

Ozone Layer Depletion and the Montreal Protocol: An Assessment of Nigeria's Compliance

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1. Introduction

Ozone is a greenhouse gas which absorbs the sun's harmful ultraviolet light that can cause skin-cancer, weaken the immune system, damage plants and marine creatures from entering the earth's atmosphere. The ozone layer is a layer in earth's atmosphere which contains relatively high concentrations of ozone. This layer absorbs 97-99% of the sun's high frequency ultraviolet light, which is potentially damaging to life on earth. The Ozone layer is threatened by a range of chemicals usually referred to as Ozone depleting substances (ODS) which destroys the Ozone layer through a series of chemical reactions. These chemicals, such as chlorofluorocarbons (CFCs), methylbromide etc are released into the atmosphere owing to various activities caused by man such as the use of refrigerants (which release CFCs) and insecticides.

Ozone layer depletion lead to thinning of the ozone layer thereby exposing the organisms on earth to harmful ultraviolet radiation and increase in global temperature with adverse effects on man, (leading to skin cancer, eye disorders, immunological effect), aquatic life and land vegetation.

2. The Montreal Protocol

The Montreal Protocol on Substances that Deplete the Ozone is an international treaty designed to protect the ozone layer by phasing

out the production of numerous substances believed to be responsible for ozone depletion.

The Montreal Protocol seeks to achieve some specific objectives. The Protocol is aimed at taking measures to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer. The Protocol seeks to protect the ozone layer by taking precautionary measures to control equitable total global emission of substances that deplete it with the ultimate object of their elimination on the basis of developments in scientific knowledge, technical and economic considerations and bearing in mind the developmental needs of developing countries. The Protocol also aims at ensuring that precautionary measures for controlling of emission of certain ozone depleting substances are taken at national and regional levels also the Protocol seeks to promote international co-operation in the research, development and transfer of alternative technologies relating to the control and reduction of emissions of substances that deplete the ozone layer.

The Montreal Protocol sets out a mandatory timetable for the phase out of ozone depleting substances. The Protocol also sets binding progressive phase out obligations for developed and developing countries for all the major ozone depleting substances. The Protocol targets 96 chemicals in thousands of applications across more than 240 industrial sectors. The multilateral fund has provided more than US \$ 2.5 billion in financial assistance to developing

countries to phase out production and consumption of ozone depleting substance since the Protocol's inception in 1987.

The Montreal Protocol is one of the first international environmental agreements that include trade sanctions to achieve the goals of the treaty. It also offers major incentives for non-signatory nations to sign the agreement. The treaty negotiators justified the sanctions because depletion of the ozone layer is an environmental problem most effectively addressed on the global level. Furthermore, without the trade sanctions there would be economic incentives for non-signatories to increase production damaging the competitiveness of the industries in the signatory nations as well as decreasing the search for less damaging chlorofluorocarbons (CFCs).

3. The Montreal Protocol and the United Nations Environment Programme

The Montreal Protocol was signed in 1987, under the auspices of the United Nations Environment Programme (UNEP), to gradually eliminate global consumption and production of Ozone-depleting substances (ODS). The Multilateral Fund for the implementation of the Montreal Protocol was established in 1991 by the parties to the Protocol to provide technical and financial assistance to developing countries to achieve their targets to phase out Ozone depleting substances (ODS).

The United Nations made funds available for eradicating Ozone depleting substances (ODS). The Multilateral Fund for the implementation of the Montreal Protocol provides funds to help developing countries to phase out the use of Ozone depleting substances (ODS).

The UNEP's activities while implementing the Montreal Protocol through the Multilateral Fund in Nigeria have contributed significantly to the reduction of CFC consumption in the Nigerian refrigeration and air-conditioning sector. This reduction has helped the country to eliminate part of its annual consumption of ODS through effective technology transfer and financial assistance.

Nigeria is not an exception to the global regime for environmental protection of the ozone layer. The most recent environmental regime in the country is the National Environmental Standards and Regulation Enforcement Agency (Establishment) Act, 2007. The Act empowered the Minister of Environment to make regulations for the general purpose of carrying out or giving effect to environmental protection in Nigeria. With regard to Ozone layer depletion, the Minister has made regulation contained in the National Environmental (Ozone Layer Protection) Regulations, 2009 which provided for the phasing out of the use of harmful substances.

Lots of efforts have been put in place by the Nigerian government towards ozone layer depletion. Recently, the Nigeria's Federal Ministry of Environment commenced its anti-Ozone layer depletion programme with the training of 240 refrigeration and air conditioning practitioners in Sokoto State.

Determined to help to mitigate the effect of Ozone layer depletion in Nigeria, the United Kingdom on 22nd December, 2010 partnered with the government of Nigeria in planting 1000 tree seedlings at the Federal Capital Territory Parks and Recreation Centre, Asokoro, Abuja, Nigeria. According to Bob Dewar, the British High Commissioner to Nigeria "the rate of depletion of the Ozone layer has posed a challenge to the existence of the world and the existence of man".

Nigeria is going green with the assistance from the United Nations Development Programme (UNDP) through a project managed by the Ozone Programme and Management Implementation Unit, OPIAMU, in the Ministry of Environment. The thrust of the project is to get both the refrigerator manufacturers and the various associations of second hand fridges and air conditioners traders to switch from the CFCs to a more ozone friendly substance. Foam manufacturers who make use of ozone harmful substances have also been sensitized and their factories retooled and fitted with adequate machinery for ozone friendly materials. Members of the branches of the Nigerian

Association of Refrigeration and Air Conditioning Practitioners Association from 17 of the 36 States of Nigeria and the Federal Capital Territory underwent training on changing over from CFC based domestic refrigeration practices to non-ozone harmful practices. According to David Omotosho, the Chief Technical Adviser of the Project, "Nigeria's Consumption of the CFC has dropped from over 300 metric tones at the beginning of the project in 2004 to 16 metric tones to date. By 1st January, 2010 importation of CFC gases into the country is expected to be completely phased out".

The Government of Nigeria has commenced the construction of the Ozone Technology Village in Ogun State, Nigeria as part of the efforts of the government to effectively phase out Ozone depletion substances (ODS) in the country. According to John Odey, Nigeria's Minister of Environment "some locally fabricated prototype ozone friendly machineries has been developed such as box of foaming machines, chlorofluorocarbon (CFC) recovery and recycling machine and hydrocarbon refrigerant production machine as part of the project".

4. Conclusion

The Montreal Protocol requires different phase out plan for developed and developing nations particularly in the aspect of special situation of developing countries. The bases for this provision is that nations produce and consume those substances in different quality based on their level of development and it would be quite reasonable for some nations to be allowed to develop further, however, this provision is quite problematic because ozone depletion is a global and unified effort to fight, also the classification of a nation as "developed" or "developing" is quite elusive and abstract. If for some reason, a nation is allowed to continue production and consumption of these depleting substances, the effect would be felt not by that nation alone, but globally. A corollary to that is that unscrupulous businessmen from "developed nations" would have course to be dealing with such substances with these so called "developing nations". Thus, the Protocol should be revised to ensure that

such loop holes are blocked. There should be equality between nations as regards CFC.

The defects in the Montreal Protocol enforcement mechanism is visible because it is silent on the sanctions to be imposed on nations which sign and ratify it, and then fail to comply with its terms. The Protocol merely states that the Parties shall consider and approve mechanisms for determining non-compliance. The defect must be remedied in view of the urgent need for full global compliance in eradicating Ozone depleting substances (ODS).

The current version of the Montreal Protocol must be altered so as to promote further scientific research into the Ozone depleting substances. There should be institutional framework for bodies designated to conduct such researches. This research is very imperative because in the creed to find substitutes to phase out substances, other new substances could be discovered which have tendencies of ozone depletion.

The role of the United Nations Environmental Programme in Nigeria is highly commendable. However, there is the urgent need by the Nigerian government to provide the necessary legal framework for UNEP to function more effectively in line with the goals and aspirations of the Montreal Protocol.

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Legal Impediments to the Proposed Cattle Colonies in Nigeria

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Abstract. In response to the frequent clashes between cattle herdsman and farmers in some parts of the country, the Federal Government of Nigeria has proposed the establishment of cattle colonies across the country. It is believed by the Federal Government that the establishment of the cattle colonies would solve the continued herdsman / farmers conflict in parts of the country. However, the above Federal Government proposal has been widely resented drawing heavy criticisms from major stakeholders particularly State Governors who are the chief custodian of Land in the territory of their respective States in the Country. This paper therefore examined the rationale and the expected benefits from the proposed cattle colonies. The paper particularly discussed the Legal Impediments to cattle proposal and recommended ranching as an alternative to the proposed colonies. Finally, the paper recognized that if the Federal Government would continue to pursue the said proposal on cattle colonies, there is the need for a radical amendment to the extant Laws on Land management and control in Nigeria.

1. Introduction

The Federal Government of Nigeria proposed to establish Cattle colonies across the country with a view of checking the incessant herdsman/farmers clashes in some parts of the country. The proposal which was announced by the Nigeria Minister of Agriculture, Chief Audu Ogebe early in January 2018 attracted reactions in

form of stiff opposition in some quarters, while other stake holders considered the proposal as a welcome development.

It was opined by the Government Minister that: *Cattle colonies are better for the breeding of cows because 30 or 40 ranches can share the same colony. A ranch is usually owned by an individual or a company with generally few cows. In a colony, you could find 30,000 cows owned by different owners. The reason why Government was designing the colonies is to be able to prepare on a large scale, on economy of scale, a place where many owners of cattle can co-exist, and where cows can be fed well, because Government can make their feeds. They can get good water to drink. Cows drink a lot of water. We can give them greater fodder.*

From the Minister's explanation, colonies will be larger and sit on land to be acquired by the Federal Government, unlike ranches where cattle breeders will acquire by themselves according to the extant laws and subject their operations to the norms and cultures of their host communities.

This paper therefore highlights the benefits of the establishment of cattle colonies by the Federal Government of Nigeria and the legal impediments to the proposed cattle colonies considering the extant laws relating to the proposal. The paper also makes appropriate recommendation by suggesting ranching among others as alternative to creation of colonies for cattle grazing in Nigeria.

1.1 Conceptual Clarification of Terms and Concepts:

(a) Cattle colony:

According to WIKIPEDIA, “Cattle colony is one of the neighborhoods of Bin Qasim Town in Karachi, Sindh, Pakistan. This neighborhood of Karachi is the centre of cattle and meat trade in Karachi. The cattle colony is the dairy products shopping and supply centre of Karachi. There are also many abattoirs and meat warehouses located in the cattle colony”.

Cattle colony is like a shopping complex where cattle and meat trade are carried out.

Cattle colony has nothing to do with rearing or grazing of cattle and other livestock.

According to Professor Ben Nwabueze, “the cattle colonies as proposed by the Federal Government are nothing other than “settlements” of Fulani herdsmen in all parts of the country. Nwabueze warned of the religious, political and legal implications of the plan”.

(b) Ranching:

According to Collins English Dictionary, ranching is the activity of running a large farm, especially one for raising cattle, horses or sheep. A ranch is an area of land, including various structures, given primarily to the practice of ranching, the practice of raising grazing livestock such as cattle or sheep for meat or wool.

(c) Land Use Act 1978:

The Land Use Act of Nigeria 1978 is an important enactment that changed the land tenure system in Nigeria and intended to remedy the disparities in relation to land between the landowner and the tenant. Under the Act, all land in Nigeria is vested in Government.

In response to a potential crisis in land distribution, the Federal Military Government of Nigeria promulgated the Land Use Act of March 1978 establishing a uniform tenure system for Nigeria. In Nigeria, before the enactment of the Land Use Act, there was no uniform land policy because the historical backgrounds of the land

tenure systems of the regions were not identical. In establishing a uniform tenure system therefore, the Act intended to address the problem of lack of uniformity in the laws governing Land Use and ownership, the issue of uncontrolled speculation in urban land, the question of access to land rights by Nigerians on equal legal basis and the issue of fragmentation of rural land, to stimulate investment in agriculture by enhancing land use security, to optimize land use, to ensure sustained land use, to ensure sustained improvements to land quality and to enlighten the people on the right to use land. The Act effectively nationalized all land by requiring land users to obtain statutory right of occupancy and customary right of occupancy from the state and Local Governments respectively. In this regard, the innovation introduced by the Land Use Act is that it divests any claimant of radical title and limits the claim to a right of occupancy. However, the Act stipulates that anyone in rural or urban area who normally occupied land and developed it before the commencement of the Act would continue to enjoy the right of occupancy and could assign his interest in the developed land.

1.2 Expected benefits of the proposed cattle colonies:

While explaining the rationale for the proposal, the Federal Government of Nigeria highlighted the expected benefits from the proposed cattle colonies as follow:

- It will ensure safety of lives and properties and a drastic reduction in farmers and herders clashes.
- It is believed that cattle produce healthier beef when they are kept in colonies, and also produce more milk.
- Farmers do not have to worry about the safety of their crops and thus more production is ensured for the masses, which means more economic activity in the agricultural sector.
- Cattle colonies would put a stop to cattle rustling by thieves and terrorists.
- It would be easy to identify criminals who either masquerade as herdsmen or herdsmen who commit murderous crimes and destruction.