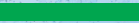




Eastern Africa Alliance
On Carbon Markets And
Climate Finance

CARBON MARKET

PROFILE  TANZANIA



1. Introduction/Executive summary

Role of carbon markets in Tanzania's NDC

- In July 2021, the United Republic of Tanzania updated its NDC which is aligned with the Tanzania Development Vision (2025), Zanzibar Vision (2050) and are anchored in its National Climate Change Strategy (2021) and the Zanzibar Climate Change Strategy (2014). The country intends "to reduce greenhouse gas emissions economy wide between 30% and 35% whereby about 138 - 153 Million tons of carbon dioxide equivalent (MtCO₂e)-gross emissions is expected to be reduced by 2030.
- The country estimated that over USD 19 billion is needed for implementation of the identified adaptation and mitigation contributions. Thus, the implementation of the identified NDC strongly depends on how the international community meets its commitments in terms of financial and technological support (United Republic of Tanzania NDC 2021 p.25).

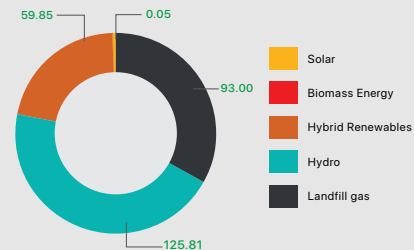
Tanzania's Carbon Market Portfolio – key insights

- In total over 3.5 million carbon credits have been issued in Tanzania from the Clean Development Mechanism (CDM) and Voluntary Carbon Market (VCM) standards (Plan Vivo; Gold Standard and VERRA).
- Tanzania has a CDM portfolio with a total of 16 registered activities, which includes 3 single project activities (PAs) and a total of 13 Component Project Activities (CPAs) within 2 Programmes of Activities (PoAs).
- CDM activities in Tanzania have to date issued 278,708 Certified Emission Reductions (CERs), with the top sub-sectors being run-of-river hydro (>44%), solar (33%) and biomass efficiency with 11%.
- 4 of the activities were registered pre-2012 with 12 activities post-2012.
- The country additionally hosts a diverse VCM standard portfolio including 5 certified Gold Standard projects with issued verified emission reductions (VERs), 2 long standing forestry initiatives under the Plan Vivo Standard and 5 projects under Verra.
- Crediting periods for most CDM projects lapsed in 2020, thus highlighting an untapped potential with over 3.6 million CERs available up to 2025, and a mitigation potential of over 773,000 CERs between 2021-2025.

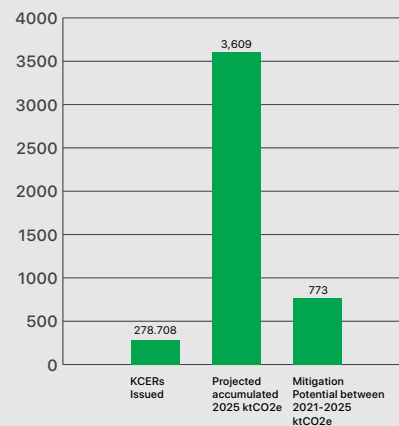
2. CDM portfolio and performance

- There are 16 registered CDM activities in Tanzania: 3 single projects, and 13 CPAs within 2 PoAs. All the single projects were registered before December 2012.
- Sector-wise – the projects are spread evenly (1 each) across landfill gas, biomass energy and hydro power; whilst PoAs and CPAs focus on solar PV water purification and mixed/ hybrid renewable energy systems.
- Tanzania has issued 278,708 CERs, from 57% of all registered activities (22% of PAs and 78% 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 reached over 2.8 million CERs, spread across the various projects and CPAs. The additional 2021- 2025 mitigation potential reaches over 773,000 tCO₂e.

CDM issuances by Sector



CDM Pipeline, issuance and mitigation potential



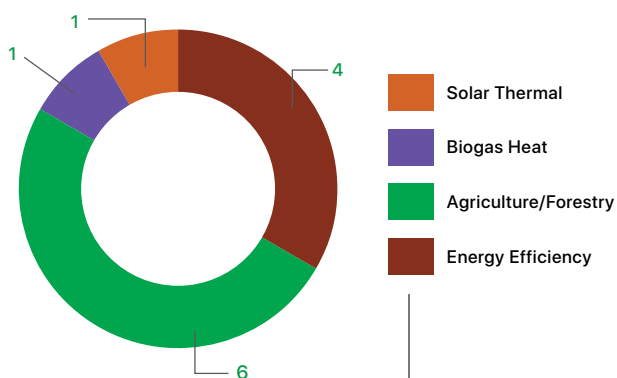
Volume of CER issuance and potential of currently registered CDM activities by sector

Activity Type	Sub-sector	No. of PA	No. of PoA	No. of CPA	kCERs issued	Projected accumulated 2020 ktCO ₂ e	Projected accumulated 2025 ktCO ₂ e
Overall		3	2	13	279	2,836	773
Landfill gas	Landfill flaring	1	0	0	93	2,023	(0)
Biomass energy	Agricultural residues	1	0	1	0	121	(52)
Hydro	Run of river	1	0	7	126	575	(432)
Solar	Solar PV water purification	0	1	4	-	117	(13)
Solar	Solar PV	0	1	0	0	0	131
Hybrid renewables	Solar/wind/other	0	0	1	60	-	1,139

CDM transition potential

- Most Tanzanian CDM activities may be eligible for transition. Once the Article 6.4 Supervisory Body has made available the transition process, Tanzania will need to establish criteria and an approval procedure for activity transition aligned with UNFCCC rules. At the same, there is significant leeway for host countries to determine how CDM activities may contribute to their NDC. While Tanzania has only attracted few CDM projects, most PoA CPAs have been registered only recently and could be significantly scaled up with additional CPAs if the PoA frameworks would transition to Article 6. Therefore, the post-2020 emission reduction potential may be much higher than the currently available data if several PoAs successfully transition and expand new CPAs.
- Of the 3 registered projects 2 have expired crediting periods, of which is only non-renewable, with 1 expiring its crediting period after 2025. Hence, most activities could renew their crediting periods under the CDM temporary measure and then transition (if approved by government).
- The issuance rate for CERs currently stands at 10% across all registered CDM activities.
- Between 2013 and 2016, 1 PA and 1 PoA were registered.

The CDM has 279,000 CERs pre-2020 vintage credit issuances from 3 project activities and 13 CPAs. There are no post-2020 vintage issuances yet.



3. Voluntary carbon market portfolio and performance

Tanzania has 12 VCM activities that have issued over 3.3 million credits (Plan Vivo; Gold Standard; VERRA).

Gold Standard (GS)

- Hosts 5 certified GS projects (4 VPAs and 1 standalone project)
- GS activities have issued 383,467 VERs
- Dominant sub-sectors are 3 domestic energy efficiency projects, 1 biogas heat and 1 solar thermal project.
- All the issuances are pre-2020.

VERRA/Voluntary Carbon Standards (VCS)

- 5 registered projects have issued over 2.6 million verified carbon units (VCUs).
- Main sectors issuing are agriculture, forestry and land use (80%) and energy efficiency (20%).
- VERRA has issued 528,511 pre-2020 vintage VCUS and a total of 2,169,334 post-2020 vintage VCUs.

Plan Vivo

- 2 projects with an issuance of 229,251 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 Payment for Ecosystem Service (PES)
- Plan Vivo has 224,091 pre 2020 vintage credit issuances and 5,260 post 2020 vintage credit issuances from their registered projects.

Chart - Voluntary Standard Activities

Showcase Activity

The Mobisol Solar Home Systems in Tanzania – VPA I (GS 2527) is part of the Mobisol Solar Home Systems Micro-Scale Gold Standard Programme of Activities and has issued over 25,447 credits. The project distributes battery-charged solar home systems that provide basic lighting service to households currently using fossil fuel-based lighting in Tanzania. The programme replaces the fossil fuel-based lamps in use in project households thereby reducing Greenhouse Gas emissions resulting from combustion of fossil fuels in the baseline lamps. The project helps in mitigating climate change as well as improving the health and well-being of the community and providing decent work to the communities in the project area thus helps in meeting several Sustainable Development Goals.



Source: Engineering for Change n.d.

4. Article 6 readiness and piloting

4.1. Tanzania's Article 6 readiness

- The Division of Environment in the Vice-President's Office serves as Tanzania's DNA for the CDM
- Tanzania is an active member of the Eastern African Alliance on Carbon Markets and Climate Finance (EAA) and has thus begun to prepare for establishing its institutional framework and capacity for engaging in Article 6 carbon market instruments

4.2. Article 6 piloting

- According to (UNEP CCC 2022b) Tanzania has 1 Article 6 pilot project to date under the Paris agreement Article 6 pilot activities which is a biogas program in Kenya and Tanzania.

Role of CORSIA

- Tanzania's civil aviation authority issued its notification to take part in the voluntary phase of CORSIA in July 2019 (TCAA 2019), therefore becoming one of the 83 states (representing 76.6%) of international aviation activity intending to participate, as of April 2020.
- Tanzania has 5 CDM and 4 VERRA registered Activities that are eligible under CORSIA.
- The country has confirmed its readiness to participate in the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) volunteer pilot phase since January 2020.

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VERRA (2022): VERRA all projects, <https://registry.verra.org/app/search/VCS> (accessed August 2022)

6. Key assumptions

- Data referring to the CDM (projects and programmes) has been taken from the UNEP CCC CDM project and PoA pipelines as of August 2022. To remain conservative, we only include registered activities. We did not assess data quality regarding 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 regarding the issuance 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 UNEP CCC captures estimated accumulated emissions until 2025 based on transparently available CDM activity design documents (PDD; PoA-DD, it is clear that meeting these estimations is subject to political decisions and therefore theoretical.
- Any future mitigation potential is expressed in kilotons of carbon dioxide equivalent (ktCO₂e = 1000 tCO₂e) 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 standards. Verified Carbon Standard data is as of August 2022. Data on Gold Standard (GS) activities have been obtained from the GS registry while Plan Vivo data was obtained directly from the standard in August 2022.
- Parties agreed at COP26 that projects will be able to transition from the Clean Development Mechanism to the new Article 6.4 mechanism. A limited number of Certified Emission Reductions (CERs) could be used towards countries' NDCs, noting that the projects will not be able to receive issuances for post-2020 emission reductions, unless they transition to the new Art.6.4 mechanism. Vintages issuances post-2021 will require corresponding adjustments.



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