energy\\_grid/index.shtml](http://www.geni.org/globalenergy/library/national_energy_grid/index.shtml)
- Import, export?
- Include off-grid power plants – reports available? (Data source and year of publication) – or default value (10%) due to load shedding

## Collect base data:

- Generation capacity last 5yrs by type of energy - data source – utility? annual report etc;
- Most recent data available on generated energy last 3/5yrs – data source? annual reports etc
- Type of fuel
- Low cost/must run - hydro, geothermal, wind, low-cost biomass, nuclear and solar generation?

## Calculate GEF:

Select a method to determine the operating margin (OM) - tool offers four different methods

- Calculate the operating margin emission factor according to the selected method – a?
- Calculate the build margin (BM) emission factor - last 5 plants or 20% of Grid
- Calculate the combined margin (CM) emission factor – weighting 50/50 (but 75/25 for wind)



# Thank you for your attention

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## **CDM Regional Collaboration Centre**

A collaboration between the UNFCCC Climate Change Secretariat  
and the East African Development Bank

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### 1. What is it?

It is the criteria for CPA inclusion

### 2. How shall it be formulated?

According to the PoA Standard,  
including 12 aspects.

### 3. Who shall develop them?

CME



### Some aspects for EC

- The geographical boundary of the CPA
- The specifications of technology/measure
- Conditions to check the start date of the CPA
- Demonstration of additionality





## 3. LoA issuance





1. The CME shall obtain a letter of approval from the DNA of each Party involved in the proposed CDM PoA, confirming that:
  - (a) The Party is a Party to the Kyoto Protocol; and
  - (b) Participation in the proposed CDM PoA is voluntary.
  - (c) confirm that the proposed CDM PoA assists the host Party in achieving sustainable development.
2. The CME shall obtain from each host Party a letter of authorization of its coordination of the proposed CDM PoA.

## 4. Validation



- There are many commonalities in validation process of normal CDM projects versus PoAs.
- The documentation required for the PoA validation consists of:
  - a) The PoA-DD (PoA Design Document).
  - b) The first CPA-DD (CPA-DD), which is the PDD of the CPA from a first concrete case
- Institutions involved
  - a) Coordinating/Managing Entity (CME)
  - b) CDM consultant (if any)
  - c) Designated Operational Entity (DOEs)



- Two important features only apply to PoAs:
  - 1) Validation of CME management system
    - (a) Roles and responsibilities of personnel, including competencies;
    - (b) Training and capacity development for personnel;
    - (c) A procedure for technical review of inclusion of CPAs;
    - (d) A procedure to avoid double counting;
    - (e) Records and documentation control process;
    - (f) Continuous improvements of the PoA management system.
  - 2) Eligibility criteria

- The PoA and at least one real CPA submitted for registration.
- Board considers registration/issuance for PoA as normal projects, not CPAs individually
- DOE after concluding a positive validation process, shall submit the PoA through a dedicated interface on the UNFCCC CDM website



## 5. CPA inclusion

