IJDPP
International Journal of Development and Public Policy
| e-ISSN: 2792-3991 | www.openaccessjournals.eu | Volume: 3 Issue: 9

The Legal Mechanisms for the Protection of the Cameroon Marine Ecosystem against Pollution

Ndeh Bruno Akonteh
University of Buea Faculty of Laws and Political Science, Department of English Law

Annotation: This research aimed at protecting the Cameroon marine ecosystem against pollution with a principal objective to examine how Cameroon effectively protects her Marine ecosystem. Research found that from 1973 which saw the birth of SONARA following a mass discovery of natural oil and gas in the southwest Region of Cameroon, her marine ecosystem had been suffering from serious pollution due to oil extraction and transportation at the Atlantic ocean that extend to Limbe and Douala. Still within the 1970s, many industries were created in her economic capital, most industries had been dumping their waste in river wouri which is also open to the Atlantic Ocean and this has made the Cameroon marine ecosystem to be exposed to pollution and thus calls for special attention. In addition, there is the problem of illegal and unregulated fishing which has a far reaching consequences in the marine environment. This thesis therefore seeks to investigate the problems plaguing the Cameroon marine ecosystem as well as provide possible solutions to remedy the ongoing situation. This researcher employ the qualitative research methodology and the doctrinal method. This thesis is divided in to five chapters as analyzed in the organizational layout. Research reveals that many national laws had been enacted for the proper protection of Cameroon marine ecosystem, even international treaties and conventions had been signed by Cameroon for a proper protection of her marine ecosystem yet her marine ecosystems is still unsafe from the hocks of pollution, illegal fishing and over exploitation of marine living resources. Findings reveal that some of the health challenges suffered today by the population is as a result of the consumption of the polluted marine resources. The researcher hereby recommends the Cameroon government to effectively implement the existing Laws protecting her marine ecosystem. Also, the government should follow-up the disposition of garbage by companies as well as increase the sanctions to defaults who intent to pollute and pay.

1.1 GENERAL INTRODUCTION

Cameroon is situated at the base of the Gulf of Guinea, and opens to the Atlantic Ocean in Limbe with a coastline of about 360km. Cameroon territorial boundary with Nigeria is approximately 665sq.km lying between Cross River and the Rio del Rey in the Bakassi peninsula. The boundary starts at a quarter of a mile (0.4kilometre.) North-west of boundary pillar 17 along the prolongation of the straight line joining boundary pillars 16 and 17, Cameroon territorial boundary extends into the sea 200 nautical miles according to the provisions of the Montego Bay Convention.[1] Cameroon has three sea ports (Douala, Kribi, Limbe)[2] with smaller ports in Idenau and Tiko and a river port in Garoua.[3] These are the most pronounced areas of marine found in Cameroon.

[1] United Nations Convention on the Laws of the sea (10 December 1982)
[2] For the organization and functioning of Cameroon's ports, see the following Decrees, Decree No. 99/130 of 15th June 1999 for the Douala Sea Port, Decree No. 99/132 of 15th June 1999 for the Kribi Sea Port, Decree No. 99/133 of 15th June 1999 for the Limbe Sea Port and Decree No. 99/131 of 15th June 1999 for the Garoua River Port. It should be noted here that Douala port is created on the estuary of river Wouri and

The Cameroon marine ecosystem had existed without any governing laws until the 1960s when the laws to protect the marine ecosystem was enacted. In the late seventies, when oil production commenced, transportation activities at the sea increases since the production of oil was more profitable to the state of Cameroon following a mass discovery of natural oil and gas in the southwest region of Cameroon, thus transportation activities increases and this lead to oil spillage from vessels and the dumping of waste in the marine environment. Hence, there was the need for the national law maker to legislate for an effective protection of the Cameroon marine environment in compliance with regional and international instruments.

Since the late 1960s and early 1970s especially after the Stockholm Conference on Human Environment in 1972[4], there has been increased public awareness about the environment, informed by escalating environmental decimation and concomitant warnings from scientists about their perilous consequences. Such growing environmental problems include; pollution, biodiversity loss, acid rain, natural resource decimation, global warming, desertification, conflicts, disease prevalence, species extinction, depletion of the ozone layer, ecosystem disruptions, dumping, toxic and hazardous waste, just to name a few.

All these factors posed a lot of problems not only in the marine ecosystem but also to the society at large. The protection of the marine environment then became an issue of international concern. This is because issues of environmental pollution most often go beyond the national boundaries. A good example of pollution that went beyond the national boundary was the case of Torrey Canyon oil spill case[5] and the Trail smelter and Arbitration case of 1939-1945 on the American Canadian border.

An environment shall compose of the natural environment and the marine environment. Our focus will be built on the marine environment or the marine ecosystem. Marine ecosystems or environment[6] are aquatic environments with high levels of dissolved salt. These include the open ocean, the deep-sea ocean and coastal marine ecosystem. There are two types of aquatic ecosystem. It includes fresh water ecosystem and marine ecosystems which is characterized by oceans, estuaries, on-shore ecosystems and coral reefs. However, this study is centered on the marine ecosystem and practically the researcher is making reference to the seas and oceans which occupy a greater portion of the world surface area. These areas cover about 70% of the world surface area and are link to some states, and Cameroon happens to be one of those states. The marine ecosystem had existed even before man came in to the world, and it existed without any laws governing it. Laws only came in to protect the marine environment when man started misusing the marine by being greedy and introducing toxic substances into the marine ecosystem. The marine ecosystem content is composed of: fisheries, whales, sea turtles, marine snacks, marine mammals, like the dolphins, plankton, marine birds, plants, and fisheries just to mention a few. Fisheries are the most

---

hence, referred to as an estuary port. This port is linked to the Atlantic Ocean by a canal. see also Nchunu J Sama, *Environmental law and Litigation* University of Yaounde II (*1st edition* 2020), PP.2-10

[4] The United Nations Conference for Human Environment (1972)

[5] The Torrey Canyon oil spill was one of the world's most serious oil spills. The super tanker SS Torrey Conyon ran aground on rocks off the south-west coast of the United Kingdom in 1967, spilling an estimated 25-36million gallons of crude oil on March 18, 1967. See also BBC United Nation Convention on Environmental Protection https//www.bbc.com for more titles, accessed in 2023

[6]The United Nation Convention on Environmental Protection (1992), and the Universal Declaration on Human Rights (1948).

common source of protein, and due to their importance, they have attracted man to depend on it for survival. Consequently, it has led to pollution and the over exploitation of the marine ecosystem. Man had further introduced other dangerous substances within the marine ecosystem such as: chemical fishing which has a negative impact on our health, the testing of atomic bombs or weapons of mass destruction, oil spillage from ships, etc.

1.2 STATEMENT OF THE PROBLEM

Cameroon marine ecosystem had existed before the 1960 without any governing Laws and was open for every citizen to make a living out of it without destroying the marine living resources. Research reveals that it is with the creation of the refining company (SONARA) in 1973 and the first recorded pollution case in Cameroon in 1975 (Mobil Refiner case) that the country became alert for the need to protect its marine environment. Still within the 1970s, many industries were created in the economic coastal capital of Cameroon which is Douala together with the growing urbanization of the town and other coastal towns. This situation was not accompanied by waste management strategy thus, the industries and the population had been dumping their waste into the sea creating damage to the Cameroon marine ecosystem. It is from these situations that the Cameroon marine ecosystem had been suffering from serious pollution due to oil extraction and transportation as well as the waste from household.

In addition, the researcher identifies the problem of inadequate sanction and the poor implementation of the laws levied on defaulters who pollutes the Cameroon marine ecosystem. For example, the Cameroon penal code in section 261 provided inadequate sanctions to polluters of the marine ecosystem thereby encouraging them to pollute more and pay less and in most instances, the laws are in effectively implemented. These are the problems this research seeks to address.

1.3 RESEARCH QUESTIONS

1.3.1 Main question

To what extent does Cameroon effectively protect her marine ecosystem?

1.3.2 Specific research questions

- What are the mechanisms for the protection of the Cameroon's marine ecosystem?

1.4 RESEARCH OBJECTIVES

1.4.1 Main objective

To examine how Cameroon effectively protects her Marine ecosystem.

1.4.2 Specific objectives

- To discuss the mechanisms for the protection of the Cameroon's marine ecosystem.

1.5 RESEARCH METHODOLOGY

The research methodology adopted is qualitative. Qualitative research methodology is that which focuses on obtaining data through open-ended and conversational communication. This methodology is not only about "what" people think but also "why" they think so. The qualitative research methodology allow for in-depth and further probing and questioning of respondents based on their responses, where the interviewer/researcher also tries to understand their outlook. Understanding how your audience takes decisions can help derive conclusions in market research. Qualitative research methodology are designed in a manner that helps reveal the behavior and perception of a target audience with reference to a particular topic. The qualitative research is used

because at an individual level, the supporting mechanisms identified include: subjective interest, enjoyment, curiosity, introspective interest, social comparison, therapeutic interest, material interest and economic interest.

This methodology under qualitative are numerous, but the main qualitative research methodology is doctrinal based on content analysis of both primary and secondary data. Doctrinal research method involves a rigorous systematic exposition, analysis and critical evaluation of legal rules, principles and their interrelationship. It arranges the existing law in order to provide thematic parameters for such an order.[7]The main aimed for choosing this method is because it is easier for a researcher to collect data and analyzed them, it is also concern with critical review of legislations and of decisional processes and their underlying policy[8]. This method is important because it facilitates finding of facts, and provide possible solutions which could be of great contribution in problem solving. Secondly, it gives room for a researcher to organized studies over proposition. This is so because primary source is the main source of data and secondary sources are also used such as the library, text books and internet etc.[9]. This method is relevant to our study in the sense that it makes use of library, books and internet which facilitates the collection of data for the development this write-up.

In addition to employing content analysis of primary and secondary data, several other methods of enquiry were adopted including unstructured interviews, Survey group discussions, Fieldwork, and personal observation. The researcher conducted several scheduled in-depth unstructured interviews, using prepared semi-structured but flexible question guides, with key practitioners in land based, and dumping of domestic waste management at the high sea. About ninety persons were interviewed based on a random selection in the various ports ranging from the residential areas to medium income residential areas. These people included the office of the Douala port authority, the office of the Limbe and Idenau port authority, workers of the Douala, Limbe and Idenau sea ports, the Urban Council, and the assistant ship captain of the Douala sea port and other personnel with knowledge of maritime and environmental law. The reasons for those interviewed was to get full titles on land-based pollution in the city of Douala Limbe and Idenau. The Information obtained from interviews was important to the researcher because such cannot be sourced through questionnaires and it was also an opportunity to cross check information not yet documented. Policy issues were better explained at interviews. While conducting interviews the researcher also engaged in field observations. To test the accuracy of the responses provided in the other methods of enquiry, questionnaires were printed and given to some household and workers at the sea port to share their personal views about the issue of marine pollution which they did and the result was positive.

1.6 LITERATURE REVIEW

Below are some literatures which are relevant to this study. To begin with:

Theophile Zognou,[10] the Gulf of Guinea is very rich with aquatic life stock like the fisheries which is a source of employment. Many people are engaged in fishing activities and make their living out of the fish cut and it has also contributed to the GDP of the countries around the Gulf of Guinea.

[7] Legal research methodology (Indian law institute, New Delhi 2nd, 2001) p.111. See also
P M Bakshi, *Legal Research and law reform, in S K verma and M Afzai wani*, (2nd edition, 2009) p.231
[8] Ibid.
[9] Ibid.
[10]Theophile Zognou, *La protection de l'environnement marin et côtier dans la région du golfe de guinée* (2012) p.1. It was submitted in partial fulfillment of an award in Ph.D. in the University of Limoges, France.

This is an advantage to most African countries who carry out fishing within the Gulf of Guinea to properly protect their marine environment. However, this is not the case because dangerous human activities had taken over the natural marine environment such as pollution of marine ecosystem.

In addition, there is an issue of over exploitation of the marine living resources which need proper attention because failure to properly protect the marine ecosystem may led to poverty and untold suffering. At the Gulf of Guinea, the situation remains singularly worrying. In addition to economic problems, there is rampant poverty and scarcity of fish into the high sea. This is so because most waste are being dumped along the coast for example community waste and hazardous waste are being emptied into the marine especially by the inhabitants along the coast[11]. This makes life very difficult for aquatic lives thus they are forced to move into the high sea for safety thereby bringing scarcity of fish thus leading to high prices[12]. Besides, some people end up losing their jobs as a result of pollution. It should however be recall that the Gulf of Guinea is degrading as days passed bye, the Gulf of Guinea is facing a lot of challenges when it comes to dumping of waste and if care is not taken then we risk the needs of future generation. The most dangerous damage caused to the marine ecosystem is the extinction of some important species. For instance, endangered species: the Blue whale and the Nal whale which are already threatening to extinct[13].

In addition, the author's worries were based on the insecurity at the Gulf of Guinea and requested that countries at the Gulf of Guinea take appropriated measures to secure the area. However, did not provides them with concrete solutions to re-enforce security measure that will protect the entire region. For example, joint military actions and acquired good machine to pirates the environment was not proposed in his work etc.

To Marie Ngo Nonga,[14]she laid most of her emphasis on the legal protection of the marine ecosystem. Ngo was actually worried about the degradation of the Cameroon marine ecosystem and sort to examine the laws protecting the marine environment, whether the laws are in adequate or a question of poor implementation or insufficient laws in the protection of the Cameroon marine ecosystem[15]. After her findings, she concluded that the problems plaguing the marine environment of Cameroon is not the issue of insufficiency of laws but rather the problem of implementation of legal instruments[16].

To her, insecurity is not only limited in Cameroon but the Gulf of Guinea at large since Cameroon is situated at the Gulf of Guinea. She further elaborated that threats to Maritime Security in the Gulf of Guinea need proper protection because of its geo-strategic location and resources the Gulf offers have not been fully exploited due to the existing vulnerabilities in the region. Rather than contributing to the socio-economic growth and development, these vulnerabilities have been sources of insecurity, internal civil crises and international border disputes in the region[17]. Political instability, poor socio-economic conditions, inadequate military capabilities, lack of robust legal system and cultural conflicts that have pervaded the Gulf of Guinea region since independence

[11] Ibid.
[12] Ibid.
[13]United Nations Program on Environmental program,htt//ww.imo.org. Acessed, 2023
[14] Marie Ngo Nonga, *La problematique de la protection juridique de l'environment marin et la securite maritime au Cameroon*, Yaounde 2 Soa (2014).
[15]Ibid.
[16] Marie Ngo Nonga, *La problematique de la protection juridique de l'environment marin et la securite maritime au Cameroon* (2014) p.1 PhD thesis published, Yaounde 2 Soa.
[17] Ibid.

gives room for its maritime domain to be negatively exploited. Piracy, transnational crime, environmental degradation, poaching and many other illicit activities continue to threaten the well-being of the Gulf of Guinea maritime domain by taking advantage of the weak security structure in the region[18]. There is also the fear that the Gulf of Guinea region, including its maritime domain, will be threatened in the long run by the effects of the seemingly growing international rivalry over sources of energy between Western countries and emerging Asian economies. Threats to maritime security in the Gulf of Guinea are unlawful acts perpetrated in the region most especially by western countries, consequently it has a direct negative impact on nation states within the region. Poaching piracy, transnational crimes, and environmental degradation, as well as boundary disputes, are some of the visible threats to the Gulf of Guinea maritime domain[19].

To Howard's Schiffman,[20]his emphasis was based on sustainability of the marine environment and he called for both national and international mechanisms to be put in place for the proper protection of the marine ecosystem. One of the most remarkable developments in the field of international law in the latter half of the twentieth century was the increasing concern for the status of the marine environment. Outmoded ideas that the oceans were somehow bottomless dumping grounds with limitless assimilative capacity and a ceaseless ability to surrender their resources have been replaced with a new, and more scientifically oriented, awareness of the oceans' environmental and ecological health.

The oceans are indeed focal points of this recent and growing environmental consciousness[21]. The environmental degradation of the oceans is by definition a global problem. Overfishing, vessel and land-based pollution, unsustainable and environmentally unfriendly exploitation of mineral resources, as well as the destruction of marine biodiversity are the concerns of all humanity[22]. The issues raised by marine mammal conservation are unique in the discourse. In future years, the impact of climate change on the marine environment promises to present even further challenges[23].

The various problems of marine conservation are potentially devastating to human beings. The significance of the oceans to industry, nutrition, and the sciences cannot be overstated. The oceans contribute to our food, medicines, energy, transportation, commerce, defense, and even recreation. Both the shallow coastlines and the murky depths support an intricate and interconnected web of life that is only beginning to yield its secrets. While the importance of the oceans is manifest[24], so too must the international legal order be prepared to address the inevitable conflicts and problems that arise from competing maritime interests? Indeed, the modern law of the sea and international environmental law have given rise to a proliferation of legal instruments that will help countries utilize the oceans in a responsible way. Major Developments in the International Law of Marine Environmental Conservation like all domain of international environmental law is comprised of treaties like the united nations convention on the laws of the sea (UNCLOS), beside this marine constitution there existed many international conventions that's equally protects the marine

[18] Ibid.
[19] Marie Ngo Nonga, *La problematique de la protection juridique de l'environment marin et la securite maritime au Cameroon* (2014) p.1 PhD thesis published, Yaounde 2 Soa.
[20]Howard Schiffman, *International Law and the Protection of the Marine Environment* (3rd ed, New York Foundation, 2009) p1-4
[21] The Law Regarding Protection of the Environment during Wartime (1968) section 45
[22] Ibid.
[23] Ibid.
[24] O.pcit p**,** 12.

ecosystem, there are the MARPOL, the BAMAKO, etc. which the author mentioned that protects the marine ecosystem[25].

According to Patricia B, Alan B, and Catherine R,[26] the reasons why the marine environment need to be protected from the obvious difficulty posed by the previous sections, the ethical, aesthetic, or symbolic reasons for saving the great whales or Antarctica from further exploitation are quite different from the economic and health related objectives behind pollution regulation. However, almost all justifications for international environmental protection are predominantly and in some sense anthropocentric.[27] This is true especially of the 1972 Stockholm Declaration, which focused explicitly on protecting 'the human environment', and proclaimed: Man is both creature and molder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, spiritual, moral and social growth Likewise, the 1992 Rio Declaration on Environment and Development asserts that[28] 'Human beings are at the center of concerns for sustainable development. Some advocates assert that such a right is indispensable for the enjoyment of other human rights and freedoms[29] but they usually fail to effectively protect the marine environment despite its economic, and social important[30]. A more explicit relativism characterizes most environmental measures aimed at protecting human health or safety, including those in which responsibility for the welfare of future generations is a prominent feature, such as the conventions on nuclear radiation risks or climate change

1.7 SIGNIFICANCE OF RESEARCH

Maritime actors are amongst those who will benefit from this work, this academic exercise is significant to them in that they should avoid movement under dangerous weather so as to avoid accidental pollution, and they should not use the sea as their toilets to empty their waste products. In addition, ship building companies, should locate their oil tanks in a strategic position which cannot easy hit on a bed rock so as to avoid accidental pollution[31].

Researchers are amongst those to benefit from this work,[32] it will enable them to learn more about marine pollution and it adverse effects on environment. This work will act like a stimuli to researchers when embarking on a research about the marine ecosystem, there can gather important materials from this wok to develop their concept or write-up.[33] Also this work is sending a strong message to polluters to be aware of the polluter pays principle and the sanctions that awaits them should there pollute, polluters should design a different means of disposing their waste rather than

[25] The Law Regarding Protection of the Environment during Wartime (1968) section 48.
[26] Patricia B Alain B and Catherine R, *International law and the environment* (3rd edition Oxford University press 2009) pp.23-28
[27] Patricia B, Gillespie, *International Environmental Law Policy and Ethics* (3rded Oxford university press 1997); P.42.
[28]Eckersley *Environmentalism and Political Theory* (2nd ed London, 1992); *see also*
Redgwell, Boyle and Anderson, *Human Rights Approaches to Environmental Protection* (2nd ed. Oxford university press 1996), p.42.
[29] Pathak, in Brown Weiss, *Environmental Change and International Law* (Tokyo, 1993) p.24.
[30]Patricia B Alain B and Catherine R, *International law and the environment* (3rd edition Oxford University press 2009) pp.23-28.
[31]Bhaskar kura, PhD and Raghuram Tadimall*a, "*Pollution prevention technology for shipyard*"* (university of New Orleans 2003), p.222
[32] Op.cit 11
[33] Op.cit 13

using the marine as their dumping ground, especially the household (local communities), councils and companies are the highest polluters.

This work is significant to the government for the fight against trans-boundary movement of hazardous waste[34]. As per the BAMAKO Convention, states have the obligation to protect her environment; each state party shall prevent the export of hazardous waste. Furthermore, states shall not allow or permit hazardous wastes to be exported to a state which does not have the facilities in disposing them in an environmental sound manner. In addition, states should not allow their marine environment to be polluted for some financial gains or benefit at the detriment of it citizens this is because the aftermath of marine pollution are far reaching and usually takes a long period for recovery.

The household has a fundamental role to play when it comes to the protection of the marine environment. Issues of marine pollution is not only left in the hands of the international community and states but equally needs corporation with the house hold, companies and councils this is because when it comes to land based pollution, most often, is the aforementioned that promote land-based pollution. Most land-based pollution empties its mouth in to the marine ecosystem. For example, in the coastal areas, like Limbe, most often the inhabitance of those areas doesn't construct toilets, there used the sea as their toilets a good example is seen at the wovia beach in limbe.

This work thereby calls for the household to have an effective role to play in reducing marine pollution. The councils are also called upon to effectively threat their community and hazardous waste properly before disposing them. This will go a long way to reduced land-based pollution thereby also reduced marine pollution.

1.8 MECHANISMS FOR THE PROTECTION OF THE CAMEROON MARINE ECOSYSTEM

There are several mechanisms that can be used in protecting the Cameroon marine environment. Our focus is geared towards international conventions, national laws, courts and administrative protection of the marine ecosystems shall be examined.

1.8.2 Protection through the signing and ratification of applicable international Conventions.

There are several international conventions that had been signed and ratified by Cameroon for an effective protection of her marine ecosystem. These conventions are:

1.8.2.1 The UN Convention on the Law of the Sea 1982 (Montego Bay Convention)

This Convention is often referred to as the world Constitution governing the sea. It is the most significant Convention which touches on key issues patterning to the marine ecosystem. The 1982 UNCLOS is the only treaty, which provides general obligations to prevent marine pollution at the global level. In this respect, Article 194 (1) obliges States to take all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment

[34]Bhaskar kura, PhD and Raghuram Tadimall*a,* "Pollution prevention technology for shipyard" (university of New Orleans 2003), p.222

from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities.[35]

It is apparent that marine pollution is covered by this provision. Article 194(2) further imposes a duty upon States to take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment; and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with the 1982 UNCLOS[36]. In addition, Article 194(3) (a) stipulates that measures taken pursuant to Part XII shall include, inter alia, those designed to minimize to the fullest possible extent "the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping" (emphasis added). In so providing, it is argued that the 1982 UNCLOS marks an important advance over the earlier Geneva Conventions, which covered only limited sources of marine pollution.[37] More specifically, the 1982 UNCLOS provides prescriptive and enforcement jurisdiction relating to the regulation of marine pollution.

States are also under the duty to take other measures as may be necessary to prevent, reduce and control marine pollution in accordance with Article 207 (2). UNCLOS clearly applies to both the Atlantic, Arctic and Antarctic marine areas, two major differences in application differences in application stand out in light of the presence of recognized coastal states and port states in the Arctic but not in the Antarctic. Many of the Conventions provisions focus on clarifying the right and responsibilities of costal states in the five zones of national jurisdiction, internal waters, the territorial sea, a contagious zone, the exclusive economic zone (EEZ) and a continental shelf[38]. The UNCLOS addresses issues related to the protection of the maritime environment from land-based pollution, vessel based and dumping of waste in the marine ecosystem. The Convention confirms and designates coastal state authority to create and enforce laws to control marine pollution within their national territories and EEZs, designating minimum standards for dumping regulations. The only direct reference to the Arctic is in Article 234, which establishes the right of costal states to legislate for the "prevention, reduction and control of marine pollution from vessels in ice-covered areas" in their exclusive economic Zone. Some argue that these provisions constitute a rule of customary international law. Even if this is the case, these provisions are so general that further specification would be required. In particular, there is a need to establish a specific criterion to identify harmful substances from land-based sources.

Furthermore, it should be noted that the obligation preventing pollution from land-based sources in the 1982 UNCLOS is weaker than that concerning pollution from other sources[39]. With respect to

[35]J.I.Charney, the Marine Environment and the 1982 United Nations Convention on the Law of the Sea, 28 the International Lawyer 886-887 (1994). Furthermore, the 1982 UNCLOS obliges States to provide appropriate assistance specially to developing States. See Articles 202, 203

[36] See Churchill and Lowe, The Law of the Sea (3rd edn, Manchester, 1999). With regard to fisheries, they stress the extent of the consensus arrived at on the relevant provisions and their status as customary law. See generally Burke, The New International Law of Fisheries (Oxford, 1994); Hey (ed), Developments in International Fisheries Law (The Hague, 1999); Stokke (ed), Governing High Seas Fisheries (Oxford, 2001); Lucchini and Voeckel, Le Droit de la Mer (Paris, 1996); de Yturriaga, Th e International Regime of Fisheries: From UNCLOS to the Presencial Sea (Dordrecht, 1997); Bowman, Davies and Redgwell, Lyster's International Wildlife Law (2nd edn, Cambridge, 2009), Ch 5.

[37] Birnie /A. Boyle, International Law and Environment, (2ed., Oxford 2002), 352

[38] Opcit,124

[39] Opcit 126

pollution from seabed activities subject to national jurisdiction, pollution from dumping as well as pollution from vessels, States are under the obligation to adopt laws and regulations, which shall be no less effective than international rules and standards.[40] Concerning pollution from land-based sources, however, States are required only to "take into account" internationally agreed rules etc when adopting relevant laws and regulations. Thus, States may adopt measures, which are either more or less stringent than those embodied in International Law.

1.8.2.2 The Basel convention on the control of trans-boundary movements of hazardous wastes and their disposal (1989)

The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 and it came into force in 1992[41]. It is the most comprehensive global environmental agreement on hazardous wastes and plastic wastes. The convention had 53 ratified signatories out of 181 participants. It has nearly universal membership[42]. The Convention aims to protect human health and the environment against the adverse effects resulting from the generation, trans-boundary movements and management of hazardous wastes and other wastes[43]. Cameroon signed this convention on the nine of February two thousand and one and it went into force on the ten of May two thousand and one[44].

The Basel Convention regulates the trans-boundary movements of hazardous wastes and plastic wastes and obliges its Parties to ensure that such wastes are managed and disposed of in an environmentally sound manner. The Convention covers toxic, poisonous, explosive, corrosive, flammable, eco-toxic and infectious wastes[45]. Parties also have an obligation to minimize the quantities that are transported, to treat and dispose of wastes as close as possible to their place of generation and to prevent or minimize the generation of wastes at source[46].

1.8.2.3 Convention for the prevention of pollution at sea by dumping of waste 1991 (BAMAKO Convention).

The dumping of waste at sea is another form of marine pollution whose fight was considered to be universal. It is a source dangerous pollution that affects many parts of our planet. The BAMAKO convention was held in Mali aimed at fighting waste products from the Europeans. According to this convention, no African country should accept waste from any European country in exchange for money. This is because the European sees us the Africans as their dust bean and most of their waste are being emptied into African marine ecosystem. This convention is aimed at preventing trans-boundary movement of hazardous waste as well as preserve the migratory species like the wales. The Objectives of the Convention was to control the Trans-boundary Movement of Hazardous Wastes within Africa to ban the importation of all hazardous wastes on their continent. The Convention establishes a regional regime to prohibit trade in hazardous waste, giving effect to the positions many African governments had adopted in the negotiations on the 1989 Basel

---

[39] Patricia B, Alan B Catherine R, *International law and the environment (*3ed Oxford University Press) p226
[40] A. E. Boyle "Marine Pollution under the Law of the Sea Convention", 79 AJIL 354 (1985).
[41] www.basel.int
[42] UNEP, Basel convention on the control of trans-boundary movement of hazardous waste (1989)
[43] Ibid.
[44] UNEP, Basel convention on the control of trans-boundary movement of hazardous waste (1989)
[45] Ibid.
[46] Ibid

Convention.[47] The Convention creates a framework of obligations to strictly regulate the trans-boundary movement of hazardous wastes to and within Africa. The Bamako Convention in Article 3 categorises hazardous wastes and enumerates general obligations of state parties in respect of the enforcement of a ban on hazardous waste import, and on the dumping of hazardous wastes at sea and internal waters in respect of waste generation, and the adoption of precautionary measures. States are furthermore required to establish monitoring and regulatory authorities to report and act on trans- boundary movement of hazardous wastes.

To a large extent, the 1991 Bamako Convention follows the approach taken in the 1989 Basel Convention, but departs from it in a number of important respects.[48] First and most notably, like the former 1989 Lomé Convention, the Bamako Convention prohibits trade in hazardous waste from abroad or not from the African Continent. The Bamako convention in its article 2(2) which is a response to Article 1(3) of the Basel Convention prohibits the importation of not only hazardous waste but radio-active waste into the African Continent or African Countries. Africa enacted this section in the Bamako convention because there was no provision of that nature for African countries in the Basel Convention. Secondly, the Convention bans the transportation of hazardous wastes from abroad (developed countries) into Africa but permits movement of hazardous waste between African countries only, that is, the waste produced in Africa only. But on condition that strict rule and certain conditions are respected. The Bamako Convention states in its Article 4(1) that, criminal, administrative and other appropriate measures should be taken in order to forbid the transfer or importation of hazardous waste in Africa especially from non-members. Article 3 of the Convention did not permits the trans-boundary movement of hazardous waste in Africa produced in Africa irrespective of whether they have to submit to other conditions. Thirdly, the Bamako Convention makes the importation or transfer of hazardous waste into Africa a criminal offence.[49] Any defaulter of this Convention is punished by criminal sanctions.[50] This are the most significance and relevance of the convention which is very essential to our study: the ban of trans-boundary movement of hazardous waste into African and the fight against dumping of waste and vessel based pollution.

1.8.2.4 The convention for the prevention of pollution from ships 1973. (MARPOL)

This convention has a simplified name known as “MARPOL” meaning convention for the prevention of oil from ships. The convention which was adopted as a treaty is the most ambitious ever passed in marine pollution. It introduced universal rules that are intended to enhance safety on board any vessel. It has 160 signatories and cover vessel source pollution. It applies to all ships including submarines all floating objects well as fixed platforms or mobiles but it did not include warships in its scope. The treaty covers areas such as discharge and hydrocarbon. Professor jean-marc Lavielle stated that the MARPOL convention aimed at preserving the marine environment by ensuring the elimination of international pollution by oil spilt and other harmful substances and minimizing accidental spill of substance[51]. It follows that the agreement deals with cases of accidental and intentional contamination.

[47]See UNEP, proposals and positions on the African States during the negotiations on the Basel Convention on the control of Trans-boundary Movements of Hazardous Wastes.
[48] Shearer, Op.cit. p. 140.
[49] Article 4(1)
[50]Section 4(1) states that “L’importation de tels dechets est declare illicite et possible de sanctions penales”.The importation of such wastes is illicit and possibly attracts criminal sanction .Author’s conjecture
[51]Jean-Marc Lavielle, *prevention of pollution from ships* (1978).

As far as accidental pollutions are concern, there occurred following a marine disaster such as the grounding of vessel which is the most spectaculars form of marine pollution. Such pollutions have occurred off the coast of Cameroon.[52]These include cases caused by accidents such as MOBIL refiner which occurred on December 17 1975 and petro bouscat on the 21 of June 1979 which were at the origin of a pill in the stock fuel sea. In the case of solar the MARPOL took necessary measures to avoid pollution. As far as an international pollution is concern there result from deliberate discharges of oil into the sea de-blasting operations resulting from the normal operation of vessels. It aimed at prohibiting discharges into the sea the disposal of harmful substances into the sea is only permitted in cases of emergency when lives of the vessel itself is at stake. Article 1 paragraph one of the conventions relating to intervention on the high sea in case of accident causing or capable of pollution by hydrocarbons. It states that "the parties to this agreement may take measures on the high sea to prevent mitigate or eliminate grave and eminent danger posed on their coastline or related interest from pollution of the sea by hydrocarbons following a marine casualty related to such a casualty which may in all likelihood have very serious damaging consequences''

MARPOL[53] entered into force 2 October 1983, and has been amended several times. It has been ratified by 104 Parties. There are several international conventions governing marine protection, but not all have the same stated goals. The first initiatives in the fight against marine pollution date back to the mid-20th century the development of joint international regulations on oil arose principally from public pressure following major oil tanker disasters such as the Torrey Canyon (1967), the Amoco Cadiz (1978)[54],and the Exxon Valdez (1989)[55]. Similar disasters still happen, such as the Erika (1999) or the Prestige (2002), but the MARPOL certainly helps limit their occurrence[68]. This convention is very relevant to our study because it targeted marine pollution in all its sphere and had made great contribution for the fight against dumping of waste.

1.8.2.5 The OSPAR Convention of 1992

The 1992 OSPAR Convention has as one of its central objectives the prevention and elimination of marine pollution from it sources, including accidents. It replaces the 1974 Convention for the Prevention of Marine Pollution caused through watercourses, from the coast, from man-made structures and, after the 1986 amendment of the Convention, also from emission into the atmosphere from land or from man-made structures. The OSPAR Convention incorporates all compatible recommendations and agreements adopted under the 1974 Paris Convention,[56] but

[52] It was signed in London on the 2 of November 1973 it was further completed on the 17of February 1978 by a protocol. Also, Marpol 73\78 consist of the bringing together of two treaties. It went operational on the 2 of October 1983
This convention was elaborated in London on the 12 of May1954. It has been amended three times namely on the 13 of April 1962 on the 13 of April 1969 and finally the 12 of October 1971.Also see the Marpol convection of1973 article 3(3) Ibid see also
Annex I of the Marpol 1973.

[53] Ibid.

[54]The Amoco Cadiz oil spill took place on the 16 of March 1978 when the oil tanker Amoco Cadiz, owned by American petroleum company Amoco, ran aground on portsall rocks, 2km from the coast of Brittany, France. The vessel ultimately split in three and sank. NOAA estimated to total spilt of 220,880 from 58 million gallons of oil that was emptied in the sea.

[55] The Exxon Valdez oil spill, occurred in the Prince William Sound, Alaska on March 24, 1989, Exxon Valdez owned by a US company aground with 260,000 gallons (37,000 tonnes). It should be noted that the consequences were far reaching in the marine ecosystem.

[56] Art, 31(2) of OSPAR Convention, Decision 98/1

further extends its scope. It adopts a broader definition of "land-based Sources", which refers to "point and diffuse sources on land from which substances or energy reach the maritime area by water, through the air or from the coast"[57]. Parties commit to take all possible measures.[58] Programmed and measures require the use of best available techniques for point sources and best environmental practices for point and diffuse sources, using the criteria in Appendix 2 to the Convention.

To achieve its objective, the Convention keeps list of substances of possible Concern, which includes more than 300 substances, and a list of chemicals for priority Action. On radioactive pollution, the Radioactive Substances are reduced to levels where the additional concentrations in the marine environment above historic levels, resulting from such discharges, emissions and losses, are close to zero. The Commission`s objectives to combat eutrophication were set to achieve a reduction at source, in the order of 50% to compared to 1985, in inputs of phosphorus and nitrogen into areas where these inputs are likely, directly or indirectly, to cause pollution. The OSPAR Convention lays down some other new approaches to land-based marine pollution control. It does not provide specific obligations with respect to specific categories of dangerous substances, rather it subsumes those obligations under the general obligation of Contracting Parties to prevent and eliminate land-based marine pollution[59].

1.8.2.8 Convention on Long-Range Trans-Boundary Air Pollution, Geneva 1979

The question of how one defines the term 'pollution' has been addressed in several international instruments. In a Recommendation adopted in 1974 by the Organization for Economic Co-operation and Development, pollution is broadly defined as 'the introduction by man, directly or indirectly, of substances or energy into the environment resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems, and impair or interfere with amenities and other legitimate uses of the environment'.[60] This definition was substantially reproduced in the Geneva Convention on Long-Range Trans-boundary Air Pollution, 1979[61] and in the Montreal Rules of International Law Applicable to Trans frontier Pollution adopted by the International Law Association in 1982.[62] Several points ought to be noted at this stage. First, actual damage must have been caused. Pollution likely to result as a consequence of certain activities is

[57] Art.1 (e). It includes sources associated with any deliberate disposal under the seabed made accessible from land and sources associated with man-made structures, other than for the purpose of offshore activities

[58] Annex I, Art.1 (1) and (2)

[59] Compare 1982 UNCLOS, Article 119(1) (b) which merely requires effects on associated and dependent species to be 'taken into account' when setting a total allowable catch and establishing other conservation measures.

[60] OECD DC(74)224, cited in P. Sands, *Chernobyl: Law and Communication*, Cambridge, 1988, p. 150.

[61] The major difference being the substitution of 'air' for 'environment' in view of the focus of the Convention

[62] Note that the term 'air' was replaced by 'environment'. See also article 1 of the Paris Convention for the Prevention of Marine Pollution from Land-Based Sources, 1974 and article 2 of the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, 1976. The Institute de Droit International, in a draft resolution accompanying its final report on Air Pollution Across National Frontiers, defines pollution as 'any physical, chemical or biological alteration in the composition or quality of the atmosphere which results directly or indirectly from human action or omission and produces injurious or deleterious effects across national frontiers', 62 I *Annuaire de l'Institut de Droit International*, 1987, p. 266.

not included. Secondly, the harm caused must be of a certain level of intensity, and thirdly, the question of interference with legitimate uses of the environment requires further investigation.

The core obligation in customary international law with regard to atmospheric pollution was laid down in the Trail Smelter case,``[63]which provided that no state had the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another state or to persons or property therein, where the case was of serious consequence and the injury established by clear and convincing evidence.[64]

In 1979, on the initiative of the Scandinavian countries and under the auspices of the UN Economic Commission for Europe, the Geneva Convention on Long-Range Trans-boundary Air Pollution was signed. The definition of pollution is reasonably broad,[65]while article 1(b)defines long-range trans-boundary air pollution as air pollution whose physical origin is situated wholly or in part within the area under the national jurisdiction of one state and which has adverse effects in the area under the jurisdiction of another state at such a distance that it is not generally possible to distinguish the contribution of individual emission sources or groups of sources. The obligations undertaken under the Convention, however, are modest. States 'shall endeavor to limit and, as far as possible, gradually reduce and prevent air pollution, including long-range trans-boundary air pollution'. The question of state liability for damage resulting from such pollution is not addressed. The Convention provides that states are to develop policies and strategies by means of exchanges of information and consultation and to exchange information to combat generally the discharge of air pollutants.

1.9 DOMESTIC LAWS PROTECTING THE MARINE ECOSYSTEM.

1.9.1 The Cameroon Penal Code as amended in 2016

Section 261: pollution of air and water[66]. Whoever by his operations (a) pollutes any drinkable water liable to be used by another or (b) so pollutes the atmosphere as to render it harmful to the human health, shall be punishable with imprisonment from 15 days to 6months or with fine of 5000CFAF-1000000 CFAF or with both such imprisonment and fine. This section of the law covers both water and air pollution. And it should be noted that this section also covers the marine ecosystem to anyone who poison it for his or her personal gains for example chemical fishing shall have the same punishment as mentioned above and the sanctions will be more serious than the latter if the consequences are far reaching on both human and aquatic organisms[67].

This section also handles air pollution which is another dangerous form of pollution. Air pollution can be provoked by several factors which can make the offender liable: burning of toxic chemicals, the use of evaporative substance, exposing dangerous chemicals either from the laboratory or by any means that the atmosphere can be polluted which become noxious or dangerous for human

[63] 35 AJIL, 1941, p. 716; 9 AD, p. 317.
[64] Note also the adoption in 1963 of the Treaty Banning Nuclear Weapon Tests in the Atmosphere, Outer Space and Under Water.
[65] See e.g. A. Rosencranz, 'The ECE Convention of 1979 on Long-Range Transboundary Air Pollution', 75AJIL, 1981, p. 975; L. Tollan, 'The Convention on Long-Range Transboundary Air Pollution',19 *Journal ofWorld Trade Law*, 1985, p. 615, and A. Kiss, 'La Convention sur la Pollution Atmosph´erique Transfronti`ere `a Longue Distance', *Revue Juridique de l'Environnement*, 1981, p. 30. See also P. Okowa, *State Responsibility for Transboundary Air Pollution*, Oxford, 2000. See generally www.unece.org/env/lrtap/.
[66] Law No 2016/027 of 12 July 2016.
[67] Section 261.

health by affecting his respiratory organs will have the same punishment as mentioned above. The relevance of this law is that it creates awareness to the general public about the dangers of pollution and the sanctions awaiting offenders thereby protecting the marine ecosystem and human health[68].

1.9.2 The Environmental Management Code, 1996

The Environmental Management Code of Cameroon is a law that incorporates in one piece, the fundamental environmental policies and strategies of the state. Thus, the primary purpose of such a law is to promote, guarantee and facilitate environmental management through a wide range of protective guarantees. The rationale of the August 1996 Environmental Code is clearly spelt out in the explanatory statement of the bill[69] to institute the code, for it is the first exhaustive law that makes the protection of the environment a central issue. It emerges from the Statement that Cameroon has, over the past years, been obliged to rapidly adapt its environment as a result of profound changes in the national, regional and global environment[70]. The Code has a preamble and seven parts divided into 99 Sections. The preamble contains guiding principles which aim at operationalizing government's policy to build a competitive and prosperous economy by formulating national strategies, plans or programmes for the conservation and sustainable use of environmental resources .The first part is divided into three chapters; the first deals with the definition of basic concepts such as "air", "pollution" and "environment", the second with general obligations, and the third with fundamental principles. The second part of the code is entitled "preparation, coordination and financing of environmental policies"[71]. This part is not broken down into chapters. It only discusses the preparation; co-ordination and the financing of environmental policies. Part three focuses on environmental management. It is divided into three chapters. The first chapter covers the general environmental management plan. The second chapter deals with the environmental impact assessment. The third and last chapter of this part is divided into five sections. In the first section, the protection of the atmosphere is discussed.

Section two dwells exclusively on the protection of continental waters and flood plains. While section three intimates the protection of the coast and maritime waters. Section four treats only one issue: Protection of soils and the sub-soil. The last section of this chapter focuses on the protection of human settlements Chapter four, unlike chapter three, is divided into four sections only. It is titled plants classified as dangerous, in hygienic or inconvenient and polluting activities. Section one explores only one item namely, wastes. Section two concentrates exclusively on classified establishments. Section three touches on harmful and/or dangerous chemical substances. Resonant and olfactory nuisances are discussed in section four. Chapter five is not divided into sections. It handles natural resources management and biodiversity conservation. Chapter six, like chapter five, is equally not divided into sections. It dwells only on risks and natural disasters. Part four treats only one issue that is implementation and follow-up of programmes. It has just one chapter which focuses on the participation of the populations. A fifth rather unnecessary and scanty part treats incentive measures. The sixth part tackles liability and sanctions. This part is divided into four chapters. The first chapter dwells on liability of the defaulter while chapter two focuses on the sanctions imposed on the defaulter. Chapter three focuses on establishment of infringements. The last chapter of this part dwells on compromise and arbitration. The seventh and last part deals with miscellaneous and final provisions.

[68] Ibid.
[69] Law no 96/12 of August 1996 relating to Environmental Management.
[70] Section 99,100.
[71] Ibid.

1.9.3 The Cameroon Water Law, 1998

The Cameroon parliament debated and adopted a law in 1998[72] which laid down regulations governing water resources. Under this instrument, the Minister of Water Resources and Energy is charged with the duty of ensuring that proper provision is made for the environment through the supply of water for drainage, the safe disposal of sewage, effluent and water-borne wastes, and the control and prevention of pollution[73] and also the protection of inland and estuarine fisheries, flora and fauna[74]. In Cameroon, urban water pollution is of recent origin. Cameroon is a developing state[75] and the greater majority of Cameroonians are still concentrated in the rural areas, consequently issues such as water pollution were seldom raised because people never disposed of their organic or waste matter into streams but conserve it as manure and feed for their domestic animals[76]. With a gradual spread of towns towards villages (through the establishment of industries) water pollution has become a problem to inhabitants of both the towns and villages[77].

Although, the 1998 Water Law is intended to bridge the lacunae of the 1984 Water Law and meet the exigencies of the period, it falls short of expectation. For instance, it provides that the state shall collect a drainage tax from natural persons or corporate bodies owning facilities that have been connected to public or private sewerage systems for collecting and treating waste water[78] but like the 1984 Law, it made no mention of the amount to be collected.

Positively, the 1998 Water Law has swept away most of the discrepancies or shortfalls of the 1984 Law. It is a laudable effort of the government to better manage water resources to the advantage of Cameroonians. Despite this plus, the law suffers from the latitude of administrative discretion. Like several other laws in Cameroon, issues are postponed to subsequent legislation. The malaise here again is that when the subsequent instruments are enacted (especially sectorial codes) they will, most probably, be subjected in turn to a subsequent text, implementation decrees and amendments, as a matter of administrative tradition.[79] This calls for too much administrative discretion, as the timelessness of such enabling instruments can never be anticipated with precision. Laws may remain idle for a decade awaiting implementation or enabling instruments in order to go operational.

Furthermore, the law is limited in that it does not cover all types of water. For instance, it does not regulate spring and mineral water[80]. This law does not equally regulate water that is used for

[72]Law No. 98/005 of 14 April, laying down regulations governing Water Resources in Cameroon, Decree No. 2001/164/pm dated 8th May 2001 regulating the utilization of Water Resources and Decree No. 2001/165/pm dated 8th May 2001 on the protection of Water Resources.
[73] Ibid. section 4 (1).
[74] Ibid.
[75]Assange, C.K.A (2002) "*Managing the Dynamics of the Estuarine Systems on the Douala Lagoon in Cameroo*n. In Robin, G and Jarie ways J (2002) (Eds) *INSTABILITY. Planning and Management.* Telford press London, PP 581- 588.
[76] Concertation National sur l'Environnement du 15-16 Juillet 1993 à Yaoundé. Rapport de synthèse et présentation de Résultat. Ministère de l'Environnement et des Forets.
[77] Centre de Recherche et d'Études Économique et Sondage (1994). Cadrage Macro-économique du Développement Urban au Cameroun. Rapport Final. Yaoundé p.80.
[78] Section 8 (1)
[79] See Sections 2 (2), 5, 10 (4), 13, 26 (2), 27 and 28 respectively without an enabling instrument these sections cannot be implemented.
[80] Section 13 of this law states that the harnessing of spring and mineral water shall be governed by a special law.

agriculture, livestock, and fisheries. However, it is commendable that the Water Law of 1998 unlike that of 1984 (to an extent) is a one-piece legislation. A one-piece legislation should rather reflect a well-thought out instrument covering a wide range of issues that should not be susceptible to immediate repeal or frequent modification. The 1984 Law was a transient legislation that had a programmed duration on the advent of an event until it is renewed. It is safe to say that most industries violate the provisions of the Environmental Code and the Water Law Also, Section 4(1) of the Water Law equally forbids the throwing of wastes directly or indirectly into water, whether surface or subsurface by industries. This violation is occastrated because the quantum of damages (punishment) levied against such companies is too paltry to act as a deterrence (which is one of the aims of punishment). The penalty levied for the contravention of Section 4(1) of the Water Law as ordained by Section 16(1) is that any person who pollutes water in violation of Section 4 (1) will be imprisoned for between 5 and 15 years and pay a penalty ranging from 10,000,000 to 20,000,000 million francs. Subsection (2) further provides that if the polluter is a recidivist, the punishment mentioned above will be doubled but the polluter will execute only one of the punishments.

1.9.4 The Mining Code (2016)

Mining is regulated by the Mining Code which is also a sectorial code. A sectorial code because it regulates just a sector-mining. Mining is defined by the code as: "Extraction of solid, liquid or gaseous mineral substances, irrespective of the process or method used, from the soil or the surface of the soil with a view to renewing there from useful substances; it comprises all operations directly or indirectly necessary or operations relating thereto". From the above definition it is seen that mining involves extraction of gases, liquids such as petrol or crude oil and solids such as coal, iron ore, and rocks among many others. By its very nature, mining disturbs the surface of the earth and increases the chances that sediments and other materials will pollute surface waters. Section 85 (2) of the Mining Code provides that "adopted techniques and methods must be used to protect the environment, ensure the safety of workers and the local population" but most mining companies do not respect this section. Once they have obtained their mining permit they go ahead and start mining. The reason being that the ministry of Mines turns a blind eye to their activities. Secondly, because the fine levied against such companies is often too small and can be paid with ease.

Furthermore, Section 87 of the Mining Code provides that, holders of mining and quarry titles (permits) shall be responsible for preventing or minimizing the discharge of waste in the open. The question which comes to mind is why this section is not respected. The answer is simple; because the quantum of damages imposed on the polluter (mining company) is too small to deter it from violating the law. The reason being that there is inadequate availability of strict legislation on the matter of collection of raw materials. Those that exist are hardly respected because environmental issues have not yet been fully integrated into the mores of the industrialist. In addition, the survival instinct of an impoverished population contributes to this. The population, which is not organized, tends to apply the "survival of the fittest" syndrome on the exploitation of anything of economic value in their environment. For example, individuals dig stones from the ground and sell them to construction companies without bothering about the environmental impact or the pollution resulting from it.

1.9.5 The Petroleum Code (1999)

The Petroleum Code of 1999 as amended in 2019

Chapter two of the amended petroleum code handles the protection of environment, it further provides for an effective protection of the natural environment when carrying out extraction of petroleum those carrying out the extraction should minimise environmental damage or destruction

especially when it comes to hydrocarbons.[81]The same goes with the protection of the marine environment especially if the extraction is done beside the sea or an ocean or beneath, appropriate measures must be taken to avoid marine pollution.[82] Section 83 of the same code also emphasis on dangerous substances such as radioactive elements which has devastating effects on both terrestrial and aquatic environment[83]. Example of such substances include mercury, hydrocarbons, crude oil, etc. these substances does not only destroy the natural vegetation, it also renders the soil not to be fertile. This code also provided sanctions for violator of both terrestrial and the marine environment thus protection marine ecosystem

1.9.6 The Gas code (2012)

One of the main reasons for enacting this law was for the purpose of environmental protection. This code lay down conditions for the exploitation and transportation of gas especially for dangerous gases which could have a devastating consequence when exposed[84]. The extraction of dangerous elements such as uranium, krypton and xenon etc. needs a ministerial order before the miner can be disposed of such elements. The gas code provides sanctions to defaulters with a payment of fine for up to 500,000,000 FRS and above on cases of a serious expulsion with a devastating consequence[85].

The gas code provides for an effective protection of the natural environment when carrying out gas extraction, those carrying out the extraction should minimise environmental damage or destruction especially when it comes to hydrocarbons. The same goes with the protection of the marine environment especially if the extraction is done beside the sea or an ocean or beneath, appropriate measures must be taken to avoid marine pollution. The same code also emphasis on dangerous substances such as radioactive elements which has devastating effects on both terrestrial and aquatic environment. Example of such substances include mercury, hydrocarbons, crude oil, etc. these substances does not only destroy the natural vegetation, it also renders the soil not to be fertile. This code also provided sanctions for violator of both terrestrial and the marine environment thus protection marine ecosystem[86].

It should be noted that amongst all the Cameroonians legislation protecting the environment, the gas code provided one of the heaviest fines to defaulters thereby guaranteeing an effective protection of both the terrestrial and the marine environment.

1.10 PROTECTION OF THE MARINE ECOSYSTEM THROUGH SANCTIONS BY COURTS AND ADMINISTRATIVE SANCTIONS

This section handles issues of enforcement of marine ecosystem laws. The enforcement sectors include the administrative and courts measures which often is the judicial courts which awards sanctions on its merits. The sanctions may take the form of imprisonment or the payment of damages. The administration equally awards sanctions like the withdrawal of license, suspension, ban and dissolution.

[81] Section 82 of the petroleum code.
[82] Section 83 of the petroleum code.
[83] Law no 2019/09 of 25 April 2019 amended the 1999 petroleum code.
[84] Section 61 of the gas code.
[85] Ibid.
[86] Ibid.

1.10.1 Judicial protection /sanctions

1.10.2 The court of first instance

The court of First Instance in Cameroon has jurisdiction in criminal matters to hear and determine matters including the environmental crimes committed in violation of section 261 of the penal codes to try misdemeanors or simply offences and in civil matters, to hear matters where the damages do not exceed 10,000,000FCFA. This court is competent to try simply offences punishable with imprisonment for up to ten years or with a fine of up to 25000FCFA.[87]However, when civil claims are tried jointly with a criminal action, the monetary jurisdictional limit needs not be respected. This court is competent to rule on matters concerning urgent orders such as injunctions and to entertain actions for the recovery of commercial debts through simplified procedures.[88]As such, this court is competent to hear and try offences relating to environmental degradation, for instance activities governed by the sectorial codes without licenses or titles and communication of false documents.

By a commercial order signed by an examining magistrate, by the inquiry control chamber, or by the procedure application to offences committed flagrante delicto, when the law so provides. It should be noted that unlike in the Great Britain, France, USA, who have admiralty court separate from court criminal and civil jurisdiction, Cameroon do not yet have a court with a pure admiralty jurisdiction. It is the still the court of first instance that is competent in both criminal and admiralty matters, this explain why their sanctions and damages awarded to defaulters still need to be improved this is because this court has a limit to award damages more than 10,000,000frs this justify the reasons why the high courts has jurisdiction over issues patterning to maritime pollution and awards damages up to 50,000,000frs to defaulters of the marine ecosystem thereby protecting and preserving the Cameroon marine ecosystem. The penal code stipulates that the maximum number of fines applicable to corporate bodies who violate the law and pollutes either the natural environment or the marine ecosystem shall be fine with damages five times that provided for natural persons. When a corporate body is guilty of an offence punishable with imprisonment only, the fine to be paid shall be from CFA 1000,000 (one million) to CFAF 500,000,000 (five hundred million).[89]

1.10.2 Administrative Sanctions

These are sanctions that are passed by the administration against an operator, of a classified establishment who has committed a serious environmental offence or who has a history of continues violation despite warnings from the administration. Administrative sanctions include: Suspension of permits, license or authorization, Withdrawal of permits, license or authorization, the issuance of fines to polluters, and Seizure of products. Section 25-2 of the penal code provided for some administrate sections levied on corporate bodies in cases of a default by providing some principal penalties such as, temporal suspension of its activities, suspension, ban and dissolution of company or enterprises. All these measures aimed at punishing an artificial person in case she violates the law by going contrary to the rule of it creation or mismanagement of both the natural and the marine environment.

In Cameroon, the power to suspend or withdraw a license is exercised by the Minister of Hydrocarbons under the gas and petroleum sector while under the mining sector it is exercised by

[87] As provided in section 21(1) of the penal code.
[88]Ewang S. A., (2019), Courts in Action, Lecture notes, FSJP, University of Dschang p. 9.
[89] Section 25(1) of law No 2016/007 of 12th establishing the new penal code.

the minister of mines. With regards to suspension, the Gas Code provides that, suspension shall be penalized by which the minister in charge of hydrocarbons or any other duly authorized public establishment stops the activities of the operator for a period of not more than three months by reason of offences committed in the execution of his operations or repeated breaches of the obligations provided for in this law and its application instruments. The gas code also pays attention to withdrawal as a penalty. To this effect, section 59(1) stipulates that ‘‘where an operator who has been fined or suspended pursues his activities in violation of the rules and principles laid down in this law and its application instruments, the minister in charge of hydrocarbons or any other duly authorized public establishment shall proceed to withdraw the concession, license or authorization in question’.

1.11 CONCLUSION.

Looking at the mechanisms for marine protection, an analysis of national legislation demonstrated a lack of concern to effectively guarantee the protection of the marine ecosystem, those in charge of implementing the laws of protection are not qualify or lack skills of prosecution and there are only trained with skills of investigating environmental crimes. Another problem that have caused the poor protection of the marine ecosystem in Cameroon is the fact that section 79 of the 1996 environmental code punishes defaulters or polluters of the marine ecosystem with a fine from 2million- 5million CFA and with an imprisonment from 6months to 2years and article 151 of the penal code also provided for minute sanctions for marine pollution. This is because there are defaulters who can decide to pollute the marine waters and pay as per the polluter pay principles, the damage caused may be so devastating compared to the amount to be paid as compensation. The Cameroon government lack finances to actually buy powerful engine boats which can supervise the marine ecosystem for example the government lack jet sky locally called water bikes that cover thousands of kilo meters in less than an hour. Furthermore, there is lack of awareness. Most of the magistrates and prosecutors are not aware of the existence of recent environmental legislations though the laws are already 10years owed. A majority of the lawyers show little interest in handling environmental cases thus actually remain stranger to environmental law.

In addition, the judiciary lacks independence to actually enact good laws that can protect the marine ecosystem this is because the separation of power is in principles and not in practice in Cameroon the section 32 of 1996 constitution provided that the independence of the judiciary shall be guarantee by the president of the republic and the appointment of top judicial offers is done by the president of the republic thus making the judiciary powerless to handle environmental issues. Couple with the issues of corruption and embezzlement of public fund thus the state lack finance to afford equipment’s for example the state of Cameroon lack jet sky to effectively guarantee the marine waters this does not mean that she is so poor she is suffering from corruption and embezzlement that is why she cannot affords those equipment that will effectively guarantee the marine ecosystem. This constitutes a major challenge to environmental laws in protecting the marine ecosystem.

1.12 RECOMENDATIONS

It should be noted that the recommendations of this work will be given following those whom the work could be significant to. For example, the government, house hold companies, council etc.

1.12.1 To the Cameroon government.

It was proposed that the government should implement a comprehensive law on marine pollution and the management of the coastal ecosystem should be adopted and institutions should equally be

created nationally for scientific monitoring of the marine environment across the coast of Cameroon, this will help reduce those who pollute in hiding and goes cut free. Secondly, when it comes to the domain of implementation, those in charge of supervising the marine water and holding defaulters liable for pollution should be given judicial training so as to be able to prosecute polluters, or an admiralty court should be created by the government with pure admiralty jurisdiction which can better hand matter on marine pollution.

It was also proposed that Cameroon need to increase the sanctions for marine pollution. The compensation for pollution is too small to cover civil liability for example the penal code in section 261 provided very limited sanctions to defaulters this is because polluters sees this sanction to be too minimal thus, they can take advantage of the weak sanctions to pollute more and pay less. Furthermore, strategic research that are directed towards improved environmental management techniques should be encouraged by the government by providing funds to universities and research institutions engaging in this endeavor it will promote research which will contribute to solve the problem of know how. In addition, the government should always inform the public on matters concerning environmental pollution as well as sensitized the population on how to manage their community waste or household waste. This can be realized through TV and radio programs or the organization of conferences in the universities etc.

Also, the government should establish a more collaborative forum with different stakeholders like business men, environmental and labour groups as a means to arrest maritime polluters along the Atlantic coast in Cameroon. It is easier to fight marine pollution collectively rather than fighting as an individual. This is because individuals who settle beside the Atlantic Ocean can easily sport out polluters and inform the government immediately for a legal action to be taken.

Pertaining to plastic waste or solid waste, the government can reuse certain plastic containers for more than one purpose. If one reuse plastics for other purposes, it will help reduced waste in the society. For example, using plastic container to serve important goods as well as processing the containers to produced mold and robber plastics like chairs, and robber tice.

Another means of reducing solid waste is by composting is a biological process in which micro-organisms like fungi and bacteria, converted degradable organic waste into humus like substance vermicomposting has become very popular in the last few years. In this method, worms are added to the compost and it helps to break the waste. Preferably the pit should be lined with granite or brick to prevent nitrate pollution of the subsoil water, which is known to be highly toxic. Each time an organic matter is added to the pit it should be covered with a layer of dried leaves or a thin layer of soil that allows air to enter the pit thereby preventing bad odor. At the end of 45 days, the rich pure organic matter is ready to be used.

In addition, regional Marine Merchant Code of 2012 appears only in the French language. This is contrary to the provisions of Cameroon's constitution which require all laws in the country to be in both French and English. We hereby recommend that this code be translated into English to enable its proper implementation throughout the country. The English version of the text will not only be helpful to the Cameroonian judge of the English language expression but also to maritime legal practitioners, researchers as well as to carriers and shippers who are more comfortable with the English than the French language.

In a nutshell, the government should create a supervisory committee in the domain of maritime fishing and supervision of the marine ecosystem. Most fishing industries and companies does not respect the terms and conditions that were giving to them by the government before they went into operation. As such, government has both ordinary and special measures to call the maritime

operators into order. Ordinarily, the government has the following remedies: issue a warning letter to defaulters of marine ecosystem, seizure of their machines, and equipment's and sale of the seized property if they fail to comply or abide by the rules given to them by the state. When it comes to special measures, the government may freeze the account of a defaulter, ban from executing public contracts, temporal suspension and closure of establishment.

1.12.2. To the household

This work hereby calls for the household to have an effective role to play in reducing marine pollution by constructing good pit toilets so as to avoid defecation at the seashores which has become their natural toilets. I also recommend the household to take necessary measures to separate their household waste (community waste) from hazardous waste, as well as separate household waste from plastic waste solid waste and none solid and biodegradable and none biodegradable waste so as to ease the work of the councils and the government in the reduction of land based pollution and dumping of waste.

1.12.3. To policy makers

Policy makers are those who create ideas and plans. Example includes business men, government personnel's, city mayors, and corporation's board of directors. The minister of environment and city mayors are the most recommended policy makers who may benefit from this work by implementing the following:

The city mayors should introduced a new system of collection of waste by introducing several trash cans with separate labels to collect solid and none biodegradable waste separately from solid biodegradable waste which can easily be decompose and treated and finally plastic waste like the 1litre or 1.5litre should be collected in a separate trash can because it can be process and reuse by plastic processing companies. We hope that if these recommendations are taken into serious consideration at the various levels, the fight for a safe marine ecosystem will be won and the principles of sustainable development and intergenerational equity will be met tremendously.

BIBLIOGRAPHY

BOOKS

1. Aketturtis**:** Amodern, *Introduction to international law,* 7th revised edition, Peter Malanczuk (1999).
2. Bederman, David D**:** *International law frame work,* New York foundation press at 15-16 (2000).
3. Bimic P, and Boyle A, *International law and environment,* 2nd edition, Oxford University Press (2002).
4. Borros james and Bouglasm. johnson: *The international law of pollution,* the free press Macmillan publishes co. (1974)
5. Clark A.B**:** Marine pollution 5th edition, Oxford university press, Great Claredon Street, (2001)
6. Clark AR. B *Marine pollution,* 5th edition Oxford University press (2002).
7. Clark AR. B, *marine pollution,* 5th edition Oxford University press (2009)
8. Comtois and Claude and Brian slack, *the changes imposed by the need of sustainable developments are a reality,* 2nd edition, new press release (1972)

9. Delia Paul, *International law frame work*, 2nd ed, New York foundation press, (2000)

ARTICLES

10. Alexandra Von Ziegler,'The Liability of the Contracting Carrier',Texas International Law Journal, Vol. 44, (2010),pp25-65
11. Belgore MB "jurisdiction with references to forum convenience and concept of the sea worthiness, judicial lecture continuing education for the judiciary" MIJ publisher ltd, (1991),pp45-78
12. Bhaskar kura, and Raghuram Tadimalla, "pollution prevention technology for shipyard" international conference for shipyards pollution proceedings, university of New Orleans (2003),pp79-102
13. Boleslaw Adam Boczek, "Global and Regional Approaches to the Protection and Preservation of the Marine Environment", Western Reserve Journal of International Law, Volume 16 (1984),pp14,16-70
14. Chebou, P,"La Pollution Du Milieu Marin Par Les Rejets Volontaires de Substances Dangereuse et le Droit International" Doctorat d'Etat ; Aix-Marseille III- France (1998).pp5,10-24
15. Christ mah, 'Deep-sea octocorals: An ecosystem of their own" New press release (2017).pp220,222-345
16. Ero C., "The Gulf of Guinea, Military and Non-Military Ways of Combating Piracy", Baltic Security and Defence, Vol 14, Issue 1. (2012).pp5,6,7-90
17. Gray, J.S. 'Biodiversity and Conservation' Kluwer Academic Publisher, ISSN No. 0960-3115. (1997).pp10,11-50
18. Hengue "Approach and corporation strategies for the surveillance and monitoring of coastal and marine areas against pollution by oil" New press release (2007). pp45-78
19. Henry shue, "the triple pronged theory on basic rights*" Biannual journalon*

THESES

20. Ahmad Hussam Kassem: The Legal Aspects of Seaworthiness: Current Law and Development. Unpublished Ph.D. Thesis, Swansea University, London, 2006.
21. Ama-Ambo Chefor: Sea Piracy and its Effects on International Trade: A study of the situation in the Gulf of Aden and the Gulf of Guinea. An LL.M thesis published, University of Dschang, 2014
22. Howard Schiffman: International Law and the Protection of the Marine Environment. PhD thesis published, New York Foundation, 2009\
23. James Shephard, Les Origines des Rôles d'Oléron, University of Poitier France, 1983.
24. Mahafzah, Achieving Uniform Interpretations of Uniform Rules: ph.D. Thesis published University of Dschang, 2002
25. Marie Ngo Nonga: La problematique de la protection juridique de l'environment marin et la securite maritime au Cameroon. PhD thesis published, Yaounde 2 Soa. 2014.

INTERNET SITES

26. Elgar online https://www.aquariumofpacific.org. Accessed on 2/03/2023.
27. Bryan .A Gardner, http, //www.merriam-webster.com/dictionary/maritime. Accessed on 19/05/19.
28. Bryan .A Gardner http, //www.thefreedictionary.com/transportation. Accessed on, 19/01/2023.
29. Stephen Garvin, Htt://www.marineinsight.com, it accessible on you tube. Accessed on, 14/6/2022.
30. FSC, www.fsc.org, 22/12/2022.
31. Leaf Group Ltd, https//www.natioalgeographic.org, 20/06/2022.
32. Talor and Francis, htts//www.ncbi.nlm.nih.gov. Accessed, 21/3/2023.
33. PNAS, htt//eco- intelligent.com. 21/3/2023.
34. Lynam,htt://journals.plos.org. 21/3/2022.
35. Besjournals.onlinelibrary.wily.com. 20/06/2022.