BEAUTIFYING AFRICA FOR THE CLEAN DEVELOPMENT MECHANISM: LEGAL AND INSTITUTIONAL ISSUES CONSIDERED.

Damilola S.Olawuyi.*

Abstract

The Clean Development Mechanism (CDM) of the Kyoto protocol was received by most developing countries as an innovative mechanism through which they can achieve their sustainable development goals such as: the positive transfer of clean technologies, financial returns and profits to local entities, poverty alleviation, and an improved quality of life to mention just a few. Years after its adoption however, most African countries have benefited little or noting from the much talked about sustainable development gains of the mechanism. This situation has been attributed to the perception of most African countries by the international community, as unattractive locations for CDM investments. This must as a matter of necessity change if Africa is to benefit from the CDM. This paper argues that for African countries to be considered as attractive destinations for CDM investments, the starting point is for them to put in place, appropriate legal and institutional framework which removes the identifiable barriers to CDM implementation existing in African countries. This paper examines the CDM implementation environment in Africa and identifies areas of action.

I. Introduction

One of the most talked about sustainability concern facing the earth's current inhabitants is the issue of climate change. With emerging signs of temperature change, it is now widely accepted that climate change is real, that human emissions of green house gases are a cause; that if left unchecked, climate change may lead to extreme weather events; threaten food security and may lead to ill health and an unprecedented level of global economic decline.[1] According to James Hansen, a renowned United States scientist:

*LL.M (Calgary), Alberta Law Foundation Scholar and Fellow, Canadian Institute of Resources Law. The author can be contacted at dsolawuyi@yahoo.com

[1] The Intergovernmental Panel on Climate Change (IPCC) in its recently released 4th Assessment Report titled *Climate Change 2007: Climate Change Impact, Adaptation and Vulnerability* has maintained that climate change is human induced and that unless something urgent is done to reverse its current level of green house gas emission, its danger may be permanent and irreversible. The report also concludes that: a) The world's average surface temperature has increased by around 0.74°C over the past 100 years (1906 - 2005), a figure higher than the 2001 report's 100-year estimate of 0.6°C due, to the recent series of extremely warm years, with 11 of the last 12 years ranking among the 12 warmest years since modern records began around 1850. A warming of about 0.2°C is projected for each of the next two decades. b) The amounts of carbon dioxide and methane now in the atmosphere far exceed pre-industrial values going back 650,000 years. Concentrations of carbon dioxide have already risen from a pre-industrial level of 280 ppm to around 379 ppm in 2005, while methane concentrations have risen from 715 parts per billion (ppb) to 1,774 in 2005. c) If atmospheric concentrations of greenhouse gases double compared to pre-industrial levels, this would "likely" cause an average warming of around 3°C (5.4°F), with a range of 2 - 4.5°C (3.6 - 8.1°F); c) A GHG level of 650 ppm would "likely" warm the global climate by around 3.6°C, while 750

> …the Earth's climate is nearing, but has not passed a tipping point beyond which it will be impossible to avoid climate change, with far ranging, undesirable consequences. These consequences would constitute practically a different planet. If we do not take urgent and immediate action to stop global warming, the damage could become irreversible.[2]

The British Government's Chief Scientist, Professor David King, was perhaps making the same point when he said that:

> Antarctica is likely going to be the world's only habitable continent by the end of this century, if global warming remains unchecked… the earth is now entering the first hot period since 60 million years ago when there may be no ice on the planet and when the rest of the globe may not sustain human life.[3]

It was in an attempt to respond to these danger signs and warnings that the world community came together under the United Nations Framework Convention on Climate Change (UNFCCC), to build a roadmap on how to tackle climate change. This roadmap led to the Kyoto Protocol of 1997, the first legally binding agreement which advocates

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ppm would lead to a 4.3°C warming, 1,000 ppm to 5.5°C and 1,200 ppm to 6.3°C d) The best estimates for sea-level rise due to ocean expansion and glacier melt by the end of the century (compared to 1989 – 1999 levels) have narrowed to 28 - 58 cm, versus 9 - 88 cm in the 2001 report, due to improved understanding. However, larger values of up to 1 m by 2100 cannot be ruled out *if ice sheets continue to melt as temperature rises*. The last time the polar regions were significantly warmer than at present for an extended period (about 125,000 years ago), reductions in polar ice volume caused the sea level to rise by 4 to 6 m. e) Sea ice is projected to shrink in both the Arctic and Antarctic regions. Large areas of the Arctic Ocean could lose year-round ice cover by the end of the 21st century if human emissions reach the higher end of current estimates. The extent of Arctic sea ice has already shrunk by about 2.7% per decade since 1978, with the summer minimum declining by about 7.4% per decade. d) Snow cover has decreased in most regions, especially in spring. The maximum extent of frozen ground in the winter/spring season decreased by about 7% in the Northern Hemisphere over the latter half of the 20th century. The average freezing date for rivers and lakes in the Northern Hemisphere over the past 150 years has arrived later by some 5.8 days per century, while the average break-up date has arrived earlier by 6.5 days per century. E) It is "very likely" that precipitation will increase at high latitudes and "likely" it will decrease over most subtropical land regions. The pattern of these changes is similar to what has been observed during the 20th century. F) It is "very likely" that the upward trend in hot extremes and heat waves will continue. The duration and intensity of drought has increased over wider areas since the 1970s, particularly in the tropics and subtropics. The Sahel, the Mediterranean, southern Africa and parts of southern Asia have already become drier during the 20th century. g) Future GHG concentrations are difficult to predict and will depend on economic growth, new technologies and policies and other factors. See IPCC, online http://www.ipcc.ch/meet/meet.htm

[2] James E. Hansen, "Defusing the Global Warming Time Bomb" (2004) 3 Sci. Amer. 68-77.

[3] Geoffrey Lean, "Global Warming could soon make Antarctica the only place to live, says Chief British Scientist" *The Independent on Sunday* (2 May, 2004).

taking concrete steps and binding commitments to reduce greenhouse gasses (GHG) that contribute to global warming.[4] Under this Protocol, industrialized countries have committed themselves to an aggregated reduction of CO_2 emissions to 5% below 1990 levels. To achieve these, industrialized countries will have to implement measures to reduce GHG emissions according to their pre-defined country commitment levels.[5]

At the heart of the Kyoto Protocol, lies its three flexible mechanisms which allow industrialized countries to pursue their goals of GHG reduction by investing in emission reduction projects elsewhere, mostly in non annex I and II countries, where emission reduction can be achieved at cheaper costs.[6] One of them is the Clean Development Mechanism (CDM).[7] The CDM was designed to provide an incentive for governments and companies in industrialized countries to invest in GHG reduction projects in developing countries and be credited for GHG reduction achieved through these projects through the issuance of Certified Emission Reductions (CERs).[8] Thus, while the CDM allows developed countries investing in such projects to achieve their emission reduction commitment with much flexibility and at much lower costs, it promotes sustainable development in developing countries hosting such projects. It has been said that the CDM can indeed act as a basis for developing countries to achieve progress in environmental

[4] Meinhard Doelle, *From Hot Air to Action? Climate Change, Compliance and the Future of International Environmental Law* (Toronto: Carswell, 2005) 10.

[5] Industrialized countries are listed in Annex B of The Kyoto Protocol. See online: UNFCCC, http://unfccc.int/resource/docs/convkp/kpeng.html

[6] Non Annex I and II countries under UNFCCC include developing countries like China, India and Nigeria amongst others. *Ibid.*

[7] The other flexible mechanisms are emissions trading and Joint Implementation (JI) See Online: United Nations Framework Convention on Climate Change, http://unfccc.int/resource/docs/convkp/kpeng.html

[8] Certified Emission Reductions refer to one metric tonne of carbon dioxide or its GHG equivalent reduced from the atmosphere by a mitigation activity. CERs are standardized GHG reduction credits that are becoming a commodity that can be bought and sold on the global market, and in some cases banked for the future. See UNCTAD Earth Council, "A layperson's Guide to the CDM", online: UNCTAD, www.unctad.org/ghg

issues such as cleaner air and water, reduced deforestation, soil conservation, and biodiversity protection; to realize social benefits such as rural development, employment, and poverty alleviation; and to encourage private investment and public-private partnerships in economic development.[9] Estimates indicate that by 2010, foreign investments through CDM projects could reach US$4752 Million annually.[10]

However, the CDM being a market-based mechanism allows governments of developed countries to decide on which developing country they wish to pursue their emission reduction activities.[11] Consequently, developed countries, like prudent investors, are often in search of investment locations which guarantee high emission reduction at the least cost and with the least investment risks. Thus, a country with high mitigation potential, a safe and conducive investment climate and an appropriate legal framework on CDM implementation will often be considered as *a very attractive spot* for CDM investments.[12]

Unfortunately however, due to the distinct economic, social and administrative conditions among developing countries, 67% of developing nations have so far been unable to meet up with these requirements and have consequently been unable to attract prospective

[9] FIELDS, *CDM Glossary*, online: Foundation for International Environmental Law and Development www.field.org.uk/climate_2.php

[10] Gao Guangshen *et al*, "*Clean Development Mechanism in China; Taking a Sustainable and Proactive Approach*" (2004)2 Sino sphere journal at 3.

[11] Due to the fact that the CDM process involves the trading of CERs and the reduction of emission on a project basis, it is often colloquially referred to as the CDM Market. See for *e.g*, Shobhakar Dhakal, 'CDM Market: Size, Barriers and Prospects', online: IGES, http://www.iges.or.jp/en/ue/pdf/dhakal/dhakal_CDM.pdf .

[12] Martina Jung, "Host Country Attractiveness for CDM non-sink projects" (2006) Energy Policy 34 at 2174.

CDM investors.[13] Consequently, project investors in pursuit of optimum profit have continued to support the same cluster of developing countries with the appropriate regulatory frameworks for CDM implementation. Statistics show that over eighty percent of the current CDM projects are clustered in Asian countries, namely, India, China and Indonesia, referred to by experts as CDM giants.[14]

African countries on the other hand have not made meaningful progress in terms of the CDM.[15] Statistics show that Africa accounts only for a meagre two percent of current CDM project investments.[16] This trend is attributable to the current perception of African countries as unattractive CDM investment locations.[17] With this perception, Africa, unlike Asia has been unable to attract CDM projects to its advantage.

This paper seeks to analyse the reasons why African countries have enjoyed little or no patronage in the CDM market. It reveals that the absence of sound legal frameworks on CDM investments, the inadequate institutional capacity, and the high rate of insecurity in African countries, have been the main reasons why they have remained unattractive locations for CDM investments.[18] The paper argues that for African countries to correct this negative perception and be considered as attractive spots for CDM project

[13] See Alan Silayan, "Equitable Distribution of CDM Projects Among Developing Countries" HWWA Report 255, Hamburg, at 1.
[14] See UNFCCC, Statistics of CDM projects, online: UNFCC, http://cdm.unfccc.int/Statistics/Registration/AmountOfReductRegisteredProjP
[15] Nigeria for example has only one CDM registered project. This project was only registered on November 6, 2006. See online: UNFCCC, www.cdm.unfccc.int/projects/registered
[16] See online: UNFCC, Statistics of CDM projects, http://cdm.unfccc.int/Statistics/Registration/AmountOfReductRegisteredProjP
[17] See Martina Jung, *supra* note 12 at 2183.
[18] *Ibid*.at 2177 where the investment climates in most African countries are listed as very bad. See also Collins Edomaruse, "Why Foreign Investors are hesitant on Africa, British High Commissioner to Nigeria speaks" *This Day Newspaper* (22 November 2006).

investments, they must remove all legal barriers to foreign investments and enact enabling laws on CDM implementation as is has been done in most developing countries in the Asian continent.

The paper is divided into four parts. Part II undertakes an overview of the CDM portfolio and a description of the current position of most African countries in the CDM market. Part III examines the barriers to the successful implementation of the CDM in most African countries. It shows that the absence of CDM laws in most African countries, coupled with the archaic and unfriendly provisions in existing laws are impediments to the effective implementation of CDM in Africa. Part IV concludes the discussions, making recommendations on the relevant legal and institutional restructuring needed in African countries to benefit optimally from the sustainable development gains of the CDM.

II. THE CLEAN DEVELOPMENT MECHANISM- AN OVERVIEW

a) Background and evolution of the CDM

The Clean Development Mechanism (CDM) has been described as one of the most innovative mechanisms of the Kyoto Protocol.[19] This is because it is the only flexible mechanism in the Kyoto Protocol that allows the direct participation of developing countries in emission reduction activities. The CDM, contained in Article 12 of the Kyoto Protocol enables developed nations to attain their emission reduction targets by investing in carbon offsetting projects or projects that reduce greenhouse gas emissions in developing countries, to generate Certified Emission Reductions (CERs) which can

[19] See Gao Guangshen, *supra* note 10.

ultimately be used towards their national compliance obligations under the Kyoto Protocol.[20] Thus, the core of CDM is to transfer and acquire emission reductions between developing and developed countries on a project basis.

The CDM was conceived during the negotiations of the Kyoto Protocol to bridge the gap between the developed and developing states. All through the negotiations, developing countries vehemently opposed any move to get them involved in accepting commitments for emission reduction. They instead perceived climate change as a problem created by the North, and as a problem which can and should only be resolved by the North who have the capacity and resources to do so.[21] Developed countries were however of the opposite view that global warming is a global problem that should be tackled by all nations without trading blames, and that developing countries should be made to partner with developed countries through joint implementation strategies and market based instruments.[22] Thus, while the South proposed the setting of emission limits on industrialized countries and the imposition of penalties for defaulting industrialized countries, the North sought the adoption of market-based routes and measures that will allow them to reduce emission through investing in projects in other countries. According to Sokona, the differing sets of priorities between developed and developing countries as they arose at Kyoto can be roughly tabulated as follows:[23]

[20] Certified Emission Reductions refer to one metric tonne of carbon dioxide or its GHG equivalent reduced from the atmosphere by a mitigation activity. CERs are standardized GHG reduction credits that are becoming a commodity that can be bought and sold on the global market, and in some cases banked for the future by parties to the Kyoto Protocol. See UNCTAD Earth Council, "*A layperson's Guide to the CDM"*, online: UNCTAD, www.unctad.org/ghg

[21] Youba Sokona, "The Clean Development Mechanism: What Prospects for Africa?" (2005) ENDA at 1

[22] *Ibid.*

[23] *Ibid.* For an excellent and detailed discussion of this, see Jacob Werksman, "Unwrapping the Kyoto Surprise" (1998) 7 Review of European and International Environmental Law 147.

Table 1

Industrialized Countries	**Developing Countries**
Emissions reduction	Sustainable development
Emissions trading and credits	Equity
Developing Countries' participation	Common but differentiated responsibilities
Joint Implementation	Technology Transfer
Sinks	Financial Assistance
Compliance and Verification	Special Circumstances
Clean Environment	Poverty Reduction

Thus, against the G77's proposal on flat rate emission reductions for all, the US and most OECD countries argued strongly for what they called *international flexibility*.[24] According to the US Chief Negotiator, the American target was contingent on the acceptance of a comprehensive package that includes the trading of emissions amongst countries and regions.[25] Thus, while the EU and G77 called for *binding* commitments, the US clamoured for *binding but flexible* commitments.[26] The US argued that such flexibility will provide opportunities for assisting developing countries and will promote international investments.[27]

It was in order to bridge this gap that the Conference of Parties to Kyoto Protocol (COP) called for more concrete proposals and submissions on how to resolve the stalemate.

[24] The G77 was made up of an alliance of developing countries (numbering more than 120 countries) and China. See Michael Grubb, *The Kyoto Protocol, A Guide and Assessment* (London: Earthscan, 1999) 29
[25] See William K. Stevens, "Kyoto Meeting Moves Closer to Agreement on Green House Gases, N.Y Times, (10 December, 1997) at 2.
[26] See Karen Olsen, "The Clean Development Mechanism's Contribution to Sustainable Development-A Review of the Literature" Online:CD4CDM, http://cd4cdm.org/Publication/
[27] *Earth Negotiations Bulletin*, No. 68 (December 2, 1997) at 2.

Many proposals were submitted by different alliances and stakeholders in response to this call, one of which was a striking proposal submitted by Brazil, titled *The Clean Development Fund*.[28] This sweeping proposal called for the setting of emission limits and the imposition of penalties on developed countries that fail to comply with the agreed emission reduction targets, with the fine being levied in proportion to the degree of non compliance. The size of the penalty was designed to correlate to $10 for every ton of carbon equivalent that the Annex I party had exceeded its ceiling, and the penalty was to be contributed to the Clean Development Fund, which would be used in funding climate change projects in developing countries, for limiting emissions and for adaptation. [29]

The United States had embraced the flexibility of the Brazilian proposal but sought variations in its content, especially the issue of imposition of financial penalties.[30] The US was able to successfully press for some variation in the CDF proposal as the Revised Text Under Negotiation (RTUN) that went forward to Kyoto was substantially altered in favour of the US position.[31] New texts were introduced and words were substituted in the CDF proposal from '*penalty for not complying'* with '*contributing to compliance'*, and the original Brazilian proposal was transformed from a punitive fund into an investment mechanism for countries and companies.[32] Developing countries were on their part enticed to participate based on the promise that development priorities and initiatives will

[28] See Grubb, *supra* note 24 at 101.
[29] For a comprehensive breakdown of the Brazilian proposal, see online: UNFCCC, http://unfccc.int/resource/docs/convkp/kpeng.html
[30] Reuters News Service, "Delegates Say prospects brighten for CO_2 treaty," November 10,1997
[31] The entire protocol has been consequently described as the US Protocol and the CDM as the US tool. See F.Yamin, "Climate Change Negotiations: An analysis of the Kyoto Protocol" (1998) 10 International Journal of Environmental Pollution 428–453.
[32] These drastic changes to the Brazilian proposal took place in the final stages of the negotiation process amidst huge controversies. See Karen Olsen, *supra* note 26 at 5.

be addressed as part of the package. Developing countries were indeed convinced that the CDM will offer a suitable platform for them to achieve sustainable development and to proffer solutions to some of their age long social, environmental and economic problems.[33] Consequently, the CDM was born and codified as Article 12 of the Kyoto Protocol.

B) Objectives of the CDM

According to Article 12(2) of the Kyoto Protocol, there are two specific goals to be achieved by the CDM:

> (a) to assist developing countries in achieving sustainable development, and
>
> (b) to assist industrialized countries in complying with their emissions reduction commitments, and to contribute to the attainment of the environmental goals of the Framework Convention.

Basically, the CDM allows developed countries who are parties to the protocol and are unable to meet their emission targets through domestic action, to get Certified Emission Reductions (CERs) by investing in projects that would lead to reduced greenhouse gases in a developing country. Through the CDM, developed countries will have the chance of meeting their emission reduction commitments at much lower costs and in the most cost effective manner in developing countries. Studies show that it is cheaper to reduce a ton of green house gases in a developing country than in a developed country. [34] Studies confirm that it takes US $50 to mitigate one ton of CO_2 eq. in developed countries, whilst

[33] *Ibid.*

[34] See CDMINDIA, *Why CDM?* online: CDMINDIA http://www.cdmindia.com/about-background.htm?I1.x=34&I1.y=16

in developing countries, the same can be done at a cheaper rate of US $15 per ton of CO_2 eq.[35] Thus, through the CDM, developed countries can achieve GHG mitigation in developing countries at costs three times cheaper than what would have been expended in achieving the same results from their respective countries. It is expected that through such 'clean' projects, developing countries would also be able to solve their environmental, social and economic problems while at the same time generating CERs for industrialized countries.[36]

Typically, a project proponent (a developed country) identifies an investment that would lead to reduction in the emission of greenhouse gases in a developing country of its choice and approaches the government of the country where the investment is to be located in for its approval.[37] The government then decides whether such a project meets its sustainable development needs and then approves it as a CDM project. Thus, while such a project provides the developed country with the flexibility for achieving its emission reduction targets, it assists the developing countries who host such projects to achieve sustainable development. This can be illustrated with a hypothetical example.

Let's consider two countries - Canada and Nigeria, a developed and a developing country respectively. Under the Kyoto Protocol, Canada is under obligations to reduce its greenhouse gas emissions by 6% below 1990 levels by the years 2008–12.[38] If Canada is

[35] *Ibid.*
[36] A project is said to be "Clean" if it leads to the reduction of the volume of GHG emitted into the atmosphere. See United Nations, *Glossary of Climate Change Acronyms and Jargon*, online: UNFCCC, http://unfccc.int/siteinfo/glossary.html
[37] See Foundation for International Environmental Law and Development, *supra* note 9.
[38] Canada's total CO_2 emission in 1990 is put at 457,441Gg, which amounts to 3.3 percent of global CO_2 emissions. By virtue of Article 3(1) of the Kyoto Protocol, Canada has agreed to ensure at least a 6 percent

to achieve this through domestic action alone, it may require stern environmental legislations which will compel its industries to cut down on emissions of GHGs. This might put a lot of pressure on Canadian industries and ultimately strain the nation's economy. Nigeria on the other hand is a developing country which has no specific emission reduction obligations under the Kyoto Protocol. Nigeria's major priorities include boosting its down sliding economy, achieving sustainable development and proffering solutions to its numerous environmental problems such as gas flaring, oil spillage and epileptic power supply.[39] Thus, for Canada to meet its emission reduction target under Kyoto Protocol, it can invest in projects that reduce gas flaring in Nigeria or that provide solutions to Nigeria's numerous environmental problems. The GHG reduction achieved by such project will then be credited to Canada while Nigeria will enjoy cleaner air, better environment, job opportunities and more revenue through such projects.

It is clear from this illustration that the CDM allows both parties involved to benefit from the mechanism, most especially the developing countries. Studies have confirmed that developing countries will, in fact be the biggest beneficiaries of the project based CDM.[40] Through emission reduction projects, the CDM is expected to stimulate international

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reduction of this by 2012. See the Kyoto Protocol, online: UNFCCC, http://unfccc.int/resource/docs/convkp/kpeng.pdf

[39] Previous studies show that Nigeria flares more natural gas associated with oil extraction than any other country on the planet. Estimates suggest that of the 3.5 billion cubic feet of associated gas (AG) produced annually, 2.5 billion cubic feet, or about 70% is wasted via flaring, this equals about 25% of the UK's total natural gas consumption, and is the equivalent to 40% of the entire African continent's gas consumption in 2001. Nigeria looses about US $2.5 billion on a yearly basis to gas flaring as the bulk (99%) of the natural gas produced in Nigeria is flared while only 1% is consumed in Nigeria. For a detailed analysis of gas flaring in Nigeria, see Odumosu Ibironke, *Reforming Gas Flaring Laws in Nigeria-The Transferability of Alberta Regulatory* Framework (Calgary: Faculty of Law, 2006). See also The Nigerian National Planning Commission, *Nigeria's NEEDS* http://siteresources.worldbank.org/INTPRS1/Resources/Nigeria_PRSP(Dec2005).pdf

[40] See Anne Olhoff, *CDM Sustainable Development Impacts* (Roskilde: UNEP Risoe, undated) 6.

investment and provide the essential resources for cleaner economic growth in developing countries. According to the United Nations, a developing country can through CDM project investments: attract capital for projects that assist in the shift to a more prosperous but less carbon-intensive economy; encourage the active participation of both its private and public sectors; provide a tool for technology transfer through projects that replace old, dirty and inefficient fossil fuel technology with cleaner ones; create new industries using environmentally sustainable technologies; and help define investment priorities in projects that meet sustainable development goals.[41]

The CDM will specifically contribute to a developing country's sustainable development objectives through transfer of technology and financial resources; sustainable ways of energy production; increased energy efficiency and conservation; poverty alleviation through income and employment generation; and local environmental side benefits.[42] The CDM can also act as a basis for developing countries to achieve progress in environmental issues such a cleaner air and water, reduced deforestation, soil conservation, and biodiversity protection; as well as social benefits such as rural development, employment, and poverty alleviation. It is also expected to encourage private investment and public-private partnerships in economic development in developing countries.[43] While describing the benefit of the mechanism, Jonathan Weiner stated that:

> …this system would benefit poorer societies. They would be able to sell extra allowances at a profit – a new and valuable asset. The magnitude of

[41] United Nations Environmental Programme, *CDM Information Book*, (Roskilde: UNEP Risoe, 2004) at 14.
[42] *Ibid.* at 15.
[43] See online: Foundation for International Environmental Law and Development, *supra* note 9.

> financial flows to major developing countries generated by a GHG allowance trading market could be substantial, rising from approximately $10 billion to over $100 billion per year (in constant dollars) in future decades...[44]

Figueres seemed to have summarized the benefits of the CDM to developing countries when she said:

> The funding channelled through the CDM should assist developing countries in reaching some of their economic, social, environmental and sustainable development objectives, such as cleaner air and water, improved land-use, accompanied by social benefits such as rural development, employment, and poverty alleviation and in many cases, reduced dependence on imported fossil fuels. In addition to catalyzing green investment priorities in developing countries, the CDM offers an opportunity to make progress simultaneously on climate, development, and local environmental issues. For developing countries that might otherwise be preoccupied with immediate economic and social needs, the prospect of such benefits should provide a strong incentive to participate in the CDM.[45]

It is clear from the foregoing that developing countries stand the chance of attracting sustainable development, economic gains and solutions to knotty environmental issues through the CDM. However, to achieve this, there are a number of steps which every developing country must take to partake in the CDM portfolio. For a developing country to actively attract sustainable development to itself through the CDM, it must of necessity meet the following important eligibility requirements:

a) Formal requirements: To be considered here are the national eligibility requirements to be met by every country that wishes to take part in CDM investments, most especially the participant eligibility requirements.

[44] See Jonathan Weiner, "Global Environmental Regulation: Instrument Choice in Legal Context" (1999) 108 Yale L.J. 722.
[45] Christiana Figueres, *Establishing National Authorities for The CDM* (Washington: CSDA, 2004) 21.

b) The Market requirements: To be considered here are the factors which affect and determine the host country attractiveness for CDM investments.

1.2 Formal eligibility requirements.

The CDM Rules as elaborated by the Marrakech Accords stipulate the formal requirements to be met by any country that wishes to benefit from the sustainable development prospects of the CDM; these are called the participant eligibility requirements. The rules also provide for the nature of projects that can be proposed as CDM projects, known as the project eligibility requirements.[46]

The participant eligibility requirement for CDM project implementation stipulates that: (i) both countries (developed and developing countries) should have *ratified* the Kyoto protocol; (ii) that *participation in CDM project should be voluntary*, and (iii) that the government *should designate a national authority for the CDM*. [47] This means that it is only such countries which have ratified the Kyoto Protocol and the Framework Convention that can take part in CDM implementation.

To ratify and become a Party to the Kyoto Protocol, a country must have already ratified the UNFCCC and must deposit its official national statement of ratification with the Secretary General of the United Nations. Being a Party to the Protocol is a commitment to comply with its provisions, and although ratification of the Protocol does not commit a

[46] The project eligibility requirements will only be briefly discussed in this thesis. For a detailed analysis of the project requirements of the CDM Rules, see online: UNFCCC, http://cdm.unfccc.int/index.html
[47] See paragraphs 28 -30 of the annex of Decision of the COP-7 (Clean Development Mechanism Modalities and Procedures) *ibid.*

country to participation in the CDM, it is a pre-requisite for hosting CDM projects.[48] Thus, for any developing country to become eligible to host CDM project investments, it must have ratified both the UNFCCC and the Kyoto Protocol. Currently, about 150 developing countries which have met this requirement of ratification are classified and listed as Non Annex I parties under the Kyoto protocol are eligible to host CDM projects.[49]

The CDM rules also require that participation should be voluntary. This means that it is not mandatory for any party to the Protocol to participate in CDM project investments. A developing country may therefore choose to accept or reject a proposal to host a CDM project activity, especially if it feels that such a project is not compatible with its national goals and policies. So as to enable a country to effectively take such decisions, the CDM rules require that developing country parties should establish a National Authority (NA) tasked with appraising CDM project proposals and deciding whether or not such projects should be approved. This has been described as the centrepiece of the regulatory function of the NA and a compulsory requirement for implementing the CDM.[50] Thus, the CDM Rules require every developing country to form a Designated National Authority (DNA) which will serve as its CDM monitoring body responsible for approving or rejecting a prospective CDM investment proposal. The DNA is to ensure that the host country participates in a CDM project activity voluntarily, and that the project contributes

[48] See The Kyoto Protocol, *supra* note 46.
[49] Nigeria and India are listed by the UNFCCC as parties to both the Convention and the Kyoto Protocol, and as such as eligible countries to host CDM projects. See on-line : UNFCCC, http://unfccc.int/parties_and_observers/parties/items/2352.php
[50] Paul Manso, *Establishing a National Authority for the Clean Development Mechanism (CDM) : The Costarican Experience* (Paris : OECD, 2003) 5-6.

towards a country's sustainable development, in accordance with the standards set by that host country.[51] The DNA also has the duty of deciding whether a project will result in real, measurable and long-term benefits to mitigate the climate change. The DNA is to certify that projects provide benefits other than GHG emissions reductions and that such projects are in the national interest of the host country.

It is clear from the foregoing that for a developing country to be eligible to host CDM projects, it must have ratified the UNFCCC and the Kyoto Protocol, and must designate a National Authority charged with the responsibility of overseeing and approving CDM project implementations. Any developing country that has not done these will be deemed NOT to have met the participant eligibility requirements of the CDM.

2.0 Market Eligibility Requirements/ Host Country Attractiveness

Given that the CDM process involves the trading of CERs and the reduction of emission on a project basis, it has often been colloquially referred to as the CDM Market.[52] Its market outlook is further underscored by the fact that developed countries have wide discretions in deciding on which developing country they want to invest in or which country they choose to pursue their emission reduction investments, based on the level of

[51] *Ibid.* at 8. See also M. Aslam, *The Clean Development Mechanism: Unravelling the "mystery"*(Islamabad: Mimeo, 1998)

[52] It has been said that the CDM market is one of the fragmented carbon markets which consists of diverse greenhouse gas reduction transactions and emission reduction trading. The carbon market has been broadly classified as Project-based (baseline and credit system), and allowance market (cap and trade system). The CDM falls under the project based system as it allows developed nations to attain emission limits by investing in projects that reduce greenhouse gas emissions in developing countries. See generally, Shobhakar Dhakal, 'CDM Market: Size, Barriers and Prospects', see online: IGES, http://www.iges.or.jp/en/ue/pdf/dhakal/dhakal_CDM.pdf . See also Z.Zhang, *Estimating the size of potential market for the Kyoto flexibility mechanisms* (Proceedings of the IGES International Workshop on the Clean Development Mechanism, 26-27 January 2000, Hayama, Kanagawa, Japan).

derivable profit.[53] Thus developed countries, like prudent investors are always in search of investment locations that guarantee maximum profits and offer safe investment climate. Such countries are perceived as attractive investment locations.

When looking for the factors influencing the direction of CDM investment flows, the existing literature on the CDM provides a satisfying answer. There is a consensus among scholars as per the three factors that determine the attractiveness of a CDM host country:

- mitigation potential;
- the general investment climate; and
- the legal and institutional capacity of a country to host CDM projects.[54]

In essence, any host country with a high mitigation potential(emission reduction at the least cost), a well laid out legal framework and institutional capacity for CDM projects and a conducive and safe investment climate, will be considered an attractive spot for CDM investments by developed countries.[55] According to Michaelowa, any developing country that wishes to reap the benefits of the CDM must have to make itself as *attractive* as possible.[56]

On the reasons why developing countries will have to 'beautify' themselves to attract CDM projects, market scholars have argued that the CDM is designed in such a way as to bring sustainable development to developing countries through an investment/market interaction, but that a developing country that wishes to benefit from this must provide

[53] Profits here are measured in terms of which developing country generates more CERs at a lesser price.
[54] See Martina Jung, *supra* note 12 at 2174.
[55] *Ibid.*
[56] Axel Michaelowa, "CDM host country institution building, Mitigation and Adaptation Strategies for Global Change" (2003) 201-220

the relevant atmosphere and legal framework for such trade. According to Martina Jung, "while the overall contribution of CDM in the compliance of Annex-I countries will depend on a variety of different factors outside the influence of host countries, the distribution of the CDM investment does and *will only* depend on the attractiveness of host countries for CDM.[57] Jung further noted that developed countries are like every other prudent trader who will want a safe environment for their investments, and that it is highly unrealistic to expect a developed country to invest in a country that has no CDM regulations, no institutional capacity or worse still that is not investment friendly.[58] Luis Gómez-Echeverri buttressed Jung's submission when he advised that developing countries must show themselves ready to provide the relevant investment climate for developed countries to explore.[59] He noted that most developing countries are simply not ready to take part in the objectives of the Protocol and that developed countries have the right to invest in those developing countries that have shown enough commitments and readiness for the objectives of the CDM and for the overall objectives of the Protocol. To him, developing countries cannot complain of inequity while they have not made efforts to provide the relevant framework which will make investments in such countries possible and hitch free.[60] According to Michaelowa, due to an overall lack of information in most developing countries regarding the linkages that exist between economic and environmental concerns, governments of most developing countries claim to place priorities on reducing poverty and less priority on environmental concerns.[61] To him,

[57] See Martina Jung, *supra* note 12 at 2175.
[58] *Ibid.*
[59] Luis Gómez-Echeverri, **"**Most Developing Countries are neither prepared to address nor interested in Climate Change". See online: UNDP, www.undp.org/documents
[60] *Ibid.*
[61] Axel Michaelowa, *supra* note 56 at 210.

this attitude must change before any developing country can complain of inequality as far as distribution of CDM projects is concerned.

Thus, for a country to be considered an attractive location for CDM projects, it must maintain a high rating in the aforementioned three requirements. Generally, scholars have adopted these three indicators in classifying the level of attractiveness of developing countries which are parties to the Kyoto Protocol. Martina Jung, in her watershed analysis of developing countries and their level of attractiveness based on the above discussed factors concluded that the appropriate starting point for a country wishing to improve its attractiveness is by putting in place the appropriate legal and regulatory framework which removes all barriers to CDM project implementation in that country. She went ahead to classify developing countries' attractiveness for CDM projects based on a cluster analysis of the three indicators. Her table is represented below:[62]

TABLE 2

Very Attractive	**Attractive**	**Attractive to a limited extent**	**Very Unattractive**
Argentina	Antigua and Azerbaijan	**Algeria**	Albania
Brazil	Belize	Armenia	Bahrain, **Botswana**
India	Chile	Bangladesh	Bahamas
Mexico	Costa Rica	Sri Lanka	Bosnia and Herzegovina
South Africa	El Salvador	Colombia	**Benin**, Brunei
Thailand	Jordan	Cuba	Chad, **Congo**
China	Mongolia	Ecuador	**Dem. Congo (Zaire)**
Indonesia	**Mauritius**	**Equatorial Guinea**	**Cameroon**
	Maldives	Georgia	**Central African Republic**
	Malaysia	Guatemala	**Cape Verde**
	Panama	Honduras	DominicanRepublic,
	Trinidad and Tobago	Laos	**Ethiopia**
	Uruguay	**Madagascar**	**Gambia, Gabon, Ghana**
		Moldova	**Guinea,** Guyana
		Mali	Haiti, Iran
		Niger	**Ivory Coast**
		Nicaragua	Iraq, **Kenya**
		Paraguay	Kyrgyzstan, North Korea
		Peru	Kuwait, Kazakhstan
		Uganda	Lebanon, **Liberia, Lesotho**
		Yemen	**Libya,** Arab. Yam.,

[62] See Martina Jung, *supra* note 12 at 104.

		Zimbabwe Bolivia* Jamaica* **Morocco*** Philippines* Vietnam	**Malawi** Macedonia, Mauritania Oman, **Mozambique** **Nigeria,** Nepal **Guinea-Bissau** Qatar, **Rwanda** Saudi Arabia, **Seychelles** **Senegal, Sierra Leone** **Sudan,**Syria United Arab Emirates Turkmenistan, **Togo**
1 African country	1 African country	8 African countries	27 African Countries

Key: * somewhat attractive, **attractive to a very limited extent

It is clear from this table that South Africa is the only African country listed as very attractive for the CDM. Majority of the other African countries occupy the very unattractive portion of the table. Why is this so? This paper examines each of the requirements for host country attractiveness, with a view to finding reason(s) for the unattractive position of most African countries for CDM projects. This paper will examine the first two requirements briefly while the last requirement, being the bedrock of this paper, will be given full attention.

(a) Mitigation potential

Mitigation potential refers to the level of emission reduction that can be achieved in a country and the cost of achieving such reduction.[63] A developing country that offers high emission reduction at the very least cost is said to have a high mitigation potential.[64] The mitigation potential of a developing country is assessed by the GHG emission intensity, the use of dirty technologies, the use of energy in efficient technologies, and the level of

[63] *Ibid.*
[64] H.Dang & A.Michaelowa, "From GHG Abatement Potentials to Viable CDM Projects-The Cases of Cambodia, Lao PDR and Vietnam" (2006) HWWA Report 259 at 9.

industrial activities carried out in that country amongst others. Studies show that CDM investments will flow to countries that can generate cheap CERs at large enough volumes.[65] Thus, developing countries that have heavy industries with high GHG emissions tend to offer emission reduction prospects to developed countries. According to CDM scholars, given the high transaction costs of CDM projects and the low costs of CERs in the CDM market, a CDM project must be large enough to be economically viable. According to their analysis, a large CDM project which offers more CERs will mean achieving more CERs at about the same price of achieving lesser CERs through smaller projects. This is the reason why only countries with high emission rates are considered very suitable for emission reduction activities.[66] Michaelowa was making this point when he said that a minimum size of above 20,000 t CO_2 is required for a project to be considered cost effective, and that any project delivering less than 100,000 CERs per year is unlikely to be considered CDM attractive or cost attractive.[67] To him, only countries that can offer high volume projects which can generate between 10,000-20,000 metric tons of CO_2 will be considered as attractive spots for CDM projects.

Studies show that 70 percents of the overall CDM projects have been diverted to India and China for this reason, as they boast of large CDM projects, while same cannot be said of African countries.[68] For example, South Africa is reputed to be the highest CO_2 emitter in Africa, emitting 1.6 % of the total global CO_2 emission. This is followed by Algeria (0.7%), Egypt (0.6%), Nigeria (0.4%) and Libya (0.2%). These cannot in any

[65] *Ibid* at 10.
[66] Gao Guangshen *et al*, *supra* note 10 at 2.
[67] A. Michaelowa & F. Jotzo, "Transaction Costs, Institutional Rigidities and the Size of the Clean Development Mechanism" (2005)33 Energy Policy 511-523.
[68] *Ibid*.

way be compared to mega emission rates of countries like China (18.4%) and India (4.9%).

However, African countries like Nigeria where gas is flared in huge proportions will offer a very high platform for developed countries to reduce so much GHG in the process of investing in gas flaring reduction projects.[69] Also, studies show that numerous CDM opportunities exist in Africa ranging from small scale biomass and renewable energy projects to larger projects such as electricity generation, fuel switching from coal or oil to gas, biomass in sectors like cement, pulp and paper, mining and refining of mineral resources amongst others.[70] For example, Mozambique offers a high potential for large energy efficiency improving projects (industrial units revamp) and medium potentials for wind mills projects, and for projects related to better use of wood resources (improved stoves and efficient charcoal making process).[71] Botswana also offers high potentials for efficiency improvement in coal based thermo electrical facilities, energy efficiency improving project (industrial units revamp / technology transfer) landfill gas to energy projects.[72] Zambia is also reputed as having high potentials for energy efficiency

[69] Studies show that Nigeria currently flares more natural gas associated with oil extraction than any other country on the planet. Estimates suggest that of the 3.5 billion cubic feet of associated gas (AG) produced annually, 2.5 billion cubic feet, or about 70% is wasted via flaring. This equals about 25% of the UK's total natural gas consumption, and is the equivalent to 40% of the entire African continent's gas consumption. See Climate Justice, ``Gas Flaring in Nigeria: A Human Rights, Environmental and Economic Monstrosity`` online: http://www.climatelaw.org/gas.flaring/report

[70] Mike Bess, "CDM failing to deliver for Africa", online: COP http://copnairobi.energyprojects.net/Documents/environmental_finance_julaug_050714.pdf

[71] See CDM Africa, "Mapping the CDM in Africa", online : http://www.rgesd-sustcomm.org/CDM_AFRICA/cdm_africa_Mapping.htm

[72] *Ibid.*

improving project (industrial units revamp / technology transfer) landfill gas to energy projects and little potentials for wind mills.[73]

This means that, subject to satisfactory performances of these African countries in the other indicators for host country attractiveness, these areas can be explored by developed countries in carrying out CDM investments in these African countries.

(b) Investment Climate

The second requirement of investment climate deals with the level of investment risks associated with locating a CDM project in a particular country. It has been said that the investment climate in a country is the collective set of incentives which establish the "rules of the game" to which economic actors must adhere.[74] Set by a wide variety of sources, including government policies, cultures of public administration, institutional, social, and physical infrastructure, the investment climate determines the level and certainty of returns expected by CDM investors on every investment made by them. According to Dang, the CDM investment climate is usually considered to be based on the attractiveness of the *general* investment climate and associated level of financial/ investment risks. Scholars have thus established a link between the performance of a nation in terms of Foreign Direct Investments (FDIs) and its suitability for hosting CDM projects. Scholars are of the view that the total FDI in a country offers a broader measure that best illustrates the general investment climate in a country. According to Ellis, countries expecting to attract the most CDM projects are countries that are recipients of a

[73] *Ibid.*

[74] See The World Bank, *Investment Climate Assessments*, online: http://www1.worldbank.org/rped/index.asp?page=links

significant proportion of FDIs.[75] It is argued that CDM investments, just like FDIs, are very selective and will only flow to countries where strong enabling conditions for investments exist.

The general investment climate of a country can be broken down into the following three main areas:

(1) *Macroeconomic and Trade Policy* – This covers the capacity of domestic institutions to reduce the costs of international trade and finance, and to ensure a consistently safe atmosphere for investments, (e.g. fiscal, monetary, trade, and exchange rate policy, administration of customs and ports, security of lives and property, strength of rule of law, and political stability).[76] Hence, developing countries bedeviled by war, political instability, dictatorship, the absence of the rule of law, and heavy taxation burdens score very low on this point since they are considered as unsafe and risky for investments.[77]

(2) *Microeconomic Framework* – This focuses on the existence of trade friendly regulations, predictable government policies and the availability of efficient enforcing agencies devoid of unnecessary bureaucracy and unwholesome administrative bottlenecks. Thus, a country with flexible and less cumbersome rules on market entry and exit, macro-economic stability, comprehensive legal frameworks on contractual relations, proven enforcement capabilities, availability of pools of skilled workers and

[75] J. Ellis, *et al,* Taking Stock of Progress under The Clean Development Mechanism (Paris: OECD, 2004).
[76] See generally, World Bank, Investment Climate Assessments, *supra* note 199.
[77] For example, The World Bank's *Doing Business* analysis finds that medium-sized firms in Rio in Brazil are required to pay a total of 201% of their gross profits in tax, the highest of any city in the world. Such heavy tax burdens are necessary disincentives to foreign investments. *Ibid.*

other sources of human capital, will be perceived as an attractive location for CDM investments.[78]

(3) *Enabling Infrastructure*: - This covers the availability of key public infrastructure necessary for production activities and investments e.g. electricity, land, efficient security service systems, skilled employees, efficient transportation systems and the availability of basic infrastructural facilities. Since these basic infrastructures are pre-requisites for doing business in a country, developing countries that cannot guarantee them are often considered as unattractive investments locations. Most African countries including Nigeria often score very low when it comes to security issues and investment climate due to the absence of these basic infrastructural facilities and the ineptitude of security agencies in most of these countries.[79]

These three indicators go a long way in shaping the direction of CDM project investments. These factors are interdependent and do not exist in isolation. As such, a change in policy in one facet, affects the general perception of a country in the eyes of investors. Thus, developing countries that wish to attract CDM investments must ensure a good performance on each of these indicators.

Most African countries often score very low points when it comes to security issues and investment climate. This is due to the persistence of dictatorship, the absence of the rule of law, the menace of rampant corruption, prevalence of ethnic and religious skirmishes,

[78] Ellis, *supra* note 75 at 23.
[79] For a discussion on the investment climate in Africa, see Paul Collier, "Natural Resources and Conflict in Africa", online: Crimes of War project, http://www.crimesofwar.org/africa-mag/index.html

and the ineptitude of the police in most of these countries.[80] For example, Nigeria is now rated as a failed state, due to the high incidence of hostage taking, maiming, loss of lives and limbs, kidnapping and rape in its southern region.[81] This will indeed be a major draw back for CDM investors and even other investors. Other African countries like Sudan, Somalia, Zimbabwe, Chad, Cote d'Ivoire, Democratic Republic of Congo, Guinea, Central African Republic, Uganda, Ethiopia and Burundi rank prominently on the lists of unsafe countries and failed states. With these, most developed countries prefer to situate their investment projects in more friendly developing states like India and China in Asia.[82]

(c) Legal and institutional framework

Studies have shown that this is the most important indicator of host country attractiveness.[83] A country is assessed here, based on its ability to lay down laws that enhance CDM implementation in that country. A legal framework on CDM implementation is so important because, it is such a framework that determines how CDM project investments are to be carried out in that country, the nature of projects considered as compatible with the sustainable development goals of the country and the investment protection offered to prospective CDM investors in that country.[84] Most developing countries that have failed on this point have been unable to benefit from the

[80] See Paul Collier, "Natural Resources and Conflict in Africa", *ibid.*
[81] See Foreign Policy, 'Failed States List 2007' online: FP, http://www.foreignpolicy.com/story/cms.php?story_id=3865
[82] See Collins Edomaruse, "Why Foreign Investors are Hesitant on Nigeria, British High Commissioner to Nigeria speaks", *supra* note 18.
[83] According to a survey conducted in 2002 by Point Carbon, a comprehensive legal and institutional CDM framework is the most important factor influencing CDM investments. See Point Carbon, "Is there a Business case for Small scale CDM Projects?"(2002)*Carbon Market Analyst*, December Issue.
[84] See Martina Jung, *supra* note 12.

sustainable development prospects of the CDM as they are often perceived by investors as unattractive.[85] Thus, it is very important for the government of a developing country wishing to be perceived as attractive for CDM investments to establish an adequate institutional framework on CDM implementation. According to Michaelowa:

> …even if a host country has many attractive CDM project opportunities, it will not necessarily mean that many projects will actually be implemented. An effective national institutional structure is necessary to harness the CDM potential and attract investors. At the outset, a country should develop a clear understanding about its approval criteria and sectoral as well as technological priorities. In this process, the competitive nature of the CDM should be kept in mind.[86]

So what are these legal and institutional requirements to be put in place by a prospective host country? For a developing country to be considered an attractive destination for CDM projects, the government of such a country must take steps to lay down efficient CDM laws and to create the institutional framework for the implementation of such laws.[87] These steps include complying with the formal requirements of hosting CDM projects and laying down laws which will make such a country attractive to project investors. Some of the formal steps to be taken by developing countries include:

- ratifying the Kyoto Protocol,
- enacting domestic laws which domesticate the Kyoto Protocol,
- establishing a national authority to oversee CDM projects,
- identifying requirements for CDM projects such as sustainable development criteria and highlighting specific projects that meet these criteria, and

[85] *Ibid.*
[86] See Axel Michaelowa, *supra* note 67 at 18.
[87] Myung-Kyoon Lee, *CDM Information and Guide book*, *supra* note 41 at 40.

- enacting a comprehensive CDM law which specifies the procedure for proposing CDM projects and for getting a national approval for such projects. This law should also establish the DNA stating the scope of its authority, its objectives, organizational structure, functions, priorities and its mode of operation.[88]

These steps will now be discussed in greater details in what follows.

(*i) Ratifying the Protocol.*

To ratify and thus become a Party to the Kyoto Protocol, a country must have already ratified the UNFCCC and must deposit its official national statement of ratification with the Secretary General of the United Nations.[89] Being a Party to the Protocol is a commitment to comply with its provisions, and although ratification of the Protocol does not commit a country to participation in the CDM, it is a pre-requisite for hosting CDM projects.[90] Statistics show that a great number of African countries have ratified the Kyoto Protocol and have since become parties to it. These African countries that have ratified the Protocol, have consequently met this legal requirement and are eligible to host CDM projects.[91]

[88] For a detailed discussion on the structure of a DNA, see the CDM Rules, *supra* note 46.
[89] See The Kyoto protocol, online: UNFCCC, http://unfccc.int/resource/docs/convkp/kpeng.pdf
[90] *Ibid.*
[91] See the UNFCCC, "Status of Ratification" Online : http://unfccc.int/files/essential_background/kyoto_protocol/status_of_ratification/application/pdf/kpstats.pdf

(ii) Enacting domestic laws on the CDM

The CDM is indeed a new addition to the list of globally recognised emission trading portfolios and thus comes with its distinct attributes and peculiar implementation requirements. This is why it requires legislative recognition in developing countries where it is to be implemented. Without such recognition through national laws, the CDM will remain alien to key stakeholders and government ministries in such a country, thereby serving as a disincentive to CDM implementation in the country. Similarly, such laws will provide answers for investors who will want to have a clear knowledge of the country's CDM goals, the approval process, project eligibility, national sustainable development goals and objectives, certification of projects, baselines, verification, validation, reporting and monitoring. These processes require comprehensive guidelines, which can only be carefully laid out in a specific legal framework on the CDM in every prospective host country.

In most African States however, the CDM has not even found its way into the law books. Without such recognition by national laws, the implementations of such policies remain impossible and legally unsupportable. This point has been a major set back for most African states and has been the main reason for their slow implementation of international obligations, including the CDM. For example in a common law state like Ghana, there is a mandatory requirement that there must be national legislation which domesticates international treaty obligations before such can be implemented in the country. Without a national law which allows the implementation and domestication of

such policies, then effect cannot be given to them to become nationally applicable. Chapter Four, section 7 of the Ghanaian Constitution provides that

> Any Order, Rule or Regulation made by a person or authority under a power conferred by this Constitution or any other law shall be laid before Parliament; …it shall come into force at the expiration of twenty-one sitting days after being so laid unless Parliament, before the expiration of the twenty-one days, annuls the Order, Rule or Regulation by the votes of not less than two-thirds of all the members of Parliament.[92]

Thus, the parliament is required to domesticate any regulation or rule before it can be applicable in Ghana. When this is not done, it becomes inapplicable. Similarly in Nigeria, Section 12 of the 1999 Constitution of the Federal Republic of Nigeria provides that:

> …no treaty between the federation and any other country shall have the force of law except to the extent to which such a treaty has been enacted into law by the National Assembly.[93]

Clearly, this provision requires that, for an international obligation to which Nigeria is a party to take effect in Nigeria, a domestic law accepting that obligation as part of Nigeria law must first be made. It is only after this is done that elements of the obligations can be considered or incorporated into relevant policies and regulations for implementation in Nigeria. Nigerian courts have consistently maintained that, ratification by Nigeria of an international treaty per se does not automatically make it a domestic law in Nigeria. The Supreme Court of Nigeria in the *locus classicus* case of *General Sani Abacha and 3 others V Chief Gani Fawehinmi* [94] held that no international treaty can be said to have

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[92] See *The 1992 Constitution of the Republic of Ghana*, online: Republic of Ghana, http://www.parliament.gh/const_constitution.php

[93] *1999 Constitution of The Federal Republic of Nigeria* , online: Federal Republic of Nigeria, www.nigeria-law.org/ConstitutionOfTheFederalRepublicOfNigeria.htm

[94] (2000) 77 Law Reports of Courts of Nigeria, 1254-1401

come to effect in Nigeria except the provisions of such treaty have been enacted into law by the Nigerian National Assembly. According to the Supreme Court:

> …when we have an international treaty of this nature, it only becomes binding when enacted into law by our National Assembly…it is such law that breathes life into it in Nigeria.[95]

Studies show due to beaurucracy, legislative ineptitude and political power play in most African states, the parliament often displays unnecessary slothfulness to enact such laws, thereby impeding the implementation of such policies. This accounts for why there are no CDM laws in a country like Nigeria, and why there is no legally recognized DNA on CDM in Nigeria.

It cannot be overemphasized that in the absence of a CDM legal framework, investors will be wary to invest in African countries where there will be no legal protection for their investments. In a country like India for example, even though there is no stand alone CDM law, there are existing regulations which (a) define clearly the procedure for proposing CDM projects and for getting a national approval for such projects; (b) define the nature of projects that can be proposed as CDM projects in the country, establish the Indian DNA stating the scope of its authorities, objectives, organizational structure, functions, priorities and mode of operation; and (c) grants the DNA the absolute power on the control, registration and discussion of CDM projects in the country. The regulations also provide for easy administrative linkages between NA and relevant governmental ministries and parastatals, like the Energy Ministry, Environment Ministry, the Immigration, the Indian National Bank and all the other agencies that will likely be involved during a CDM project cycle. This thus simplifies the CDM process in India and

[95] *Ibid.*

makes it stress free for prospective investors. Little wonder that the Indian Designated National Authority has granted host country approval to more than 300 project proposals with an emission reduction potential of over 297 million tones of CO_2.[96] So far, CDM Executive Board has also registered over 100 Indian projects.[97]

Similarly, it should be noted that since the CDM involves technology transfer, a developing country has to make efforts towards removing all legal barriers to the active process of proliferating technology across its borders. Studies show that 67 percent of developing countries are not benefiting from the CDM because of the existence of laws in these countries which make technology transfer very stringent and difficult.[98] The presence of such barriers indeed serves as discouragements to willing CDM investors who instead opt for countries where such barriers do not exist.

(iii) Establishing a National Authority on the CDM

As stated earlier, the Designated National Authority (DNA) is the CDM monitoring body required by the CDM Rules to be formed by every developing country for the purpose of approving a prospective CDM investment. The DNA is to ensure that the host country participates in a CDM project activity voluntarily and to confirm that a project contributes towards a country's sustainable development, in accordance with the

[96] *Ibid.*

[97] The Executive Board of The CDM was formed under Kyoto Protocol with the responsibility of supervising CDM projects, making detailed rules for modalities and procedures for the CDM according to the decision and recommendation of Conference of Parties to CDM (COP), suggesting simplified rules for small-scale CDM project, developing and approving new methodologies for CDM, and making recommendations to the COP for the designation of operational entities. See online: UNFCC , www.cdm.unfccc.int/projects/registered

[98] Alan Silayan, "Equitable Distribution of CDM Projects Among Developing Countries" *supra* note 13 at 10.

standards set by that host country. The DNA also has the duty of deciding whether a project will result in real, measurable and long-term benefits to mitigate the climate change.

According to Manso, the other functions of the DNA includes: serving as the focal point between investors and the host country government; providing potential projects for investors; processing framework agreements with investors; ensuring that an environmental impact assessment is carried out before approving projects and considering the assessment reports carefully; providing legal advice for project investors; coordinating with other relevant official entities and authorities within the host country; drawing up standardized baselines; monitoring ongoing CDM projects; granting export of emissions right (CERs); conducting public relations and providing information on CDM implementation in the host country through advertisements in the media and through the website. It is also to design and establish an evaluation procedure that adopts international eligibility criteria to assess the contribution of the prospective CDM projects to sustainable development in the host country.[99]

Studies show that the approach taken by developing countries so far is to establish the DNA within an existing Government Department or Ministry (particularly those that deal with direct foreign investment and trade, environment or energy); within the existing UNFCCC focal point for the CDM, to be found on the UNFCCC web site; or as an independent and new office; or through a specific Government Minister.[100] Whichever

[99] Paulo Manso, *supra* note 50 at 8-9.
[100] UNEP, *Legal Issues Guide Book to the CDM* (Roskilde: UNEP Risoe, 2004) 24-25.

approach is adopted, it is important for the host country to lay down a legal framework in form of National CDM laws which establishes the DNA and which highlights its CDM national strategy and local policies.

The law creating the NA is expected to contain clear statements regarding the DNA's authority, objectives, organizational structure, functions, priorities and mode of operation. It should also contain clear statements regarding the rationale for creating the NA, and the extent of the legal authority which it is granted. It should in addition, provide guidelines for the process of consultation, discussion and consensus building, which will be used to develop a concrete action plan for the NA. The government of a developing country is also expected to decide its national CDM investment priorities and make them easily identifiable in its CDM laws. This position is aptly supported by Christina Figueres when she noted thus:

> This legal instrument shall contain justifications, authorities, objectives and organizational structure, financing functions and procedures that will be the platform for the development and sustainability of the DNA. Furthermore, the DNA should have the authority to grant export of emissions right (CERs).[101]

The DNA must therefore enjoy a legislative backing; it must be established by a law which clearly defines the extent of its powers and functions. It is such a law that will empower the DNA with the authority to grant export of emissions right (CERs). Figueres was making this point when she said:

> …it is critical to obtain official governmental sanction of the NA and to enlist the support of key political figures such as the Ministers of Environment, Energy, transportation, Natural Resources, Agriculture, Trade and Foreign Affairs. Official recognition may come in different

[101] See Christiana Figueres, *Establishing National Authorities for the CDM- A Guide to developing countries*, (Winnipeg: International Institute for Sustainable Development, 2002) 55-56.

> forms, depending on the degree of knowledge and acceptance of the CDM and administrative and legal procedures of the country in question. Validation of the NA may come *from the legislature*, a presidential or ministerial decree or other similar legal instrument. However, it is important to realize that the approval of CDM projects implies allowing the export of emission rights. Therefore the NA must have the authority to grant this permit.[102]

Finally, part of the institutional efforts to be carried out in a developing country, in order to boost its attractiveness for CDM project investments include developing a "master plan" for a national CDM strategy.[103] This master plan is to contain a description of projects that can be proposed to the NA as CDM projects. It should also evolve the sustainable development criteria for such projects and should provide an easy break down of the investment procedure in that country. This master plan should aid in facilitating investment procedures, promoting CDM projects and participation, and in coordinating between industries who will be involved in the investment activity.[104]

It is clear that unlike India, most African countries are yet to give effect to the CDM through national laws, and are yet to establish nationally recognised DNAs. This has remained a barrier to the implementation of the CDM in most African countries. As discussed above, it is such national CDM law that will provide a legal backing for CDM activities in the country. Without such legal backing, most CDM investors will remain sceptical on engaging in illegal trading activities or trade not backed by law. Apart from this, it is such a law that will gives life to the DNA and give it recognition as the

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[102] *Ibid.*
[103] See Evans Kituyi, "Attracting Clean Development Mechanism Projects, Prerequisites for African Governments, see online: African Center for Technology Studies, http://www.acts.or.ke/PB%20-%20KITUYI-CDM.pdf.
[104] *Ibid.*

appropriate government body in charge of the CDM in that country. Without such express authority, most developed countries will remain sceptical about trading with African countries.

Areas of Action

It is clear from this study that even though a great number of developing countries in Africa have ratified the Kyoto Protocol and have since become parties to it, most of them are yet to put in place the necessary legal and institutional framework on the CDM. This situation has been responsible for the seeming neglect of African countries in the booming CDM market and their appellation as CDM unattractive countries. This paper calls for prompt action by the government and institutions of African countries to correct these defects by establishing sound and comprehensive legal regime on CDM implementation. The legislative model suggested in this paper will indeed be a useful guide to most African countries in achieving this necessary target.

The most appropriate starting point for African countries wishing to benefit from the sustainable development prospects of the CDM is to lay down sound regulatory frameworks, which recognise the CDM, defines the scope of its implementation within that country, establishes a National Authority on the CDM and highlights the scope and extent of the powers of the DNA. By so doing, it is arguable that African countries will not only be showing their readiness to successfully host CDM projects, but will also demonstrate their willingness and readiness to be major stakeholders in the broadening CDM market.

The next question is how this can be done? Studies show that there exist distinct situations in different developing countries; a situation which makes it difficult to give a general and broad classification of the precise legal and institutional barriers to be removed by each country; and the needed legal and institutional restructuring to be carried out by each developing country. According to Dang and Michaelowa:

> There is no one stop shop approach or model to arrange a national CDM institution. There are many possibilities and each country will have to decide on the particular form of institutional development that is appropriate in line with national circumstances.[105]

I will however give a general recommendation which can serve as a guideline for most African countries on how they can boost their implementation of the CDM. It is my recommendation that African countries should come up with CDM laws which exhaustively deal with all the necessary issues hindering the implementation of the CDM in their territories. It is recommended by this paper that such a law should:

i) Define clearly the procedure for proposing CDM projects and for getting a national approval for such projects;

ii) Define the nature of projects that can be proposed as CDM projects in that country;

iii) Establish the DNA which develops enforceable environmental regulations on CDM projects, stating the scope of the DNA's authority, objectives, organizational structure, functions, priorities and mode of operation;

iv) Grant the DNA the absolute power on the control, registration and discussion of CDM projects in the country;

[105] See Dang, *supra* note 64 at 27.

v) Provide clearly the guidelines for the process of consultation, discussion and partnership between the DNA and relevant governmental ministries and parastatals, such as the Energy Ministry, Environment Ministry, the Immigration, The National Bank and all the other agencies that will likely be involved during a CDM project cycle.

vi) Clearly recognise CERs as a form of property that can be held and traded within the country.

vii) Provide for how CERs can be traded, how contracts involving sale of CERs can be formed and couched, what is to be sold under the contract and who has the legal entitlement to the CERs.

viii) Contain provisions which ensure that CERs are properly transferred to the party who is purchasing them;

ix) Contain clear provisions on determining how CERs are to be sold and transferred; the terms of payment and purchase for the rights; appropriate warranties and indemnities; managing a shortfall in the delivery of CERs; and resolution of disputes related to the sale and purchase of CERs.

As a follow up to this, I will recommend that other existing laws like the laws on technology transfer, establishment of business presence and the laws on property transfer should be reviewed so as to remove any barrier to foreign investment in these African countries. Indeed, laws relating to foreign investment and participation should be reviewed to provide high incentives to investors and to simplify the process of foreign investments and technology transfer.

Finally, the current situation whereby lawyers in Africa are not properly informed about the CDM will have to be corrected. This is because lawyers have a prominent role to play in the drafting and preparation of CERs agreements and in advising governments of both the host and investing countries in case of dispute. As such, I will recommend the inclusion in the syllabus of law schools in Africa, courses which expose law students to the preparation of CER agreements and to the CDM as a whole. Periodic courses should also be organized for practicing lawyers to keep them abreast of CDM rules and how to support its implementation in their respective countries.

Conclusion

This paper has analyzed the importance of the CDM as a veritable mechanism through which developing countries can achieve their sustainable development goals. Much have been said on the need for developing countries that wish to benefit from these CDM gains to develop a well organized legal and institutional framework which defines and simplifies the CDM priorities, incentives for trade and the processes involved in executing CDM project proposals in that country and to remove all legal barriers to CDM implementation. These barriers have been identified as including the absence of CDM laws, the rigidity of existing laws and the weak institutional structures on the CDM in most African countries.

One thing that is also clear from this paper is that an effective regulatory and institutional structure is a necessary prerequisite for a developing country to harness its CDM

potentials and attract investors. Most African countries like their Asian counterparts have very high mitigation potentials and huge prospects for large CERs (Certified Emission Reductions) generating projects. Despite these promising prospects however, they have not attained as much recognition in the CDM market. The lessons for African countries are clear: a country that wishes to attract sustainable development through the CDM should at the outset develop a clear master plan which states its priorities and approval criteria as well as the implementation procedure peculiar to it. It should also remove all legal barriers to CDM implementation, lay down a comprehensive legal framework for CDM activities, and amend existing archaic laws. This paper is a wake up call to African legislators and policy makers to take these steps with utmost priority, so that African countries can start benefiting from the many sustainable development prospects waiting to be tapped under the CDM.