

CDM BUSINESS OPPORTUNITIES IN TANZANIA

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EPMS

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PRESENTATION ARCHTECTURE

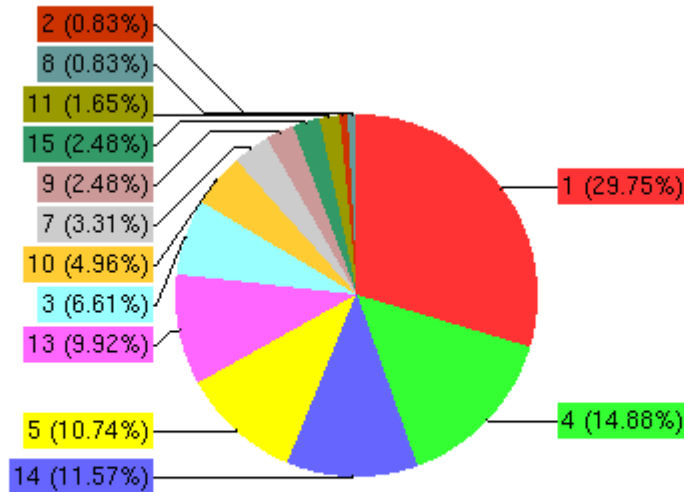
- SECTORAL SCOPES
- APPROVED METHODOLOGIES
- POTENTIAL INVESTORS AND BUYERS

SECTORAL SCOPES BUSINESS OPPORTUNITIES IN TANZANIA

Scope	Number Of Methodologies* (Large-scale (AM, AR-AM) , Small-scale (AMS, AR-AMS) , Consolidated (ACM))
Energy industries (renewable - / non-renewable sources) (1)	36
Energy distribution (2)	1
Energy demand (3)	8
Manufacturing industries (4)	18
Chemical industries (5)	13
Construction (6)	0
Transport (7)	4
Mining/mineral production (8)	1
Metal production (9)	3
Fugitive emissions from fuels (solid, oil and gas) (10)	6
Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride (11)	2
Solvent use (12)	0
Waste handling and disposal (13)	12
Afforestation and reforestation (14)	14
Agriculture (15)	3

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Approved methodologies by scope



APPROVED METHODOLOGIES BY SCOPE

Energy industries (renewable - / non-renewable sources) (1)

- Electricity generation by the user
- AMS-I.B. Mechanical energy for the user with or without electrical energy
- AMS-I.C. Thermal energy for the user with or without electricity
- AMS-I.D. Grid connected renewable electricity generation
- AMS-II.B. Supply side energy efficiency improvements – generation
- AMS-II.E. Energy efficiency and fuel switching measures for buildings
- AMS-II.F. Energy efficiency and fuel switching measures for agricultural facilities and activities
- AMS-III.C. Emission reductions by low-greenhouse gas emitting vehicles
- ACM0011 Consolidated baseline methodology for fuel switching from coal and/or petroleum fuels to natural gas in existing power plants for electricity generation
- AM0029 Methodology for Grid Connected Electricity Generation Plants using Natural Gas
- AM0044 Energy efficiency improvement projects: boiler rehabilitation or replacement in industrial and district heating sectors
- AM0045 Grid connection of isolated electricity systems

APPROVED METHODOLOGIES BY SCOPE

Energy distribution (2)

- AMS-II.A. Supply side energy efficiency improvements – transmission and distribution

Energy demand (3)

- AMS-II.C. Demand-side energy efficiency activities for specific technologies
- AMS-III.B. Switching fossil fuels
- AM0020 Baseline methodology for water pumping efficiency improvements
- AM0025 Avoided emissions from organic waste through alternative waste treatment processes
- AM0046 Distribution of efficient light bulbs to households

APPROVED METHODOLOGIES BY SCOPE

Manufacturing industries (4)

- AMS-II.D. Energy efficiency and fuel switching measures for industrial facilities
- AMS-III.P Recovery and utilization of waste gas in refinery facilities
- AMS-III.Q Waste gas based energy systems
- AM0007 Analysis of the least-cost fuel option for seasonally-operating biomass cogeneration plants
- AM0024 Methodology for greenhouse gas reductions through waste heat recovery and utilization for power generation at cement plants
- AM0036 Fuel switch from fossil fuels to biomass residues in boilers for heat generation
- AM0041 Mitigation of Methane Emissions in the Wood Carbonization Activity for Charcoal Production
- AM0049 Methodology for gas based energy generation in an industrial facility
- ACM0003 Emissions reduction through partial substitution of fossil fuels with alternative fuels or less carbon intensive fuels in cement manufacture

APPROVED METHODOLOGIES BY SCOPE

Chemical industries (5)

- AMS-III.J. Avoidance of fossil fuel combustion for carbon dioxide production to be used as raw material for industrial processes
- AMS-III.O. Hydrogen production using methane extracted from biogas
- AM0027 Substitution of CO₂ from fossil or mineral origin by CO₂ from renewable sources in the production of inorganic compounds

APPROVED METHODOLOGIES BY SCOPE

Construction (6)

Transport (7)

AM0031 Methodology for Bus Rapid Transit Projects

Mining/mineral production (8)

ACM0008 Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction by flaring or catalytic oxidation

Metal production (9)

APPROVED METHODOLOGIES BY SCOPE

Fugitive emissions from fuels (solid, oil and gas) (10)

AM0023 Leak reduction from natural gas pipeline compressor or gate stations

AM0037 Flare reduction and gas utilization at oil and gas processing facilities

AM0043 Leak reduction from a natural gas distribution grid by replacing old cast iron pipes or steel pipes without cathodic protection with polyethylene pipes

AM0064 Mine methane capture and utilisation or destruction in underground, hard rock, precious and base metal mines

Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride (11)

AM0001 Incineration of HFC 23 Waste Streams

AM0035 SF₆ Emission Reductions in Electrical Grids

Solvent use (12)

APPROVED METHODOLOGIES BY SCOPE

Waste handling and disposal (13)

- AMS-III.E. Avoidance of methane production from decay of biomass through controlled combustion, gasification or mechanical/thermal treatment
- AMS-III.F. Avoidance of methane production from decay of biomass through composting
- AMS-III.G. Landfill methane recovery
- AMS-III.H. Methane recovery in wastewater treatment
- AMS-III.I. Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems
- AMS-III.L. Avoidance of methane production from biomass decay through controlled pyrolysis

Afforestation and reforestation (14)

AM0042 Grid-connected electricity generation using biomass from newly developed dedicated plantations

Agriculture (15)

- Methane recovery in agricultural and agro industrial activities

POTENTIAL INVESTORS AND BUYERS IN CDM PROJECTS

- Certified Emission Reductions (CERs) accruing from CDM projects can be used for compliance by installations covered by the European Union Emission Trading Scheme (EU ETS) as of 1 January 2005. CERs from CDM projects can be used for compliance with the Kyoto Protocol in the first commitment period 2008 - 2012.
- The carbon credit market, which includes the CDM, is currently characterized by relatively few buyers with a range of objectives. The vast majority of the publicly known capital for purchasing emission reductions comes from various funds and multilateral buyers. The major institutional buyers include:
 - Government Carbon Funds
 - Private Sector Carbon Funds
 - International organisations
 - Brokers / traders
 - End-users

POTENTIAL INVESTORS AND BUYERS IN CDM PROJECTS

- **Governmental purchase programmes**
- IFC-Netherlands Carbon Facility (INCaF)
- Japan Carbon Fund
- Development Bank of Japan
- Japan Bank for International Cooperation (JBIC)
- KfW
- UK DEFRA/SCCPO
- Italy, Spain, Canada, Portugal, France, Sweden
- The Netherlands Clean Development Facility
- The Community Development Carbon Fund (CDCF)
- The BioCarbon Fund
- The Italian Carbon Fund
- The Spanish Carbon Fund
- Danish Government
- Finnish Government Pilot programme for CDM/JI
- Belgian Government
- Austria CDM/JI Programme
- Carboncredits.nl, the Dutch ERUPT/CERUP
- Give loans for transaction costs
- 50% of of transaction costs as subsidy

POTENTIAL INVESTORS AND BUYERS IN CDM PROJECTS

Private Sector Carbon Funds

IETA Members

European Carbon Fund (ECF)

EcoSecurities-Standard Bank Carbon Facility

Greenhouse Gas Credit Aggregation Pool (GG-CAP)

Rabobank

ICECAP

The Asia Carbon Fund™

Climate Investment Partnership (CIP)

Japan Greenhouse Gas Reduction Fund (JGRF)

POTENTIAL INVESTORS AND BUYERS IN CDM PROJECTS

International organisations

World Bank, African Development Bank

Brokers / traders

EcoSecurities, CO2.com, Natsource,
Morgan&Stanley,

Barclays, HSBC, Pointcarbon, Rabobank

End-users

Endesa, EdF, E.ON, Mitsubishi, Akzo Nobel,
Sony, Reco,

Kyoto Electric, Kepco, Depco, Shell

POTENTIAL INVESTORS AND BUYERS IN CDM PROJECTS

- EPMS IS A CDM CONSULTANCY FIRM
- THE INTERNET HAS A LOT OF INFORMATION ON CDM BUSINESS OPPORTUNITIES

THANKS