THE CARBON MARKET FRAMEWORK IN GHANA





February, 2023

KEYWORDS

- Environmental Protection Agency (EPA) Carbon Market Office (CMO)
- Nationally Determined Contributions (NDCs)
- Metric Tons of Carbon dioxide Equivalent (MtCO2 eq)

INTRODUCTION

The Carbon Market Framework Policy Consultation as organized by the Youth Climate Council, Ghana (YCC) in collaboration with the Environmental Protection Agency (EPA) was to discuss Ghana's carbon market mechanism and the possibilities it holds in helping Ghana attain its Nationally Determined Contributions (NDCs) as well as generate revenue for a sustainable economic development.

CONSULTATION OUTCOME

n addressing climate change and its impacts, a number of mechanisms have been presented both globally and nationally. One of these mechanisms is the use of price based instruments to enhance climate actions or mitigate emissions. Based on recent research findings, it is evident that the world's climate is changing due to human activities that influence the rising levels of Greenhouse gases (GHG). The increase in greenhouse gas emissions is the root cause of climate change so the major purpose of the mechanisms proposed for combating climate change is to tackle the root causes. Although emission contribution from the Global South is very minimal, Ghana falls just a little behind Nigeria and Senegal when we break down to the Sub-region. Ghana's NDCs are therefore a means to align our development on a sustainable pathway.

Recent climate changes are widespread, rapid, and unprecedented, some statistics include;

- CO_{2} concentration (the highest in at least 2 million years)
- Sea level rise (Fastest rates in at least 300 years)
- Arctic sea ice area (lowest in at least 1000 years
- Glaciers retreat (unprecedented in at least 2000 years)
- Global Green house Gasses (GHG) emissions GtCO₂eq/years 2030 Emissions gap
- Severe rainfall and windstorms

- Greenhouse Gases (GHG)
- Sustainable Development Goals (SDGs)
- Internationally Transfered Mitigation Outcomes (ITMOs)
- Hydrofluorocarbon (HFC)

The main objectives of the consultation were to:

- 1. Explain Ghana's Carbon market framework and enhance youth understanding on the Article 6.2 cooperative approach,
- 2. Highlight the opportunities available for young people, and
- 3. Seek the opinion of young people on Ghana's Carbon Market Framework.

For more than 30 years, the Intergovernmental Panel on Climate Change (IPCC), sixth assessment report revealed that;1

- Warming will get worse and is likely to rise at least 30°C by 2080
- Uncertainty and variability in rainfall will continue
- Frequently and intensity of extreme weather will rise
- The uncertainties in the future climate would be far more significant than in the past
- The savanna regions are likely to record temperatures above 30°C
- The high likelihood of wet spells may lead to more floods across the country
- The projected increases in dry spells may exacerbate drought conditions, especially in the savanna

On Ghana's GHG Emissions, as indicated by the Ghana's Fourth National Greenhouse Gas Inventory Report, the following trends were presented;²

- Africa accounts for 4% of GHG global emissions
- Ghana is among the top five GHG emitters in **ECOWAS**
- 2019 emissions of 60 million tonnes represent an 86% rise in 10 years
- GHG emissions are projected to be 10 million tonnes by 2030 on a business-as-usual pathway

At the national level, price-based instruments may be used to address climate change. Many countries worldwide have already launched their NDCs. The NDCs are intended to help achieve several things while keeping true to its core mandate of keeping global temperature to 1.5°C.

SUMMARY OF GHANA'S UPDATED NDC



According to the Updated Nationally Determined Contribution Under the Paris Agreement³, the transport sector has 3 unconditional and 2 conditional measures, Energy sector has 5 unconditional, and 15 conditionals, the forestry sector has 3 unconditional, and 2 conditionals, the waste sector 1 unconditional, and 2 conditional measures, and HFC 1 conditional measure.

SOME INITIATIVES IN THE ENERGY SECTOR FOR EMISSION REDUCTION







LOW CARBON ELECTRICITY PROGRAMS (FUELS SWITCH NATURAL GAS)

Renewable Energy penetration is a major step for the promotion of energy efficiency in homes, and industries. On the household level, clean cooking and energy saving gadgets are some of the initiatives to slowly help reduce emissions through energy use. In exploitation and industrial levels the minimization of gas flaring in oil and gas production are reported measures to enhance energy efficiency and reduce emissions.

THE TRANSPORT SECTOR





NON-



WASTE MANAGEMENT







REDUCING WASTE TO LANDFILL SITE

FORESTRY

(BIOGAS)





To be able to implement the NDCs, the following are required:

- Clear-cut policies that are price-based/market based, regulatory-led, and technology-driven or blend of these
- Scalable financing (including carbon finance)
- Private sector participation
- Attractive fiscal incentives from the ٠ government
- Whole- Society's approach

CARBON TRADING

Carbon trading provides a platform where carbon credits are bought and sold and emission of carbon dioxide are paid for. Three major carbon trading mechanisms exist which are adopted by countries depending on their socio-economic development and industrialization. These mechanisms are;

- 1. Carbon Taxation
- 2. Emission Trading schemes
- 3. Carbon Crediting Mechanisms

Ghana's socio-economic development does not make the first two feasible, therefore the carbon crediting mechanism through a carbon market is the one adopted for initial carbon trading in Ghana. The introduction of the Carbon Market aims to complement countries' NDCs efforts by providing common grounds on which countries can collaborate to achieve the agenda 1.5°C.

GHANA'S CARBON MARKET

The carbon Market is one of Ghana's ways of achieving the conditional NDCs, using a price-based instrument to deal with climate change. Currently, eleven programs across seven sectors have policies that place a price on carbon emissions⁴. The EPA is primarily focused on ensuring that all stakeholders in Ghana adhere to the terms in the document to achieve the objectives. The EPA may not necessarily engage in activities that generate carbon revenue but works with agencies, organizations, and individuals from both government and private sectors. The Forestry Commission, a Government of Ghana agency under the Ministry of Lands and Natural Resources, is directly involved in activities that help generate carbon assets. For individuals interested in entering the carbon market, they must define the market they are interested in. These markets can be either compliance-based or voluntary.



COMPLIANCE/MANDATARY MARKET

Established by government to achieve carbon reduction targets.

VOLUNTARY MARKET

A decentralized market that allows the private sector to trade carbon credit.

Ghana since 2020 have had some arrangements with a few countries and others yet to be finalized.

Ghana - Switzerland Agreement

*

Ghana - Sweden Agreement (AG approved Agreement, submitted to carbon)

- Ghana Singapore Agreement (Draft reviewed by EPA's lawyers)
- Ghana Korea Engagement (Intent * for cooperation submitted to Korean Embassy)

Currently, the SWISS embassy, together with the UNDP, is working on a rice project aimed at obtaining Carbon Credits. The rice project involves the effective use of water through well structured irrigation systems, employing over 11,000 rice farmers, and seeks to grow and produce rice all year round. This project will increase yield, reduce water loss, reduce the cost of water, and reduce greenhouse gas emissions. Many projects qualify for carbon credits, including those in the renewable energy space and waste management space. Soil restoration is a major area to consider when it comes to carbon credits, as projects should focus more on how we can help to restore the green forests. Table 8 of the policy framework outlines the requirements that a company must meet for their business to qualify for carbon revenues. For further information and clarification, the EPA should also be consulted.

THE NATIONAL FRAMEWORK

Creating authorized ITMO under A6.2 cooperative approach as indicated in Ghana's Carbon Market Framework follows:

- Authorizing ITMOs ŏ
- (Transfer and use) of ITMOs
- Corresponding Adjustment (CA)

The framework has clearly defined the rules regarding when a carbon credit is authorized or not. Ineligible mitigation activities drawn from the nine unconditional mitigation programs as captured in the red list of the framework would be directed towards achieving Ghana's own NDC target.

There are many opportunities for young people to contribute to attaining Ghana's NDCs and also generate carbon credits through the creation of projects that generate mitigation outcomes and qualifies for authorization under the carbon market framework. As part of developing our carbon assets, we must consider: how to enter communities with the concept of maximum cooperation and benefit realization and ensure that technology development does not slow or negatively impact the global target of 1.5°C.

The EPA ensures that stakeholders comply with and follow the guidelines provided in the policy framework. The purpose of the framework is to regulate Ghana's Carbon Market.

There are six major actors within the carbon market chain;

ACTORS	CATEGORY/ROLE
Host country	Regulator
Project developers	Implementors (Public/Private)
Carbon receiving countries	buying country
Private sector buyers	Investors
Financial institutions	Investors
Auditors	Accountability & transparency

Young climate actors or organizations having ideas or business models which they believe have the potential to generate carbon revenue but they are lacking clear guidelines on the carbon market processes and requirement can develop concept notes and share it with the EPA through the YCC for assistance. The EPA can as well connect such young ideas to appropriate investors.

To ensure the carbon framework is not subject to discontinuity by different governments, the EPA is working with relevant stakeholders to ensure that the policy framework is legally approved and enacted into action. Also, engaging diverse organisations and relevant stakeholders in the development of the framework is another critical step being taken to ensure that the framework is understood, and the guidelines are being followed to enhance implementation. Innovative platforms will be set-up to monitor activities established under the framework. Digitalization of the activities authorised under the framework will facilitate tracking of ITMOs to limit double countning.

MECHANISMS GHANA HAS IN PLACE TO ENSURE TRANSPARENCY

Currently, Ghana is focusing on three areas to ensure transparency which are ensuring the use of standard methodologies that are approved to guarantee that carbon assets are not double-sold, putting in place a measure for verification and evaluation of projects by independent third-party auditors and ensuring that carbon assets are not oversold. Revenues raised or obtained from the trade of carbon credits will go into an independent fund, which will be managed to ensure that all funds are reused in the climate space. A major principle that will govern the Carbon Fund among many others is the principle of financial assessments, which will ensure that carbon revenues are really useful to scale climate action. The relationship between carbon market and climate finance presents huge possibilities for Ghana. While identifing the synergies and exploiting them, it is equally important to pay attention to issues of double counting and trasparency within the carbon market framework.

The YCC is always available to collaborate with individuals and organizations who have interests and ideas in the Carbon Market and want to develop their concepts to build assets and generate revenue.

Priscilla Nyamekye Appiah

Q & A SECTION



?

Who is responsible for implementing the framework, how do we connect with such people?

How do we walk to companies with our projects on the carbon market for financial support? How sure are we that our efforts to ensure emissions reduction are achieved? The purpose of the framework is to regulate the carbon market. Government is the main actor. The developers/ project owners are investors who want to go into communities for investments. Accredited auditors to ensure there's credibility in the market.



If you have an idea and you want funding, you can reach out to YCC for assistance in shaping your proposal to meet the requirement of the framework shaping the proposal to meet the requirements.

?

How is the framework protected from political infiltration and ensures that the finances get to the local people for practical implementation?

The framework would be enacted by parliament to be legally binding to ensure continuity despite change of government.

How does Ghana plan to engage stakeholders on the article 6 cooperative approach?

The framework clearly outlines the hows, we should read it. The consultation is part of the processes of the cooperative approach, and this is one of them.



At our local level are there interventions by our farmers that are reducing emissions and can earn carbon credits?

From farming and landscape. Involvement of the farmers to manage their own farmlands. The rice program along with new irrigation systems are all examples.



What mechanism does Ghana have in place to ensure accountability in the carbon market?

Measures to prevent double credit records. We are using standard methodologies. Comply with the process of registration. This will ensure its integrity and accountability. Ensuring that we do not oversell or overcredit. To credit funds and plow back profits.

CONCLUSION

The Ghana Carbon Market Framework Policy Consultation highlighted the importance of Ghana having a strategic framework to guide operations and harvest opportunities in the carbon market. Globally climate change has presented an additional development risks, and Ghana, as a country, needs to take action to mitigate its impact. The National Determined Contributions (NDCs) set the tone for long-term climate transition in Ghana and serve as a vehicle for contributing to achieving the SDGs. The implementation

of the NDCs requires clearcut policies that are pricebased, regulatory-led, and technology-driven or a blend. Scalable financing, private sector participation, attractive society fiscal incentives, and a whole society's approach is also needed. The consultation discussed the transport sector, energy sector, forestry, waste, and Green cooling as sectors that require policy interventions to help reduce greenhouse gas emissions. Ghana's updated NDCs identifies the carbon market as an avenue of mobilizing finance to meet set targets. The Ghana-Switzerland Agreement, Ghana-Sweden Agreement, and Ghana-Singapore Agreement were mentioned as examples of government-to-government cooperation in the carbon market. The youth consultation on the carbon market framework fueled the interest of young people to develop and implement projects that have mitigation outcomes and qualifies for authorisation under the framework.

ENDNOTES

1 Lee, H., Calvin, K., Dasgupta, D., Krinner, G., Mukherji, A., Thorne, P., Trisos, C., Romero, J., Aldunce, P., Barrett, K. and Blanco, G., 2023. Synthesis Report of the IPCC Sixth Assessment Report (AR6): Summary for Policymakers. Intergovernmental Panel on Climate Change.

2 UNFCCC, 2019. Ghana's Fourth National Greenhouse Gas Inventory Report.

3 MESTI, 2021. Ghana: Updated Nationally Determined Contribution under the Paris Agreement (2020–2030).

4 Ghana's framework on international carbon market and non-market approaches (2022).

NOTES

8

Compiled by Priscilla Nyamekye Appiah Edited by Richard Matey and Maria Azul Schvartzman Design and layout by Muzzafar-Din Abdullah Essel