

Article 6 of the Paris Agreement and the Carbon Market in Uganda

By **Kenneth Muhangi**



Abstract

This article examines the implementation of Article 6 of the Paris Agreement in Uganda, emphasizing the country's unique geography, climate vulnerability, and the development of its carbon market. Highlighting Uganda's commitment to international climate treaties, the article discusses mechanisms for carbon trading and cooperative approaches under Article 6. Key projects in renewable energy and reforestation demonstrate Uganda's efforts in carbon sequestration and emissions reduction. The operationalization of Article 6 through Uganda's National Climate Change Act 2021 and forthcoming regulations is analyzed, stressing regional collaboration and local engagement. The article concludes that with continued cooperation, Uganda can leverage the carbon market for economic growth and environmental sustainability.

Key Words: Article 6, Paris Agreement, Carbon market, Uganda, Climate change.



Kenneth Muhangi is a Lecturer at Uganda Christian University (UCU), Partner, and Head of Sustainability, Technology, Media, Telecommunications & Intellectual Property at KTA Advocates. He is also the Chair of the Technology, Media & Telecoms Committee of the East Africa Law Society and the ICT Cluster of the Uganda Law Society.

Climate Change, a View from the Top

Uganda is located on the East African plateau, averaging about 1100 meters (3250 ft) above sea level, and is almost entirely within the Nile basin. The Nile Basin is a geographical region encompassing the drainage basin of the Nile River, the longest river in the world. This basin spans eleven countries in northeastern Africa, including Egypt, Sudan, South Sudan, Ethiopia, Uganda, the Democratic Republic of the Congo, Kenya, Tanzania, Rwanda, Burundi, and Eritrea. Uganda's eastern part features higher elevations, particularly around Mount Elgon, which stands at 4321 meters (14177 ft), with the Rwenzori Mountains as the highest point at 5111 meters (16768 ft)¹.

Being on the equator means that the imaginary line dividing the Earth into the Northern and Southern Hemispheres passes through Uganda. This diverse topography, ranging from low-lying lakeshores to towering mountain peaks, influences its climate, agriculture, and biodiversity. The equatorial region, known for its rich biodiversity, contributes to Uganda's diverse flora and fauna, including numerous species of birds, mammals, and plants. The high levels of solar insolation make Uganda a suitable location for solar energy projects.

Uganda enjoys a tropical climate with relatively stable temperatures throughout the year and two major rainfall seasons: March to May and September to December. The consistent climate allows for year-round agriculture, which is advantageous for specialty crop production such as cotton, coffee, tea, vanilla, and shea butter.



¹www.mofa.go.ug/washington. Accessed on May 17, 2024

According to the Uganda Investment Authority, Uganda produces 3 tons of shea butter per year and over 6 million bags of coffee². Its coffee and shea butter are recognized for their unique qualities and are under consideration for geographical indications (GI) status.

A GI is a type of intellectual property protection that ensures only products genuinely originating from a specific place can be marketed under that name, owing to their qualities, reputation, or characteristics inherent to that origin.

Uganda's economy is vulnerable to climate change, and its impacts have been felt across various sectors such as agriculture, fisheries, water resources, forestry, energy, health, infrastructure, and settlements.

According to the United Nations Framework Convention on Climate Change (UNFCCC)³, climate change is a change in climate attributed directly or indirectly to human activity that alters the composition of the global atmosphere. Uganda's National Climate Change Policy 2015, together with Uganda's Vision 2040, recognizes that tackling the challenges of climate change, such as retreating glaciers and increased frequency and intensity of droughts, floods, heat waves, and landslides, will enhance sustainable economic and social development.

The policy cites that since 1912, about 83% of the ice cap on Mount Kilimanjaro has significantly melted, as has a large portion of the ice cap on the Rwenzori Mountains. These ice caps are important sources of water for the communities living on the slopes of the mountains, so their disappearance will have significant negative impacts on the lives and livelihoods of rural communities and urban centers that rely on water from these ecosystems⁴

Article 6 and the Voluntary Carbon Market (VCM) in Uganda

Uganda signed the UNFCCC on 13th June 1992 and ratified it on 8th September 1993. Uganda also ratified the Kyoto Protocol on 25th March 2002. The protocol provides the basis for an international

response to the challenges of climate change. Uganda ratified the Paris Agreement⁵ on 21st September 2016, a global treaty adopted after COP21 in Paris (2015), aimed at addressing climate change by limiting global warming to well below 2°C, with efforts to limit it to 1.5°C above pre-industrial levels.

The agreement encourages countries to reduce greenhouse gas emissions and enhance their resilience to climate impacts, and through Article 6, it emphasizes carbon trading as a mechanism for mitigating climate change. Greenhouse gas emissions include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases (HFCs, PFCs, SF₆, and NF₃). CO₂, primarily released

³<https://unfccc.int> accessed on May 17, 2024

⁴[www.mwa.go.ug/National Climate Change Policy April 2015](http://www.mwa.go.ug/National%20Climate%20Change%20Policy%20April%202015) accessed on May 17, 2024

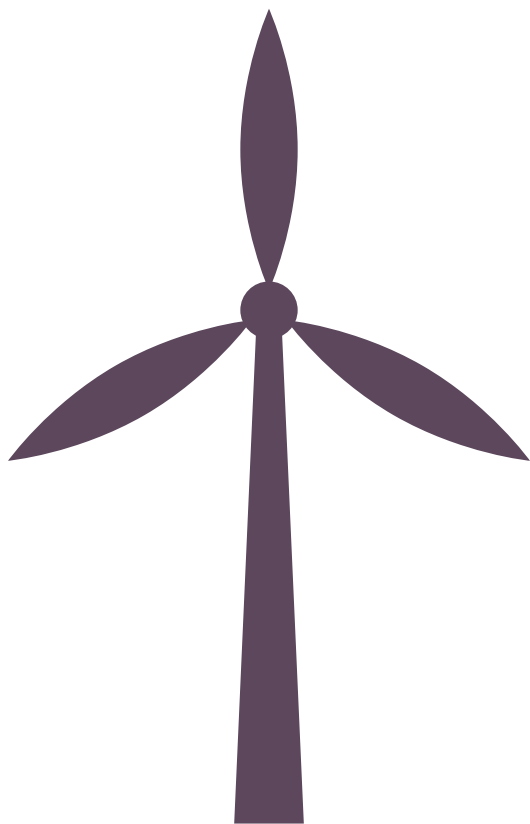
⁵https://unfccc.int/sites/default/files/english_paris_agreement.pdf accessed on May 17, 2024

from fossil fuel combustion and deforestation, is the largest contributor to human-induced climate change.

Under Article 6.2, countries can engage in cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOs). These ITMOs provide a framework for countries to trade carbon credits generated through various projects bilaterally and multilaterally, ensuring that the emission reductions are real, measurable, and contribute to sustainable development. ITMOs allow for the transfer of emission reductions from one country to another, which can be counted towards their respective nationally determined contributions (NDCs). Private companies can also participate in the carbon market by purchasing ITMOs to offset their emissions or selling ITMOs to countries towards their NDCs.

Article 6.4 introduces a centralized mechanism similar to the Clean Development Mechanism (CDM) under the Kyoto Protocol to facilitate the trade of carbon credits. Article 6.4 trades are supervised by a United Nations (UN) Supervisory Body. Article 6.8 promotes non-market approaches, encouraging countries to collaborate on climate action through means other than carbon trading, such as technology transfer, finance, and capacity building.

Article 6 also introduces corresponding adjustments that ensure carbon credits are not double-counted when transferred by requiring the seller to subtract the emissions reductions from its national inventory and the buyer to add them to its own.



This process is supported by robust accounting rules and transparency frameworks, requiring countries to report their transfers and adjustments through biennial transparency reports under the Enhanced Transparency Framework.

Due to Uganda's unique weather and topography, carbon projects have mostly included renewable energy installations, reforestation, and regenerative agriculture. Through reforestation and regenerative agriculture, trees and plants harness their symbiotic relationship with mycelial networks, capturing carbon and storing it in the soil, helping mitigate carbon emissions and supporting soil health. Other projects include energy efficiency improvements such as cookstoves and manufacturing of ceramic water filters, which significantly contribute to carbon avoidance by reducing greenhouse gas emissions. These projects, sequestering and reducing carbon, can be measured, verified, tokenized, and sold locally or internationally.

Verification of carbon projects in Uganda can be done through standards like Verra's Verified Carbon Standard (VCS)⁶ and the Gold Standard, both of which provide rigorous frameworks to ensure the integrity of carbon offset projects. These projects must adhere to approved methodologies and undergo independent validation and verification by accredited third-party auditors. Once verified, the carbon credits are registered publicly to ensure transparency and prevent double counting.

Verra and the Gold Standard both emphasize sustainable development, with the Gold Standard particularly aligning projects with the United Nations Sustainable Development Goals (SDGs).

This robust verification process ensures that carbon credits generated from Ugandan projects are credible, contributing to both climate mitigation and sustainable development goals.

In May 2024, Uganda was awarded as the best investment destination for attracting some of the most significant sustainability-related foreign direct investment (FDI) projects in Africa in 2023⁸.

According to the Uganda Investment Authority (UIA), three notable projects were recognized for their contributions to sustainable development. Nexus Green, a solar energy company, manufactures and supplies affordable solar-powered solutions for over 458 million people in East Africa lacking reliable energy access.

⁶<https://verra.org/programs/verified-carbon-standard/> accessed on May 17, 2024

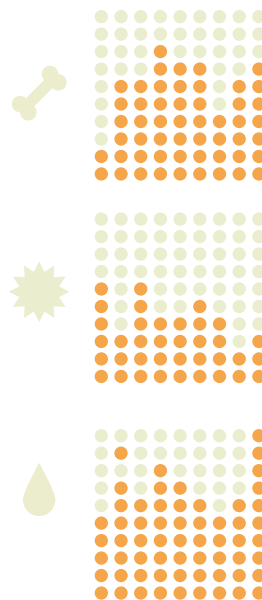
⁷<https://www.goldstandard.org/news/announcing-gold-standard-global-goals> accessed on May 17, 2024

⁸<https://www.ugandainvest.go.ug/uganda-named-best-investment-destination-in-africa/> accessed on May

17, 2024

With a joint investment of over \$100 million, including \$10 million for a factory, the company employs 200 Ugandans directly and over 1000 indirectly. The second project, 1MTN, focuses on high-quality nature-based carbon removal by restoring one million hectares of degraded land by 2030 through polyculture native bamboo planting. It is currently investing \$1.5 million with plans to invest \$100 million in the next four years. Lastly, Spouts of Water, Africa’s largest manufacturer of ceramic water filters, uses locally sourced materials to provide affordable clean water solutions, reaching over 200,000 households with an aim to expand to six million households by 2030. The current investment is valued at \$10 million, with an additional \$80 to \$100 million planned over the next four years, and the project employs 450 Ugandans.

Africa’s leading clean cooking company and carbon project developer, BURN, also recently announced a \$12 million investment to expand clean cooking into Uganda. BURN’s electric cooking project has been listed by Gold Standard. This project is the first large-scale e-cooking carbon project of its kind for the continent and a breakthrough in access to clean cooking. To make its e-cooking appliances affordable to low-income households, the company is leveraging both carbon funding and “pay as you cook” financing⁹.



Operationalizing Article 6 and the Way Forward for Uganda

Article 6 is given force by Uganda’s National Climate Change Act 2021 (the Act), which provides for measuring emissions, reporting and verification, financing, participation, and coordination of climate change mechanisms.

⁹ <https://www.burnstoves.com/newsroom/burn-secures-over-usd-12-million-investment-to-expand-clean-cooking-across-africa/> accessed on May 17, 2024

Under Section 9, the Act introduces climate change mechanisms such as the compliance emissions trading mechanism (9(a)), similar to mandatory carbon trading schemes like the European Union Emissions Trading System (EU ETS); (b) voluntary emissions trading mechanisms where entities voluntarily buy and sell carbon credits to offset emissions; (c) non-market approaches as referred to in Article 6 of the Paris Agreement, which include cooperative measures like technology transfer and capacity building without trading carbon credits; (d) cooperative approaches under Article 6, allowing countries to meet their Nationally Determined Contributions (NDCs) through international cooperation and trading of carbon credits known as internationally transferred mitigation

outcomes (ITMOs); and (e) specific market and non-market mechanisms that enhance global climate action by providing flexibility and supporting sustainable development.

The Act also introduces a pre-project licensing and approval mechanism that requires every project developer in Uganda to seek approval/licensing from the Carbon Credits Department of the Ministry of Water & Environment before commencing a carbon credits project. The Act will be operationalized by the National Climate Change (Climate Change Mechanisms) Regulations 2024, which detail the approval process, including a request for a letter of no objection and an application for approval of a climate change mechanisms project. The Regulations will also require authorization for the international transfer of verified carbon credits, which will necessitate proof of ownership of credits.

The Act and proposed regulations regard a carbon credit as a tradable commodity that can be bought, sold, traded, and owned like other traditional financial instruments, thereby granting carbon credits property rights. Article 26 of the Constitution of Uganda provides for the right to property, and under Uganda's tax laws, the disposal/transfer of property attracts tax liability in the form of VAT, Income Tax, and capital gains tax imposed on the profit realized from the sale or transfer of an asset.

The success of the carbon market in Uganda will depend on cooperation between partner states within the East African Community and largely the African Union. These bodies can agree on prices for carbon and collaborate on supporting and encouraging local content within the carbon trading ecosystem. Collaboration will also ensure efficient tax regimes that will supplement rather than stifle the industry.

Success will also follow from buy-in from Ugandans, who are in a unique position to benefit from the carbon market industry while also meaningfully contributing to the reduction of global emissions.

Conclusion

Operationalizing Article 6 of the Paris Agreement through Uganda's National Climate Change Act 2021 and the forthcoming National Climate Change (Climate Change Mechanisms) Regulations 2024 is a significant step towards enhancing Uganda's capacity to address climate change. By establishing robust frameworks for carbon trading and other climate change mechanisms, Uganda positions itself as a key player in the global carbon market. The active participation of private companies, the government, and local communities will be crucial in driving sustainable development and achieving Uganda's climate goals. With continued collaboration at the regional and international levels, Uganda can harness the benefits of the carbon market to foster economic growth, environmental sustainability, and improved livelihoods for its people.

References

1. Uganda Investment Authority. (2023). Investment in Specialty Crops. Retrieved from UIA website.
2. United Nations Framework Convention on Climate Change (UNFCCC). (2021). Climate Change Definition. Retrieved from UNFCCC website.
3. Burn Manufacturing. (March 2024). Burn Secures Over USD12 Million Investment To Expand Clean Cooking Across Africa. Retrieved from Burn Website.
4. Uganda National Climate Change Policy 2015. Ministry of Water and Environment. Retrieved from Ministry of Water and Environment website.
5. Verra's Verified Carbon Standard (VCS). (2024). Verification Process. Retrieved from Verra website.
6. Gold Standard. (2024). Sustainable Development Goals. Retrieved from Gold Standard website.
7. Uganda's National Climate Change Act 2021. Ministry of Water and Environment. Retrieved from Ministry of Water and Environment website.

