

# THE MANIFESTATION OF ENVIRONMENTAL POLLUTION IN CAMEROON: A LEGAL APPRAISAL

*Written by Nchifon Robert Elvis Yenkuh*

*3rd Year Ph.D Candidate, University of Dschang, Cameroon*

## ABSTRACT

The natural environment plays a key role in Cameroon's economy, as a direct input into production and through the many services it provides. The environment provides services that enable economic activity, such as sequestering carbon, filtering air and water pollution, protecting against flood risk, and soil formation. It is also vital for our wellbeing, providing us with recreational opportunities, improving our health, and much more. In most developing countries like Cameroon, the southern and western regions are endowed with numerous natural resources, fisheries, and minerals. However, the exploitation of these resources for man's needs are causing severe harm to the environment. In turn, environmental challenges include amongst other things, pollution. It will be of essence to examine the level of attention given to environmental pollution in Cameroon. This article therefore, attempts to examine the laws regulating environmental pollution in Cameroon. We also aim in this article to study how environmental pollution occurs and its impact on the environment and humans. It equally explains why effective compliance to pollution laws in Cameroon is still a myth. This article concludes with some robust recommendations which if effectively implemented, will go a long way to ensure compliance with environmental pollution norms in Cameroon in particular and the world at large.

**Keywords:** Environmental Pollution, Environment, Law, Manifestation, Cameroon.

## INTRODUCTION

Environmental pollution is not a new phenomenon, yet it remains the world's greatest problems facing humanity Cameroon not left out. It is the leading environmental causes of morbidity and mortality. The potent combination of industrialization, urban development and mass consumption trends is exacerbated by foreign companies operating with little regard for the impact on the local environment. Environmental pollution is more than just a health issue; it is a wider social issue in that pollution has the potential to destroy communities and thus calls for concern. Measures must therefore be taken nationally and internationally to control environmental pollution to save humanity from total extermination from the surface of the earth.<sup>i</sup> Clearly, we have pragmatic interests in conserving resources and preserving a habitable environment. There also are ethical reasons to believe that nature has the right to continue existing for our own sake. Unprecedented population growth, food shortages, scarce energy supplies, air, land, noise and water pollution, which tamper with the ecosystem are all serious threats to our environment and our way of life.<sup>ii</sup> As international travel and communication become easier, we realize that these problems encompass our whole planet and require global cooperation to find solutions. There is therefore a need to establish some strong guidelines and principles to regulate environmental pollution for the benefit of both the present and future generations. Reason why international, regional and national communities are strongly involved with adopting laws and ratifying treaties which could be of paramount importance in curbing environmental pollution and thus promote sustainable development. Cameroon's national government in its environmental policy has established some fundamental principles, adopted several laws and ratified conventions to regulate environmental pollution. It is imperative at this juncture to examine the principles and laws regulating environmental pollution in Cameroon before plunging into the manifestation proper.

## BASIC PRINCIPLES REGULATING ENVIRONMENTAL POLLUTION

One of the stakes in environmental discourse in particular is how to balance the offsets between development and protection of the environment. Due to the fact that environmental squalor and pollution is largely caused by human intervention, the public authority responsible for averting such adverse impacts has responded by developing legal rules in order to have a host of binding norms.<sup>iii</sup> Nearly all legal discipline has some rubrics, values, principles and even maxims

which, for the most part establish expressions that synthesize the subject matter of the whole discipline so that with just a few of these expressions, we may be able to discern the substratum of that particular area of studies.<sup>iv</sup> Environmental law is not left out; in effect, there are a number of principles which it may be argued, make up the foundation for regulating environmental pollution as well as guide lines and orientation for policy makers and state action.<sup>v</sup>

#### ***A. The Principle of Prevention***

The principle of prevention is restated in numerous international instruments.<sup>vi</sup> Under the 1996 framework law relating to environmental management, the legislator makes mention of preventive action and correction (through priority at source) of threats to the environment by using the best available technique at an economically acceptable cost<sup>vii</sup> Experience and scientific expertise demonstrate that prevention must be the Golden Rule for the environmental injury once it has occurred.<sup>viii</sup> At best it is difficult to remedy environmental injury, and in many cases the damage is simply irreversible. Even when harm is remediable, the cost of rehabilitation is often very high. In quite a lot of instances it is impossible to prevent all peril of impairment. In such cases, it may be judged that measures should be taken to make the risk as trivial as practically possible in order to let essential activities to ensue while protecting the environment and the rights of others.<sup>ix</sup> Prevention is also linked to the notion of deterrence and the idea that disincentives such as penalties and civil liability will cause actors to take greater care in their behavior to avoid the increased costs, thus preventing pollution from occurring. In an ICJ judgement the court held that "*it was mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often-irreversible character of damage to the environment and oof the limitations inherent in the very mechanism of reparation of this kind of damage*".<sup>x</sup> At this juncture therefore, pollution prevention includes the concept that pollution may be reduced, or prevented, at its source, by changing raw materials or production techniques or technologies.

#### ***B. The Principle of Precaution***

The emergence of increasingly unpredictable, uncertain, and unquantifiable but possibly catastrophic risks such as those associated with pollution, Genetically Modified Organisms, climate change etc., has confronted societies with the need to develop a third, anticipatory model to protect humans and the environment against uncertain risks of human action: The precautionary principle.<sup>xi</sup> The principle of precaution is a broad epistemological, philosophical

and legal approach to innovations with potential for causing harm when extensive scientific knowledge on the matter is lacking.<sup>xiii</sup> It emphasizes caution, pausing and review before leaping into new innovations that may prove disastrous.<sup>xiii</sup>

### ***C. Polluter Pays Principle***

As stated by the Cameroonian law, the polluter and pay principle according to which charges resulting from measures aimed at preventing, reducing and fighting against pollution and the rehabilitation of polluted areas shall be borne by the polluter.<sup>xiv</sup> The polluters pay principle was originally enunciated by the Organization for Economic Corporation and Development (OECD)<sup>xv</sup> to restrain national public authorities from subsidizing the pollution control costs of controlling their pollution to the extent required by law.

## **NATIONAL INSTRUMENTS REGULATING ENVIRONMENTAL POLLUTION IN CAMEROON**

Conscious of our roles as stewards of the world in which we live, notably on behalf of future generations, we must therefore take care in exercising these options. Thus, regulating environmental pollution is not a new phenomenon in the world today. To this effect, Cameroon has enacted laws to enhance pollution control in Cameroon

### ***A. The constitution***

Environmental constitutionalism surfaced from the irrefutable claim that previous ordinary and predominant laws addressing pollution and conservation could not provide exclusive protection to the environment a position corroborated by the coming of the Anthropocene.<sup>xvi</sup> The Anthropocene stresses an anthropogenic change emphasizing a fast movement of the Earth into a critically, less predictable, non-stationary, less harmonious, and unstable state caused by humans. A critical look at the provisions of the 2008 Cameroon constitution dealing with pollution control on the environment in particular and environmental protection in general in the preamble of the constitution reveals that Cameroon has a thin constitution.<sup>xvii</sup> It stipulates that, *“Every person shall have the right to a healthy environment the protection of the environment shall be the duty of every citizen. The state shall ensure the protection of the environment and improvement of the environment”*<sup>“xviii</sup> preambles frequently serve ceremonial-symbolic or interpretative roles. However, depending on a particular constitution and its substantive provisions, preambles can be legally binding.<sup>xix</sup> With the revision of the 1972

constitution in 1996 and subsequent amendment in 2008, the frenzied debate on the legal worth of the preamble of the constitution was laid to rest by article 65 of the 1996 constitution. Which provides that the constitution shall be part and parcel of the constitution thus making it binding.

***B. Law No.96/12 Of 05 August 1996 Relating to Environmental Management***

This law lays down the general framework for environmental management in Cameroon.<sup>xx</sup> The fundamental principles regulating environmental pollution are established in this law.<sup>xxi</sup> In an attempt, to regulate environmental pollution in Cameroon, this law provides a special fund herein known as the “National Environmental and Sustainable Development Fund”. The objectives of this “Fund” are to contribute to the financing of environmental auditing; provide backstopping for sustainable developments projects; provide backstopping for environmental research and education; support programs promotion clean technologies; encourage local initiatives on environmental protection and sustainable development; support legalized association involved in environmental protection which carry out significant activities in this domain and backup the actions of ministries involved in environmental management.<sup>xxii</sup> This law prohibits any activity endangering the quality of air or provoking any form of modification of its characteristics thus possibly producing harmful effects on public health and property; discharging pollutant into the air, especially smoke, toxic, corrosive or radioactive dust or gases beyond the limits lay down by the enabling instruments of this law, or by special instruments as the case might be, and discharging odors which, by virtue of their concentration or nature, are particularly inconvenient to man.<sup>xxiii</sup>

***C. Law No.2016/017 of 14 December 2016 on the Mining Code***

The mining code is not left out in the fight against environmental pollution. This code defines mining operation as non-industrial and semi mechanized non industrial mining activity relating to the reconnaissance, exploration, mining, treatment, or transportation of mineral substances, excluding liquid or gaseous hydrocarbons and surface water.<sup>xxiv</sup> Any mining and quarry operation undertaken must comply with the laws and regulations in force relating to sustainable environmental protection and management. Apart from the non-industrial mining license, the exploration permit and the license for non-industrial quarry mining for domestic purposes, the granting of mining titles, quarry licenses and permits shall be subject to prior conduct of environmental and social impact assessment, a hazard and risk assessment and provision of an environmental management plan as provided for by the laws and regulations in force in matters relating to the protection and sustainable management of the environment.<sup>xxv</sup> Again, each

operator shall be responsible for restoration and rehabilitation and closure of mining and quarry sites. The former mining sites must be restored to stable conditions of security, agro-sylvo-pastoral productivity and appearance close their original state or conducive to any new and sustainable development deemed suitable and acceptable by the authorities in charge of mines, the environment and any other relevant authority.

#### ***D. Law No. 2019/008 of 25 April 2019 Instituting the Petroleum Code***

This law defines petroleum operations hydrocarbon prospecting, exploitation, exploitation, transportation, storage and processing activities of the upstream petroleum sector, excluding the refining, storage and processing activities of the upstream petroleum sector, excluding the refining, storage and distribution of petroleum and gas products classified under the petroleum sector.<sup>xxvi</sup> An operator shall mean a petroleum company holder or co-holder with adequate technical and financial capacity entrusted with the responsibility of conducting and carrying out petroleum operations pursuant to the provisions of the petroleum contract. The operator or its staff must have a satisfactory track record, particularly in areas and under conditions similar to those of the area applied for and with regard environmental protection.<sup>xxvii</sup> In attempt to curb environmental pollution, this law stipulates that, holders shall carry out petroleum operations in such a manner as to ensure, under all circumstances, the conservation of natural resources, in particular hydrocarbon deposits, and due protection of the essential features of the environment. In this respect, holders shall take all the necessary measures to preserve the safety of persons and property, and protect the environment, natural surroundings and ecosystems.<sup>xxviii</sup>

## **REGIONAL INSTRUMENTS REGULATING ENVIRONMENTAL POLLUTION**

With the enactment of international environmental agreements, parties have copied on the model to address in a more specifically way, their environmental problems through regional enactments. This is to bring to reality the African context of the issues relating to environmental pollution. The adoption of these regional instruments is mostly encouraged by international agreements. For instance, the Cartagena protocol provides that, parties may enter into bilateral, regional and multilateral agreements.<sup>xxix</sup>

***A. The Revised Algiers Convention on the Conservation of Nature and Natural Resources 2003***

The conservation of nature and natural resources, as indicated in its title, remains the central tenet of the African Convention. However, the wide definition of “natural resources” renewable resources, tangible and intangible, including soil, water, flora and fauna as well as non-renewable resources in its article V (1), indicates that it has taken a comprehensive and general approach to environmental protection, pollution control not kept aside.<sup>xxx</sup> The convention also addresses economic and social development goals, both in its substantive provisions and its preamble, which recalls the Lagos Plan of Action for the Economic Development of Africa and the Final Act of Lagos as well as the African Charter on Human and Peoples Rights, and stresses the necessity to work closely together towards the implementation of global and regional instruments supporting the goals of the Rio Declaration and Agenda 21. By addressing the three pillars of sustainable development in an integrative manner, the convention provides a unique tool to advance its implementation in Africa. Article VII of the convention compels parties to address the management of water resources, whether underground, surface or rain water, in a way to maintain them at highest possible quantitative and qualitative levels and to ensure the protection of human health. To this end, it requires that measures be taken to control pollution, water borne diseases and excessive abstraction.

***B. The Bamako Convention on the Prohibition to Import Hazardous Waste in Africa and the Control of Their Trans boundary Movement 30 January 1991***

This convention recalls relevant chapters of the Charter of the organization of African Unity (OAU) on Environmental protection, the African Charter for Human and people’s Rights, Chapter IX of the Lagos Plan of Action and other Recommendations adopted by the Organization of African Unity on the environment.<sup>xxxii</sup> Impetus for the Bamako convention arose from the failure of the Basel Convention<sup>xxxiii</sup> to prohibit trade of hazardous waste<sup>xxxiii</sup> to less developed countries (LDCs), and from the realization that many developed nations were exporting toxic waste to Africa.<sup>xxxiv</sup> In the late 1970s, the phenomenon of the illegal transboundary shipment of hazardous waste reached the spotlight as a result of a series of international incidents linked to this matter.<sup>xxxv</sup> African leaders were very concerned by the issue, and the statement that the president of Kenya gave in 1988, during the negotiations of the Basel convention, is very illustrative because it recalled the colonization past of Africa linking it to the dumping of hazardous waste. Basically, he considered the dumping of wastes

as a new form of colonization, that he called “Garbage Imperialism”.<sup>xxxvi</sup> Africa had to control the problem within its own context. These are the reasons why the Bamako Convention was adopted only two years after the adoption of the Basel convention. Actually, the origins of the Bamako convention can be found also in of the Basel Convention that encourages its parties to enter into regional instrument in order to regulate the issue.<sup>xxxvii</sup> Kaminsky has stressed the fact that the prior and informed consent is important especially when it comes to African states, because they might lack the regulatory infrastructures and resources.<sup>xxxviii</sup> Again, article 12 called the Conference of the Parties for the set-up of an ad hoc expert organ that had to prepare a draft protocol on liability and compensation. This convention is a model to the Stockholm convention on POPs. It has been implemented in the member states to the African Union. The assessment we can make of its implementation is that it has not yet fully achieved its goal of reducing organic pollutants in the atmosphere. The rationale for this delay is that Cameroon lacks the adequate implementation mechanisms. Again, there is reluctance for collective participation as many are not versed with the problems faced by our environment and by themselves in living in such endangered environment.<sup>xxxix</sup> Industries are the main polluters of the environment as they emit gases which are toxic to their neighbors and have an adverse effect on a long run, on the climate

## **INTERNATIONAL INSTRUMENTS REGULATING ENVIRONMENTAL POLLUTION**

Environmental pollution in general and its threat to human wellbeing has become one of the most unavoidable topics internationally and domestic discourse. Pollution control is mostly initiated by bilateral and multilateral agencies which do most of the policies planning. International environmental law plays a great role in diminishing environmental pollution in Cameroon in particular and in Africa as a whole. Cameroon has adhered to a number of international initiatives to curb environmental pollution. They are embodied in conventions (treaties) among states and to a greater extent in international declarations.<sup>xl</sup> Conventions are legally binding and considered “hard law”. They can be called treaty, protocol, covenant, pact, or act.<sup>xli</sup> While declarations on the other hand are generally not legally binding and often referred to as soft law. Numerous legally binding and non-binding international instruments



encompass a wide variety of issues relating to environmental pollution which are herein examined.

### **A. *Soft Laws***

International environmental law is based principally on negotiation and political relationships to define the rights and obligations of states. When these negotiations are contained in declarations, they constitute soft laws having only a persuasive and not a binding force. Though soft law is not enforceable, the concept is however relevant in the field of environmental law, because it serves as a prelude or gives direction for the adoption of “hard law” instruments.<sup>xliii</sup> Thus, the concept of “soft law” enables states to reach agreements much quicker and has a moral weight for member states of these declaration to implement provisions in their own countries, through legislative processes.

#### **a. *1972 Stockholm Declaration***

The 1972 United Nations Conference on the Environment in Stockholm was the first world conference to make the environment a major issue. The participants adopted a series of principles for sound management of the environment including the Stockholm Declaration and Action Plan for the Human Environment and resolutions.<sup>xliiii</sup> The Stockholm Declaration, which contained 26 principles, placed environmental issues at the forefront of international concerns and marked the start of a dialogue between industrialized and developing countries on the link between economic growth, the pollution of the air water, and oceans well-being of people around the world.<sup>xliiv</sup> Principle 6 of this Declaration provides that, the discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. The just struggle of the peoples of ill countries against pollution. States shall equally take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.<sup>xliv</sup>

#### **b. *The 1992 Rio Declaration on Environment and Development***

Rio Declaration, was a short document produced at the 1992 United Nations Conference on Environment and Development (UNCED), informally known as Earth Summit. The Rio Declaration consisted of 27 principles intended to guide countries into future sustainable

development. The first principle (1) states that sustainable development primarily concerns human beings, who are entitled to live healthy and productive lives in harmony with nature. Principle 11 creates an expectation that states will enact environmental legislation to combat environmental pollution. Furthermore principle 15 provides that, in order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. The final principle invites fulfillment of the other principles in a spirit of good faith and partnership.

### ***c. Agenda 21 Action Plan***

Agenda 21 is a non-binding action plan<sup>xlvi</sup> it is a product of the Earth Summit (UN Conference on Environment and Development). It is an action Agenda for the UN, other multilateral organizations, and individual governments around the world that can be executed at local, national, and global levels. One major objective of the Agenda 21 initiative is that every government should draw its own local Agenda 21.<sup>xlvii</sup> Agenda 21 is divided into 4 sections.<sup>xlviii</sup> Section II focuses on conservation and management of resources for development thus includes atmospheric protection, combating deforestation, protecting fragile environments, conservation of biological diversity, control of pollution, the management of biotechnology, and radioactive wastes.

### ***B. Hard Laws***

These are agreements between states considered as having a binding force, variously referred to as treaties, accords, conventions, agreements, or protocols adopted bilaterally, regionally or multilaterally.<sup>xlix</sup>

#### ***a. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticide in International Trade. 24 February 2004***

The dramatic growth in chemicals production and trade during the past three decades has raised both public and official concern about the potential risks posed by chemicals and pesticides. Countries lacking adequate infrastructure to monitor the import and use of these chemicals are particularly vulnerable. In response to these concerns, the United Nations Environment Program (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) started developing and promoting voluntary information-exchange programs in the mid-1980s.

The Convention was adopted and opened for signature at a conference of Plenipotentiaries in Rotterdam on 10 September 1998 and entered into force on 24 February 2004. When Cameroon trades in any of the controlled substances, labelling and information requirements follow. Decisions taken by the parties must be trade neutral if Cameroon decides not to consent to imports of a specific chemical it must also stop domestic production of the chemical for domestic use, as well as imports from any non-party. The convention has been successful in a number of ways. It has been able to make countries share responsibilities and cooperate in the protection of human health and the environment. Information has been widely exchanged on the characteristics of hazardous chemicals. National decision-making process for Cameroon has addressed the issue at hand and the government has made efforts to respect prior informed consent provided by the convention.<sup>1</sup>

***b. Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Elimination of 22 March 1989***

One of the incidents which led to the creation of the Basel Convention was the *Khian* sea waste disposal case in which a ship carrying incinerator ash from the city of Philadelphia in the United States dumped half of its load on a beach in Haiti before being forced away. It sailed for many Months, changing its name several times. Unable to unload the cargo in any port, the crew is believed to dump much at its sea.<sup>li</sup> Hazardous waste, falls under the scope of the convention if it is within the category of waste listed in Annex I of the convention and it exhibits one of the hazardous characteristics contained in Annex III.<sup>lii</sup> In other words, it must both be listed and possess a characteristic such as being explosive, flammable, toxic or corrosive. This convention calls for an overall reduction of waste generation by encouraging countries to keep waste within their boundaries and as close as possible to its source of generation, the internal pressures should provide incentives for waste reduction and pollution prevention. Parties are generally prohibited from exporting covered wastes to, or import covered waste from, non-parties to the convention.<sup>liii</sup>

***c. United Nations Convention on the Law of the Sea (UNCLOS) Of 10 December 1982 in Montego Bay***

It is necessary to first of all know and understand some key concepts in this convention. For the purpose of this convention, Pollution of the marine environment means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including

estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.<sup>liv</sup> Dumping means any deliberate disposal of waste or other matter from vessel, aircraft, platforms or other man-made structures at sea or any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea.<sup>lv</sup> Adopted in 1982, the United Nations Convention on Law of the Sea (UNCLOS) was ratified by Cameroon on 16 November 1994. This convention regulates marine pollution.

#### ***d. International Convention on Civil Liability for Oil Pollution Damage 1992***

The main concern of oil pollution is due to the fact that today it is one of the greatest causes of marine environmental pollution due to large amounts of oil spilled. Typically, the causes of oil spills are shipping accidents and casualties and as well as cleaning operations of vessels.<sup>lvi</sup> Conscious of this fact, states were convinced of the need to ensure that compensation is available to persons who suffer damage caused by pollution resulting from the escape or discharge of oil from ships.<sup>lvii</sup> Pollution damage under this convention means loss or damage caused outside the ship by contamination resulting from the escape or discharge of oil from ship, wherever such escape or discharge may occur, provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken.<sup>lviii</sup> In order to deter polluters, Article VII of this convention provides that the owner of a ship registered in a contracting state and carrying more than 2000 tons of oil in bulk as a cargo shall be required to maintain insurance or other financial security, such as guarantee of a bank or a certificate delivered by an international compensation fund, in the sums fixed by applying the limits of liability prescribed in Article V, paragraph 1<sup>lix</sup> to cover his liability for pollution damage under this convention. To add, any claim for compensation for pollution damage may be brought directly against the insurer or other person providing financial security for the owner's liability of pollution damage.<sup>lx</sup>

## **KINDS OF ENVIRONMENTAL POLLUTION**

Environmental pollution is caused due to environment and ecological changes as a result of developmental process of the 'economic and technological man' of the present century. The

environmental crisis arising out the environmental deterioration is caused by several forms of pollution such as air, water, land and noise pollution and depletion of natural resources because of rapid rate of their exploitation.<sup>lxi</sup> Air pollution is one of the most serious environmental problems in societies at all level of economic development. It may be defined as any atmospheric condition in which certain substances are present in such concentrations that they can produce undesirable effects on man and his environment.<sup>lxii</sup> The second most prevalent kind of pollution after contaminated air is water pollution. Water pollution afflicts our rivers and reservoirs, groundwater and aquifers, not to mention the seas and oceans which covers the majority of the planted. Noise is among the most pervasive forms of pollution today. Noise has been described as a sound without agreeable musical quality as an unwanted or undesired sound.<sup>lxiii</sup> Like the other types, land pollution also arises as a global environmental problem, specifically associated with urbanization and industrialization that should be dealt with globally concerted environmental policies. Cameroon is seriously plagued with this problem. Noise has been described as a sound without agreeable musical quality as an unwanted or undesired sound.<sup>lxiv</sup>

## **SOURCES OF ENVIRONMENTAL POLLUTION**

Natural sources of environmental pollution are those existing in or derived from nature; not made or caused by humankind. Thus, this section of this work seeks to examine these types of sources to wit:

### ***A. Wildfires***

Wildfires are one of the most devastating and terrifying forces of nature. They are unpredictable and most of the time uncontrollable. They draw strength from the wind, and are particularly devastating in areas prone to drought like the Northern part of Cameroon. Wildfires are burning events that occur in natural or semi-natural landscapes such as forests, shrub lands, or grazing lands including savannahs. They are a major natural hazard<sup>lxv</sup> and an important source of air pollutants<sup>lxvi</sup> which can impact air pollution thousands of kilometers downwind. Old growth forest stands can be consumed in minutes leaving nothing but skeletal remains. Or the fire may leave the tree canopies untouched, but scour the forest floor consuming understory vegetation. Fires fill the sky with heat and gloom, raining ashes and brands of fire for miles. In a matter of hours wildland fires can change entire landscapes. Their effects are mostly destructive.<sup>lxvii</sup>

### ***B. Agricultural Activities***

Agricultural development means expansion of agricultural land increase in agricultural productivity and net agricultural production. It is due to development of modern scientific techniques, advanced technologies, increased production and use of chemical fertilizers, expansion in irrigational facilities, development of high yielding varieties of seeds, that pollution has proliferated.<sup>lxviii</sup>

### ***C. Mining Activities***

Cameroon is one of the countries in Central Africa that is endowed with many mineral resources such as gold, diamond, rutile, iron ore, bauxite. Gold production in Cameroon dates back to 1934 with a production peak of 717 kg in 1942.<sup>lxix</sup> From that date till now gold mining is still artisanal and is located in the East, South and part of Eastern Adamawa regions where gold mining is undertaken by the local indigenes for livelihood. Apart from abject poverty that characterizes the gold mining communities; major socio-economic and mining can be considered as one of the human activities which negatively influence the environment.<sup>lxx</sup>

### ***D. Industrialization***

Rapid rate of industrialization has resulted into rapid rate of exploitation of natural resources and increased industrial output. Both the components of industrial development such as, exploitation of natural resources and industrial production have created several lethal environmental problems. The town of Limbe has been undergoing industrial development since the 1960s. In the 70s the town witnessed the inception of huge industry; The National Oil Refinery Company with its French acronym SONARA. The population welcomed the birth of this company with so much euphoria since it was seen as the salvation for unemployment and poverty that plagued the region. Conversely the birth of this company came also with its own challenges to the environment. Oil spill and leakages to cause pollution to aquatic life. Routine shipping, runoffs and dumping of oil on the ocean surfaces happen every day. Oil spills cause adverse impacts and can be very harmful to aquatic life such as fish, birds and other marine wildlife. Oil causes suffocation to marine life because it does not dissolve.<sup>lxxi</sup>

## **EFFECTS OF ENVIRONMENTAL POLLUTION**

### ***A. The Right to Life***

Article 3 of the Universal Declaration of Human Rights stipulates that, everyone has the right to life, liberty and security of person. A decipher of this section implies that, human beings have to be protected. However, with the high rate of environmental pollution around the globe today, this right is being tampered with. Pollution is the largest source of premature death in the developing world, causing approximately three times more deaths than HIV/AIDS, tuberculosis and malaria combined.<sup>lxxii</sup>It disproportionately affects persons, groups and peoples in vulnerable situations reflecting both historical and ongoing discrimination, racism, and power imbalances that have given rise to powerful social movements for environmental justice.

### ***B. The Right to Health.***

Polluted environment leads to the outbreak of diseases around us, yet people tend to have no idea or awareness of this grave issue at hand. Pollution in any form; whether in the water we drink, the air we breathe, the land where we grow our food or the increasing noise, we hear every day contribute to many health hazards and therefore lower the quality of life of individuals.<sup>lxxiii</sup> Thus jeopardizing this core right.

### ***C. Irreversible loss of biodiversity***

Biodiversity worldwide is being lost, and in some areas at an accelerating rate.<sup>lxxiv</sup> According to the Millennium Ecosystem Assessment, the main sources of biodiversity loss are land use changes unsustainable use and exploitation of natural resources; invasive alien species; global climate change; and pollution.<sup>lxxv</sup>

### ***D. Climate Change***

We are living in the Anthropocene. Human beings have become a major force by massively polluting the air we breathe as well as the entire atmosphere, which maintains the climate inhabitable zone. Close to one trillion tons of air and climate pollutants are blanketing the earth, and trillions of additional tons will be added this century.<sup>lxxvi</sup>

## **ENFORCEMENT OF LAWS REGULATING ENVIRONMENTAL POLLUTION IN CAMEROON**

### ***A. Pollution as a crime***

Both moral and natural persons can be liable for polluting the environment. This is because, the penal code accommodates criminal responsibility to corporate bodies. By virtue of section

74(1) (a) corporate bodies shall be criminally responsible for offences committed on their behalf by their organs and representatives. The actions of the directing minds or organs are therefore imputed to the company. Lord Denning posited in the case of *Bolton Engineering Co. Ltd v. Graham and Sons*, that, “A company may in many ways be likened to a human body, it has the brain and the nerve center which controls what it does, it also has hands which hold the tools and act in accordance with the direction from the center. Some of the people are mere servants and agents who are nothing more than hands to the managers who represent the directing mind and will of the company and control what it does”. This implies that, a company shall be liable for acts done on its behalf which pollutes the environment.

Section 74(2) of the Penal Code provides that “*criminal responsibility shall lie on him who intentionally commits each of the ingredients acts or omissions of the intention of causing the result that completes it*” thus, for a person to be held criminally responsible for polluting the environment, 3 ingredients must exist to wit: there must be a wrongful act or omission that polluted the environment; the act or omission must be committed intentionally with the intention of causing the result and the act or omission must be defined as an offence and a sanction provided by the law. These elements are summarized in the maxim; “*actus non facit reum nisi men sit rea*” meaning the act cannot be liable unless the mind is guilty

### ***B. Punishment for Environmental pollution***

This section will examine the criminal sanctions provided in the penal code and other sectorial laws for those who pollute the environment.

#### ***a. Criminal Sanctions under the Penal Code***

Criminal sanctions in Cameroon as far as environmental pollution is concern have been provided for in the new penal Code. Sanctions like imprisonment cannot be given to corporate bodies since they are not human beings but artificial persons. However, penalties such as fine, dissolution and closure of an establishment is given to corporate bodies as provided in section 25(1) of the Penal. Reading the provisions of section 261 of the penal code which stipulates that, whoever by his operations: *Pollutes any drinkable water liable to be used by another or So pollutes the atmosphere as to render it harmful to human health. Shall be punished with imprisonment for from 15 (fifteen) days to 6(six) months, or with fine of from CFAF 5000 (five thousand) to CFAF 1000000 (one million), or with both such imprisonment and fine.*



One can decipher the intention of the Cameroonian legislator to regulate environmental pollution. Again, the penal code provides that, *whoever in manner unauthorized does not, with immediate effect, discard of dangerous or toxic waste generated by its company shall be punished with imprisonment of from CFAF 5000000 (five million) to CFAF 500000000 (five hundred million).*<sup>lxxvii</sup>; it goes further to add that, the court seized shall order the person found guilty of introducing, producing, storing, holding, transporting, causing to transit, or releasing dangerous or toxic waste to dispose of it with immediate effect and restore the site. In addition, the court may order the closure of the company.<sup>lxxviii</sup> The penal code punishes *whoever infringes any regulation governing the manufacture, storage, transport, import or export of, or trade in explosive substances, shall be punished with imprisonment for from 1 (one) month to 1(one) year, or with fine of from CFAF 2000 (two thousand) or with both such imprisonment and fine.*<sup>lxxix</sup>

### **b. Civil Actions**

Civil law is primarily concerned with competing private interests and obligations and abounds mostly in our unwritten or judge-made laws. It is often invoked by private persons, although the state or its organs may, in appropriate cases, initiate or defend such actions as juristic persons. Civil actions are commenced in accordance with the relevant rules of civil procedure. Tort law being a branch of civil law has traditionally provided remedies for environmental pollution.<sup>lxxx</sup> Indeed, the lack of a neat fit between certain harms to environmental interests and a remedy through the common law tort system has been a significant catalyst for the increase in environmental statutes and regulations over the past several decades.<sup>lxxxii</sup> Nevertheless, general tort law theories have been successfully applied to remedy numerous types of harm to the environment. This occurs in areas where the harm is to a well-defined area or specific person or class of persons, is readily supported by general and specific causation, and closely fits the traditional elements of a tort cause of action. Majority of environmental pollution cases of tort in Cameroon and the world at large fall under Nuisance,<sup>lxxxiii</sup>

#### **1. Pollution as a Nuisance**

Nuisance law has emerged as a widely used theory to address environmental interests, in part, because of the perceived vagueness and broad latitude of the tort action. As Deans William Prosser and W. Page Keeton famously observed, “There is perhaps no more impenetrable jungle in the entire law than that which surrounds the word ‘nuisance.’ It has meant all things to all people . . . .”<sup>lxxxiii</sup> It means anything which annoys, hurts or that which is offensive. Under

the common law principle, the nuisance is concerned with unlawful interference with the person's right over whole of land or of some right over or in connection with it. But for an interference to be actionable nuisance, the conduct of the defendant must be unreasonable. Despite potential ambiguity over the term, courts have developed a set of well-defined elements for both public and private nuisance claims<sup>lxxxiv</sup> Nuisance is broadly divided into two torts: private and public nuisance. Hence, acts interfering with the comfort, health or safety are covered under nuisance. The interference may be due to smell, noise fumes, gas, heat, smoke, germs and vibrations.

## ***2. Remedies in Civil Actions for Environmental Pollution***

A remedy is a form of court enforcement of a legal right resulting from a successful civil lawsuit. Some remedies in tort law for environmental pollution encompass the following.

### ***i. Damages***

Where the harm has already occurred, indemnities or compensatory damages may be awarded to the injured party. The basic function of an award of damages is to compensate for the full losses suffered to the environment and the services it provides as well as the expenses that have been incurred due to the environmental harm. The exact type of award depends upon the nature of the harm, the characteristics.

## ***C. Problems to Effective Enforcement of Environmental pollution Regulations in Cameroon***

Cameroon have adopted laws to control environmental pollution over recent years. In addition to that, many companies have been punished for polluting the environment. Even so, immense challenges remain to achieve desired sustainable outcomes. Violations still occur frequently and at a large scale. This can be attributed to the following factors which we are going to examine.

Firstly, the understanding of laws in general and environmental laws in particular by the public is limited. This is partly because environmental laws are written using complicated languages to the people who are both polluters and victims of pollution. They are not fully aware of the consequences of their actions. Another issue is that, the norms regulating environmental pollution in Cameroon are so fragmented. In the sense that, environmental norms are dispersed in different legislation. They are not placed in a single document for better comprehension and application of the law. Cameroon is a bilingual country. In fact, article 1(3) of the constitution

provides that, the official languages of the republic of Cameroon shall be English and French both having the same status. But in reality, this is a myth when enacting and promulgating laws. Article 31(3) of the constitution stipulates that; laws shall be published in the official gazette of the Republic in English and French. But this is not the case because most environmental legislations are contradictory to that provision since most of environmental legislation, particularly decrees are in French. This makes it difficult for the English-speaking communities in Cameroon to understand the law and also for their judges to enforce the laws that are not clear to them. Another issue is the non-deterrent nature of fines. For instance, in *CCO v MINEF Complexe Comestique de l'Quest, (CCO)*, a soap factory located in Bamoungoum Quarter in Bafoussam, was accused of polluting the air because of a poisonous gas it produced from its pipes contrary to Section 21 of the 1996 framework law on environmental management. The then Ministry asked the defaulter to pay the sum of one million (1,000,000 FRS) Francs as penalty for violating the environmental law. Though the judgment of the court was correctly judged in this instance but the amount levied by the court was too small as compared to the damage caused to the society.

## CONCLUSION AND WAY-FORWARD

Recently, the Cameroonian media has been awash with reports of increased and unregulated cases of pollution. This has ranged from water, air, land and noise pollution, which is not a Cameroon problem only. There have been increased cases of various forms of pollution in Cameroon with gruesome impact on the environment and its environs, despite the presence of the arsenals of laws and basic principles meant to control the problem. The futility in trying to regulate environmental pollution has therefore necessitated the proposition of policy recommendations. In our opinion, in an attempt to solve the problems mentioned above, we recommend that:

The legislator should set up a uniform environmental code to give the environmental rule of law the power it deserves. The legislator needs to gather important environmental legislations and compiled them to make a uniform code. The legislator should therefore harmonize the laws related to the protection of the environment scattered in different codes into a single document. If this is done, it will save time and delays in the application of the laws since it is easier to obtain information in a single document than a bulk of isolated legislations. In addition, the

laws should be enacted in a simple and clear language for better understanding. Again, it is recommended that the quantum of the damages should be proportional to the wrong committed by the polluter. That is, that the polluter pays principle should cover pollution prevention and control measures, liability and clean-up cost for environmental damage, to this effect, the amount of damages should not be too paltry an amount but must be huge enough so as to deter the emission of gas or the pollution to the environment by either the same company or individual or third party in the future

## ENDNOTES

<sup>i</sup> Nwifo, C., (2010), « Legal Framework for the Regulation of Waste in Nigeria » *African Research Review, an International Multi-Disciplinary Journal*, Vol. 4 (2). Pp. 491.

<sup>ii</sup> Williams P. C., (2001), *Environmental science: A global concern*, 6th edition. New York p.34.

<sup>iii</sup> Katherine, R., S., (2018), “Introducing Environmental Law”, Oliver C. R., and Emmanuel D.K., (eds): *In Environmental Law and Policy Towards Making Africa the Tree of Life*, Nomos Germany. Pp. 75-82.

<sup>iv</sup> Tamasang, C., F., and Tchoffo M. A., (2018) “Principles of Environmental Management in Cameroon” Oliver C. R., and Emmanuel D.K., (eds): *In Environmental Law and Policy Towards Making Africa the Tree of Life*, Nomos Germany. Pp. 242-271.

<sup>v</sup> Ibid. P. 243

<sup>vi</sup> Principle 21 of the 1972 Stockholm Declaration and Principle of the 1992 Rio Declaration.

<sup>vii</sup> Article 9(b) of Law 96/12 of 5<sup>th</sup> August 1996 Relating to Environmental Management.

<sup>viii</sup> The extinction of a species of fauna or flora, erosion, and the dumping of persistent pollutants into the sea create intractable and even irreversible situations.

<sup>ix</sup> As it was in the case of *Sothurn v. Aargau, Switzerland Bundesgericht* (Federal Tribunal), 1 Nov. 2000

<sup>x</sup> The 1997 ICJ judgement in the *Gobeikoro-Nagymoros case (Hungary v. Slovakia)*.

<sup>xi</sup> UNESCO (2005), *The Precautionary Principle*, Place de Fontenoy, Paris. P.4

<sup>xii</sup> Rupert, R., and Tim, O., (2017), “The Precautionary Principle Under Fire”. *Environment: Science and Policy for Sustainable Development*. Environment.59. 4- 15

<sup>xiii</sup> www. europarl. europe. Eu. Accessed 2/7/2021.

<sup>xiv</sup> Article 9 (c) of Law No 96/12 of 5 August 1996 on Environmental management in Cameroon.

<sup>xv</sup> David, J., et al, (2015), *Power in a Warming World: The New Global Politics of Climate Change and the Remaking of Environmental Inequality*. Cambridge MIT Press.

<sup>xvi</sup> Luis J K. (2014), “Rethinking Global Environmental Law and Governance in the Anthropocene”, *Journal of Energy and Resources Law* 32 (2), Pp.121-156.

<sup>xvii</sup> Law No.2008/001 Of 14 April 2008 to Amend and Supplement Some Provisions of Law No.96/06 Of 18 January 1996 to Amend the Constitution Of 2 June 1972.

<sup>xviii</sup> The Paragraph 21 Of The Preamble Of Law No.2008/001 Of 14 April 2008 To Amend And Supplement Some Provisions Of Law No.96/06 Of 18 January 1996 To Amend The Constitution Of 2 June 1972

<sup>xix</sup> Azaufa T., et al (2019), “The Human Right to a Healthy Environment in Cameroon: An Environmental Constitutionalism Perspective. *Journal of Environmental Law and Litigation*. Vvol.34, p. 62-94.

<sup>xx</sup> Article 1 of law No.96/12 of 05 August 1996 Relating to Environmental Management.

<sup>xxi</sup> Ibid. article 9(a-f).

<sup>xxii</sup> Ibid article 11.

<sup>xxiii</sup> Ibid article 21.

<sup>xxiv</sup> Section 4 of Law No. 2016/017 of 14 December 2016 on the Mining Code.

<sup>xxv</sup> Ibid section 135(2).

<sup>xxvi</sup> Section 2(29) of Law No.2019/008 of 25 April 2019 Instituting the Petroleum Code.

<sup>xxvii</sup> Ibid. section 2 (29) of Law No. 2019/008 of 25<sup>th</sup> April 2019 instituting the Petroleum Code.

xxviii Ibid. section 91.

xxix Article 14 of the Cartagena protocol.

xxx IUCN (2004), *An Introduction to the African Convention on the Conservation of Nature and Natural Resources*. IUCN Environmental Policy and Law Paper no.56.

xxxi Bamako Convention, Preamble.

xxxii It is an International treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries. It does not, however, address the movement of radioactive waste.

xxxiii Article 2 of the Bamako convention.

xxxiv This realization was strengthened by several prominent cases. One important case, which occurred in 1987, concerned the importation into Nigeria of 18,000 barrels (2,900 m<sup>3</sup>) of hazardous waste from the Italian companies Ecomar and Jelly Wax, which had agreed to pay local farmer Sunday Nana \$100 per month for storage in the port of Koko, contained toxic waste including polychlorinated biphenyls, and their eventual shipment back to Italy led to protests closing three Italian ports.

xxxv Elena, F., (2016) *The Transboundary Movement of Hazardous Wastes: a Comparison between the Basel and Bamako Conventions*. Ph.D Thesis Tilburg University.

xxxvi Jones, W. F., (1993), "The Evolution of the Bamako Convention: An African Perspective", *Colorado Journal of International Environmental Law and Policy*, Vol. 4(2). Pp 324-342.

xxxvii Article 11 of the Basel convention

xxxviii Keminsky, H., (1992), "Assessment of the Bamako Convention on the Ban of Import into Africa and the Control of the Transboundary Movement and Management of Hazardous Waste within Africa", *Geo International Environmental Law Review* P. 77-90.

xxxix Ibid. p.77.

xl Chi A., (2004), "Understanding International Environmental Declarations: The 2003 AFLEG Declaration and Action Plan", in *Juridis Periodique, Revue de Droit et de Science Politique*. Pp.106-119.

xli Article 2 of the 1969 Vienna Convention on the Law of Treaties

xlii Mbetiji, M. M., (2012), *Participatory Forest Management: The Case of Community Forest Under Cameroonian Law*. Ph.D. Thesis, University of Dschang..

xlili United Nations Conference on the Human Environment, Stockholm, 1972.

xliv One of the major results of the Stockholm conference was the creation of the United Nations Environment Program (UNEP).

xliv Principle 7 of the Stockholm Declaration 1972.

xlvi An action plan is a detailed plan outlining actions needed to reach one or more goals. Alternatively, it can be defined as a "sequence of steps that must be taken, or activities that must be performed well, for a strategy to succeed.

xlvii Paragraph 3 of Agenda 21.

xlviii Section I is based on social and economic dimensions and is directed towards combating poverty, especially in developing countries, changing consumption patterns, promoting health, achieving a more sustainable population, and sustainable settlement in decision making. Section III is out to strengthen the role of major groups that is, the roles of children and youth, women, NNGOs, local authorities, business and industry, and workers; and strengthening the role of indigenous peoples, their communities, and farmers. Section IV is a means of implementation and includes science, technology transfer, education, international institutions, and financial mechanisms.

xliv Article 38 (a) of the Statutes of the International court of Justice

<sup>1</sup> Ibid. P.60.

<sup>li</sup> Basel Convention Wikipedia. En.m.wikipedia.org. accessed 4/03/2021.

<sup>lii</sup> Article (1a) of the Basel Convention on The Control of Transboundary Movements of Hazardous Waste and Their Elimination Of 22 March 1989.

<sup>liii</sup> Ibid article 4 (1).

<sup>liv</sup> Article 1 (4) of the 1982 united nations convention on law of the sea.

<sup>lv</sup> Ibid article 1 (a i-ii).

<sup>lvi</sup> Bhanu, K., (2010), "Liability and Compensation for Oil Pollution Damage: An Examination of IMO Conventions" *NJUS LAW REVIEW*, Pp. 401-421.

<sup>lvii</sup> Preamble of the International Convention on Civil Liability for Oil Pollution Damage 1992

<sup>lviii</sup> Ibid article 1(6a).

<sup>lix</sup> This article provides that the owner of a ship shall be entitled to limit his liability under this convention in respect of any one incident to an aggregate amount calculated as follows: (a) 4,510,000 units of account for a

ship not exceeding 5,000 units of tonnage; (b) for a ship with a tonnage in excess thereof, for each additional unit of tonnage, 631 units of account in addition to the amount mentioned in sub paragraph (a)

<sup>lx</sup> Article 5 (8) of International Convention on Civil Liability for Oil Pollution Damage 1992.

<sup>lxi</sup> Anket, S. et al., (2019), “Worldwide Pesticide Usage and its Impacts on Ecosystems”, *Springer Nature Applied Sciences Journal*. P.1-16.

<sup>lxii</sup> These substances include gases (SO<sub>x</sub>, NO<sub>x</sub>, CO, HCs, etc) particulate matter (smoke, dust, fumes, aerosols) radioactive materials and many others

<sup>lxiii</sup> Sharma, R., and Kacker S., (2004), Community Participation in Noise Control. Suzuki J., Kobayashi T., and Koga (eds). In: *Hearing Impairment*. Springer, Tokyo. P.1-94.

<sup>lxiv</sup> Ibid p.20.

<sup>lxv</sup> Bowman, D., et al, (2009), « Fire in the earth system », *Science*, 324. P. 481-484.

<sup>lxvi</sup> Langmann, B. et al (2009), « Vegetation fire emissions and their impact on air pollution and climate » *Atmospheric Environment.*, 43, Pp. 107–116.

<sup>lxvii</sup> Andrzej, B., et al. (2009), *Wildland Fires and Air Pollution*, first Edition, Amsterdam, The Netherlands.

<sup>lxviii</sup> Faller P (2016)., « Assessment of the Environment Pollution and its impact on Economic Cooperation and Integration Initiatives of the IGAD Region. » IGAD Regional Report. P. 1-54.

<sup>lxix</sup> Kouankap N., et al, (2017), « Artisanal gold mining in Batouri area, East Cameroon: Impacts on the mining population and their environment », *Journal of Geology and Mining Research* Vol. 9(1), pp. 1-8.

<sup>lxx</sup> Ibid p.1

<sup>lxxi</sup> Suh, L., (2015) Maritime Pollution Along the Atlantic Coast of Cameroon. Way forward. P.1-9.

<sup>lxxii</sup> Landrigan, et al., (2018), Report of the Lancet Commission on pollution and health, p.1-2.

<sup>lxxiii</sup> Awo E., (2019), “Effects of Environmental Pollution on Life and Its Preventions in Ghana”, *Texila International Journal of Public Health* Volume 7, Issue 1. P.1-16.

<sup>lxxiv</sup> Pimm, S. L. et al. (1995), “The Future of Biodiversity”, *Science*, Vol. 269. P.347-350.

<sup>lxxv</sup> MEA., (2005), *Ecosystems and Human Well-Being*, Island Press, Washington, DC.

<sup>lxxvi</sup> Veerabhadran, R. (2020), « Climate Change, Air Pollution, and Health: Common Sources, Similar Impacts », and Common Solutions, Wael K., Veerabhadran R. and Marcelo S. (eds.), In : *Health of People, Health of Planet and Our Responsibility : Climate Change, Air Pollution and Health*, Springer Switzerland. P. 49-62.

<sup>lxxvii</sup> Section 230 of the Penal Code.

<sup>lxxviii</sup> Ibid section 230(3).

<sup>lxxix</sup> Ibid section 229.

<sup>lxxx</sup> Zygmunt J et al., (2004), *Environnemental Law And Policy : Nature, Law, And Society* 3rd Edition, Aspen Publishers.

<sup>lxxxi</sup> Selizabeth Fisher et al, (2009), « Maturity and Methodology: Starting a Debate About Environmental Law Scholarship, 21 *Journal of Environmental Law*. Pp. 213-219.

<sup>lxxxii</sup> www.legalserviceindia.com. Accessed 12/10/2021.

<sup>lxxxiii</sup> <https://ir.lawnet.fordham.edu/flr/vol180/iss2/>. Accessed 12/7/2020.

<sup>lxxxiv</sup> Victor, E. et al., (2010), « Why Trial Courts Have Been Quick to Cool “Global Warming” Suits, » *Tennessee. Law Review*. Vol.77. Pp. 803- 848.