

CD4CDM Mini-workshop for Municipal Waste and Energy Management Decision Makers

INTRODUCTION TO CDM

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CLEAN DEVELOPMENT MECHANISM - CDM

- Clean Development Mechanism (CDM) is a cooperative mechanism that allows developed and developing country Parties to jointly fulfill the objective of the Convention and the Kyoto Protocol.
- Has two objectives:
 - to provide support to Non-Annex I Parties in **achieving sustainable development** and to contribute to the ultimate objective of the UNFCCC and at the same time to assist Annex I Parties in meeting their GHG emission reduction commitments

(Kyoto protocol, Article 12)

Table 1: Selected milestones that led to the formation of CDM

1979	1st World Climate Conference: Governments are urged to foresee and prevent potential man-made changes in climate that might be adverse to the well-being of humanity.
1987	Brundtland Commission Report introduces the concept of sustainable development.
1988	World Metrological Organisation (WMO) and United Nations Environmental Protection (UNEP) establish Intergovernmental Panel on Climate Change (IPCC).
1989	United Nations General Assembly Resolution calls for global summit on environment and development issues.
1992	UNFCCC (United Nations Framework Convention on Climate Change) is adopted. Annex I countries commit to return emissions of anthropogenic greenhouse gases to 1990 levels by the end of the decade and to submit National Communications describing progress towards this goal.
1997	COP3 in Kyoto adopts the Kyoto Protocol to the UN Framework Convention on Climate Change. CDM is born.
2001	COP7 in Marrakesh adopts COP6bis decisions as the Marrakesh Accords refines modalities for CDM.

TANZANIA AND GLOBAL EFFORTS

- UNFCCC 1992. Tanzania ratified in 1996
- Kyoto Protocol 1997, Tanzania Ratified in 2002. Came into force 2005.
- Requires Developed countries (Annex 1) to reduce emissions of not less than 5% below 1990 by 2012.
- Allows 3 Flexibility Mechanisms: JI, ET and CDM – Hence Carbon Trade
- CDM the only mechanism between Developed and developing countries

KEY ELEMENTS CDM

- Kyoto Protocol: CDM shall contribute to:
 - Sustainable development in host countries
 - Mitigation of climate change
 - Cost effective achievement of committed reductions in countries with reduction commitments
- 6 greenhouse gases: CO₂, NO_x, CH₄, PFC, HFC, SF₆
 - CO₂ is most known
 - reductions are expressed as CO₂-equivalent (CO₂-eq)
 - Certified Emission Reductions (CERs): 1 ton CO₂-eq
- Emission reductions of CDM projects shall be:
 - real and additional → additionality and baseline are key
 - measurable and verifiable

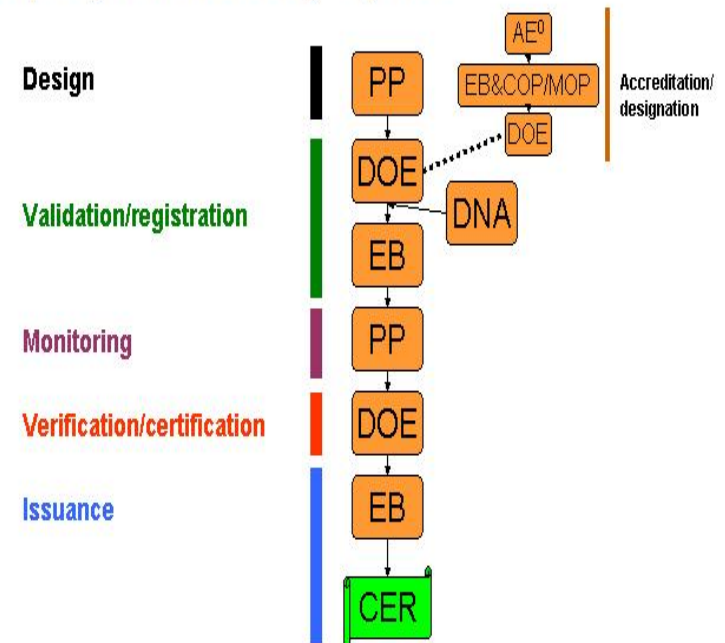
MAIN PLAYERS CDM

- Project proponents (PP):
 - Organize financing and develop the project
 - Initiate CDM procedure
 - Monitor and report emission reductions
- Host Country:
 - Assess contribution to sustainable development
 - Issue Letter of Approval (LoA)
- CDM Executive Board (EB):
 - Accredited DOE (Designated Operational Entity) check
 - Register (or reject) project
 - Issue CERs
- Buyer of CERs:
 - Private contractual relationship with PP

MAIN PROCEDURAL STEPS & ELEMENTS

- PIN (Project Idea Note) → find buyer CERs
- PDD (Project Design Document) → submit project for registration (= approval) to EB
- Local stakeholder consultation
- Letter of Approval (LoA) from host country DNA (Designated National Authority)
- Validation report from DOE, confirming compliance with EB rules
- Monitoring report + verification report DOE, confirming compliance with registered PDD

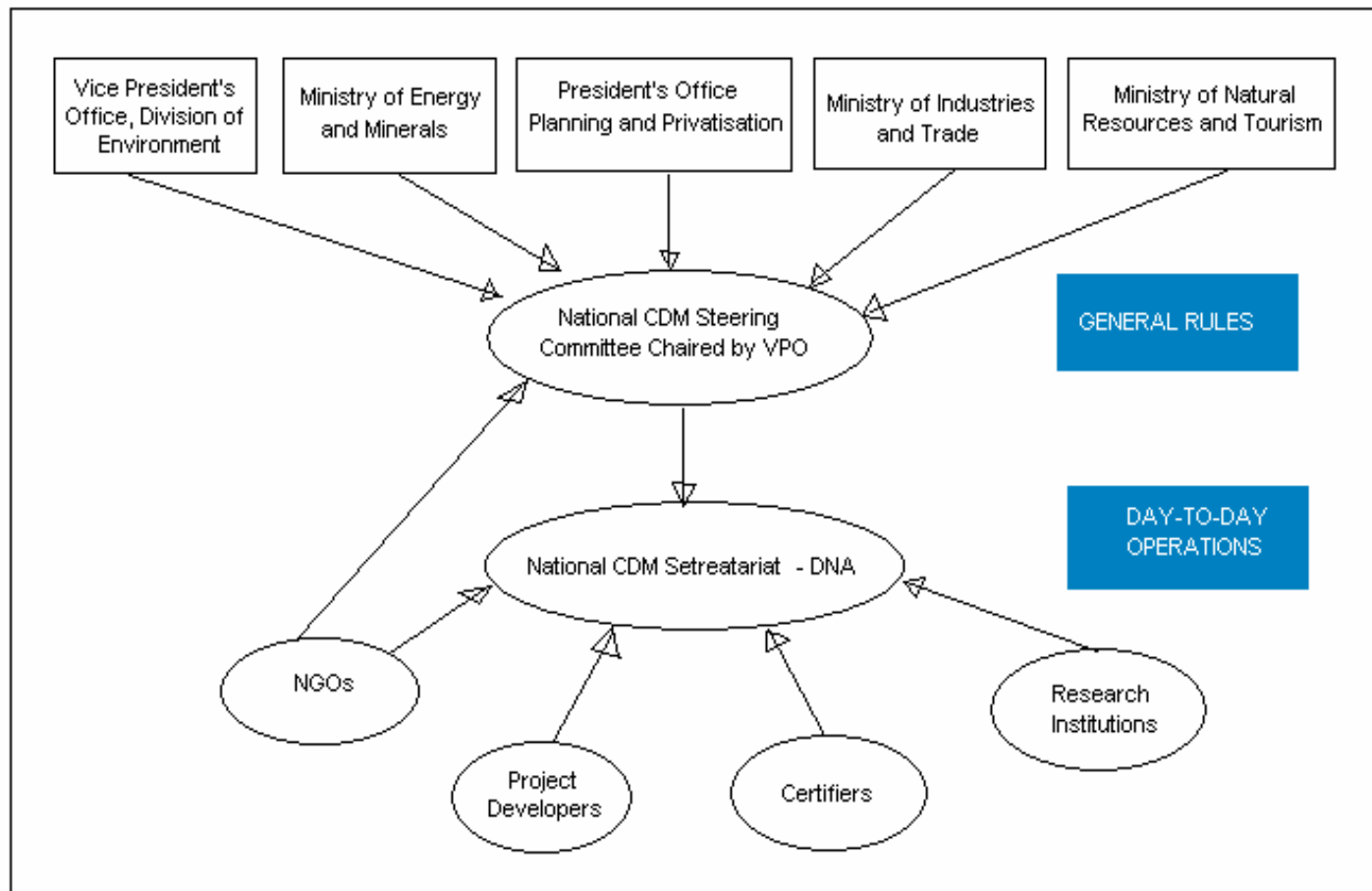
CDM project activity cycle



HOST COUNTRY LETTER OF APPROVAL (LOA)

- Issued by DNA (Designated National Authority)
- Elements in Host Country LoA:
 - confirm that the project contributes to sustainable development (SD) in Host Country
 - Host Country is Party to Kyoto Protocol
 - Host Country participates voluntarily in CDM
 - Host Country authorizes Project Participant(s)
- Assessment of contribution to SD is prerogative of Host Country
- Detail or depth of SD assessment is free

DNA GENERIC STRUCTURE FOR TANZANIA



SCOPES AND CDM POTENTIAL AREAS GLOBALLY

There are 15 project
sectoral scopes
used for CDM
projects activities

No.	Scope
1	Energy industries (renewable - / non-renewable sources)
2	Energy distribution
3	Energy demand
4	Manufacturing industries
5	Chemical industry
6	Construction
7	Transport
8	Mining/Mineral production
9	Metal production
10	Fugitive emissions from fuels (solid, oil and gas)
11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride
12	Solvents use
13	Waste handling and disposal
14	Afforestation and reforestation
15	Agriculture

REGISTERED PROJECTS BY SCOPE

Sectoral Scope	Registered Projects
Afforestation and reforestation	1
Agriculture	76
Chemical industries	11
Energy demand	13
Energy industries (renewable - / non-renewable sources)	479
Fugitive emissions from fuels (solid, oil and gas)	71
Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	15
Manufacturing industries	58
Mining/mineral production	4
Transport	1
Waste handling and disposal	199

EXPERIENCE

- Many inquiries are in the Forestry sector
- Few institutions have invested in understanding CDM (e.g. visiting relevant websites; contacting potential buyers; DOEs,etc)
- Capacity building area challenge

REGISTERED PROJECTS BY REGIONS

Region	Number of projects
NAI-Africa	20
NAI-Asia and the Pacific	416
NAI-Other	6
NAI-Latin America and the Caribbean	266

- The few CDM projects in Sub-Saharan Africa (20 out of the registered 708).
- It is the continent where the share of CDM projects is negligible
- Tanzania is one of the few African Countries with CDM (Only Tanzania and Uganda in Eastern Africa)

TYPICAL PROJECT OUTPUTS, CER PRICES, AND EARNINGS

- Retailers : US \$8.04/tCO₂e
- Brokers: US \$6.03
- Wholesalers and Aggregators: US \$5.31
- Project developers: US \$3.88
- BHSC 170,000tCO₂e x 8= US \$ 1,400,000

TOP 15 BUYERS

(Give loans for transaction costs, 50% of of transaction costs as subsidy)	Projects
EcoSecurities	146
IBRD	55
Agrinergy	41
Cargill International	40
EDF Trading	38
Carbon Asset Management Sweden	38
ENEL	34
Trading Emissions	34
Energy Systems International	28
Kommunalkredit	25
CAMCO	20
Noble Carbon	20
Mitsubishi UFJ Securities	18
Danida	18
Mitsubishi	17

AFRICA, TANZANIA AND CDM

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CDM CHALLENGES

- Capacity by the private Sector to participate in CDM
- A good portfolio of Projects to qualify for CDM- Energy sector, Industrial processes, waste management etc.
- The Dilemma of tree planting projects
- Political awareness of the opportunities and challenges
- Critical mass of experts in the private and Tanzania NGOs sectors , with clear understanding of CDM processes
- Methodological complications and registration requirements
- Free Riders

TANZANIA CDM: REMOVING BARRIERS

- Continue Addressing Institutional and technical capacity to develop and implement CDM in the Private Sector
- A need for Financial resources to develop and kick start the implementation of the projects
- Address the Low levels of awareness of the private sector particularly the financial institutions on the potential of CDM in Tanzania.
- Learning by doing projects

THANK YOU