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A CRITICAL EVALUATION OF CARBON TRADING PROJECTS IN KENYA

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Abstract

Carbon trading has emerged as a market-oriented solution to mitigate climate change globally. However, there has been a mixed view on its effectiveness and suitability for developing countries such as Kenya. This scoping study critically reviews the policy, legal and regulatory frameworks of carbon trading from a Kenyan perspective. The study examines the challenges and opportunities presented by carbon trading, including environmental and social considerations that have significant implications for local communities in Kenya. The analysis is based on a desk review of literature on climate change, the Kyoto Protocol, and carbon trading, project design documents, and field research reports. The study finds that the Constitution of Kenya (2010) is the legal basis for carbon emissions trading within Kenya, and the government is obliged to sustainably develop and conserve its national resources equitably. The study recommends a range of solutions to improve the carbon market outlook and ensure the private sector's continued incentive to participate in greenhouse gas emission reduction activities in Kenya. These solutions include increasing designated national authority (DNA) activities in Clean Development Mechanism (CDM) promotion activities, providing financial incentives to project owners for investing in underlying projects that reduce or remove GHG emissions and incorporate climate/carbon finance and project development training in university curricula in Kenya

1.0 INTRODUCTION

Human-induced global climate fluctuations experienced worldwide are a major impediment to human livelihoods [1]. Activities such as deforestation and emissions of Green House Gasses (GHGs) are limiting the chances of sustainable living for many human populations across the world, including those in the agrarian sector. Studies assessing the impact of GHCs on world climate indicate that poor agrarian and pastoralist communities are especially vulnerable to extreme weather events associated with GHC emissions and other human activities [2].

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Recognition of the vulnerability of economically underprivileged communities to global warming and other climate change phenomena in developing countries has led to mounting
calls by civil society voices for the international community to address the environmental challenges faced by vulnerable groups[3]. A part of advocacy for environmental justice for these communities activists and interest groups have focused on pushing polluters to take responsibility for GHG emissions and financially cushioning these vulnerable communities through an enforceable legal international instrument[4-5].

The coming to being of the Kyoto protocol and its mechanism, carbon trading was thought by many as a major step towards environmental justice and an answer to many GHC issues. However, many critics of this treaty have pointed out that the Protocol has not achieved its intended GHC and environmental justice objectives, especially in the developing countries. These include Oscar Reyes of *carbon watch* which has have posited that this treaty's carbon trade mechanism is irrelevant to Africa-both as a conservation and economic empowerment tool [6-7]. To what extent is this true? This paper evaluates the criticisms levelled against The Kyoto protocol, and by extension, carbon trading from the lens of experiences of one country, Kenya. The method used is detailed below. 2.0

METHODOLOGY

This country case study puts a spotlight on carbon trading in Kenya and critically analyses the pros and cons of carbon trading in the country. The paper examines the carbon market project policy and legislation history, including financing and implementation structures as they developed. The paper also provides a glimpse of the strengths and weaknesses of carbon trading and impact on local communities as argued by scholars various actors. My research examines the various ways in which carbon trading is being entrenched in Kenya, assessing the degree to which it allows project local community participation. I have examined the following questions: 1.) What are the policy and legal framework that Carbon trading is conducted in Kenya? 2.) Which types of carbon trading projects have been implemented in Kenya? 3.) What barriers exist in the implementation of carbon trading projects in Kenya? 4.) What is the main criticism levelled at Kenya's carbon trading projects? 5.)Going forward, what are the risks (and benefits) associated with carbon projects and carbon financing for local communities in Kenya?

To answer these research questions, I have conducted a scoping study which applies a 4 stage framework[8]: Stage 1: identifying the research question Stage 2: identifying relevant studies Stage 3: study selection Stage 4: charting the data Stage 5: collating, summarizing and reporting the results. The study has three components: a desk review of a.) literature on climate change, Kyoto protocol and carbon trading b.)Project design documents (PDDs) and reports, and c.) field research reports, mostly focused on material from Kenya, Africa and other regions of the world. I chose Kenya because the country has a long pioneering history in Africa in carbon trading activities.

3.0 LITERATURE REVIEW

This section explores the operationalization of carbon trading in Kenya as well as the strengths and weaknesses of the regimes established to ensure the rolling out of various carbon trading programs. The section commences with a discussion of the rudiments of the Kyoto protocol.

3.1 The Kyoto Protocol

The Kyoto protocol refers to an international legally binding agreement linked to the United Nations Framework Convention on Climate Change. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh in 2001. Kenya became a party in 2005.

The Protocol sets mechanisms for signatory industrialized countries and the European community to follow to reduce greenhouse gas (GHG) emissions. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of many years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." As a developing country signatory to the Kyoto protocol, Kenya is not required to curb its emissions as the level of its pollution was deemed well below established limits by the Protocol.

However, it is eligible to benefit financially from selling carbon credits through the Kyoto Protocol carbon trading mechanisms. These mechanisms are discussed below.

3.2 The Kyoto protocol mechanisms

The International Emission trading mechanism set out in Article 17 of the Kyoto Protocol. This provision allows countries that have emission units to spare – emissions permitted them but not "used" – to sell this excess capacity to countries that are over their targets. Emission targets for developed countries are expressed as levels of allowed emissions or assigned amounts. These amounts are expressed in tons known informally as 'Kyoto Units'. The unit of trade in emission trading is known as carbon credits. As carbon financial instruments, they can be bought and sold in international markets at the prevailing market prices[9]. Carbon credits are what is generated by developing parties and are bought by developed parties who have exceeded their assigned amounts.

There are two kinds of markets: i.) the compliance market, and ii.) the voluntary markets. In the *Compliance Market*, obligated parties are bound by the Protocol to buy carbon credits to offset their exceeded assigned amounts. The *Voluntary Market* is mostly used by large multinational companies who do not have an obligation to offset any excess assigned amounts. However, they buy carbon credits because of their carbon footprint and for corporate social responsibility reasons.

The second mechanism is what is referred to as the *Clean Development Mechanism (CDM),* which is an arrangement made under the Kyoto protocol, which creates emissions reduction credits through emissions reduction projects in developing countries. CDM projects can benefit emitters in industrialized countries with a GHG reduction commitment (Annex I countries) by allowing them to invest in emission-reducing projects as an alternative to the more expensive emission reductions in their own countries.

The implementation of the Kyoto Protocol carbon trading mechanisms in developing countries has entailed the country's ascension to the treaty and establishment of legal frameworks for its operationalization. The legal structures for carbon trading in Kenya (a country that is also a signatory of the Paris agreement) are elaborated below.

3.3 Legal framework for carbon trading in Kenya

One of the practical hurdles of implementing the Kyoto protocol's carbon trading mechanism in developing countries has been legal frameworks [10]. In order to operationalize the carbon trading, Kenya has set up the legal apparatus for this purpose [11]. Legal instruments in Kenya that establish the enabling framework for carbon trading include a.) International treaties namely the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC); the Kyoto Protocol, and recently, the Paris Agreement. b) National laws: i.)The Constitution of Kenya (2010)[12]; ii)) Energy Act(No. 12 of 2006) and Energy Management Regulations (2012); and iii.) Environmental Management and Coordination Act (No. 8 of 1999) (EMCA). iv.) The Climate Change Act (2016)

The summarised details on Kenya's national laws related to carbon trading are detailed in figure 1below.

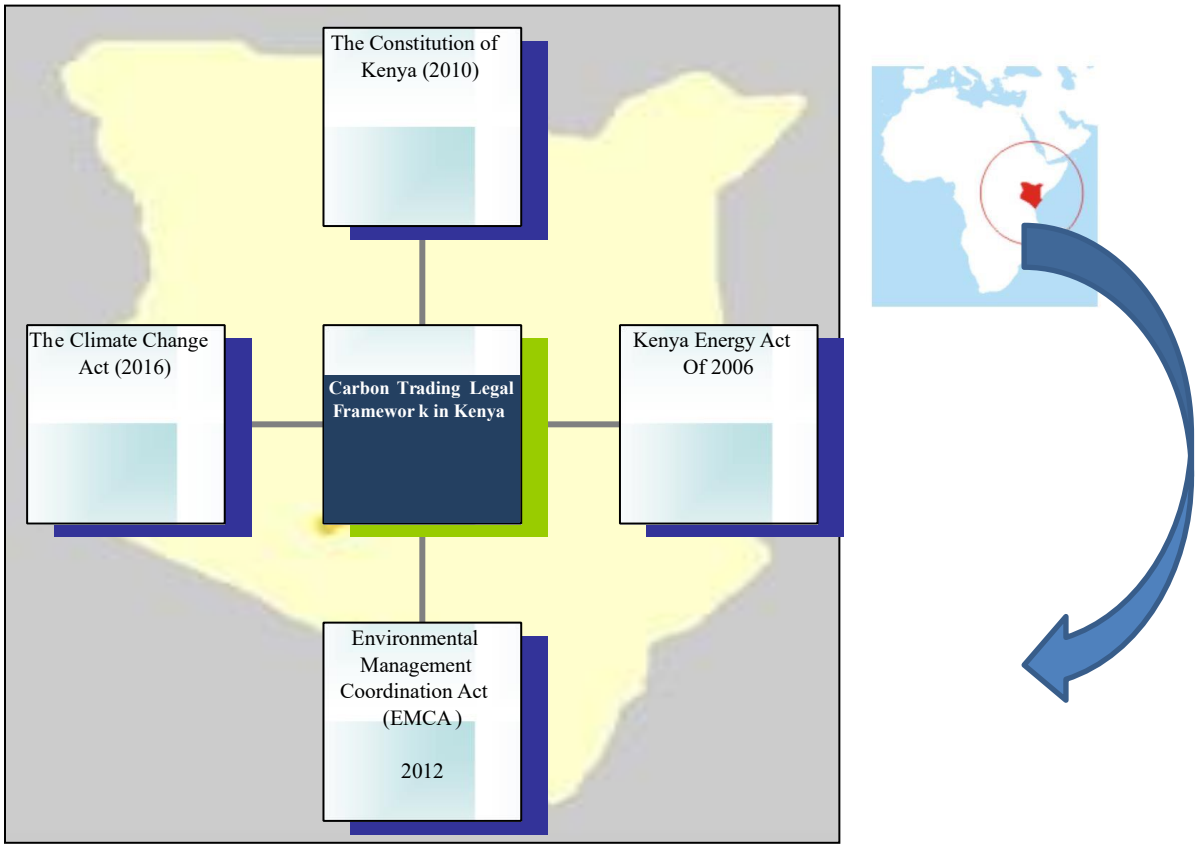

Figure 1 Carbon Trade Legal framework in Kenya (Source-Author -adapted from http://www.freeworldmaps.net/africa/kenya/location.html)

i.The Constitution of Kenya (2010)

The Constitution of Kenya (2010) provides the legal basis for the implementation of carbon emissions trading within Kenya by virtue of several articles. Article 2(6) of the Constitution provides that every treaty and convention that Kenya is a signatory or a party to is part of the law of Kenya. This includes the United Nations Framework Convention on Climate Change (UNFCCC), and the Kyoto Protocol ratified in 2005.

In addition, the Article 42 provides that- "every person has the right to a clean and healthy environment," while Article 69(1) provides for the protection of the environment for the benefit of future generations. These human rights and protections are also embodied in a number of international instruments. The State is therefore obligated to sustainably develop and conserve its national resources and that any benefits accrued are distributed equitably.

ii.The Kenya Energy Act 2019

With respect to the energy sector, section 103(2) (g) of the Kenya Energy Act 2006 [Rev. 2012] [13] had provided that the Cabinet Secretary of energy and petroleum be vested with powers to harness opportunities for the utilization of clean energy mechanisms and technologies. This, without doubt, saw the need to promote opportunities such as carbon credits and trading on the international market. The new law –Kenya Energy Act of 2019[14] follows the spirit of the old law in this regard. Section 44(q) of the Kenya Energy Act of 2019 vests Rural Electrification and Renewable Energy Corporation to "harness opportunities offered under clean development mechanism and other mechanisms including, but not limited to, carbon credit trading to promote the development and exploitation of renewable energy sources [14].

iii. National Environmental Authority (NEMA)

Lastly, it will be noted that the National Environmental Authority (Environmental Management and Coordination Act (EMCA) Chapter 387. Revised Edition 2012 [1999] and is tasked with the coordination of various environmental activities that are meant to, amongst others, guarantee the sustainable use of resources [15]. It must be noted herein that there is no specific provision within the Act with reference to the generation of carbon credits. However, the same is applicable when to read together with other policies.

iv.The Climate Change Act (2016)

The Climate Change Act (2016) is national legislation intended to enhance response to climate change and provides mechanisms and measures to achieve low carbon climate-resilient development. Carbon trading is not precluded in this law.

As such the Government of Kenya, led by the Ministry of Environment and Forestry, have worked with stakeholders from civil society, the private sector, and national and county governments to develop this climate-change legislation[15]. The Act has been hailed for adopting a mainstreaming approach that includes integration of climate change considerations into all sectors and levels of government. The Act establishes the National Climate Change Council, chaired by the Head of State. The Council is responsible for overall coordination and advisory functions. The Act also establishes the Climate Change Fund – a financing mechanism for priority climate change actions interventions [15].

v.Other policies

In addition to the above legal instruments that accommodate carbon markets, there is a 2012 Ministry of Finance report on "the National Policy on Carbon Investments and Emissions Trading" that outlines a strategy for the country where carbon trading was concerned[15]. The policy document provided that carbon credit-eligible projects in all sectors be implemented as per CDM as a means of facilitating their approval by the executive board of the UNFCCC and that carbon credits which were generated by these projects would be used for the recapitalization of the projects and, further, could only be traded with the direct approval of the Treasury [16].

3.4 Kenya's Carbon Trading Schemes

Carbon credit schemes in Kenya fall under two categories: those under the compliance market—primarily the *Clean Development Mechanism (CDM)—* and those under the *Voluntary Carbon Market (VCM)*.

i. Clean Development Mechanism Projects

The Kyoto Protocol proposes a Clean Development Mechanism (CDM) under Article 12 that permits industrialized countries to be able to meet part of their emission reduction targets by investing in emission reduction projects in developing countries. [17]. Through CDM projects, the investing entity earns Certified Emission Reduction (CER) credits while stimulating sustainable development in the host country. CDM projects are registered with a CDM registry, a standardized electronic database that ensures accurate accounting of the issuance, holding, and acquisition of CERs [17].

As of 2016, some nineteen CDM projects could be cited to have been successfully registered in Kenya with others in the pipeline [18]. These projects varied greatly ranging from geothermal, wind, hydro and biogas power projects, bio residue briquettes, to small-scale afforestation and reforestation programs[19-20]. Kenya's first CDM project was registered in 2008[21]. Mumias Sugar Company Limited, with the support of Japan Carbon Finance Limited, developed a 35 Megawatt (MW) sugarcane bagasse-based co-generation power plant as the country's first CDM project [22]. Over $2.1 billion has been invested in these projects, which are estimated to produce cumulative emissions savings in excess of 135 million tons of carbon dioxide offsets (million tCO2e)[23]. ii. Voluntary Carbon Credit Schemes

Under the voluntary carbon market, an entity can either be a company, an individual, or another "emitter." Motivated by a desire to reduce their emissions, these entities volunteer to purchase carbon credits generated through carbon projects [24]. The majority of the voluntary carbon projects in Kenya are in the forestry sector. Currently, there are nine forestry sector voluntary projects that include the Kasigau Corridor REDD Project Phases I (Rukinga Sanctuary) and II (the Community Ranches)[25]; the International Small Group & Tree Planting Programme (TIST)[26]; Aberdare Range/Mt. Kenya Small Scale Reforestation Initiative[27]; the Forest Again Kakamega Forest; and Mikoko Pamoja Mangrove.

In addition, alongside the forestry sectors, the voluntary carbon has played a particularly important role in the domestic energy efficiency (e.g. cookstoves and water filters) in Kenya, reducing the unsustainable consumption of non-renewable biomass.

Other activities under this scheme include agricultural and soil carbon projects such as the Kenya Agricultural Carbon Project implemented by a Swedish NGO, Vi Agroforestry, with support from the World Bank and participation in carbon credit off-take from the World Bank's Bio-Carbon Fund.

While the voluntary market focus to date is on the generation of carbon credits for buyers outside of Kenya, recently a number of Kenyan companies have also begun measuring their carbon footprint and offsetting via CDM and voluntary market projects. For example, Kenya Airways in mid-2011 launched a Carbon Offset Program for its passengers in cooperation with the International Air Transport Association (IATA) organization and is planning to offset initially via pre-CDM voluntary emission reductions (VERs) from geothermal projects in Kenya [46].

4.0 CARBON TRADING: ANALYSIS OF STRENGTHS AND WEAKNESSES i.Strengths

The strengths of the carbon trading market in Kenya include providing a flexible and profitable mechanism for combating climate change and helps developing countries reach their sustainable development goals while reducing the financial burdens on their public sectors. Considering their low GHC emissions (see Fig. 2 below) carbon trading is also considered as an opportunity for Kenya and other developing countries in need of funds to spur their development [28]. It should be noted that corporate actors involved in carbon trading and some mainstream non-governmental organizations (NGOs) also conceptualize carbon trading as a process about building partnerships between business and government with a view to attaining pragmatic and incremental change and to a lesser degree, about achieving structural change.

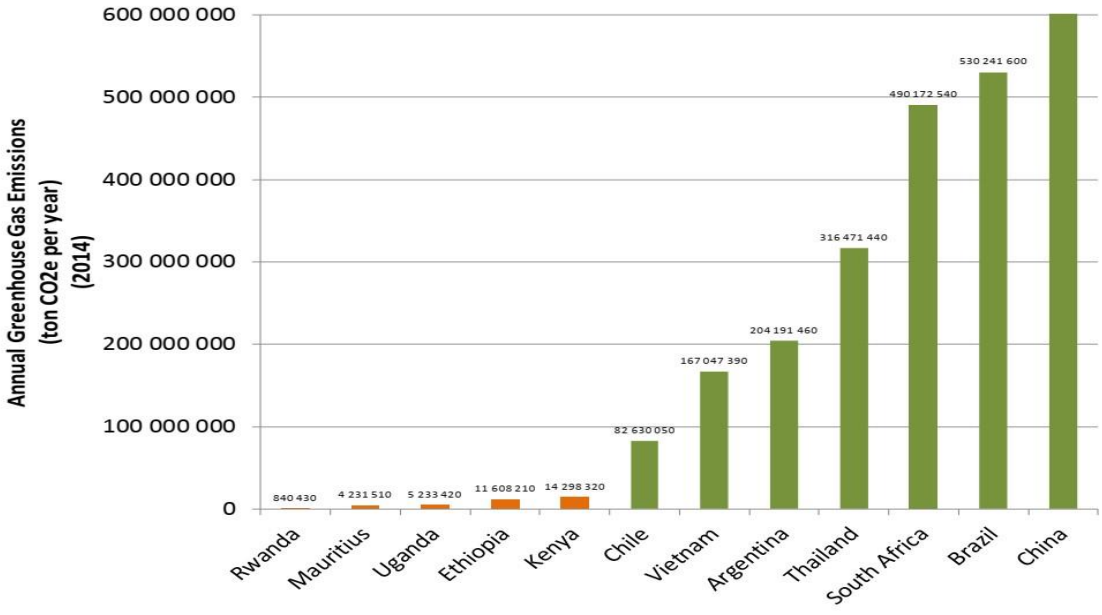

Figure 2 Emissions of Kenya and other countries implementing carbon pricing Schemes(source UNEP April 2019 p. v.)

Market proponents generally attribute the successes of the carbon credits system to the creation of a commodity which puts a price on pollution, thereby incentivizing a reduction in emissions and the development of new carbon-friendly technologies.

ii. Weaknesses

While carbon trading continues to thrive, it has not been without its weaknesses. Most carbon trading criticism looks at carbon trading from a perspective of sustainable livelihoods[29]. We will now look at the main weak points of carbon trading in detail.

Some scholars believe that carbon trading serves as another money-making an engine for market operatives[30]. These market critics point out that market mechanisms, one of the causes for the current perilous GHG emissions situation, may not be the *knight in shining armour* who will save the day with respect to our global crisis arising from climate change. This is because of the old wall street market adage "greed is good" principle, said to be necessary in capitalist systems[31], that promotes and perpetuates excessive and unsustainable global consumption of fossil fuels in the name of wealth accumulation and economic growth, is a factored cause of the global climate crises situations we suffer in the first place.

The carbon market is also the recipient of barbs for creating *unjustified property rights* by *commodifying air*, a *common resource*[32]. It is further criticized for creating and perpetuating power differentials between the Global North and South because of its market-oriented nature, as it provides inordinately disproportionate benefits to wealthy, high-polluting industries. Carbon trading as a concept does not address the issues of climate justice, which perceives the opulent consumption in the North as a direct cause of the global problem of climate change. On the contrary, it places the disproportionate burden of responsibility on the poor developing countries, which are expected to host carbon trading projects. By individualizing climate action to companies and individuals, carbon trading reduces opportunities for collective political action to bring about wider structural change.

Another major weakness of carbon trading is that it does not favour countries of the South and their vulnerable populations owing to a litany of factors enumerated here. Firstly, studies show that most large-scale mitigation projects have gone to high-income developing countries, skipping poorer countries such as those in Africa. It is projected that less than two per cent of projects are hosted in Africa[29], and less than 30 per cent of revenue streams from carbon trades go to the developing countries. Beneficiaries of a large portion of the funds are brokers, bankers, investors, and consultants in rich countries, as well as fees and taxes[29].

Perhaps in recording, one may say the strongest critique against offsetting is that *it is actually contributing to an increase in emissions* because the offsetting mechanism by extension, allows corporations and countries to, in effect, transfer their "backyard" emissions responsibility by incentivizing *emissions reductions in the developing world.* [33]. Even if offsetting projects are proven to have a net reduction in emissions, which are invariably quite hard because carbon accounting is an unreliable rather than exact science, the overall reduction will be zero, because you are only transferring the reduction of your(i.e. the polluter) own emissions to another part of the world, and hence no environmental benefits can be "morally" claimed. In this regard, voluntary offset projects and programmes, in particular, have often been accused of functioning as 'greenwash' or providing inaccurate claims in order to boost the image of polluting companies. Moreover, they are seen more as a means to reduce the guilty consciences of individuals in polluting firms in that it provides them with an opportunity to offset emissions from their own environmentally damaging commercial activities. Instead, this practice may be seen as a process delaying the real structural changes needed to effectively address climate change.

Another drawback of carbon trading in the Kenyan context is its complexity and transaction costs. Studies of the Kenya Agricultural Carbon Project by estimates of revenues, costs, and benefits to farmers have shown the projects have high transaction costs and low returns [35]. Indeed The World Bank in Kenya has admitted that the main focus should be improved agricultural husbandry rather than net financial returns from carbon credits.

With a cumbersome emissions regulation system, cheating has become rampant as income tax evasion and fraud. This is not helped by the complicated regulation systems which require a lot of police to enforce. A United Nations Programme on Reducing Emissions (UN-REDD) report has focused on this subject, an indicator of corruption as a risk to carbon trading [3638].

There is a general fear in developing countries that carbon trading concept will lead to a further contraction of the carbon change mitigation financing purse in the West. They argue that the World Bank, carbon emissions traders, and rich country governments may be taking advantage of the desperate situation to push carbon markets as the primary vehicle to finance mitigation of greenhouse gasses and adaptation to climate change."

Kenya has seen wide opposition to carbon trading by indigenous communities who hold that the principle of access and benefit-sharing has not been observed. This has led to closer scrutiny of carbon trading projects in Kenya, especially those spearheaded by large corporations in the indigenous land [41]. Sena (2015) asserts that carbon projects have not been very participatory and thus do not serve their purpose in Kenya and among local communities well [42].

5.0 CONCLUSIONS

This paper has explored the complex terrain that is carbon trading in Kenya. The study has assessed policies and legal frameworks in the carbon market as well as barriers and opportunities in the Carbon trading industry in the country [43].

The author has noted that carbon trading is developing under a complex and changing institutional framework dominated by international actors. He also observed that national governments, the private sector, and the NGO sector hold different levels of participation and power in the country's framework for carbon trading and local communities have a marginal influence and position in it.

6.0 RECOMMENDATIONS

To overcome the existing weaknesses and flaws of carbon trading project development, and to improve the carbon market outlook and ensure that the private sector has continued incentive to participate in the evolution of greenhouse gas emission reduction activities in Kenya the author advocates the following recommendations that have also been proposed by some scholars in the carbon trade sector [44]: a.) Lobby with other non-LDC African countries for an EU exemption to Directive 2009/29/EC. B.) Establish seed capital funding for carbon and underlying project development. c.)Increase designated national authority (DNA)[45] activities in CDM promotion activities, including emission baseline setting and CDM awareness creation activities, d.) Provide financial incentives to project owners for investment in underlying projects that reduce or remove GHG emissions, e) Provide financial or other support to local banks to lend to CDM and climate mitigation projects, and f.) Include climate/carbon finance and project development training in university curricula in Kenya to increase local capacity. With reference to the latter, relevant post-secondary subjects such as in finance, economics, engineering and project management could include carbon project development, monitoring, and climate finance.

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