
Regional Collaboration Centre (RCC)

GEF Calculation Training
19-20 August, 2015



UNFCCC, Regional Collaboration Centre





UNFCCC/EADB



Introduction to the Regional Collaboration Centre



How RCC and UNFCCC Bonn (SSU) facilitate the development of SBs



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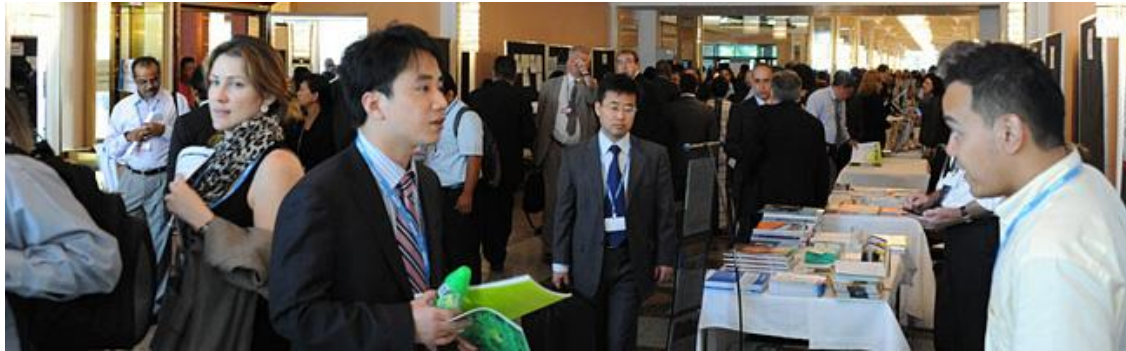


Introduction to the Regional Collaboration Centre



How RCC and UNFCCC Bonn (SSU) facilitate the development of SBs

- In 1992, countries joined an international treaty, the **United Nations Framework Convention on Climate Change**, to cooperatively consider what they could do to limit average global temperature increases



- **Participants:** 195 parties
 - Annex I: developed countries obliged to reduce GHG
 - Non Annex I: developing countries not obliged to reduce GHG
- The Conference of Parties (COP) is the highest decision-making authority of the Convention.

Market based Mechanisms

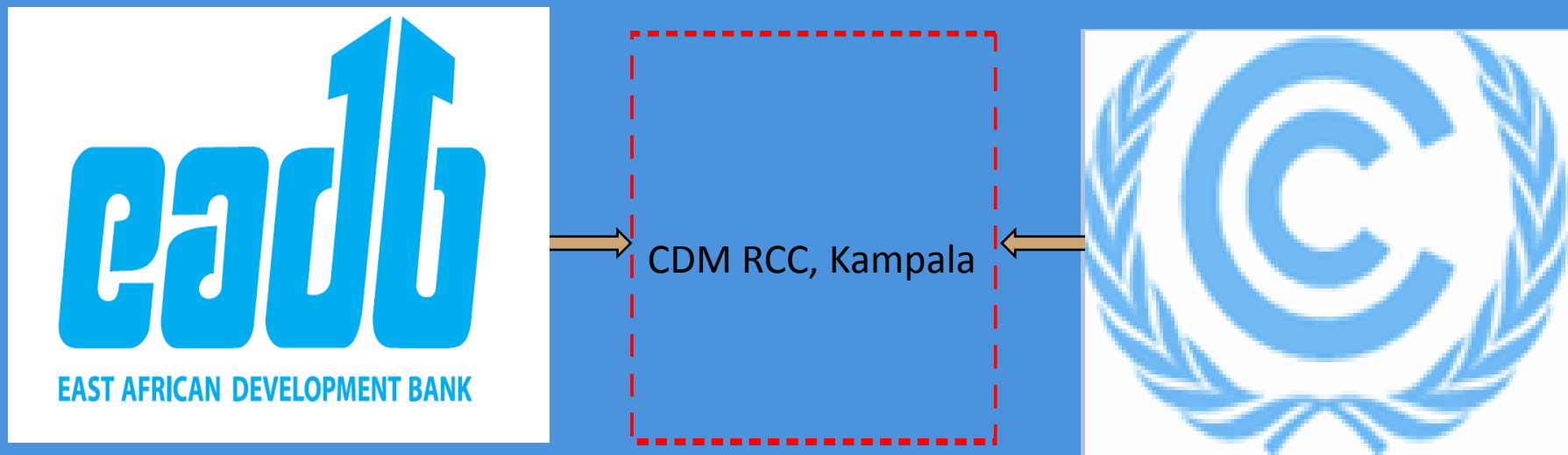


The CAP –
Legally binding targets
for emissions of
greenhouse gases –
Allowances

- **Emission Trading (ET):**
exchanging emission allowances among Kyoto Protocol Parties
- **Clean Development Mechanism (CDM):** credits for emissions reduced/avoided through sustainable development projects in developing countries (non-Annex I countries)
- **Joint Implementation (JI):**
credits for emissions avoided through projects in Annex I countries



CDM Regional Collaboration Centre, Kampala



A collaboration between EADB and the UNFCCC

To promote socio-economic development of its member states

To prevent “dangerous” human interference with the climate system



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Introduction to the Regional Collaboration Centre



How RCC and UNFCCC Bonn (SSU)
facilitate the development of SBs

Regional Context – Countries supported by (RCC) - Kampala

- Angola
- Botswana
- Burundi*
- Comoros*
- Djibouti
- Egypt
- Eritrea
- Ethiopia
- Kenya
- Lesotho
- Libya
- Malawi
- Mauritius



- Mozambique
- Namibia
- Rwanda
- Seychelles
- South Africa
- South Sudan
- Sudan
- Swaziland
- Tanzania
- Uganda
- Zambia
- Zimbabwe

* supported by RCC

Kampala and Lome



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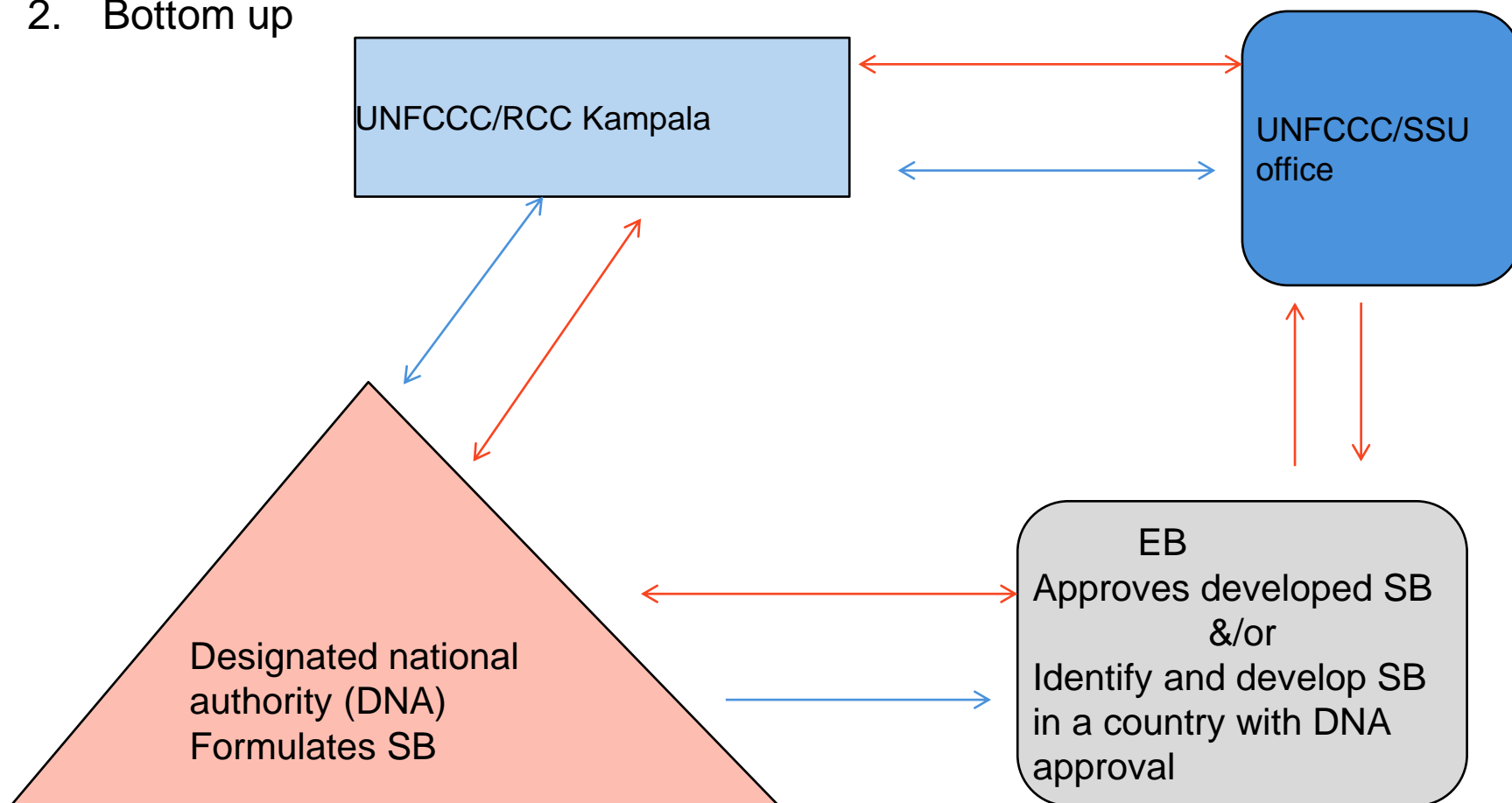


How RCC and UNFCCC Bonn (SSU) facilitate the development of SBs

Development of Standardised Baselines (SBs)

Types of SBs:

1. Top Down and
2. Bottom up



Thanks for your attention!



UNFCCC Regional Collaboration Centre
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UNFCCC Regional Collaboration Centre, Kampala



Clean Development Mechanism (CDM) and Standardised Baselines (SBs)

GEF Calculation Training
19-20 August, 2015



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CDM scale and overview of standardisation (SBs)



How are the SBs applied?



The Importance of the mitigation potential of the power sector emissions



Relevancy of the CDM moving forward and how it is critical for climate finance.



Importance of GEF development.



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Background to the CDM

- The CDM was established as a “flexible mechanism” by the Kyoto Protocol, to help ANNEX I Parties to meet their **emission reduction commitments**, while bringing **sustainable development benefits** to the CDM host countries.
- It was the first undertaking of its kind in the world. The first truly global mechanism in a new carbon market.



Very complex and very important for all stakeholders!!

- No experience existed on the ground, no trail to follow, no manual.
 - ❑ Additional (would not happen without CDM incentive)
 - ❑ Environmental integrity (reductions are real)



Complexity was inevitable at start



Demand

1. CERs for **compliance** purposes

- ✓ Existing demand
- ✓ Emerging trading schemes
- ✓ Emerging approaches (carbon tax, etc.)

2. CDM for **voluntary** purposes

- ✓ Increase voluntary mitigation action by countries
- ✓ Private companies and organizations
- ✓ Events

3. CDM as a key tool for monitoring, reporting and verifying (**MRV**) outcomes of mitigation **finance**

- ✓ Results-based finance





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The mandate (2010)

Decision 3/CMP.6 definition:

“..Baseline established by a Party or a group of Parties to facilitate the calculation of emission reductions and removal and/or the determination of additionality for clean development mechanism project activities, while providing assistance for assuring environmental integrity..”

Decision 3/CMP.6 priorities:



Underrepresented regions: LDCs, SIDs and Parties with 10 or fewer registered CDM project activities as of 2010



Underrepresented project activity types, e.g. energy generation in isolated systems, transport and agriculture



Why SBs?

- An important strategy for promoting access to CDM in developing countries and sectors
- SBs provide default factors and assumptions that can be used easily and objectively to calculate emissions reductions, as well as determine project eligibility
- SBs particularly important in the power sector, where the key standardized parameter is a “**grid emission factor (GEF)**” for a national or regional grid. GEF, can be used for all electricity supply and efficiency projects to relate measured power production or savings in carbon emissions.



The concept

CDM Methodologies/ tools

- Specific project boundary
- **Project-specific** baseline to be determined
- **Project-specific** demonstration of additionality

Standardized Baselines

- Sector-specific standards (regional, national, or international)
- **Sectoral** baseline (pre-determined)
- Pre-determined additionality using positive list



What is the difference between a methodology and an SB ?



CDM Methodologies/ tools

- International Standards
- Calculate emission reduction of specific projects
- Specific applicability conditions
- Specific project boundary
- Project-by-project baseline scenario determination and demonstration of additionality
- Baselines using 48(a) (historical or actual), 48(b) (most attractive course of action) or 48(c) (Average of top 20%)
- Project emissions
- Data not monitored
- Data monitored

Standardized Baselines

- Sector-specific standards (regional, national, or international)
- Addresses sector specificities
- Either calculates baseline emission factor for broad class of mitigation activities (measures) taken up in the sector, or baseline emission factor for entire sector
- Baseline emission factor to be used for baseline emission calculations
- Positive list of fuel/ feedstocks/ technologies provided for demonstration of additionality
- Used in conjunction with an approved methodology/tool



SB procedure

- Applies only when SB is submitted using an approved methodology, tool or SB guidelines.
- For any other approach, use the submission procedure for PNM or revision of methodology/tool.
- Who can submit? through DNA
 - ✓ Parties
 - ✓ PPs
 - ✓ International industry organizations
 - ✓ Admitted observer organizations
- Documentation required for submission:
 - ✓ CDM-PSB form
 - ✓ Assessment report, and
 - ✓ Letter of approval from DNA(s)
 - ✓ Additional documentation supporting

For submission by group of Parties, the approval of all DNAs is required, and any one of DNAs can submit and act as focal point.



SB procedure

- ❖ **Assessment report** by:
 - **DOE** contracted by DNA,
 - **Any entity** under the **agreement of DNA**, or
 - **Secretariat (up to first 3)** submissions for
 - ✓ Under represented Party
 - ✓ Group of Parties, where all Parties are under represented.
- ❖ **Funding** available for the assessment report (**up to first 3**) for:
 - ✓ Under represented Party
 - ✓ Group of Parties, where all Parties are under represented.
- ❖ The DNA of **under represented Party** may **decide to omit** the submission (up to first 3) of assessment report, in such cases **Secretariat** will prepare the same.
- ❖ **No fee** is payable for SB submission.



Key elements of revision of SB procedure (Effective from 1 Sep. 2015)

Current Procedure

There is no procedure to submit a deviation from the requirements of an approach to develop a SB.

The DNA can use only an approved methodology or tool for development of SB.

PSB form implies that either section of meth or tool or SB guideline can be filled.

The DNA cannot submit new methodology (or revision) for development of SB or ER calculation of projects using SB due to unavailability of PDD.

The scope of assessment report includes compliance of QA/QC system with QA/QC guideline.

If SB is developed by group of Parties, they cannot omit the assessment report

Revised

Procedure for deviation is introduced. The deviation is submitted along with PSB.

The DNA can submit a new/revised methodology or tool for development of SB in parallel to the submission of the SB.

Combination of more than one approach can be used for development of SB. E.g. Tool and Methodology. Justification is needed for combination

The DNA is allowed to request secretariat for top-down development/revision of relevant methodology with justification.

The scope of assessment report is clarified to include positive assessment opinion on the compliance of SB with standard and compliance of QA/QC system.

If each of the Parties has availed benefit of omission for less than three submissions, they can omit assessment report.



How SB helps to reduce transaction cost?

- **Reduction in time for PP and DOE:**
 - SB standardizes baseline scenario, baseline emission factor and/or additionality at a country level, eliminating the need to estimate/demonstrate the same at project level
 - DOE will validate baseline scenario, baseline emission factor and additionality against the approved SB which will result in reduced validation time
- **Scalability:**
 - Emission reductions calculated using the methodology together with SB may lead to simplified emission reduction calculation approach for highly scalable projects or PoAs
- **Simplification:**
 - PoA eligibility criteria can be derived from SBs
 - All CPAs can use the same positive list/baseline emission factor
- If the original project has used a methodology, whereas SB that is applicable to project is available at the end of crediting period, then the SB can be applied instead of methodology at the time of renewal of crediting period.



Bottom-up submissions and top-down development of SBs

Bottom-up SB submissions

- 31 SB submissions as on date.
- 14 SBs approved as date.
- Sectors covered by submissions are:
 - ✓ Power
 - ✓ Rural electrification
 - ✓ Cement
 - ✓ Charcoal
 - ✓ Waste (LFG flaring and power generation)
 - ✓ Rice mill
 - ✓ Rice cultivation
 - ✓ Cook stoves
- DNAs from
 - ✓ Africa
 - ✓ Asia
 - ✓ Latin America
 - ✓ Caribbean
 - ✓ Eastern Europe

Support to DNAs on SB development (to-down process)

- Interest expressed by 13 DNAs for 40 SBs in various sectors as per survey in June 2014. The objective of DNA is support to CDM or NAMAs.
- Six SBs are taken up for development as on date.
- More will be taken up in future depending upon resource availability.
- Sectors covered so far are:
 - ✓ Brick
 - ✓ Afforestation & reforestation
 - ✓ Cook stoves
 - ✓ Cement
- DNAs who expressed interest are from
 - ✓ Africa
 - ✓ Asia
 - ✓ Latin America
 - ✓ Caribbean
 - ✓ Eastern Europe



PSB submissions

- Several PSBs submitted using SB guidelines including those in charcoal, clinker, rice mill, power and waste management sectors.
- Many PSBs submitted for emission factor of power sector (grid) using the “tool to calculate emission factor for an electricity system”.
- Some PSBs submitted using small-scale/large-scale methodologies (AMS.I.L, AMS-I.F, AMS.III.AU, ACM0001 etc.).



Key lessons learned on quality control/quality assurance of data

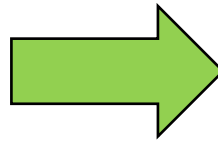
- No assessment report: No assessment report required for the SBs where no data collection/processing required (e.g. LFG destruction SBs).
- Data templates: Very important for DNA to get converse with. This decides the quality of data collected.
- Stakeholder consultation and transparency: There can be various means adopted for this including direct meetings, inviting written comments, communication through DNA webpage etc.
- QA/QC system: Although recommended to be available in documented form, minimum requirement is that DNA should be able to justify the adherence to quality objectives of QA/QC guideline.
- QC report: QC report is the key for DNA to explain how they comply with QA/QC objectives.



The concept:

Moving complexity towards the CDM regulator

“..Baseline established ...to facilitate the calculation of emission reductions and removal and/or the determination of additionality”





CDM scale and overview of standardisation (SBs)



How are the SBs applied?



The Importance of the mitigation potential of the power sector emissions

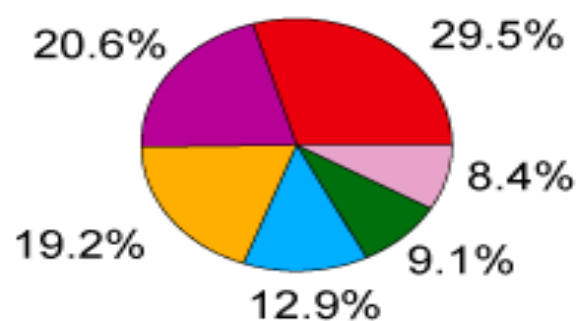
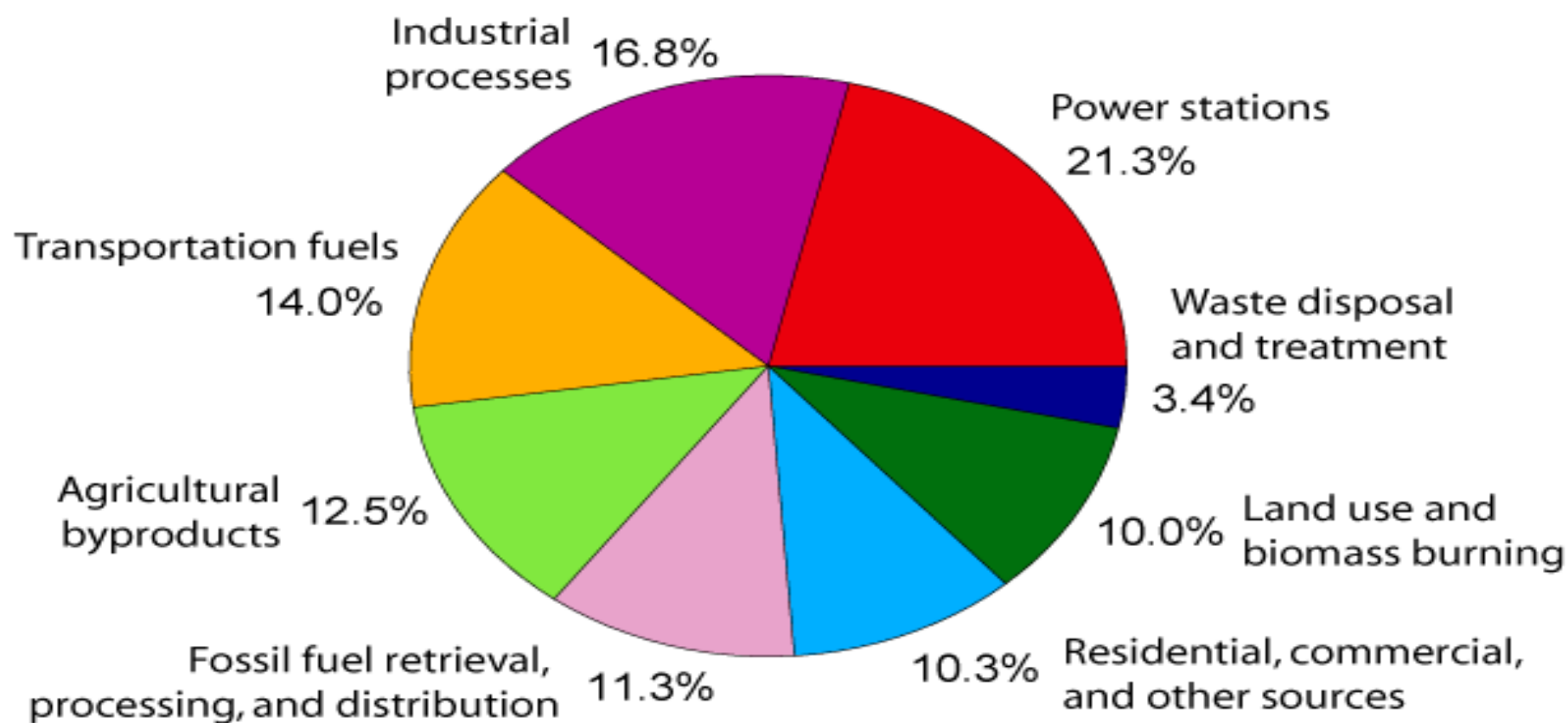


Relevancy of the CDM moving forward and how it is critical for climate finance.



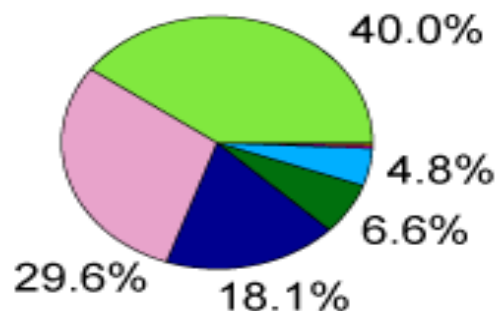
Importance of GEF development.

Annual Greenhouse Gas Emissions by Sector



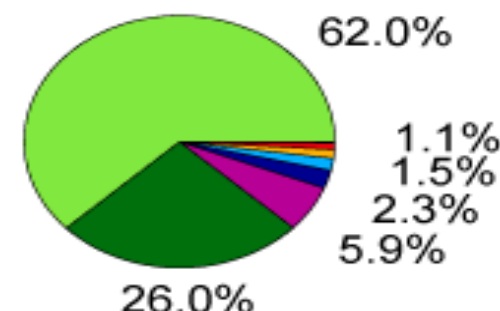
Carbon Dioxide

(72% of total)



Methane

(18% of total)

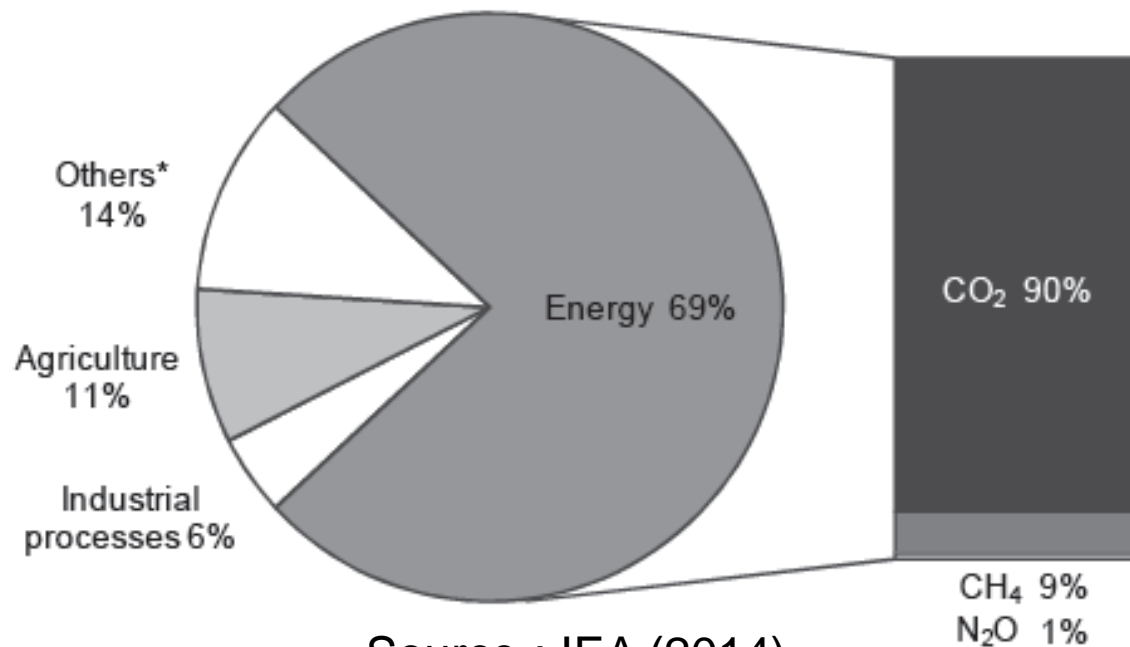


Nitrous Oxide

(9% of total)

Energy use and GHG emissions

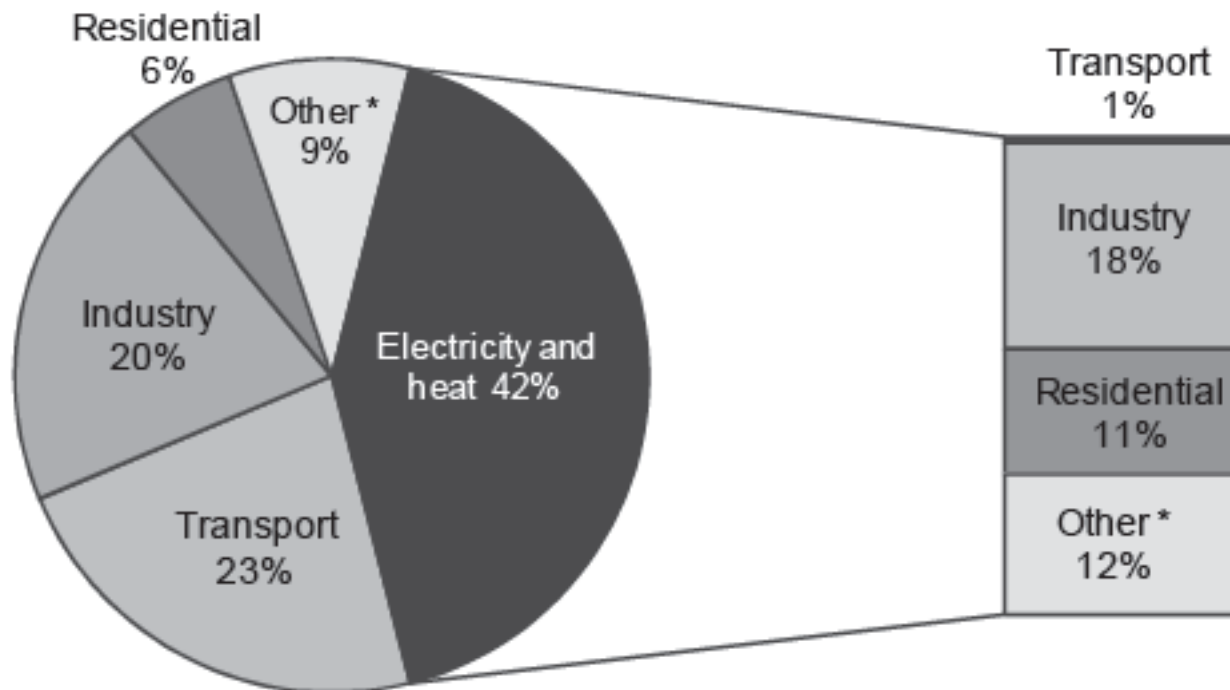
- ❑ Among the many human activities that produce greenhouse gases, the use of energy represents by far the largest source of emissions



Source:- IEA (2014)

Emission by sector

- ❑ Currently, two sectors produced nearly two-thirds of global CO₂ emissions in 2012 electricity and heat generation, by far the largest, accounted for 42%,



Source:- IEA (2014)



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The components

CERs for **compliance** purposes

- ✓ Existing demand
- ✓ Emerging trading schemes
- ✓ Emerging approaches (carbon tax, etc.)

The CDM is an internationally-endorsed mechanism that provides robust, ready-made infrastructure and high-quality fungible credits to support climate-friendly development.



China, Mexico, South Korea, South Africa?



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COUNTRIES

- Mexico, South Africa, Chile, China etc
 - a) Using or proposing to use CERs as a potential offset for tax



INDUSTRIAL SECTORS

ICAO under pressure to act. Due to the nature of their emissions they have little abatement potential and therefore will need to rely on offsets or allowances

- a) Demand placed at anywhere between 100m and 600 m tonnes per annum post 2020



CDM for voluntary purposes

2. Enhance use of CDM for **voluntary** purposes

- ✓ Increase voluntary mitigation action by countries
- ✓ Private companies and organizations
- ✓ Events



The CDM offers a comprehensive selection of quality UN-certified credits that improve lives in developing countries by incentivizing climate friendly development.

- Voluntary cancellation of CERs;
- Sustainable Development Tool (SD Tool).



CDM as a key tool for monitoring, reporting and verifying (MRV)

3. Further develop CDM key tool for monitoring, reporting and verifying (MRV) outcomes of mitigation finance

- ✓ Results-based finance



CDM is a ready-made, reliable, UN-recognized tool that offers a transparent means to monitor, report and verify mitigation outcomes.

- ❖ CDM is not only an offsetting mechanism, but also a fully developed system for MRV of mitigation action (and finance)
- ❖ CDM is primarily a monitoring, reporting and verification (MRV) system for mitigation actions, excellent for results-based financing



CDM role in NAMAs and INDCs?

NAMAs:

- Desire of developing countries to take Nationally appropriate action to contribute to global efforts
- Desire of developed country Parties to cooperate in implementation of real action



INDCs

- All Parties invited to come forward with intended Nationally Determined Contributions (INDCs) well before COP21 in Paris (December 2015)



NAMA example

KENYA

- Title: NAMA for accelerated geothermal electricity development in Kenya
- Support to build **820 MW geothermal power** as part of the National Climate Change Action Plan (NCCAP) from 2013.
- To abate approximately 3.77 MtCO₂e per year in 2020
- Co-benefits: Energy security through increased domestic supply; GDP growth through lower energy prices and increased employment, e.t.c
- National Implementing Entity: **Ministry of Energy and Petroleum**
- Currently seeking support for implementation



Recent trends in Current & Future Climate Finance

Links to wider climate finance and mitigation tools finance

- ✓ NAMAs
- ✓ INDCs
- ✓ Climate Change Policies
- ✓ CDM MRV
- ✓ Results-based finance



Programmes from non-LDC countries and from countries with more than 10 registered projects are also eligible to apply. These should be programmes (CDM PoAs) or maybe a sectorwide approach under a credited NAMA. Individual standalone CDM project would not be eligible. Programmes from LDC countries would be treated on a priority basis although other factors such as sector, status of preparation, viability, innovation etc are taken into account.

Higher involvement of the private sector

Innovative climate finance models

Current



Outline



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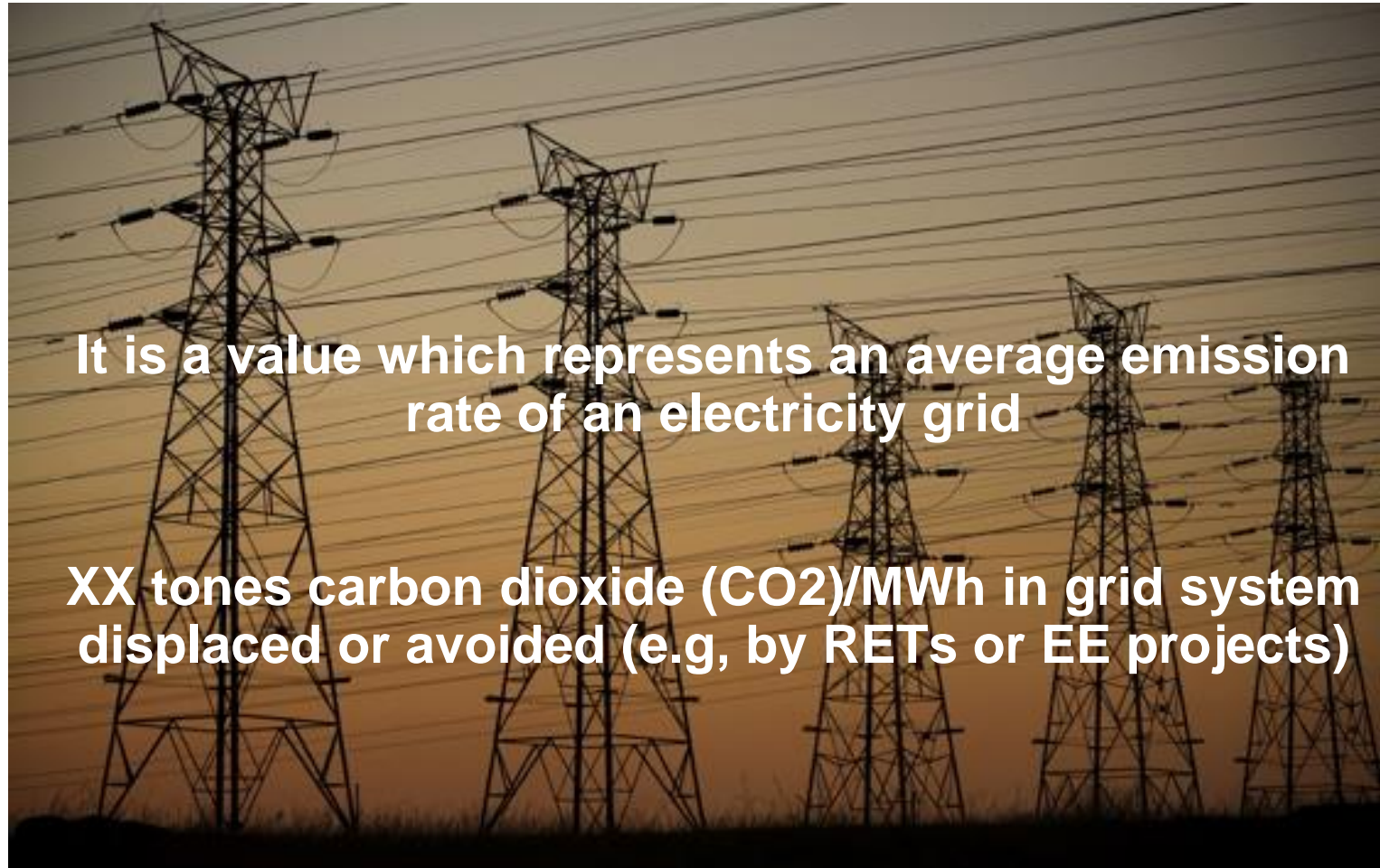
Importance of GEF development.



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What is the grid emission factor, GEF?



Why is the GEF important for carbon trading?

The GEF allows:

- To set baseline and facilitate 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



Project name	Ref_Num	Registration Date	Status	Sub_Status
Olkaria IV Geothermal Project	8,646	28/12/2012	Registered	Registered with no MR
“35 MW Bagasse Based Cogeneration Project” by Mumias Sugar Company Limited (MSCL)	1,404	03/09/2008	Registered	Registered with MR and no IR
Optimisation of Kiambere Hydro Power Project	7,783	24/10/2012	Registered	Registered with IR
5.1MW Grid Connected Wind Electricity Generation at Ngong Hills, Kenya.	9,960	19/05/2014	Registered	Registered with no MR
Installation of Cogeneration plant by utilizing the Biomass based Boiler with a capacity of 20 TPH at BIDC			Validation Public	
60 MW Kinangop Wind Park Project	6,625	09/07/2012	Registered	Registered with no MR
Corner Baridi Wind Farm	8,210	14/12/2012	Registered	Registered with no MR
Redevelopment of Tana Hydro Power Station Project	5,023	11/10/2011	Registered	Registered with MR and no IR
Olkaria II Geothermal Expansion Project	3,773	04/12/2010	Registered	Registered with Issuance
Olkaria I Units 4&5 Geothermal Project	8,643	28/12/2012	Registered	Registered with no MR
Longonot Phase I Geothermal Power Project			Validation Public	
Lake Turkana 310 MW Wind Power Project	4,513	28/02/2011	Registered	Registered with no MR
Kipeto Wind Energy Project	8,775	18/12/2012	Registered	Registered with no MR
KTDA Small Hydro Programme of Activities	6,606	14/09/2012	Registered	
Sustainable Promotion of East African Renewables (SPEAR)			Validation Public	
East Africa Renewable Energy Programme (EA-REP)	8,777	19/12/2012	Registered	

In Summary - Importance of GEF development

The publication and dissemination of the GEF by the DNAs of the UNFCCC will facilitate the design, preparation and monitoring of projects to reduce emissions of greenhouse gases such as CDM projects and NAMAs, or a Carbon Footprint effort, particularly in the energy sector, both for supply and efficiency thus promoting the CDM in developing countries resulting into new business and investment toward the power sector .



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