

CARBON MARKET

PROFILE — TANZANIA



Key assumptions

- Data referring to the CDM (projects and programmes) has been taken from the [UNEP DTU CDM project and PoA pipelines](#) as of November 2020. In order to remain conservative, we only include registered activities. We did not assess data quality with regard to whether a project is still active, as UNEP is the commonly recognized database drawing directly on UNFCCC Secretariat data. While there is a high degree of uncertainty with regard to the issuance and upscaling potential of individual activities, these are difficult to assess and will be affected by future political decisions. Only PoAs which have an included component project activity (CPA) in the profiled country have been counted.
- While it is clear that in particular the 2030 potential is subject to political decisions and therefore theoretical, it is included as the numbers are based on current CDM activity documents. Whilst all emission reductions may be highly unlikely to be achieved under the CDM, the emission reduction volume may still be relevant e.g. for own NDC contributions by host countries. Moreover, PoAs may experience significant upscaling if carbon market demand increases, which would add further mitigation potential, since we only included emission reductions from actually included CPAs.
- Any future mitigation potential is expressed in kilotons of carbon dioxide equivalent ($\text{ktCO}_2\text{e} = 1000 \text{ tCO}_2\text{e}$) in order not to prejudge the type of certification that post-2020 mitigation outcomes may be using.
- Voluntary carbon standard data has been taken from the official databases of the respective standard. Verified Carbon Standard data is as of December 2020. Data on Gold Standard (GS) activities have been obtained from the GS registry and complemented by information provided directly from the GS in December 2020. Plan Vivo data was obtained directly from the standard in October 2020.
- Assumptions on CDM transition are based on the current status of the COP25 draft decision documents. While these may change, the delay of COP26 to November 2021 rules out that a final decision can be taken before. Therefore, we give a brief indication of what the proposed cut-off dates for CDM transition may mean on a country level. A [recent short study on cdm transition and its relevance for Africa](#) explains key issues in detail.
- Due to the lack of a definition or common understanding of what an Article 6 pilot is, we also include initiatives that aim at implementing carbon market activities beyond the CDM. This includes readiness activities and others aiming at emission

Introduction

EXECUTIVE SUMMARY

The United Republic of Tanzania submitted its (i)NDCs in 2015, in line with its Tanzania Development Vision (2025), Zanzibar Vision (2020) and are anchored in its National Climate Change Strategy (2012) and the Zanzibar Climate Change Strategy (2014). The country intends "to reduce greenhouse gas emissions economy wide between 10% and 20% by 2030 relative to the business as usual scenario of 138 – 153MtCO₂eq emissions".

"Tanzania's capacity for strong adaptation and mitigation actions beyond national efforts are dependent on support for implementation". The country estimated that USD 60 billion is needed for implementation of the identified mitigation contributions. "Therefore, implementation of the identified (i)NDCs will strongly depend on how the international community meets its commitments in terms of financial and technological support".

In total over 900,000 carbon credits have been issued in Tanzania from the Clean Development Mechanism (CDM) and Voluntary Carbon Market (VCM) standards.

- Tanzania has a CDM portfolio with a total of 14 registered activities, which includes 3 projects and 11 Component Project Activities (CPAs) within 2 Programmes of Activities (PoAs).
- The country has to date issued over 180,000 Certified Emission Reductions (CERs), with the top two sub-sectors being landfill flaring (over 50%), and run-of-river hydro projects (over 48%) . Biomass comes in third with under 1% of the total.
- Out of the 3 registered projects, 2 were registered before December 2012 and the third being registered in early 2013.
- The country additionally possesses a diverse VCM standards portfolio including 5 certified Gold Standard projects, 4 of which issue verified emission reductions (VERs). This also includes two long standing forestry initiatives under the Plan Vivo Standard, and 4 projects under Verra.
- Crediting periods for the projects all lapse in 2020, thus highlighting an untapped potential with over 2.8 million CERs available up to 2020, and over 1 million CERs between 2021-2030.

Carbon Market Portfolio

CDM performance and potential

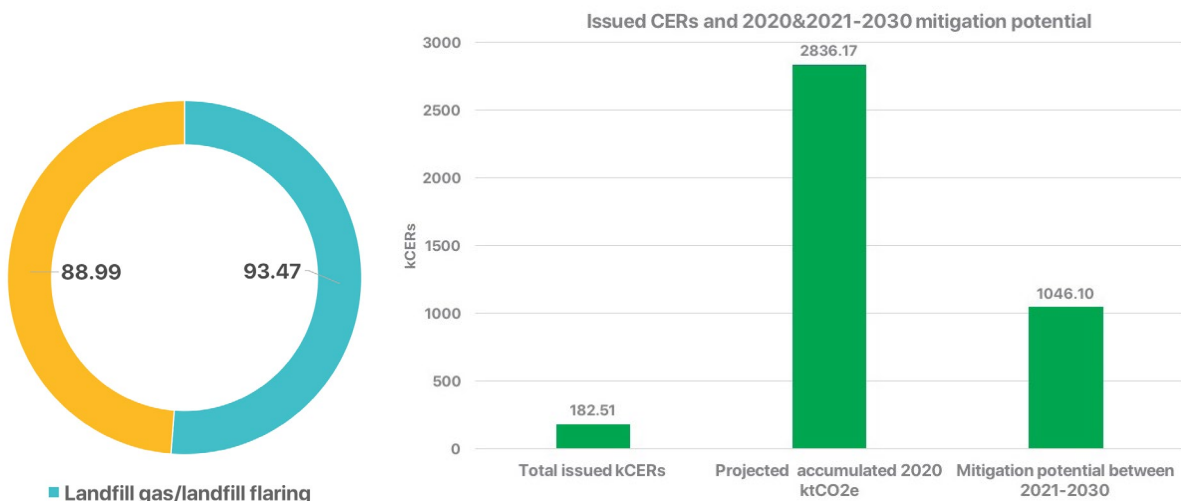
There are 14 registered CDM activities in Tanzania: 3 projects, and 11 CPAs within 2 PoAs. 2 out of the 3 projects were registered before December 2012, and 10 (over 90%) of the CPAs were included after 2012.

Sector wise – the projects are spread evenly (1 each) under landfill gas, biomass energy and hydro power; whilst PoAs focus on solar PV water disinfection (1 CPA) and mixed/hybrid renewable energy systems (10 CPAs).

Tanzania has issued over 180,000 CERs, from 57% of all registered and included activities (67% of projects and 54% of CPAs). These are from the following sub-sectors – landfill gas flaring, run-of-river hydro projects and biomass energy.

Total mitigation potential of registered activities by 2020 reaches over 2.8 million CERs, spread across the various projects and CPAs. The 2021- 2030 mitigation potential reaches over 1million tCO₂e, most of which is from projects (over 900,000 tCO₂e).

CDM Issuance by sector



Volume of CER issuance and potential of currently registered CDM activities by sector

Activity	No. of PA	No. of PoA	No. of CPA	kCERs issued	Projected accumulated 2020 ktCO ₂ e	Mitigation Potential between 2021 - 2030 ktCO ₂ e
Landfill gas/landfill flaring	1			93	2023	0
Solar PV water disinfection		1	1	0	117	126
Mixed Renewables		1	2			0
Hydro/run of river	1		7	89	575	800
Biomass energy	1		1	0	121	120
Total	3	2	11	183	2,836	1,046

Voluntary carbon standards

Key statistics/facts

Tanzania has 11 VCM activities that have issued 815,535 credits.

Gold Standard (GS)

- Hosts 5 certified GS projects (4 VPAs and 1 stand-alone projects)
- 4 GS activities have issued 354,969 VERs
- Dominated sub-sectors are 3 domestic energy efficiency projects, 1 project under biogas heat and 1 solar PV project

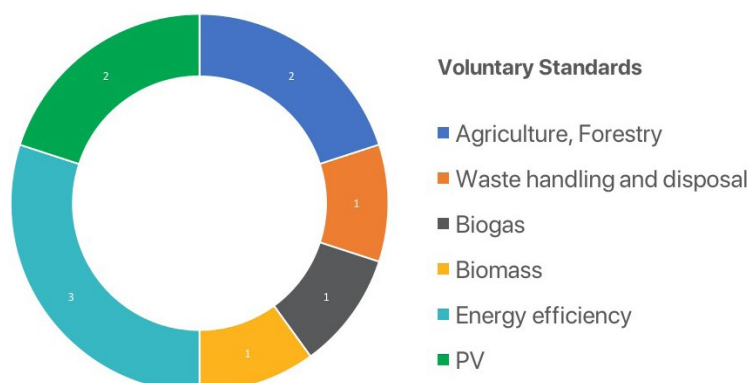
VERRA/Voluntary Carbon Standards (VCS)

- 4 registered projects have issued 257,086 verified carbon units (VCUs)
- main sectors issuing are Agriculture Forestry and Other LandUse (90%) and also Waste handling and disposal (10%)

Plan Vivo

Two projects with an issuance of over 200,000 credits. Emiti Nibwo Bulora (since 2010) enables small-scale farmers to improve their land management methods through tree planting. The Yaeda Valley REDD+(since 2012) by Carbon Tanzania (CT) has established a results-based PES.

Registered Voluntary Carbon Standard activity by sector



Showcase Activity

Showcase 1 Activity

Mwenga Hydro Power Plant (ref no. 9550) was registered as a CDM project in January 2013 with an estimated reduction potential of over 11,000 tCO₂e/yr. The 4MW power plant has generated a total of 50,413 CERs following three issuance requests, with a further 22,645 available for issuance. The greenfield project was developed by the Mwenga Hydro Ltd (Rift Valley Energy), co-financed by the EU/ACP Energy Facility and the Rural Energy Agency of Tanzania and Tea Research Institute of Tanzania (TRIT), to generate electricity for the nearby processing factories, and local communities along the route of the constructed power lines, as well as to export electricity to the Tanzanian power grid. The first crediting period for the project runs until January 2020, and therefore a renewal request would need to be submitted by early 2021 for continued CDM engagement. .



Mwenga Hydro Power Project in Mufindi District, Tanzania Source

CDM transition

What is at stake?

- All the 3 registered projects currently have expired crediting periods, with the most recent having expired in January 2020. These require, where applicable, renewal to enable the projects to issue additional CERs.
- The issuance rate for CERs from up until 2020 currently stands at 2% for PAs and 1% for CPAs;
- Between 2013 and 2016, 1 PA and 1 PoA were registered;
- There have been noticeable PoA registrations and CPA inclusions in Tanzania, the latest inclusion being Mpanda Solar Photovoltaic Power Plant on 14th May 2019, under the Tanzania Renewable Energy Programme PoA (ref no. 9904). The small-scale 1MW project under the Rural Energy Agency (REA) has an estimated annual reduction of 1,628 tCO₂e. The project is being developed in the frame of the Micro Power Economy, Tanzania Roll out program, which is financially backed by the Africa Enterprise Challenge Fund (AECF) and implemented by mini-grid operator, Jumeme Rural Power Supply Ltd. The PoA has Sweden, Norway and Spain as listed other parties, and overall contains 10 CPAs across the country covering Solar, biomass and hydro technology. This can be viewed as interesting development within East Africa with the integration of the CDM within the important off-grid sector and particularly for mini-grids.

New market mechanisms and Article 6

- Tanzania does not have an Article 6 pilot to date. However, the country has confirmed its readiness to participate in the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) volunteer pilot phase by January 2020.

Role of CORSIA

- Tanzania's civil aviation authority issued its notification to take part in the voluntary phase of CORSIA in July 2019, therefore becoming one of the 83 states (representing 76.6%) of international aviation activity intending to participate, as at April 2020.
- To date, the national airline Air Tanzania Company Ltd (ATCL) and Precision Air actively participated in training for the CORSIA in 2019
- Tanzania has 3 CDM Activities that are eligible under CORSIA.

References

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