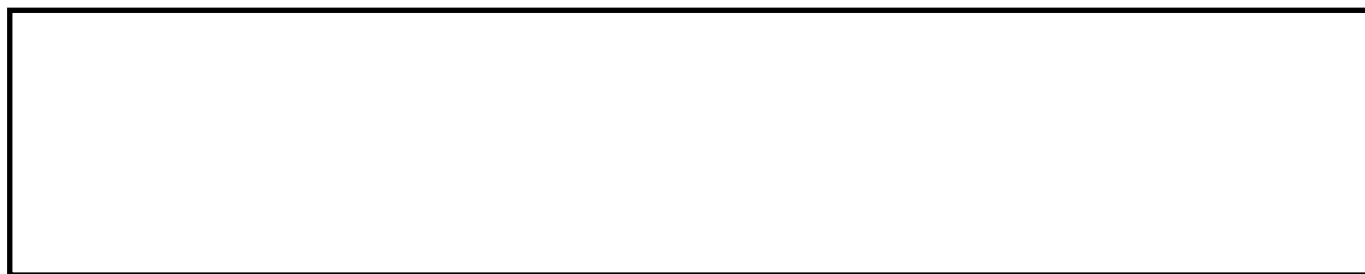


African perspective to the nature based solutions to climate change.

NWAZI, J.N. and DEBSKI, J.A.

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African Perspective to the Nature Based Solutions to Climate Change**

By Joseph Nwazi, Ph.D

Associate Professor & Ag. Head of Department, Business Law, Igninedion University Okada, Edo State,
Nigeria

And

Joy Anwulika Debski, LLM, Doctorate Researcher on Corporate, Environmental Law and Oil and Gas,
Robert Gordon University, Aberdeen

Abstract

The natural environment worldwide is increasingly affected by climate change. Among the range of proposed solutions, those provided by nature have been acknowledged worldwide as the most potential. This work attempts to explore the various contexts in which nature based solutions are relevant for climate mitigation and adaptation. The paper identified that a lot of countries in Africa are not giving nature the room it needs to operate in mitigating and adapting to the impacts of climate change. Consequently, the continent lags behind compared to what operates in other jurisdictions. It is against this backdrop that this paper strives to unravel the identified challenges and potential opportunities for increasing the scale and effectiveness of nature-based solution implementation in Africa. This is premised on the infallible assumption that the nature based solution has attained a universal and sacrosanct status which must be respected by all the nations of the earth in their respective national climate targets, known generally as Nationally Determined Contributions under the Paris Agreement. The paper ends with some recommendations for more active and practical implementation of nature conservation measures in Africa.

Keywords: climate change, nature, Africa, environment, Nigeria, law, solution.

Introduction

It is beyond doubt today that climate change or global warming has become one of the environmental challenges facing the global community. As a result, it has become the hot button issue of global discourse at the moment resulting in series of international conventions. The primary objective of these conventions is for the parties to make basic commitments to stabilize the greenhouse gases at a level that would prevent obnoxious interference with the climate system.¹ Among the range of proposed adaptive measures is the nature based solutions. The

*Joseph Nwazi, Ph.D, Associate Professor & Ag. Head of Department, Business law, Igbinedion University Okada, Edo State, Nigeria. Mobile: 08056749453, 08134228190, email: nzutejoseph@gmail.com, barrmazi@yahoo.com. **Joy

argument calling for emphasis on nature based solution is that countries around the world can harness the power of nature to adapt to climate impacts. Today, this remains the most widely accepted means of mitigating the effects of climate change. However, it has been authoritatively asserted that nature based solution is limited in operation and application. To date, countries, especially those least developed, face a number of challenges in implementing such plans, and so the full potential is not being realized. As the benefits of this measure are becoming more and more emphasized and understood, some of the broader impacts on the African continent, for instance, remain limited to date.

Protecting forests is prominent among the nature based solutions but there is overwhelming reliance of African population on agricultural and other forest activities for their sustenance. Agriculture is the industry that feeds the populace and serves the industrial base of these nations as the provider of raw materials for the industries. Other agricultural products of these states could be in the form of basic food or cash crops.² Therefore, the implementation of this scheme to the letter will mostly affect these countries. Another impediment in the implementation of this scheme in the continent of Africa is poverty. As a result, a number of African entrepreneurs are venturing into urban and peri-urban farming. Majority of the population is preoccupied with how to exploit nature for their immediate survival without a second thought on the implications to the environment³. This is compounded by corruption and poor governance profile in the continent. This issue generated a lot of problems due to the reluctance of the African states to live up to expectations. Even though they attend these conferences, the reality is that they lag behind in their implementations.

A government that hardly provides for the people can hardly provide for the environment. Even the series of laws put in place for nature preservation lack adequate enforcement. In Nigeria, for instance, it is like everybody is on his own. Preservation of the environment plays a second fiddle

Anwulika Debski, LL.M, Doctorate Researcher, Corporate, Environmental and Oil and Gas Law, Robert Gordon University, Aberdeen – joydebski@gmail.com

¹ Charles Ivuerah, "Climate Change and Global Warning" in the *Vanguard*, June 5, 2007, p.24.

² Odiase-Aleginmelen, O. A. "Assessing the Problems Encountered by Developing Nations with Respect to Globalization and Development" in *Benin Journal of Public Law*, vol. 2 No. 1, 2004, p. 85.

³ Collins, P. *et al*, "Climate Change and Africa" in *Oxford Review of Economic Policy*, Vol. 24, 2008, p. 337.

to a man struggling for survival. Worse still, climate change awareness is low, and there is inadequate human capacity building programme. No wonder then that Africa has consistently been at the lowest rungs in the adoption of nature-based solution to climate change. This unsatisfactory situation is the pith of this paper. Therefore, if there must be a substantial implementation of this scheme in Africa, there must be a conscious effort to overcome these problems first otherwise the ability of these nations will ever be hindered. God forbid.

The concept of Nature-Based Solutions

We often take nature for granted but it should not be so. Nature-based solution (NBS) is a novel concept premised on the scriptural belief that God is our natural environment. We are created to live in his presence. We must be connected to him because it is only in him that life exists. When man is disconnected from nature, he dies.⁴ According to the International Union for Conservation of Nature (IUCN);

Nature is the vital component of every aspect of our lives, from the economies we have developed to the food we put in our children's mouths. Everything we do, everything we try to achieve is intrinsically attached to nature. This is a bond we cannot break.⁵

One of the major highlights of the 2012 IUCN World Conservation Congress in Jeju, Korea Republic, was nature+ which captured the importance of nature and its inherent synergy with life on earth. It was in this Congress that the concept of 'nature-based solution' was underscored so as to bring nature back to the world centre stage in addressing the challenges of "climate change, sustainable energy, food security, and social and economic developments".⁶ Nature-based solution is therefore defined as actions inspired by, supported by, or copied from nature.⁷ It requires not only to recognize the importance of nature to human existence on earth but also to work with and enhance nature to help address societal challenges. In the

⁴ King James Holy Bible, John 15: 5-6.

⁵ See the IUCN Global Standards for Nature-Based Solutions, available at <https://www.iucn.org/commissions/commission-ecosystem-management/our-work> (accessed 9 July 2020).

⁶ See the Highlights of the 2012 IUCN World Conservation Congress and Members' Assembly Resolution, WCC-2016-Res-069, available at https://www.iucn.org/downloads/2012_congress_highlights_final_pxp.pdf (accessed 9 July 2020).

⁷ C. M. Raymand, *et al*, "A Framework for Assessing and Implementing the Co-Benefits of Nature-Based Solutions in Urban Areas" in *Environmental Science and Policy*, Vol. 77, Nov. 2017, pp. 16-19.

context of this paper, it is an essential part of the required mechanisms to combat climate change. Unlike the technical approaches adopted by the international community to combat climate change in the form of emission pledges, low carbon technologies and other similar mechanisms, the nature-based solutions, as a viable alternative, seek to achieve same purpose but by the aid of nature, such as restoring forests and protecting grasslands, and other better land use practices. The very air we breathe is a by-product of trees transforming carbon into oxygen in the process of photosynthesis.⁸Trees even help remove harmful particulate matter (PM2.5) pollution.⁹

Deforestation therefore should be discouraged as much as possible while reforestation and afforestation should be encouraged through concerted and deliberate efforts. In this connection therefore, Reducing Emissions from Deforestation and Forest Degradation (REDD) has been designed by the United Nations Framework Convention on Climate Change (UNFCCC) as a programme to enhance the achievement of this purpose.¹⁰This is imperative in view of the scientific discovery that the combined contribution of deforestation and forest degradation accounts for about 15% of greenhouse gas emissions, just like the transportation sector.¹¹ Forests are probably the most well-known nature-based solution to climate change,¹² but there are many more, including intact peatlands, permanent grasslands, mangroves, wetlands, savannahs, coral reefs and other landscapes.

Many measures which reduce greenhouse gas emissions from land use or land use practices are considered as nature-based irrespective of the form and quality as well as climatic and socio-ecological contexts. For instance, ecosystem services are an effective way to

⁸ Nowak, D. J. *et al*, "Air Pollution Removal by Urban Trees and Shrubs in the United States" in *Urban Forestry and Urban Greening*, Vol. 4, 2006, pp. 117.

⁹ Dan Liang, *et al*, "Quantifying PM 2.5 Capture Capability of Greening Trees Based on Leaf Factors Analyzing" in *Environmental Science and Pollution Research International*, Vol. 23(21) Sep. 2016, p. 21179. See also Smith, W. H. *Air Pollution and Forests*, New York, Springer-Verlag, 1990, p. 618.

¹⁰ Article 6 of the Copenhagen Summit 2009, Article 5, paragraph 2 of the Paris Agreement. See also Danon, S. & Bettati, D. "Reducing Emissions from Deforestation and Forest Degradation (REDD+): What is Behind the Idea and What is the Role of UN-REDD and Forest Carbon Partnership Facility (FCPF)" in *South-East European Forestry Review Paper*, 2012, p. 95.

¹¹ See Reducing Emissions from Deforestation and Forest Degradation, available at <http://en.wikipedia.org/wiki/reducing-emissions-from-deforestation-and-forest-degradat>, (accessed July 2, 2010), referred to in Joseph Nwazi, "An Appraisal of the Copenhagen Accord" in *Journal of Public Law and Constitutional Practice*, University of Jos, Nigeria, Vol. 3, No. 2, September 2010, pp. 164-181.

¹² Westoby, J., *The Purpose of Forests*, Oxford, Basil Blackwell, 1987, p. 264.

reduce greenhouse gas emissions, conserve and expand carbon sinks and so are nature-based solutions. The NBS that results from harnessing these services can support the mitigation of heat waves, floods and droughts caused by climate change. It encompasses sustainable development goals, support vital biodiversity, improved livelihoods, and establish climate resilient society. Well-managed forests can protect water supplies, reduce wildfire risk and prevent landslides. Trees also provide shelter to crops and moisture thereby reducing the consequences of high temperature. Atmospheric carbon can also be sequestered by planting native vegetation or establishing urban green spaces.¹³

As an essential component of the overall global effort to combat Climate Change, the NBS has adequately been recognized at COP 21 and in the new Paris Agreement adopted on the 12th December 2015 by the United Nations member states.¹⁴ The treaty underscored the role of ecosystem-based mitigation measures when taking action to address climate change.¹⁵ It has been scientifically affirmed that nature-based solutions and other better land-use practices can provide up to 37 percent of the cost-effective emission reductions needed by 2030 to keep global temperature increases well below 2 degrees Celsius in conformity with the Paris Agreement's goal and expectations.¹⁶ Adequate investment in NBS will help reduce financial consequences of climate change, and contribute to the creation of new jobs, to livelihood resilience and to reducing people's poverty.

Implementation of Nature-Based Solutions in Africa

¹³ Taylor, L.O and Smith, V.K. "Environmental Amenities as a Source of Market Power" in *Land Economics*, Vol. 76 No. 4, (2000), p. 556.

¹⁴ UNFCCC (2015) *Approval of the Paris Agreement*, available at <https://unfccc.int/resource/docs/2015/cop21/spa/109s.pdf> (accessed 9 Nov. 2018).

¹⁵ La Vina, A.G.M. and de Leon A., "Conserving and Enhancing Sinks and Reservoirs of Greenhouse Gases, Including Forests" in Klein D., Carazo, M.P., Doelle, M., Bulmer, J. and Higham, A. (eds.). *The Paris Agreement on Climate Change, Analysis and Commentary*, U.K. Oxford University Press (2017), p 171.

¹⁶ See Article 2 of the Paris Agreement. See also Christiana Figueres, "Perspectives on Natural Climate Solutions" in *Playbook for Climate Action*, available at <https://www.nature.org/en-us/what-we-do/our-insights> (accessed 9 July 2020). According to Tom Crowther, forest restoration is the best climate change solution available today. It can provide over a third of our climate mitigation needs while benefiting people and nature. Large-scale co2 removal through forests will help offset emissions from other sectors such as aviation where alternatives or mitigation technologies are yet to be discovered. In addition, the trees also help soil capture substantial amount of carbon. See Stephen Leahy, How to Erase 100 Years of Carbon Emissions? Plant Trees – Lots of Them, July 2019, available at <https://www.nationalgeographic.com/environment/2019> (accessed 9 July 2020).

As the co-benefits of nature-based solutions are becoming more and more recognized and understood, there is a growing interest globally for a range of solutions to meet the mitigation and adaptation objectives of the Paris agreement. Many African States, for instance, are making considerable progress and necessary policy reforms to facilitate the implementation of the NBS in their respective countries. One of the core elements towards implementing the Paris Agreement is the Nationally Determined Contributions (NDCs) of the member states. NDCs are national climate strategies highlighting climate related targets, policies and actions each State party intends to adopt in response to the threat of climate change and as a contribution to global climate action. The State parties to the Agreement were invited to furnish their long-term strategies to the UNFCCC Secretariat by 2020. Many African countries such as Nigeria, Kenya, Uganda, Namibia, Mozambique, and Cote d'Ivoire have not only complied but are already working on their respective implementation plans as part of their national development priorities.¹⁷ The NDCs of these countries indicate an increasing interest and commitment in cooperating with other countries of the world towards implementing nature based solutions and other climate actions both in the short and long term that may lead to net-zero pathways in line with Paris Agreement.¹⁸ Many African countries have highlighted their REDD-plus as well as identified mitigation actions in the Land Use, Land-Use Change and Forestry (LULUCF) sector in their individual NDCs. The LULUCF sector has immense mitigation capacity especially in the sustainable management of forests, which enhances ecosystem services and provides co-benefits for local livelihoods.¹⁹ An instance is the Democratic republic of Congo which aims to restore and reforest 3 million hectares of their land area by 2025 which is capable of removing about 3 million tons of carbons from the atmosphere.

¹⁷ See UNEP, African Ministerial Conference on the Environment Seventeenth Session Durban, South Africa, 11-15 November 2019, *Policy Implications and Financing Opportunities for the Implementation of Nationally Determined Contributions in Africa: Role of African Policy Makers*, AMCEN/17/7, available at <https://www.africaadaptationinitiative.org/assets/> (accessed 14 July 2020).

¹⁸ Adiboye, B. & Odusola, A. "Climate Change and Economic Growth in Africa: An Econometrics Analysis" in *Journal of African Economies*, Vol. 24(2), January 2015, pp. 1-25.

¹⁹ Nathalie, S. *et al*, *Nature Based Solutions in Nationally Determined Contributions, Synthesis and Recommendations for Enhancing Climate Ambition and Action by 2020*, available at <https://portals.iucn.org/library/sites/library/files/documents/2019> (accessed 16 July 2020).

In addition, some of these countries, like Ethiopia, Ghana, Namibia and Nigeria, have already committed themselves by establishing their respective long term development and climate action plans, including National Development Visions and Green Growth strategies in tandem with the Agenda 2030 for Sustainable Development. It has become an annual event for the African Climate Policy Centre (ACPC) to convene a Climate Change Conference on African soil under the auspices of the Climate for Development in Africa (ClimDev-Africa) Programme, a consortium of African development institutions, including the UN Economic Commission for Africa (UNECA), the African Union Commission (AUC) and the African Development Bank (AfDB).²⁰In October 2018, for instance, it organized a Conference in Nairobi, Kenya, sought to advance an integrated approach to the sustainable management of Africa's environmental resources.²¹The ACPC considered NDCs to represent concrete actions to be taken towards meeting the Sustainable Development Goals and achieving the transformational outcomes envisioned in the continent's agenda 2063.²²Today, sixteen countries in Africa have so far joined the Coalition of Finance Ministers for Climate Action inaugurated by the World Bank Group and International Monetary Fund Spring Meetings in the U.S. in 2019 for the promotion of domestic and global actions on climate change through mitigation and adaptation measures. Other several climate change related initiatives across the continent of Africa include the Comprehensive Framework Programme on Climate Change implemented through the Regional Economic Communities and the regional commissions established at the 2016 COP22 under the African Union, including the ambitious Green Wall for the Sahara and Sahel Initiative, with a strong reforestation focus, aimed at building climate resilient communities in Africa.²³

However, as these countries are waxing harder and harder to adapt to the challenges of climate change, it becomes more glaring that the implementation of the NBS to the letter will be a

²⁰ See Leila Mead, *Africa Climate Conference Discusses Sustainable Development Goals-Agenda 2063-NDC Nexus*, available at <https://sdg.iisd.org/news/africa.climate-conference-discusses-sdg-agenda-2063-ndc-nexus> (accessed 15 July 2020).

²¹ Ibid.

²² Songwe, V. "Realizing a Climate-Resilient and Prosperous Africa" in *UN Chronicle*, available at <https://www.un.org/en/un-chronicle/realizing-climate-resilient> (accessed 16 July 2020).

²³ Goffner, D., *et al*, "The Great Green Wall for the Sahara and the Sahel Initiative as an Opportunity to Enhance Resilience in Sahelian Landscapes and Livelihoods" in *Regional Environmental Change*, Vol. 19, 2019, pp. 1417-1428.

difficult task on the African soil, owing to the multiple challenges confronting the continent, among which include inadequate enforcement of forestry and other related laws, limited resources and knowledge or expertise required for successful implementation of the scheme. Another albatross is their dependence on agriculture and other forest resources for sustenance. To compound matters, these countries are technologically challenged. The after-effect is that their full potential is not being realized while the countries are losing out on the key benefits of nature-based solutions. Ironically, the top forest restoration hotspots are all in Africa,²⁴ and so the continent is ordinarily a treasure for the scheme but the people are pessimistic due to these enumerated impediments. We shall examine the challenging scenarios more closely;

Overwhelming Reliance on Forest Resources

Forests are critical to managing climate change yet deforestation is causing up to 12 per cent of global greenhouse gas emissions. Deforestation has been an age-old activity of mankind and is directly being caused by activities such as illegal logging for shelter, agricultural development, mining and extraction of trees for fuel wood. Forests are coming under more pressure than ever as demand for food, shelter, medicines, and fuel grows.²⁵ This is worse in Africa as they derive their livelihoods mainly from forests. Unlike in other continents such as Europe, Asia and America, about 80 percent of African population has no alternative than to utilize forest and land resources for survival. Nature-based resources also dominate the export sector of this region. Agriculture is the major industry and most populations are agrarian and connected to the use of land for small-scale farming, cattle pasture or palm oil plantation.²⁶ In Ghana, for instance, about 15 percent of deforestation is caused by cocoa farming, while in Benin Republic and Nigeria, many forests have been transformed into agro-pastoral landscapes. This is worse in the Northern part of Nigeria where the primitive nomadic method of agriculture has been practiced by all native populations since time immemorial, and vast areas of their land have, for

²⁴ Rateng, B., *Global Forest Reforestation Hotspots Identified*, available at <https://www.scidev.net/sub-saharan-africa/forestry/news/global-forest-reforestation-hot> (accessed 16 July 2020).

²⁵ Boahene, K. "The Challenge of Deforestation in Tropical Africa: Reflections on Its Principal Causes, Consequences and Solutions" in *Land Degradation and Development*, vol. 9, 1988, pp. 247-258.

²⁶ Shepherd, G. "The Communal Management of Forests in the Semi-and Sub-Humid Regions of Africa: Past Practice and Prospects for the Future" in *Development Policy Review*, Vol. 9, 1991, pp. 151-173.

the most part, turned into deserts facilitated by bush fires often set by the nomads. Unsustainable exploitation of crude oil, food and medicines undermines the vital services that forests provide. For instance, these countries still depend on fuel wood for almost all their total energy supplies due to lack of access to electricity supply especially in the remote villages.²⁷

This is compounded by unemployment which has forced a lot of people to invade the forests for survival. Many University graduates in Nigeria today, for instance, have no white collar jobs. They derive their livelihoods mainly from forests. As a result, workload in agriculture has increased significantly. The aftereffect is depletion of forests in an abysmal, unprecedented and unsustainable manner.²⁸ The unemployment or underemployment is also linked to poverty ravaging the continent of Africa. Africa has been adjudged the poorest of the world's regions, and poverty is one the indirect factors causing the expansion of subsistence agriculture and the extraction of trees for fuel wood across the continent.²⁹ In fact, poverty is often cited as a social-economic factor that constrains conservation efforts in Africa.³⁰ Trefon reported in 2010 that the Democratic Republic of Congo, for instance, is in debt crisis with an external debt stock of about \$13.1 billion while its 'debt service amounts to a quarter of its total expenditures'.³¹ A 2003 study sponsored by the UN Environment Programme indicates that poverty in Africa remains the major cause and consequence of environmental degradation and forest depletion.³² Historically, poor people have unrestricted access to forests. According to Osemeobo (supra), "the extension of subsistence activities into forest land is, to a great extent, the result of poverty, limited

²⁷ Hosier, R. G. and Milukas, M. V. *Wood Fuels Markets in Africa: Depletion or Development?* Paper presented at the annual meeting of the Association of American Geographers, 1989, pp. 19-22.

²⁸ Osemeobo, G. J. "The Human Causes of Forest Depletion in Nigeria" in *Environmental Conservation*, Vol. 15, 1988, p. 19.

²⁹ Bhardwaj, G. and Owusu-Addai, O. *How Poverty is Contributing to Deforestation Across Africa*, 7 December 2018, available at <https://www.chathamhouse.org/expert/comment/how-poverty-contributing-deforestation> (accessed 31 July 2020).

³⁰ Peh, KS-H. "Cameroon's Lessons in Conservation for Sub-Saharan Africa" in *BioScience*, Vol. 58, 2008, pp. 678–679.

³¹ Trefon, Theodore, U4 Brief, *Forest Governance in Congo: Corruption Rules?* September 2010, No. 5, 2nd ed., available at <https://www.cmi.no/publications/3776-forest-governance-in-congo-corruption-rules> (accessed 7 September 2020).

³² Anderson, J. *et al*, "Forests, Poverty and Equity in Africa: New Perspectives on Policy and Practice" in *International Forestry Review*, Vol. 8, No. 1, 2016, p. 214. See also Fleshman, Michael, *Climate Change: Africa Gets Ready*, available at <https://www.un.org/africarenewal/magazine/july-2007> (accessed 16 July 2020).

alternative employment and inadequate technology". The UN Economic Commission for Africa summed it up in the following words;

Africa is the only region in the world where poverty has increased both in absolute and relative terms. Apart from being the poorest region in the world, Africa remains the least developed, the most technologically backward, the most indebted, the most food-insecure and the most marginalized. Furthermore, malnutrition, disease, environmental degradation, natural resource depletion, poor and inadequate infrastructure, unemployment and weak institutional capacities continue to pose serious development challenges for Africa.³³

Consequently, the farmers are using outdated tools and other unsustainable agricultural practices, which may be inimical to the environment, in contrast to modern technologies and practices. The after effect is that much pressure is being mounted on forests and other natural resources in Africa at a rate nearly three times the world average. Therefore, despite the high potential for successful forest restoration in this continent, the forests are fast vanishing. Other countries and continents of the world have pooled billions of dollars to preserve their rainforests and wetlands. Such project may be difficult in Africa due to limited resources. Even the tree planting policies of the governments are not adhered to especially in the absence of incentives. The African governments invest substantially more in poverty alleviation than in preservation of indigenous forests. Even the efforts put in by Africa and the international community in recent years for reforestation in African soil were undermined by limited resources.³⁴

Inadequate Implementation of Forestry laws

In the recent past, attention to forestry and other nature-based resources laws have been in the increase. It is often assumed that if laws were adequately enforced in Africa, all would be well in

³³ See UN Economic Commission for Africa, Sustainable Report on Africa, Managing Land-Based Resources for Sustainable Development, available at <https://www.uneca.org/sites/default/files/Publication/Files/sdra> (accessed 31 July 2020). See also Gbetnkom, D. "Forest Depletion and Food Security of Poor Rural Populations in Africa: Evidence from Cameroon" in *Journal of African Economies*, Vol. 18, 2009, pp. 265-283.

³⁴ Ibid.

the forest sector. However, the institutional and legislative framework put in place for the sustenance of nature based resources in Africa are not adequately enforced. In Ghana, for instance, there are a lot of regulatory and legislative instruments that govern the management of forest resources. In practice, however, the enforcement of these laws and policies is confronted with a lot of challenges which result in the steady loss of these resources.³⁵The Forestry Act in Nigeria, for instance, regulates the use of forests but it has been repealed. What we have today is the Forestry laws of the States. These laws empower the State Governors through their Commissioners to set apart specific forests as government forest reserves and protected forests. The same power is also vested in the respective Local Government Councils to declare specific forests within their jurisdictions as protected forests.³⁶These laws prohibit certain acts that are deleterious to the forests such as felling trees, pasturing cattle, stripping off the bark or leaves of a tree, bush burning, among others. These provisions have been in existence for over a decade but no records of prosecution or conviction obtained therein whereas the offences, no doubt, are committed almost on daily basis in Nigeria, especially in the remote rural communities. At least, this writer is not aware of any record of any prosecution or conviction procured based on these provisions. When there is a dearth of prosecution and conviction of culprits, the defaulters find it convenient to continue to invade the forests. The end result has been that the desired objective of reducing the incidence of forests depletion through these laws has not been achieved. The effective enforcement of these laws is vital to any protection regimes that are designed to protect the forests.

Again, some of these statutes are defective in all respects which detract considerably from their potency. For instance, the current reality in many African countries is that fines attached to forests invasions are typically so meager that they cannot deter offenders. They are so ridiculous and ineffective in ensuring the observance of these regulatory provisions. An instance is section 45 of Edo State Forestry Law that prescribes a fine of two hundred naira only or six months

³⁵ Mercy A.A. Derkyi and Ton Dietz, "Forest Offence Types, Trends and Lapses: Case Study of the Nkwawie Forest District of Ghana from 2005-2010" in *Agriculture, Forestry and Fisheries*, Vol. 3(4), 3014, pp. 227, available at <http://www.sciencepublishinggroup.com/jj/aff> (accessed 4 August 2020).

³⁶ See for example, section 4 of the Forestry Law of Ogun State, Cap 39 of 1978, section 2 of the Forestry Law of Lagos State, cap. 51, vol. 2 of 1994, section 5 of the Forestry Law of Rivers State, Cap. 57 of 1999.

imprisonment as a penalty for committing the offences contained therein. No doubt, this is not conducive in terms of the realization of the nature-based solutions we have been yearning for. There should be fairness of sanctions, and deterrence should be the primary purpose of fine prescription. Once the deterrence purpose is defeated by the penalty provisions, the statute becomes a paper-tiger or a toothless bulldog. Even the imprisonment prescribed by this law has not been meted out on any offender since it came into force despite the significant number of infractions resulting in steady loss of forest resources in unacceptable manner. In fact, some forest reserves legally backed up by legislations have been severely degraded and destroyed with impunity.

Another problem associated with inadequate enforcement of forestry laws and policies in Africa is low capacities of enforcement authorities which opens doors for illegal and corrupt forestry practices. Criminal enforcement requires a competent institutional framework able to punish the offenders by prosecuting them to conviction. However, the regulatory agencies in Africa have been inclined to exhibit indolence in the discharge of their duties. Consequently, we have not had a fair opportunity of exploiting their potentials in the protection of our forests. In other cases, the problem may be attributable to lack of staffing, logistics, financial resources and the requisite knowledge. People perish for lack of knowledge and so even an illiterate staff can't effectively participate in nature-based solution planning process. The governments often find it increasingly difficult to manage forests themselves due to deficiency of skills and experience, coupled with lack of commitment and incentives to enforce forestry laws. In Cameroon, for instance, it has been reported that the agencies meant to enforce Forestry Laws – “to survey and register land titles, facilitate permits for community forests, or provide technical advice to local forest managers, for example—are often weak or poorly motivated”.³⁷ So, there are gaps and deficiencies in forestry laws enforcement in this country. Research has also revealed that 90% of the Upper Guinean Forest and several of the ecosystem services and their inherent benefits have been lost to preventable human activities enabled by weak or ineffective governance and law enforcement.³⁸ Okley, L. Brigitte, speaking generally on the existing gaps in the legislative and

³⁷ Colchester, Marcus, *et al*, *Justice in the Forest, Rural Livelihoods and Forest Law Enforcement*, 2006, p. 10

³⁸ Yapi, A., *The Impact of Government Policies on Cocoa Production in Cote d'Ivoire*, a paper presented at the International Conference on Cocoa Economy, Bali, Indonesia, 19-22 October 1993, p. 21.

institutional framework for environmental management and implementation in Ghana reiterated that many factors account for the gaps which include;

Inadequate legislation and policy framework for implementation ... lack of qualified personnel³⁹and expertise to assist in policy formulation, lack of in-depth understanding of contents of Multinational Environmental Agreements, lack of public awareness and education, and lack of adequate data and information system ... inadequate incentives to encourage conformity and compliance with environmental regulations and standards, and gaps in environmental research.⁴⁰

Bribery and Corruption

The act of bribery and corruption is a clog in the wheel of progress of any nation. Corruption is the use of public office for private gain⁴¹and it involves the receiving or offering of money or other gratification in order to deflect a person from honest discharge of his duties or the demanding of money or other gratification in order to perform a public duty.⁴²A corrupt society is naturally bound to lag behind other nations in the management of its resources. In Africa, for instance, no sector of the economy is spared from the negative effects of corruption.⁴³Nowadays, bribery and corruption is openly practiced in both private and public sectors and has led to misappropriation of resources. The 2005 report of the Transparency International in its Corruption Perception Index, for instance, identified bribery and corruption as the greatest cankerworm impeding governance and development in the region.⁴⁴Though, no nation is immune from corruption but

³⁹ For instance, due to limited financial resources, there is poor staffing by forest officials to cover the vast areas in the forests and to validate whether the concessionaires have complied with the relevant laws.

⁴⁰ Okley L. Brigitte, *Legislation and Implementation of International Environmental Law by African Countries: A Case Study of Ghana*, LL.M Thesis and Essays, University of Georgia School of Law, 2004, p. 56, available at https://digitalcommons.law.uga.edu/stu_llm/38 (accessed 9 August 2020).

⁴¹ Pranab Bardhan, "Corruption and Development: A Review of Issues" in *Journal of Economic Literature*, Vol. 35, No. 3, 1997, pp. 1320-1346.

⁴² Dalhatu, M. B. "ICPC and the Fight against Corruption in Nigeria" in *The Role of the Judiciary in Nigerian Democratic Process*, Essays in Honour of Justice Ichie Ndu, Onyeakagbu A. Ikedinma (ed.), 2008, p. 114.

⁴³ Adisa O. Peniel & Babatope O. A. "Assessment of bribery and corruption in Nigeria Socio-Political Milieu" in *International Journal of Law and Contemporary Studies*, Vol. 1 Nos. 1 & 2, 2006, p.141.

⁴⁴ See Our Common Interest, *Report of the Commission for Africa*, London 2005, 28. See also Alabi, A. R. "The fight against Corruption and Economic Crimes in Developing Countries: A Comparative Study of Institutional Frameworks in three African Countries" in *International Journal of Law and Contemporary Studies*, Vol. 1 Nos. 1 & 2, 2006, p. 283.

its effects are more manifest in Africa and other developing countries of the world. The link between corruption and deforestation and forest degradation has been almost universally recognized. The more corrupt a society is, the worse its ability to manage the environment. Koyuncu and Yilmaz (2009) specifically reiterated that corruption increases deforestation.⁴⁵Corruption generally undermines effective utilization of natural resources, destroys climate change adaptation strategies and indeed is one of the major factors that negatively affect the efficacy of the nature-based solutions to climate change.⁴⁶

In Africa precisely, of all the factors which undermine the efficacy of those responsible for forest management, corruption is the most reprehensible and destructive. In some of these countries, it is classified as a crime, and it ranges from bribery, kickbacks, embezzlement, misappropriation, fraud, conflict of interest, extortion, abuse of discretion to nepotism or favouritism committed by any person employed in the public service.⁴⁷Corruption in the forestry sectors impedes good governance and enforcement of laws. Bribes and political influence or connection with economic elites may open doors for logging without permits or to gain access to forests through questionable land concessions. A typical example is the scenario in Equatorial Guinea whereby the son of the President, Teodoro Obiang Nguema Mbasogo, appointed by his father as Minister for Agriculture and Forestry, made millions on timber concessions in his father's government and thereafter reported as the "world's richest Minister of Agriculture and Forestry".⁴⁸Interestingly in 2017, he was convicted of misappropriation of public funds and corruption in far away France.⁴⁹

⁴⁵ Koyuncu, C. and Yilmaz, R., "The Impact of Corruption on Deforestation: Cross-Country Evidence" in *Journal of Development Areas*, Vol. 42, 2009, pp. 217.

⁴⁶ Robinson, M. "Corruption and Development: An Introduction" in Robinson M. (ed.), *Corruption and Development*, London: Frank Cass, 1998, p. 53.

⁴⁷ See Chapter 12, sections 98 and 99 of the *Nigerian Criminal Code Act*, Cap C38 LFN 2004.

⁴⁸ See Turtle, Bay, "World's Richest Minister of Agriculture and Forestry, Now a UNESCO Envoy" in *The Colum Lynch*, 19 October 2011, available at <https://foreignpolicy.com/2011/10/19/world's-richest-minister-of-agriculture> (accessed 4 September 2020). See also Kolstad, I., and Soreide, T., "Corruption in Natural Resource Management: Implications for Policy Makers" in *Resources Policy*, Vol. 34, 2009, pp. 214-226.

⁴⁹ Kyle, Laura, "Inside Story: Can France Hold Corrupt African Leaders to Account?" in *Al Jazeera*, available at <https://www.aljazeera.com> (accessed 4 September 2020).

Bribery and corruption is common among the forest officials especially in the logging process and bidding processes for concession. Forest officers exposed to bribery and other undue forces of influence may turn their eyes away from perpetrators. They are often unprotected and fearful. No accountability and transparency within the industry.⁵⁰The aftereffect, in most cases, include unrestricted invasion into the protected forests, over-harvesting of forest resources, under-declaring and diverting timber volumes, irregular issuance of logging licenses, “cutting outside permitted areas, tax evasion and state failure to prosecute perpetrators”.⁵¹A 2007 report on wide scale deforestation in Kenya by the Kenya Forest Service, for instance, explicitly asserted that such deforestation was mainly attributable to the inability of the forest guards to manage the forests effectively consequent upon corruption and dereliction of duty.⁵²Some of the timber companies have bribed the forest officials to ignore forest regulations and overlook infringements. That has opened doors for the logging of timbers protected by law or by extracting more than authorized.⁵³In Cameroon, it has been reported by Peh and Drori that a large number of forestry law violators offer kick backs to the guards so as to condone such violations.⁵⁴Some are open to bribes from illegal hunters, poachers and logging companies. They reiterated further that;

Corruption surrounding the expense claims of environmental projects has infected some NGOs in Cameroon. Corrupt practices in these NGOs are undermining environmental protection and have a potential of leading to a precipitate collapse in public confidence in them.⁵⁵

Gore *et al* interviewed some residents of Northeastern Madagascar and discovered that expensive wood is cut down with false documents appearing legitimate while the officials collect bribes and allow mass depletion of forest resources particularly timber and woody plant

⁵⁰ Samuel Iyioha Oni and Mark Abioye Oyewo, *Gas Flaring, Transportation and Sustainable Energy Development in the Niger Delta, Nigeria*, available at <http://www.krepublishers.com/02-journals/JHE/JHE/-33> (accessed 30 December, 2019)

⁵¹ See Global Corruption Report: Climate Change, Transparency International 2011, with support from European Investment Bank, available at <https://images.transparencycdn.org/images/2011> (accessed 23 September 2020).

⁵² Winston, Mathu, *Forest Law Enforcement and Governance in Kenya*, Nairobi, 2007, p. 9.

⁵³ Anasi, P. *Corruption in Africa: The Kenyan Experience*, Victoria: Trafford Publishing, 2004, p. 19.

⁵⁴ Peh, H. and Ofir Drori, *Fighting Corruption to Save the Environment: Cameroon's Experience*, Vol. 39(4), 2010, pp. 336-339.

⁵⁵ Ibid.

resources.⁵⁶Some logging transporters rather than pay the required taxes prefer to negotiate with government officials at checkpoints. Corruption has as well impeded effective utilization and conservation of natural resources in Uganda and other neighboring African countries. A study carried out in 2012 on conservation program funded by the World Bank in Uganda revealed evidence of misappropriation and embezzlement of funds.⁵⁷Investigation from a Commission of Inquiry disclosed claims for infrastructures that were never purchased and training of conservation staff who turned out to be ghost officials, the funds were rather pocketed, and other payments to the tune of US \$3million disappeared.⁵⁸

Bribery and corruption also threatens new climate initiatives like Reducing Emissions from Deforestation and Forest Degradation (REDD+). Many stakeholders have expressed pessimism over the implementation of REDD+ programs in highly corrupt countries. As observed by Aksel Sundstrom, “studies focusing on REDD+ programs in Tanzania find instances where conservation schemes receive little support from local community members due to corruption allegations towards officials”.⁵⁹In the Democratic Republic of Congo, environmental mismanagement consequent mainly on corruption entrenched at all levels of government and other shortcomings in the Congolese administration explain why implementing the UN-backed schemes, such as carbon marketing and REDD, to slow forest loss in the country is extremely difficult.⁶⁰It is perhaps on this account that Trefon (supra) stressed that the vast forests in the DRC alone contain a monumental proportion of all the carbon stored in the world’s vegetation, yet its management is characterized by rivalry, mistrust and corruption.

Illegality in Forest Management

Research has revealed that illegality in the forest management is one of the factors that undermine the wholesale implementation of nature-based-solutions to climate change in Africa. The European

⁵⁶ Gore, M.L. *et al*, “Rethinking Corruption in Conservation Crime: Insights from Madagascar” in *Conservation Letters*, Vol. 6 No. 6, 2013, pp. 430-438, referred to in Askel, Sundstorm, *Understanding Illegality and Corruption in Forest Management: A Literature Review*, QoG Working Paper Series, 2016, p. 18.

⁵⁷ Cavanagh, C., *Unready for REDD? Lessons from Corruption in Ugandan Conservation Area*, 2012, p.4.

⁵⁸ See also Aksel Sundstrom, “Understanding Illegality and Corruption in Forest Management: A Literature Review”, *QoG Working Paper Series*, 2016, p. 21.

⁵⁹ Ibid.

⁶⁰ Trefon, Theodore (supra).

Commission in 2008 identified illegal logging as the main cause of degradation and loss of forest resources throughout the world.⁶¹ The ‘illegality’ refers to the exploitation of forest and other natural resources in a manner that is inconsistent with the legal framework for the exploitation. Wells, *et al* defined it as actions “which fails to conform to national laws and standards regulating forest resource allocation, forest management and extraction, processing, transport and trade”.⁶² This may come in form of logging in prohibited areas or obtaining concessions illegally.⁶³ In Africa, there are many instances of timber harvesting from designated national parks or forest reserves without due processes of law. In Uganda, Kenya and Tanzania, illegal timber trade is an important feature of an organized crime and has become a mere formality.⁶⁴ In some cases, the elites engage in illegal logging and still get away with it while some governments have turned illegal timber logging business into a money making venture. In Taraba State, Nigeria, for instance, logging of timber has been prohibited since 2003⁶⁵ but till date, illegal logging in the state has continued with impunity as the government looks the other way as long as the perpetrators pay money to the state treasury.⁶⁶ The then Taraba State Director of Forestry, Usman Madu, disclosed that the government imposes levies on illegally logged timber as a “punitive measure to discourage illegal logging activities”.⁶⁷

In 2007, it was reported by Soreide that the government of the Democratic Republic of Congo has, in the first quarter of the year 2000, signed deals with forest concession companies for logging rainforests in a manner inconsistent with Congolese forestry laws.⁶⁸ By 2011, there was evidence

⁶¹ European Commission 2008, referred to in Innes, J. L. “Madagascar Rosewood, Illegal Logging and the Tropical Timber Trade” in *Madagascar Conservation and Development*, Vol. 5, No. 1, 2010, pp.6-13.

⁶² Wells, A. E., *et al*, “Rural Livelihoods, Forest Law and the Illegal Timber Trade in Honduras and Nicaragua” in Tacconi, L. (ed.), *Illegal Logging: Law Enforcement, Livelihoods and the Timber Trade*, Earthscan: London, 2007, p. 141.

⁶³ Amacher, G. S., “Corruption: A Challenge for Economists Interested in Forest Policy Design” in *Journal of Forest Economics*, 2006, Vol. 12, p. 86.

⁶⁴ Vedeld, Pal Olav, *et al*, *Illegal Timber Trade and REDD+ Interface in Eastern Africa: A Pilot*, January 2015, p.12, available at <http://www.nmbu.no/en/about-nmbu/faculties/samvit/departments/noragric> (accessed 19 September 2020).

⁶⁵ See the Taraba State (Control of Chainsaws) Law 2003, reinforced by the government of the State in 2007 in order to regulate timber logging within the state.

⁶⁶ Dayo Aiyetan, *How China Fuels Deforestation in Nigeria, West Africa*, 2016, p. 76. See also Adedayo Adejobi, “Ending China’s Rosewood Racketeering in Nigeria” in *ThisDay*, June 2, 2019, p. 34.

⁶⁷ *Ibid*. See also Soreide, T, *Rethinking Forest Concessions, Improving the Allocation of State-Owned Forests for Better Economic, Social and Environmental Outcomes*, Food and Agriculture Organization (FAO) of the UN Rome 2018, p. 7, available at <https://www.fao.org/3/16037EN/6037en.pdf> (accessed 11 September 2020).

⁶⁸ Soreide, T., *Forest Concessions and Corruption*, U4 ISSUE, Vol. 3, 2007, p. 7, available at <https://www.google.com/research?source=hp&c> (accessed 11 September 2020).

of complete lack of compliance that about 90 percent of logging in the country was illegal⁶⁹ with unquantifiable inimical effects on other nature-based resources. Similar studies in Cameroon revealed that forestry laws and regulations, particularly the customary laws, lack effective enforcement, and so has encouraged the perpetrators to continue with their illegal forestry activities. This has benefitted the indigenous communities, both the poor and the rich, thereby making it difficult to abolish illegal forestry activities in Cameroon.⁷⁰

Studies have revealed that there is a nexus between corruption and illegal forest activities. Corruption is one of the major factors that lead to illegality in forest management especially in the sustenance of the sanctity of forestry laws. Kick back and favoritism, for instance, can have negative influence on the allocation of forest resources, monitoring of forest-related activities, and law enforcement.⁷¹ Some logging companies obtain official documents through bribe while some ordinarily impeccable forest guards and other government officials condone violation of forestry laws based on greed, conspiracy, lack of patriotism and other sharp practices. For instance, information from the International Centre for Investigative Reporting (ICIR) published in 2016 revealed that corruption by local officials and sharp practices by Chinese merchants resulted in an illegal trade in timber from Nigeria and other West African countries with devastating impact on the forestry resources.⁷² In Nigeria precisely, the timber merchants working for Chinese businessmen are moving from one state to another, depleting the rosewood resources in their forests in violation of the country's log export regulations. This wouldn't have been possible without local collaborations facilitated by bribery of forestry guards, custom officials, systematic forgery of legal documents, and misrepresentation of logging shipments bound for Chinese ports.⁷³ In the words of Adedayo Adejobi (supra);

⁶⁹ See Rhett, A. Butler, *The Congo Rainforest*, 2020, available at <https://rainforests.mongabay.com/congo> (accessed 11 September 2020).

⁷⁰ Lescuyer, G., *Forest Law Enforcement and Rural Livelihoods: A Case Study in Cameroon*, 2003, referred to in Colechester, Marcus, et al (supra).

⁷¹ Luca Tacconi, et al, *National and International Policies to Control Illegal Forest Activities*, a Report for the Ministry of Foreign Affairs, Government of Japan, July 2003, p. iv, available at <http://www.cifor.cgiar.org> (accessed 9 September 2020).

⁷² Wajim, John, "Environmental Impacts of the Uncontrolled Depletion of Rosewood (Madrid Wood) in Taraba State, Nigeria" in *International Journal of Research and Innovation in Social Science*, Vol. III, Issue IX, 2019, p. 291. See also Siaka, Momoh, "How China Fuels Deforestation in Nigeria" in *The Independent*, 3 September 2020, available at <https://www.independent.ng/how-china-fuels-deforestation-in-nigeria-2> (accessed 11 September 2020).

⁷³ Dayo Aiyetan, *How China Fuels Deforestation in Nigeria, West Africa*, 2016, p. 76.

Our investigations show that basically corruption, greed and lack of patriotism as well as a conspiracy between unscrupulous Chinese businessmen and their local collaborators, including customs officials, customs agents and ministry officials sustains an illegal wood export business in Nigeria.

Some of these desperate timber merchants from time to time boycott official prescriptions thereby sourcing their timber illegally from the forests using unemployed local youths. This practice has not only constituted a threat to the world's most endangered timber species but also affected other nature-based resources abysmally, and so undermines global efforts to combat climate change.

African Forest Law Enforcement and Governance

The problem of forest mismanagement has been of immense international concern. As a result, some countries and regions of the world, notably Europe, Asia and Africa, have put in place high-level regional conferences on Forest Law Enforcement and Governance (FLEG).⁷⁴ The idea was initiated in 2003 by the European Commission as a Comprehensive Action Plan for sustainable forest management. This initiative seeks to combat illegal logging and corruption in the world's forests by ensuring that timbers imported into the European market from its trading partners, as well as those circulating domestically and regionally, were not illegally harvested at source.⁷⁵ Some of the timber exporting countries in Africa⁷⁶ entered into Voluntary Partnership Agreement with the European Union to ensure the accomplishment of this objective, particularly as regards illegal logging and illegal timber trade within the African region. In 2009, the European Union, still bothered about illegality and corruption in forest management in Africa, helped to create a stronger cooperation between China, Africa and EU under the FLEGT platform and processes leading to an unprecedented tripartite synergies and mutual understanding.⁷⁷

⁷⁴ Kaimowitz, D. "Forest Law Enforcement and Rural Livelihoods" in *International Forestry Review*, Vol. 5(3), 2003, pp. 200-207.

⁷⁵ See Forest Law Enforcement, Governance and Trade, the European Approach, available at <https://www.euflegt.efi.int> (accessed 18 September 2020).

⁷⁶ Cameroon, Ghana, Democratic Republic of Congo, Liberia and Central Africa Republic, for instance, have signed the Voluntary Partnership Agreement with the European Union which aims to prevent export of illegal timber from their respective home countries to Europe. See Kalenga, Marie-Ange, *Seeing the Forest through the Trees*, available at <https://www.fern.org/publications-insight/ending-corruption-improving> (accessed 18 September 2020).

⁷⁷ Laura, Elizabeth Pohl, *Identifying Opportunities to Tackle Corruption in REDD+ and FLEGT*, by EU REDD Facility, November 2016, available at <https://www.flegt.org/news/content/view> (accessed 18 September 2020).

In the light of this, and in ensuring the contribution of the region's forests to climate change adaptation and mitigation, the African Forest Law Enforcement and Governance (AFLEG) conference was held in Yaounde, Cameroon, in 2003 to address the problems of illegality and corruption in the forest management within the region and to set out measures to tackle them.⁷⁸ The conference is in form of an eye opener and has ostensibly resulted in a lot of policy reforms in the forestry sector especially in the enforcement of forestry laws and regulations, monitoring of forest activities, generating and sharing better knowledge and information systems on forestry, as well as greater stakeholder participation in forest management within the region.⁷⁹ Some of these African countries have become signatories to other international conventions and agreements directly or indirectly related to forest, forest biodiversity or the management of forests. This has not only gone far to reduce the drastic effects of corruption and illegal logging and trade within the region but has as well ensured that timber companies and other stakeholders, locally and internationally, operate within the forestry laws and regulations.⁸⁰

Seventeen years after the Conference, one would reasonably ask whether the initial excitement with the new focus resonated with the dynamics observed in other regions of the world. In truth, the African Forest Law Enforcement and Governance, unlike its counterpart (EU-FLEG), lacked any concrete follow-up mechanism to ensure a strict implementation of the decisions reached at the conference, and so the political will has not transformed into reality.⁸¹ The governments of the timber exporting countries, especially in Africa, have been so loose in their commitments to encourage greater transparency of information and generation of knowledge to improve understanding of forest activities and tackle corruption, in line with the declaration that property rights, including forest-related traditional knowledge should be respected. Many of these

⁷⁸ See the African Forest Law Enforcement and Governance Ministerial Conference between 13-16 October 2003, available at http://ec.europa.eu/development/icenter/repository/AFLEG_Declaration_2003.pdf (accessed 16 September 2020).

⁷⁹ Atyi, E. Richard, *Assessing Progress in Forest Law Enforcement and Governance in Africa*, 2018, p.16.

⁸⁰ All logging companies were made to develop forest management plans for their concessions, coupled with new conditions for the award of logging permits with the involvement of an independent observer. See Betti, L. J., *Forest Law Enforcement, Governance and Trade in Central Africa*, Africa Forest Forum, Working Paper, Vol. 1 No. 10, 2011, available at <https://afforum.org/publication/forest-law-enforcement-governance-and-trade> (accessed 22 September 2020).

⁸¹ Simon, Counsell, *Forest Governance in Africa*, Occasional Paper No. 50, October 2009, p. 15.

countries failed to develop their National Forestry Action Plans in conformity with the declarations. The government of the Federal Republic of Nigeria, for instance, accords more priority to the revenue accruing to the government from forest activities than forest governance. It has also been noted that the greatest obstacle to the implementation of the EU-FLEGT in Ghana is failure to abide by forestry laws and regulations.⁸²As noted earlier, African countries lack the financial wherewithal for effective law enforcement, thereby allowing actors such as concessionaires and other private sector actors to operate with impunity. Impunity is one of the greatest factors that undermine efficient forest management in Africa. In contrast, better law enforcement generally leads to sustainable forest management. Moreover, there is inadequate cooperation agreement to address cross-border timber trade resulting in the export volumes of timber and other forest products exceeding permissible levels.

African Position on REDDS

In view of the scientific discovery that the combined contribution of deforestation and forest degradation accounts for about 15% of greenhouse gas emissions, just like the transportation sector,⁸³Reducing Emissions from Deforestation and Forest Degradation (REDD) has been designed as one of the most efficient and cost effective ways to reduce emissions from deforestation and forest degradation into the atmosphere. It is a scheme of the United Nations Framework Convention on Climate Change (UNFCCC) formally introduced at the 13th Conference of the Parties (COP) 2007 in Bali, adopted in Copenhagen 2009, and in the subsequent UNFCCC conferences. With this, deforestation should be discouraged as much as possible while reforestation and afforestation should be encouraged of which a prerequisite for its accomplishment is the provision of positive incentives to such actions, and the mobilization of enough financial resources from developed nations for forest conservation through concerted

⁸² Rutt, L. Rebecca, "FLEGT: Another 'Forestry Fad'?" in *Environmental Science and Policy*, Vol. 89, November 2018, pp. 267-270. See also Kakuru, Willy, *et al*, "Forest Law Enforcement, Governance and Trade (FLEGT): A Mechanism for Forest Resources Management in Sub-Saharan Africa" in *African Journal of Rural Development*, Vol. 4, No. 1, January 2020, pp. 141-154, available at <https://www.afjrd.org/jos/index.php/afjrd/article/view/1958> (accessed 19 September 2020).

⁸³ See Reducing Emissions from Deforestation and Forest Degradation, available at <http://en.wikipedia.org/wiki/reducing-emissions-from-deforestation-and-forest-degradat>, (accessed July 2, 2010), referred to in Joseph Nwazi, (*supra*).

and deliberate efforts.⁸⁴REDD+ means REDD and the role of conservation, sustainable management of forests and the enhancement of forest carbon stocks in the developing countries.⁸⁵It requires compensation to be paid as incentives to land owners in the developing countries for leaving their forests untouched, rather than using it for mining, industrial or agricultural activities that may cause havoc to the environment.⁸⁶

Almost one and half decade after the REDD was first introduced, much progress has been recorded towards its implementation. Many African countries have not only been integrated into the scheme but have also highlighted the REDD+ activities in their Nationally Determined Contributions. Some REDD projects have also started in full swing in Africa, such as the Olam International's Venture and Ecosystem Restoration Associates' Project, all in the Democratic Republic of Congo.⁸⁷However, our case studies revealed that most African countries wouldn't be able to cope with the expectations of REDD in the light of the conflict of the REDD programme with agricultural development. This is because, as earlier noted, a greater percentage of African population relies on agricultural and other forest activities for their sustenance. One of the essential requirements of REDD as reechoed in the Copenhagen Declaration is that any mitigation measure taken by the developing countries should "be subject to their domestic measurement, reporting and verification..."⁸⁸This would include direct measurement of certain forest parameters such as tree heights, diameters, canopy sizes, and species identifications, among others.

⁸⁴ Article 6 of the Accord. See Bodansky, D. "The Copenhagen Climate Change Conference: A Post-Mortem" in *The American Journal of International Law*, Vol. 104, 2010, p. 229.

⁸⁵ Gitz, Vincent, *et al*, *Implementation of REDD+ in Sub-Saharan Africa: State of Knowledge, Challenges and Opportunities*, Vol. 16, No. 4, 2011, pp. 385-401.

⁸⁶ Abate, R. S. and Kronk, E. A., "Commonality among Unique Indigenous Communities: An Introduction to Climate Change and Its Impacts on Indigenous Peoples" in Abate, R.S and Kronk, E.A. (eds.), *Climate Change and Indigenous Peoples: The Search for Legal Remedies*, 2013, p. 5. See also Thompson, M. C., *et al*, "Seeing REDD Plus as a Project of Environmental Governance" in *Environmental Science and Policy*, Vol. 14(2), 2011, pp. 106-108.

⁸⁷ See Olam International, Forest Concessions, available at <https://www.olamgroup.com/product=services/olam> (accessed 22 September 2020). See also *Ecosystem Restoration Associates Project in DR Congo: Plenty of REDD-Hot Air?*, available at <https://redd-monitor.org/> 2011 (accessed 22 September 2020).

⁸⁸ Article 5 of the Copenhagen Accord 2009.

Two panels known as Centre for Global Development's Forest Monitoring for Action (FORMA), and the Group on Earth Observation's Forest Carbon Tracking Portal were set to that effect.⁸⁹ The position of African countries and other stakeholders is that the implementation of this scheme to the letter may result in the "lock-up of forests" which will invariably affect African countries most as they derive their livelihoods mainly from forests.⁹⁰ They are wary of the prospect of intrusive international monitoring of forest and agricultural activities in Africa. Lock-up forests without sufficient funds may lead to the starvation of an entire populace to a sub-human level or even possibly terminate their existence. Again, it will undermine the developed countries' commitments to cut their greenhouse gas emissions at home, as they would prefer to purchase cheap carbon credits from these developing countries.⁹¹ This will be a cheat on the developing and least developed countries because they would conserve their own economy while closing down the latter's own means of livelihood for global benefit. It is perhaps on account of this that the following comments were made regarding the inconclusive Copenhagen declarations;

- a) The Head of the G77 group of countries: The draft text asked Africans to sign a 'suicide pact' which will maintain the economic dominance of a few countries. This is similar to the same agreement that funneled six million people in Europe into furnaces.⁹²
- b) Lydia Baker of Save the Children (an NGO): World leaders have effectively signed a death warrant for many of the world's poorest children. Up to 250,000 children from poor communities could die before UN Convention in Mexico in 2010.⁹³

⁸⁹ Varghese Paul, *An Overview of REDD, REDD-Plus and REDD Readiness*, available at http://www.rightsandresources.org/documents/files/doc_1220.pdf. (accessed July 2, 2010), referred to in Joseph Nwazi (supra).

⁹⁰ Cheikh, Mbow, *et al*, *Challenges and prospects for REDD+ in Africa: Desk Review of REDD+ Implementation in Africa*, 2012, p. 10.

⁹¹ US is Sabotaging Copenhagen Climate Treaty by Changing Kyoto Rules, available at <http://www.telegraph.co.uk/earth/copenhagen-climate-change-confel> (accessed June 16, 2010), referred to in Joseph Nwazi (supra).

⁹² See the Copenhagen Deal Reaction in Quotes, BBC News, 19 December, 2009, available at <http://news.bbc.co.uk/1/hi/sci/tech/8421910.stm>. (accessed June 10, 2010), referred to in Joseph Nwazi (supra).

⁹³ Ibid

- c) Tim Jones (Climate Policy Officer from the World Development Movement): Leaders have refused to lead and instead they sought to bribe and bully developing nations to sign up to the equivalent of a death warrant⁹⁴.
- d) Jose Eduardo dos Santos (President of Angola): The Copenhagen summit failed to respond to the concerns expressed by developing countries, which caused less pollution to the environment but heavily affected in their economic and social life by this global phenomenon.⁹⁵.

Again, the South Centre, a Geneva-based intergovernmental body, advised the developing countries not to be in a hurry in the ratification of the Accord, rather they should adopt a “wait and see approach”.⁹⁶In March 2003, a group of Africans in World Social Forum in Tunisia mobilized themselves and launched a “No REDD in Africa Network” signaling a serious resistance against REDD within the region, and referring to it as “carbon colonialism” and new form of economic subjugation and slavery of the African continent.⁹⁷According to Tom Goldsmith, the Director of the Indigenous Environmental Network, REDD could cause genocide because the indigenous people could be deprived the right to use their land for agricultural and other life supporting purposes which may lead to mass deaths of poor people, and destroying livelihoods on this scale could be nothing other than genocide.⁹⁸In his own words;

We know REDD could cause genocide and we are delighted that the Africans are taking a stand to stop what could be the biggest land grab of all time.⁹⁹

Conclusion

⁹⁴ Ibid.

⁹⁵ *Copenhagen Summit Falls Short of Expectations: Angolan President*, available at http://www.China.org.cn/environment/copenhagen/2010-01/15/content_19240711.html, (accessed June 16, 2010), referred to in Joseph Nwazi (supra).

⁹⁶ See the Comments on the Copenhagen Accord by the South Centre, a Geneva-based International body, available at http://www.southcentre.org/index.php?option=com_contents and task (accessed June 12, 2010), referred to in Joseph Nwazi (supra).

⁹⁷ Nnimmo Bassey, Launch of No REDD in Africa Network: “REDD Could Cause Genocide”, April 2013, available at <https://www.nnimmo@eration.org> (accessed 22 September 2020). See also Ezeamalu, Ben, “Africans Move against REDD Initiatives in the Continent” in the Premium Times, April 2013, available at <https://www.premiumtimesng.com/news> (accessed 22 September 2020).

⁹⁸ Referred to in Nnimmo Bassey (Ibid).

⁹⁹ Ibid.

Studies have revealed that conservation of nature-based resources is essential to the mitigation of greenhouse gas emissions into the atmosphere. While acknowledging the potential benefits of this particular mechanism to climate change, some experts have raised concerns about the challenges of their implementation particularly in the continent of Africa. We have examined these challenges to include overwhelming reliance on agriculture and other forestry resources for their livelihoods, inadequate implementation of forestry laws, corruption and impunity. Consequently, the nature-based solutions are underused in the continent whereas studies have affirmed that the top forest restoration hotspots are all in Africa.¹⁰⁰The UNFCCC cannot afford to overlook nature's full potential within the region to help the world mitigate and adapt to climate change. To reach this ambitious goal, there must be collaboration between the industrialized countries of the world and the developing or least developed countries. No sacrifice is more than enough. We must not be limited to the emission pledges as the sole solution rather all available solutions must be explored.

For instance, if sufficient incentives are not provided to the rural farmers who depend on the forests for survival, all the drums of REDD+ programme will be falling on deaf ears. A study on the REDD project in Mozambique revealed that farmers were paid meager amounts for seven years for tending trees.¹⁰¹That would be counterproductive as the farmers would nonetheless revert to the forests for sustenance. As we commend the World Bank and other countries of the world for the financial sacrifices they have made so far on the programme, there should be more transparency in the disbursement and utilization of the funds. Even some poorer countries in Africa should, as a matter of necessity, allot part of their budgets to the preservation of nature-based resources within the continent. We cannot afford to sweep this noble initiative into oblivion. More importantly is the issue of corruption and impunity within the region. How do we guarantee that the disbursed funds get to the expected beneficiaries or used for the exact purpose?

We call on the international community to collaborate with the UNFCCC in the accomplishment of this task. Just recently, the US and UK imposed visa bans on some

¹⁰⁰ Rateng, B. (supra).

¹⁰¹ Cheikh, Mbow, *et al*, (supra).

Nigerian politicians who indulged in election malpractices to scuttle Nigerian's democratic process.¹⁰²The gesture has, in no small measure, improved the integrity of the subsequent elections in Nigeria. We can borrow a leaf by extending the ban to governments, NGOs, private sectors or individuals who may sabotage the nature-based solution project either by non-compliance with the relevant laws and policies, impunity, corruption, conspiracy (international or local), nepotism or by cruel mis-governance. Today, the fear of visa ban is the beginning of wisdom in Africa.

¹⁰² Lara Jakes, "Nigeria 'Blindsided' by Trump Travel Ban, Its Top Diplomat Says" in *The New York Times*, 23 July 2020, available at <https://www.nytimes.com/2020/02> (accessed 23 September 2020). See also Onyeka, Eddie, "US Visa Ban on Some Nigerian Politicians" in *The Punch*, 2 August 2019, p.18.