



RESCUING THE OCEANS AROUND AFRICA FROM ENVIRONMENTAL
RUINATION CAUSED BY PLASTIC POLLUTION:
AN APPRAISAL OF THE LEGAL REGIME

OKONKWO, Theodore (PhD)

Department of Public Law, Faculty of Law,
University of Port-Harcourt, Port-Harcourt, Nigeria,

ABSTRACT

Plastic pollution in the oceans around Africa is the focus of this article. Piles of pollution and waste are daily washed up on the shore of Africa's oceans, constituting environmental ruination. The precise volume of plastic waste permeating the oceans around Africa is not certain. What is evident, nevertheless, is that the swift growth of industrialization in Africa, combined with poorness, has increased waste buildup in the continent that has eclipsed efforts to contain them. Global institutions are currently worried that Africa is likely to get polluted as South East Asia which dump more plastic into the oceans than the rest of the world combined. This article examines how serious the African problems are, where they are and how to address them through the legal regime governance.

Keywords: Plastic, Pollution, Oceans, Legal Regime; Waste; Environment; Africa; Environmental Ruination

1. INTRODUCTION

Pollution of all nature present a significant global snag causing far-reaching menace to mankind, wildlife, fauna, flora, environment and habitat. It has been stated "that pollution causes 40 per cent of premature human deaths globally, costs \$13.8 trillion annually and is influencing climate on the planet."¹ A Report estimated "that 275 million metric tons (MT) of plastic waste was generated in 192 coastal countries in 2010, with 4.8 to 12.7 million MT entering the ocean".² If this bent persists tonnage of the plastic "will by 2050 be 700 million tons and outstrip the total weight of fish in the sea."³ With this development it becomes a matter of urgency for African countries to address plastic pollution at a regional level and to make efforts to partner with the international comity of

¹ The Sustainable Seas Trust (SST) in SApeople, 'Plastic Pollution Comes Under the Spotlight in South Africa' (2016). *SA Peoples News* available at <http://www.sapeople.com> (visited May 25, 2017).

² JR, Jambeck, R Geyer, C Wilcox, TR Sieglar, M Perryman, A Andrady, R Narayan and KL Law, 'Report: Plastic Waste Inputs from land into the Ocean' (2015). *Science* Vol. 347, Issue 6223, pp. 768-771.

³ SApeople, *ibid*.

nations “to solving a global crisis”. African countries have recently witnessed an upsurge in the volumes of plastic and medical waste that litter the shores of the oceans around the continent. Beaches have thus become unsafe for tourists. Plastic waste takes “millions of years to disintegrate in the ocean” and whilst it continues it causes adverse environmental ruination to humans and the ecosystems. It is therefore necessary that governments, civil society organizations, corporate institutions and individuals join together to help Africa contain the plague of plastic pollution in the oceans around the continent in order to ensure that the future generations of children yet unborn “have a better tomorrow”. The African countries should take action to prohibit packaging that causes adverse effects on the environment. The plastic packaged products if they cannot be totally prohibited, must be strictly regulated with stiffer penalties imposed on defaulters. Unless plastic waste management practices are bettered, the shift of plastic to the oceans around Africa are likely to snowball by immensity in the coming decades, as “millions of plastic water bottles, cups, straws and single use plastic bags” continue to “pose biggest threat to oceans”.⁴ According to Earl, oceans are now clogged with plastics, especially discarded fishing gear and single use plastics”.⁵ Ocean Conservancy⁶ has reported that plastic pollution is threatening the oceans by “accumulating high concentrations of plastics”.

According to Reports,⁷ “the world is producing 20 times more plastics than 40 years ago... each year more than 8 million tones of plastic end up in the oceans wrecking havoc on marine wildlife, fisheries and tourism and marine ecosystems”. This report is very true and sadly enough most of these plastic wastes float through the Atlantic ocean into the oceans around Africa and are deposited on the sea shores. African countries lack the innovation or technology to handle plastic pollution and they therefore remain there unabated because they are non-degradable. This situation has made the United States Environmental Protection Agency to comment that “every bit of plastic ever made still exists”.⁸ This refers to the nature of plastic that they are not subject to or capable of degradation or decomposition, thus, once it reaches the oceans, it leaches chemicals, most of which are hazardous and harmful. The United Nations Environmental Programme (UNEP)⁹ Report has warned that “upto 80% of all litter in our oceans is made of plastic. At the rate at which we are dumping items such as plastic bottles, bags, cups and straws after a single use, by 2050 we will have more plastics in the ocean than fish”.¹⁰ The Report detailed the aftermath of marine plastic pollution and addresses potential solutions to tackle this global problem for humanity.”

African countries need to adopt measures to prohibit and or tax heavily single-use polythene bags, “eliminate micro plastics from personal care products and otherwise dramatically reduce the use of disposable plastic”. In response to the environmental ruination caused by plastic pollution, some African countries have either prohibited or proposed the prohibition of polythene bags.¹¹ Earl has posed the question: “Are our oceans

⁴ Z Musau, ‘Plastic Pose Biggest Threat to Oceans’ (2017). *Africa Renewal* available at <http://www.un.org/africarenewal/magazine/mayjuly2017> (visited, May 25, 2017).

⁵ Sylvia Earl, a renowned American Oceanographer who has studied the sea extensively for more than 60 years, and logged more than 7,000 hours researching and filming marine life since her first dive at age 16, cited in *Africa Renewal*.

⁶ Ocean Conservancy, ‘Plastic Pollution is Threatening the Arctic’ (2017) Blog: Ocean Currents available at <https://www.oceansconservancy.org> (visited May 25, 2017).

⁷ *Africa Renewal*, *ibid*.

⁸ Cited in *Africa Renewal*, *ibid*.

⁹ The United Nations Agency mandated to protect the environment.

¹⁰ UNEP, *Marine Plastic Debris and Microplastics – Global Lessons and Research to Inspire Action and Guide Policy Change* (2016). United Nations Environment Programme (UNEP). DEP/2010/NA.

¹¹ Cameroon, Ethiopia, The Gambia, Guinea-Bissau, Malawi, Mali, Mauritania, Rwanda, Sierra Leone, Tanzania, Uganda and Kenya, have either adopted or proposed bans on polythene bags. Early 2017, Kenya banned the manufacture and import of all plastic bags. According to UNEP,

dead?” to which she answered: “I would say they are not dead yet, but they are in deep trouble. Plastic marine litter knows no boundaries and can wash up on any shores, including those of un-inhabited Islands. It is a global problem requiring a global action.”¹²

This Article examines the issues involved. In Part 2, it briefly describes the conceptual definitions: global goal for oceans; ocean pollution; what is plastic? and plastic pollution. Part 3 takes a look at environmental ruination caused by plastic pollution in oceans around Africa. Part 4 examines African Union response to plastic pollution in the oceans. Part 5 purviews the role of UNEP in addressing plastic pollution. Part 6 takes a look at the legal regime governing ocean pollution globally, regionally and nationally. Part 7 is the conclusion.

2. CONCEPTUAL DEFINITIONS

In this part, this article briefly describes some theoretical concepts that are relevant to the topic under discussion. For a clearer appreciation and understanding of this topic, it is necessary to take a look at these conceptual terms which “assume both knowledge and acceptance” of the topic.

2.1 Global goal for Oceans

On September 25th 2015, countries adopted a set of 17 sustainable development goals “to end poverty, protect the planet, and ensure prosperity for all”.¹³ Each goal has specific targets to be achieved over the next 15 years. Sustainable Development Goal 14 articulates the need to “conserve and sustainably use the oceans, seas and marine resources for sustainable development.”¹⁴ Goal 14 recalls that:

Pollution of both land and seas is a threat in many coastal regions. In addition, since river basins, marine ecosystems and the atmosphere are all part of hydrological systems, the effects of such pollution are often felt far from their source. In many coastal communities, pollution and eutrophication, which is the presence of excessive nutrients in water, frequently owing to runoff from the land, causing dense plant growth and the death of animal life, are driving detrimental changes...¹⁵

For this goal to be achieved, African countries must partner together: governments, private institutions, civil society organizations, individuals and religious groups. All must get involved to work towards a sustainable pollution free oceans.

about 100 million plastic bags are handed out every year in Kenya by supermarkets alone. These plastics debris pose danger to birds, fish and other animals that mistake them for food, damage agricultural land, pollute tourist sites and provide breeding grounds for the mosquitoes that carry malaria and dengue fever.

¹² Sylvia Earl, *ibid*.

¹³ *Sustainable Development Goals: 17 Goals to Transform Our World* available at United Nations Homepage - Sustainable Development Knowledge Platform <https://www.un.org> (visited May 25, 2017).

¹⁴ *Ibid*. Goal 14 will be reviewed in-depth at the High – Level Political Forum, United Nations Central Platform for Follow Up and Review of 2030 Agenda for Sustainable Development Goals, 10-19 July 2017, New York.

¹⁵ Report of the Secretary-General, ‘Progress Towards The Sustainable Development Goals – Progress of Goal 14’, E/2016/75, Division for Sustainable Development, UN-DESA.

2.2 Ocean Pollution

Ocean pollution takes place when hazardous and toxic chemicals, substances, particles, wastes from industrial, agricultural, domestic and social activities that comes from land due to human activities are deposited into the oceans. This includes plastic wastes. These human activities have significantly adversely affected the marine life on the oceans. Ocean pollution therefore, “is the spreading of harmful substances such as oil, plastic, industrial and agricultural waste and chemical particles into the ocean”.¹⁶

2.3 What is Plastic?

Plastic is a synthetic material made from a wide range of organic polymers such as polyethylene, PVC, nylon that can be molded into shape while soft and then set into a rigid or slightly elastic form. At high temperatures they become malleable, moldable, pliable or bendy. The term “plastic” is derived from the Greek word “plastikos”, which means “fit for moulding”, and “plastos”, which means “moulded”. Two types of plastic materials are recognized: thermoplastics and thermosetting” plastics. Thermoplastics are usually heated to produce products which are further re-heated to soften and melt again.¹⁷ On the other hand, thermoset plastics can be melted and formed, but once they take shape after they have solidified, they stay solid and, unlike thermoplastics cannot be remelted.¹⁸

2.4 What is Plastic Pollution?

“Plastic pollution involves the accumulation of plastic products in the environment that adversely affects wildlife, wildlife habitat, or humans. Plastics that act as pollutants are categorized into micro-, meso-, or macrodebris, based on size... Plastic pollution can unfavourably affect lands, waterways and oceans.”¹⁹ Plastic waste is polluting the human environment as they get deposited into the oceans constituting organic pollutants. These are transported by ocean currents and wind, they float as debris in the oceans and land on the shores, thus polluting the human food chain. Robin Mckie has written that “plastic now pollutes every corner of earth”,²⁰ from supermarket bags, to CDs, man-made waste has contaminated the entire globe, and become a marker of a new geological epoch.”²¹ The crucial point this article is making is that plastic pollution is already on the oceans around Africa and has significantly affected the continent’s environment adversely.

3. ENVIRONMENTAL RUINATION CAUSED BY PLASTIC POLLUTION IN OCEANS AROUND AFRICA

Eriksen, Labreton, Carson, Thiel, Moore, Borerro, Galgani, Ryan and Resisser in their work²² stated that “Plastic pollution is ubiquitous throughout the marine

¹⁶ ‘Causes and Effects of Ocean Pollution’ – *Conserve Energy Future*, <http://www.conserve-energy-future.com>.

¹⁷ ‘What is Plastic?’ *Plastics Europe: Association of Plastics Manufacturers*, available at <http://www.plastics-europe.org> (visited may 25, 2017).

¹⁸ Ibid.

¹⁹ Wikipedia, ‘Plastic Pollution’ available at <https://www.en.m.wikipedia.org> (visited May 25, 2017).

²⁰ R Mckie, ‘Plastic Now Pollutes Every Corner of Earth’ (2016). *The Guardian* available at <https://www.the-guardian.com> (visited May 25, 2017).

²¹ R Mckie, *ibid*.

²² M Eriksen, LCM Labreton, HS Carson, M Thiel, CJ Moore, JC Borerro, F Galgani, PG Ryan and J Resisser, ‘Plastic Pollution in the World’s Oceans: More Than 5 Trillion Plastic Pieces

environment... [and] is globally distributed across all oceans due to its properties of buoyancy and durability and the sorption of toxicants to plastic while travelling through the environment...²³ [and] should be regarded as hazardous waste".²⁴ Plastic pollution travels 'throughout the world's oceans by the prevailing winds and surface currents.'²⁵ This is true of Africa's oceans where maritime transport and marine activities have resulted in enormous accumulation of plastic waste. Eriksen et al, captured the situation when they argued that "plastic pollution is moved more easily between oceanic gyres and between hemisphere than previously assumed".²⁶ This has led to the movement of plastic wastes through maritime transportation en route oceanic currents. These plastic wastes constitute emission of harmful substances that pollute the oceans. According to the ocean researcher Marcus Eriksen, "altogether, the plastic waste in our oceans are as much as 268,000 tons, which is equivalent to 38,000 African Elephants".²⁷

This article argues that most of the plastic pollution in Africa's oceans comes from land-based sources and the rest from maritime activities such as on-going vessels. Junk plastic are carried from waste dumps, landfills, vehicles, domestic activities and social events in the rivers and streams, which then deposit them into the ocean. The plastic debris are also discarded on the shores and beaches and ends up in the water. The oceans around Africa are currently awash with plastic pollution. According to Stephane Meintjes, "International organizations now fear that Africa may soon become as badly polluted as South-East Asia, which has the foulest record on the planet".²⁸ Meintjes also argued that the amount of debris entering the sea of African countries is not known. Plastic pollution is very evident on Africa's coasts in the form of plastic waste and litters that line the beaches. Production and consumption of plastic products in Africa have peaked over the years creating environmental challenges. By their very nature, "Plastic is versatile, lightweight, flexible, moisture resistant, strong, and relatively inexpensive".²⁹ As a result, plastic bags constitute environmental hazards which are very ruinous to the oceans. There have been calls to ban plastic bags because of their ruinous and deleterious effects on the environment,³⁰ though some apologetics have equally maintained that due to their daily usefulness, they should not be banned.

The fact however remains that they cause damage to the environment and must be regulated. The tragedy is that African countries lack the financial wherewithal and technology to manage the effects of plastic bags on the oceans around the continent. There is no disposal method that can solve the problem. Re-use and re-cycle have been touted as methods, but they have short-comings. After the re-use and re-cycle what happens next? The answer is that these plastics can no longer withstand further usages, thus they end up as debris in the environment, as trash which are carried away into the oceans and definitely constitute a problem. Managing the plastic is not easy, because wind and rain water eventually carry them away as litter into the oceans. They are not biodegradable thus, when

Weighing Over 250,000 Tons Afloat at Sea' (2014). *Plus One* 9912): e111913, available at <https://www.doi.org/10.1371/journal.pone.0111913>. (visited May 26, 2017).

²³ See, E Teuten, S Rowland, T Galloway, R Thompson, 'Potential for Plastics to Transport Hydrophobic Contaminants' (2007). *Environ Sci Technol* 41: 7759-7764.

²⁴ C Rochman, M Browne, B Halpern, B Hentschel, E Hoh, et al 'Classify Plastic Waste as Hazardous' (2013). *Nature* 494:169-171.

²⁵ M Eriksen, et al, *ibid*.

²⁶ L Lebreton, S Geer and J Borrero, 'Numerical Modeling of Floating Debris in the World's Oceans' (2012). *Mar Poll Bull* 64: 653-661.

²⁷ A Gray, 'Plastic Pollution: Which Two Oceans Contain the Most?' (2016). *World Economic Forum: Global Agenda, Oceans*, citing Marcus Erikson.

²⁸ Sustainable Seas Trust, *ibid*

²⁹ CLG Lytle, 'When the Mermaids Cry: The Great Plastic Tide' (2017). *Coastal Care* available at <https://www.plastic-pollution.org> (visited on May 26, 2017).

³⁰ Cameroon, Ethiopia, The Gambia, Guinea-Bissau, Malawi, Mali, Mauritania, Rwanda, Sierra Leone, Tanzania, Uganda and Kenya have either adopted or proposed bans on polythene bags.

deposited in the oceans, they stay for long period of time. A plastic debris that is carried by high winds or rainwater do not just disappear, they are spread and deposited into the oceans.

Writing on the effects of plastic bags on the environment, it has been stated that “One of the greatest problems is that an estimated 300million plastic bags end up in the Atlantic ocean alone. These bags are very dangerous for sea life, especially those of the mammal variety... Needless deaths from plastic bags are increasing every year”.³¹ The end result is that the environmental balance of the oceans “is being thrown off by the rate of plastic bags finding their way into the mouths and intestinal tracts of sea mammals. As one species begins to die off at an abnormal rate, every other living organism in the waterway is impacted”.³²

The point being made here is that plastic waste are travelling substances, “From the Arctic to the Antarctic [and the African oceans], the ocean is full of plastic”. The most recent United Nations Environment Programme (UNEP) Report has it that 60 to 90 percent of all marine debris is made up of different plastic polymers, of which plastic bags, food and beverage containers, fishing gear and cigarette butts constitute the most common.³³ Plastic pollution therefore, poses great and most times irreversible ecological impacts on the marine life as seabirds, countless whales, dolphins and turtles are endangered by the floating debris of discarded plastic waste. These marine creatures swallow and get entangled in the plastic waste. Organisms that live in the oceans “at every tropic level, living both on the seabed and in the water columns, are also affected.”³⁴ According to UNEP³⁵ and Newman, et al,³⁶ plastic pollution equally present economic and social costs³⁷ and a threat to human health.³⁸ UNEP and Newman et al have written that:

Marine plastic debris and microplastics have substantial negative effects on marine ecosystems. This in turn affects ecosystem services, the economic activities relying on those services for revenue generation, sustainable livelihoods and citizens. The full extent of the impact of plastic pollution on marine ecosystems is still unknown and therefore, the economic and social costs are difficult to fully assess. Knowledge is however fundamental to the development of effective and efficient methods for reducing potential impacts.³⁹

There is abundance proof that toxic chemicals from plastic waste not only pollute the oceans but is a threat to human health and the environment. These chemicals from the plastic waste make their way into the food chain thereby endangering human lives. According to Reports, “anthropogenic marine debris [plastic] has been observed throughout the ocean, from beaches and shallow coral reefs to the deep sea. Plastic particles have been found in hundreds of species of marine organisms, including many

³¹ Enviro Editor, ‘The Effects of Plastic Bags on The Environment’ (2013). *Environments* available at <https://www.environment.co.za> (visited May 27, 2017).

³² Ibid.

³³ UNEP and GRID-Avendal, *Marine Litter Vital Graphics* (2016). United Nations Environment Programme and GRID-Avendal. Nairobi and Avendal. Available at <https://www.unop.org> and www.grida.no (visited May 27, 2017)

³⁴ Ibid at p.14.

³⁵ Ibid.

³⁶ S Newman, E Watkins, A Farmer, P ten Brink and JP Schweitzer, ‘The Economics of Marine Litter’ (2015) *Marine Anthropogenic Litter* at pp.367 – 394 (Springer)

³⁷ UNEP at pp18 – 19

³⁸ UNEP at pp. 20 – 21

³⁹ UNEP, (2016), Newman et al., (2015), *ibid.*

species of fish and shellfish sold for human consumption...⁴⁰ Commenting on marine [plastic] pollution and health in South Africa, Brown acknowledge that “although the RSA does not have a serious marine [plastic] pollution problem, rapid population growth and increasing industrialization make it imperative to assess the pollution status of coastal waters and to plan for future developments.”⁴¹ Brown is very correct in his statement, because all pollution not only in Africa but on earth “ends up in the sea” and they contain hazardous substances which impact negatively on the “biota and on human health.” Brown states that “many of these substances are accumulated by marine organisms and become ever more concentrated along the food chain; where man is at the top of the chain, he thus runs the greatest risk of all.”⁴² Large volumes of plastic waste drift from Europe and Asia into the oceans around Africa and the continent lacks the means of managing them. The need remains for proactive anti-plastic pollution legislation, greater partnership and cooperation among African countries in order to tackle the problem.

4. AFRICAN UNION RESPONSE TO PLASTIC POLLUTION IN THE OCEANS

There is no direct response by the African Union on plastic pollution in the oceans around Africa. However, the second African Union Conference of Ministers Responsible for Maritime Transport⁴³ in its Resolution ⁴⁴ recognized “the role of African Union Commission to coordinate and provide mandate to set up a common policy aimed at preventing and combating marine pollution from the ships and other sources of pollution”. This article argues that “marine pollution from the ships and other sources of pollution” includes plastic pollution in the oceans.

The 2050 Africa’s Integrated Maritime Strategy (2050 AIM Strategy) consists of “the over-arching vision” “to foster increased wealth creation from Africa’s oceans and seas by developing a sustainable thriving blue economy in a secure and environmentally sustainable manner”.⁴⁵ While stressing the security and economic core of the 2050 AIM Strategy, the African Union acknowledged the importance of Africa’s oceans:

The Strategy aims to foster more wealth creation from Africa’s oceans, seas and inland water ways by developing a thriving maritime economy and realizing the full potential of sea-based activities in an environmentally sustainable manner. It goes without saying that the preservation of Africa’s marine environment is vital to growing its GDP, share of global and regional trade, competitiveness, long-term growth and employment.⁴⁶

One of the overall goals of the 2050 AIM Strategy also captured the need of “a comprehensive, concerted, coherent and coordinated approach that improves maritime conditions with respect to environmental and socio-economic development as well as the

⁴⁰ CM Rochman , A Tahir, SL Williams, DV Baxa, R Lam, JT Miller, FC The, S W Rvovilangi and SJ The, Anthropogenic Debris in Seafood: Plastic Debris and Fibers From Textiles in Fish and Bivalves Sold for Human Consumption (2015). *Scientific Reports*, S.

⁴¹ AC Brown ‘Marine Pollution and Health in South Africa’ (1987) *SAFX Mad J* 71 (4), at 244 – 8

⁴² Ibid.

⁴³ 12 – 16 October 2009, Durban, South Africa.

⁴⁴ Durban Resolution on Maritime Safety, Maritime Security and Protection of the Marine Environment in Africa, AU/MT/MIN/DRAFT/RES. (II).

⁴⁵ 2050 Africa’s Integrated Maritime Strategy (2050 AIM STRATEGY) available at <https://www.au.int/maritime> (visited May 27, 2017)

⁴⁶ Ibid.

U Engel, The African Union, the African Peace and Security Architecture and Maritime Security’ (2014). *African Security*, volume 7, Issue 3

capacity to generate wealth from sustainable governance of Africa's seas and oceans." Ulf Engel had written that "the content of African maritime security as an emerging policy field" includes "environmental concerns". This "environmental concerns", this article argues includes plastic pollution in "governance of resources and maritime activities for sustainable development in Africa."⁴⁷ As UNECA has stated:

It is also clear that the effects of poor [plastic pollution] environmental management are heavily exacerbated by the impact of climate change: an increase in extreme weather events which provoke maritime accidents, sea-level rise, coastal erosion, saline water intrusion, ocean warming and acidification, coral bleaching, spread of invasive or predatory species endangering the health of marine and coastal ecosystems, and other such processes.⁴⁸

With plastic pollution on the increase globally, Africa's oceans "are receiving a proportional increase in plastic waste". The eco-system health of the oceans are put in danger and humans are exposed to poisoned food chain. It is said that a continent that contributes a negligible share of the global ocean plastic pollution bear the brunt of environmental impact on sea birdlife. Several seabird species in the continent suffer mortality and this includes the fish in the ocean. There is also the challenge of invasive species that come with plastic pollution which create breeding colonies. The management of these problems definitely is a great challenge for the African countries. There is therefore urgent need for wake-up call in the form of response such as embracing hi-tech techniques to detect plastics within the seabirds which are often near the top of the food chain, their health can also be indicator of the condition of other marine life –much of which is also ingesting plastics.⁴⁹

African countries are members of the United Nations Organization and other international bodies, thus are bound by its obligations in respect of ocean governance. Since plastic pollution in the oceans does not respect state boundaries, there is need for effective global partnership responses in the nature of active collaboration in tackling the problem.

5. ROLE OF THE UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP) IN ADDRESSING PLASTIC POLLUTION IN THE OCEANS

UNEP is the principal United Nations organ with functional responsibility in the field of the environment, assisting governments and institutions to address global, regional and national environmental challenges. UNEP's mandate was reinforced at the United Nations Conference on Sustainable Development (Rio + 20).⁵⁰ In 2016, the United Nations Environment Programme (UNEP) held its annual session⁵¹ to consider among other items⁵² plastic debris in the world's oceans" Several Resolutions were adopted on "Plastic Debris

⁴⁷ United Nations Economic Commission for Africa (UNECA) 'Governance of Resources and Maritime Activities for Sustainable Development in Africa' (2017).

⁴⁸ Ibid. Meeting organized by the Capacity Development Division (CDD). Cluster Natural Resources and Sustainable Development Economic Agreements Working Group.

⁴⁹ P Hannam, 'Plastic Pollution Toll on Wild life Expected to Rise to 95 percent, G20 to Hear' (2017). *The Sunday Morning Herald* available at <https://www.smh.com.au> (visited May 27, 2017).

⁵⁰ Through the Rio + 20 outcome document 'The Future We Want' and respective paragraph 88.

⁵¹ 27 – 31 March 2016, NMUN. NY 2016. Conference B. The session was attended by representatives of 161 member States and two observers.

⁵² Agenda included, I. Plastic Debris in the World's Oceans II. Corruption in Environmental Governance and III. Improving Sustainable Forest Management Practices.

in the World's Oceans.”⁵³ The opening statement ⁵⁴ proclaims that: “Guided by Article 1.3 of the Charter of the United Nations, which calls for international cooperation in solving international problems relating to economic, social, cultural, and humanitarian issues of concern, as this includes promoting environmental sustainability in the world's oceans ... Alarmed that 80% of marine pollution comes from land based sources, and that of this pollution, a large percentage of this is plastic debris.” UNEP thus, recommends cooperation with Member States, their regional intergovernmental organizations, and the six UNEP regional offices to implement regional education programs to discuss with the general public the dangers of plastics in the world's oceans, modeled after the UNEP Regional Programme on Environmental Education to Sustainable Development of the Southeast Pacific.

The whole essence of the Resolutions is to endorse capacity-building initiatives in developing countries, the least developed countries (Ldcs) and small island developing states (SIDS) to ensure environmental protection. Further, to address the problem of plastic debris in the world's oceans by facilitating technology transfers with a specific focus on environmentally sound technologies that will enhance waste management and plastic pollution prevention. The Resolution calls upon financing institutions, such as the African Development Bank, to reach out to low and middle income countries and provide support to implement waste management infrastructure necessary for the overall reduction of pollution, specifically plastic debris in marine ecosystems.

Again, in 2016 UNEP issued a Report on “Marine plastic debris and microplastics-global lessons and research to inspire action and guide policy change”.⁵⁵ The Report contained in 274 pages and 13 chapters in its Chapter 1 declared “rationale for the report” as been “to find ways to deal with plastic pollution” in a more considered and sustainable manner”, and to encourage “collective effort to improve our production and use of plastics, and to minimize the proportion of end-of-life plastic that enters the waste stream”. In its words:

This report attempt to provide a background on marine plastic debris, including a definition of what it is, why it occurs, in what way it is a global problem, and what measures can be taken to reduce its impact.

The Report is also a response to the agreements made at Rio + 20 ⁵⁶ and Resolution 1/6 by the United Nations Environment Assembly (UNEA) which identified marine plastic debris and microplastics “as being of particular concern.” The Report acknowledged the fact that “marine plastics have a social, economic and ecological impact-marine litter has been shown to have significant ecological impacts, causing welfare and conservation concerns, especially for threatened or endangered species; social impacts can include injury and death; and economic losses in several sectors can be substantial.”

UNEP has stated that “plastic contamination threatens marine life tourism, fisheries and businesses”⁵⁷ Achim Steiner of UNEP also declared that “plastics undoubtedly play a crucial role in modern life, but the environmental impacts of the way we use them cannot be ignored”.⁵⁸ Activities of UNEP has been proactive in creating public awareness on the dangers of plastic pollution. A lot, however remain to be done. The various UNEP Reports

⁵³ UNEP/RES/1/1; UNEP/RES/1/2; UNEP/RES/1/3; UNEP/RES/1/4; UNEP/RES/1/5; UNEP/RES/1/6; UNEP/RES/1/7; UNEP/RES/1/8; UNEP/RES/1/9 and UNEP/RES/1/10.

⁵⁴ UNEP/RES/1/1.

⁵⁵ UNEP, ‘Marine Plastic Debris and Microplastics-Global Lessons and Research to Inspire Action and Guide Policy Change’ (2016). United Nations Environment Programme, Nairobi.

⁵⁶ United Nations Environment Assembly (UNEA) inaugural session which took place in Nairobi on 23 – 27 June 2014 was as a result of agreements made at Rio + 20 to strengthen the role of UNEP as the leading UN environmental and coordinating body.

⁵⁷ UNEP Year Book.

⁵⁸ A Steiner, UNEP Executive Director.

have also recommended that manufacturers of plastics and plastic products monitor their plastic production and consumer use and “commit to reducing the environment impact of plastic through clear targets, deadlines and efficiency and recycling innovations”. UNEP argues that since plastic waste are usually ingested by marine organisms, thus accumulating toxins, efforts should be geared up to “fill the knowledge gaps and better understand the capacity of various plastics to absorb bio-accumulating chemicals”. This article notes that UNEP in partnership with the Global Programme of Action for the protection of the Marine Environment from Land-based Activities (GPA) are working “to prevent, reduce and mitigate impacts by marine litter on marine and coastal ecosystems”. At the UNEA first session, member states adopted Resolution 1/6 on marine plastic debris and micro plastics, wherein they requested:

The Executive Director, in consultation with other relevant institutions and stakeholders, to undertake a study on marine plastic debris and marine micoplastics, building on existing work and taking in to account the most up-to-date studies and data, focusing on: (a) Identification of the key sources of marine plastic debris and microplastics; (b) Identification of possible measures and best available techniques and environmental practices to prevent the accumulation and minimize the level of microplastics in the marine environment; (c) Recommendations for the most urgent actions; (d) specification of areas especially in need of more research, including key impacts on the environment and on human health; (e) Any other relevant priority areas identified in the assessment of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection.⁵⁹

In 2016, the second session of the United Nations Environment Assembly (UNEA)⁶⁰ churned out twenty-five resolutions covering issues such as the illegal trade in wildlife, air [plastic] pollution, chemicals and waste, and sustainable consumption and production. The theme of UNEA – 2 was “Delivering on the 2030 Agenda for Sustainable Development”. Part of these resolutions pertain to the subject of this article: resolution 2/10 on Oceans and Seas;⁶¹ resolution 2/11 on Marine Plastic Litter and Microplastics;⁶² and resolution 2/12 on Sustainable Coral Reefs Management.⁶³

The Resolution on Oceans and Seas, among other issues, calls for cooperation among relevant fora in implementation of and reporting on SDG 14; designation and active management of marine protected areas and other effective spatial management measures, and application of the ecosystem approach in marine management; and requests UNEP to assist countries in this regard, including through the Regional Seas, expansion of the regional seas programme and enhanced coordination, information sharing and communication across regions, in line with the Regional Seas Strategic Directions 2017 – 2020.⁶⁴ The resolution on Marine Plastic Litter and Microplastics, inter alia, encourages product manufactures and others to consider the lifecycle environmental impacts of products containing microbeads and compostable polymers, including possible downstream impacts, and requests UNEP to assess the effectiveness of governance strategies and

⁵⁹ Resolutions and decisions adopted by the United Nations Environment Assembly of the United Nations Environment Programme at its first session on 27 June 2014.

⁶⁰ Held in Nairobi, Kenya 23 – 27 May 2017.

⁶¹ Annex 1.

⁶² Annex 2.

⁶³ Annex 3.

⁶⁴ UNEP, Report from UNEA -2, UNEP/DEPI/CR.1/3.

approaches to combat marine plastic litter and microplastics, and identify how to address gaps and to help develop and implement national and regional action plans to target marine litter, with emphasis on those regions that are the largest sources.⁶⁵

This article argues that the role of UNEP in addressing plastic pollution while commendable requires collaboration at regional and international levels between government and institutions. UNEP should provide technical and financial support to the African countries to enable them undertake sustainable management of plastic pollution. Governments, inter-government organizations, industry and individuals should cooperate with UNEP and other international institutions that work to combat plastic pollution.

6. THE LEGAL REGIME GOVERNING PLASTIC POLLUTION IN THE OCEANS

The health hazards posed to humans and animals by plastic pollution has necessitated legislative intervention by the United Nations. It is generally acknowledged that plastic waste not only cause aesthetic distortion to the environment, it further endangers marine life in the oceans as they modify the marine ecology and ecosystem activities. As fish and other animals swallow plastic particles, they amass and turn into food chain, which eventually becomes a hazard to food security – “one of the dimensions of human security as defined by the United Nations Development Programme – which further stresses the need for immediate action”.⁶⁶ The adverse upshot homologous to plastic pollution prompted the United Nations to articulate Goal No. 14 as part of the Sustainable Development Goals,⁶⁷ thus placing the protection of the oceans once more on the international agenda. However, there is no specific international legal regime dealing directly with plastic pollution. What we have is international legislations that deal with the oceans generally, and marine pollution specifically. But this article argues that this notwithstanding, the existing legal regime can be infused into plastic pollution management and control, though this “is currently limited in its applicability”. We shall now examine the position at global, regional and national levels.

6.1 Global Approach

The foremost treaties on the international scene are the London Dumping Convention,⁶⁸ the International Convention for the Prevention of Pollution from Ships (MARPOL)⁶⁹ and the United Nations Law of the Sea Convention (UNCLOS).⁷⁰ The London Dumping Convention recognized, recalled, was convinced, wished and agreed that: the marine environment and the living organisms which it supports are of vital importance to humanity and must be managed and protected from impairment;⁷¹ that the capacity of the sea to assimilate waters and render them harmless, and its ability to regenerate natural resources is not unlimited;⁷² that states have the sovereign rights in accordance with the Charter of the United Nations and the principles of international law to

⁶⁵ Ibid, Annex 2, Resolution 2/11.

⁶⁶ UNDP, *Human Development Reports 1994* (1994) New York: Oxford, Oxford University Press, 24 – 30.

⁶⁷ Adopted in September 2015. Goal No. 14 addresses specifically the conservation and sustainable use of the oceans.

⁶⁸ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) 26 UST 2403, 1046 UNTS 120, 11ILM. 1294 (1972). Also, 1996 Protocol to the London Convention 1972.

⁶⁹ MARPOL 73/78 (has been amended over twenty times) 12ILM 1319 (1973); TIAS No. 10,561; 34 UST 3407; 1340 UNTS 184. Also, Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships.

⁷⁰ 1833 UNTS 3 [1994] ATS 31/21 ILM 1261 (1982).

⁷¹ Opening paragraphs of the London Dumping Convention.

⁷² Ibid .

exploit their own resources pursuant to their own environment policies and responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or areas beyond the limits of national jurisdiction;⁷³ that since marine pollution originates in many sources, such as dumping and discharges through the atmosphere, rivers, waters, estuaries, outfalls and pipelines, it is important that States use the best practicable means to prevent such pollution and develop products and processes which will reduce the amount of harmful wastes to be disposed of;⁷⁴ and States must improve protection of the marine environment in partnership with neighboring States since only international action and collaboration can effectively control the pollution of the sea by dumping.⁷⁵ The objective of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (the London convention) is to control pollution of the sea by dumping and to encourage regional agreements supplementary to the Convention. This article argues that the London Convention which contains twenty-two articles and three Annexes can be used to protect the oceans (around Africa) from plastic pollution. This is so because paragraph 4 of Annex 1 to the Convention expressly mentions plastics among prohibited wastes that cannot be dumped at the seas. Article III provisions of the London Convention also qualifies plastic wastes as “other matters” that are prohibited from dumping at the seas.⁷⁶

Another treaty that by extended interpretation applies to plastic pollution control is the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 73/78) as modified by the Protocol of 1978. The treaty is a very important international marine environmental convention. MARPOL⁷⁷ contains provisions aimed at preventing and minimizing both accidental and operational pollution from ships. It consists of twenty articles and six technical Annexes. The Protocol contains nine articles. Article 1 of MARPOL announces the general obligations of state parties under the Convention as that of preventing the pollution of the marine environment by the discharge of harmful substances or affluent containing such substances in contravention of the convention⁷⁸. MARPOL covers regulations for the prevention of pollution by Oil;⁷⁹ control of pollution by noxious liquid substances in bulk;⁸⁰ prevention of harmful substances carried by sea in packaged form,⁸¹ prevention of pollution by sewage from ships;⁸² prevention of pollution by garbage from ships⁸³ and prevention of air pollution from ships⁸⁴. This article argues that by extended interpretation and application plastic pollution fall into Annexes IV and V of MARPOL. This is so, because plastic waste qualifies as “sewage” and “garbage”. Though by its nature, plastics cannot be said to be “harmful substance”, if it is introduced into the sea (ocean), it meets the definition of “harmful substance” under Article 2 (2) of MARPOL because “if introduced into the sea (ocean), is liable to create hazards to human

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Article III, paragraphs 1(a) (i) (ii); (b) (i), (ii); (c); 2, 3, 4, 5, 6, 7, of the London Convention 1972.

⁷⁷ International Convention for the Prevention of Pollution

⁷⁸ Article 1(1) *ibid.*

⁷⁹ Annex 1, MARPOL Annex I, Regulation 28 entered into force on 1 January 2016, MARPOL Annex I entered into force on January 1, 2017.

⁸⁰ Annex II, *ibid.*

⁸¹ Annex III, *ibid.*

⁸² Annex IV, *ibid.* MARPOL Annex IV Regulations 1 and 13 entering into force on September 1 2017 and Regulation 22A entering into force on March 1, 2018.

⁸³ Annex V.

⁸⁴ This Annex VI entered into force on March 1, 2016 and its regulation 13 will enter into force on September 1, 2017.

health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea”⁸⁵

The United Nations Convention on the Law of the Sea (UNCLOS),⁸⁶ also referred to as the Law of the Sea Convention or the Law of Sea treaty main object is to provide a comprehensive set of regulations that will govern the ocean regime and superseded the earlier United Nations Conventions on the Law of the Sea⁸⁷. UNCLOS required technology transfers and wealth transfers from developed to under developed nations. It requires state parties to the convention to adopt national law and regulations to control pollution of the marine environment.⁸⁸ Part XII of UNCLOS contains the general obligation of states to protect and preserve the marine environment,⁸⁹ and to take measures to prevent, reduce and control pollution of the marine environment.⁹⁰ Thus, under this Part XII of UNCLOS, states (African countries) are required to take measures “to prevent, reduce and control” plastic pollution by ensuring that plastic wastes and debris are not deposited from land based sources into the seas (oceans).

This article argues that the London Convention, MARPOL and UNCLOS are primarily treaties that concern “vessel-source waste” and prohibiting them from entering the oceans. Only few articles contained in them made skirting provisions relating to land-based pollution. It is also pertinent to note that the obligations and duties imposed on state parties are mostly honored only in the breach as “they can decide themselves what measures they can take in order to prevent pollution of the marine environment”.⁹¹

6.2 Regional Concensus

This article argues that international law alone is incapable of solving the problem of plastic pollution, hence the need for effective regional regime. In 1991 the African Union (then OAU) adopted the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa⁹² which entered into force on April 22, 1998 with the date of last signature as May 31, 2013. There are also the Africa Maritime Transport Charter of June 11, 1994, adopted in January 27, 2012; Abidjan Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, adopted in 1981 and in force since 1984; Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern Africa Region. It is of note that though these Africa regional treaties and conventions are not plastic pollution in the oceans specific they cover matters pertaining to pollution wastes and the ocean within the African Region and territory.

6.3 Approach of Individual Nations

In Africa, Cameroun, Ethiopia, The Gambia, Guinea- Bissau, Malawi, Mali, Mauritania, Rwanda, Sierra Leone, Tanzania, Uganda and Kenya have either banned or adopted proposed bans on polythene bags. Almost all the African countries have acceded to international and regional treaties and conventions and agreements seeking to tackle

⁸⁵ Article 2(2) MARPOL, *ibid*.

⁸⁶ UNCLOS III adopted in 1982.

⁸⁷ UNCLOS I 1958, and UNCLOS II 1960.

⁸⁸ Articles 192 to 196, Part XII protection.

⁸⁹ Article 192, UNCLOS, *ibid*.

⁹⁰ Article 194.

⁹¹ A Trouwborst, ‘Managing Marine Litter: Exploring the Evolving Role of International and European Law in Confronting A Persistent Environmental Problem (2011). *Utrecht Journal of International and European Law* 27(73) PP 4-18 Doi: <http://doi.org/10.5334/ujiel.an>.

⁹² 1991.

pollution. They also have enacted national laws that seek to curb the hazard of pollution that threaten coastal and ocean life.

The Global Ocean Commission in its Summary Report,⁹³ Proposals for Action⁹⁴ stated that “to accelerate progress towards reversing ocean degradation and drive the global system for ocean governance member states and all relevant stakeholders(must) agree(to) a stand-alone Sustainable Development Goal(SDG) stated on the need for national governments by means of intervention and consumer incentives to intensify efforts to tackle the problem of plastics as a major source of problem of pollution on the high sea and health threat to humans and the environment.”⁹⁵ The Report further noted the poor handling of pollution and waste management issues and the need for political will and regulatory action by national governments. It called “for coordinated action by governments, the private sector and civil society to eliminate plastics entering the global ocean”.

7. CONCLUSION

Plastic Pollution in the oceans has been described as a challenging situation.⁹⁶ Peter Thompson has echoed that “the ocean is in deep trouble... marine pollution is taking us to a point where by 2050, there will be more plastic in the ocean than there will be fish”.⁹⁷ This situation notwithstanding, Sylvia Earle is very optimistic that “life in African seas though in trouble is not dead”.⁹⁸ Thompson further states, “I have no doubt that we will break this problem”.⁹⁹

To break, this problem and rescue the oceans around Africa from plastic pollution requires urgent intervention by Africa’s policymakers, governments, stakeholders, institutions, civil society organizations, communities and individuals. They should partner together to find ways to manage ocean resources for Sustainable Development Goal(SDG) 14. Support in terms of funding and capacity building for Africa must come from the United Nations, Africa Development Bank and international donors to tackle plastic pollution in the ocean. The government of Rwanda has banned plastic bags. Non-biodegradable polythene bags are illegal in Rwanda and Rwanda Environment Management Authority (REMA) has been religiously enforcing the ban. This article however, argues that such ban could harm small businesses.

Banning though commendable in that it is a move towards creating “a market for environmentally friendly bags” must take into consideration other social index variables that are likely to affect the livelihoods of the people, mostly by the poor. Kenya has also banned the manufacture and import of all plastic bags. Rescuing the oceans around Africa from plastic pollution also requires individual commitment of changing life style of adopting reusable plastic products. This will enhance the fight against plastic pollution. Citizens must join the campaign to end plastic pollution in Africa. The African national governments must enforce and strengthen legislation to stop plastic pollution in the oceans. They must invest in research to develop degradable plastic products; non-toxic materials; invest in waste management infrastructures; ban use of plastic materials on beaches and shorelines, stop deliberate plastic pollution of the oceans by imposing taxes and fines. There should be direct government intervention by reducing single-use plastics; providing consumer incentives; creating incentives and encourage recycling and extended producer

⁹³ Global Ocean Commission Summary Report 2014.

⁹⁴ Proposal I *ibid*.

⁹⁵ Proposal 5 *ibid*.

⁹⁶ J Vince BD Hardesty, Plastic Pollution Challenges in the Marine and Coastal Environments: From Local to Global Governance (2016). *Restoration Ecology*, Volume 25, Issue 2 123-128.

⁹⁷ See *African Renewal* *ibid* at 10.

⁹⁸ *Ibid*.

⁹⁹ *Ibid*.

responsibility to change the attitude of manufacturers and end use of plastics and plastic products. Writing on plastic pollution, an author¹⁰⁰ has said that “reports have uncovered new evidence of how vast and toxic the plastic presence in the marine environment is, thus the path to successful solution of the crisis clearly appears to be the humans, as we are the problem.”¹⁰¹

This article argues that we are not only “the problem” but we also make the victims: animals like whales, sea lions, birds, microscopic organism are all endangered by plastic pollution by ingestion and entanglement. The food chain is also greatly impacted by plastic pollution. Health of animals and humans are not equally spared by plastic pollution as plastics in oceans decompose, and release hazardous chemicals.¹⁰² It has been found that plastic pollution affects beaches, coasts sea floor, shorelines, ecosystem and cause monumental economic loses. The consensus is thus, the urgent need for education, proactive and strong legislation and citizen awareness through public enlightenment and advocacy.

While acknowledging responses and interventions at the international, regional and national levels, the problem remain that of lack of funding, enforcement and monitoring mechanisms that continue to slow down the tackling of plastic pollution problem. The sophisticated nature of plastic pollution – the source, the extent of its victims and its effects on the environment remain a “complicated case of domestic and international management”. Due to poverty in African countries, coupled with political instability and gross corruption, African leaders and policy makers are not sincerely committed in their efforts to tackle plastic pollution. They further lack the manpower and technical-know-how to design, implement, and monitor enforcement of extant international, regional and national laws on plastic pollution in the oceans. There is therefore need for strong international support for the African countries in this regard to stem plastic pollution in the oceans around the continent.

This article argues that given the seriousness and extent of the problem of plastic pollution, it is necessary that African governments must respond critically and responsibly to the problem through joint efforts, partnership, action plans and cooperation to forestall a situation of increasing incidence of plastic waste pollution in the oceans around Africa. Such cooperation must be characterized by comprehension of the factors that cause plastic waste pollution and involve all institutions with functional responsibility for the protection of the environment. Until this is done, plastic waste pollution challenges in the oceans around Africa remain an albatross for the continent.

© 2010-2016

*Sacha & Diamond Academic Publishers, Meridian Centre,
258 Kingsland Road, Hackney, London E8 4DG, England, United Kingdom.
In Compliance with the Standards Approved by the UK Arts and Humanities Research Council
Abstracting and Indexing in:
GIGA - The Electronic Journals Library of the German Institute of Global and Area
Studies, Information Centre, Hamburg; Google Scholar; Global Development
Network (GDNet); Social Science Research Network (SSRN); Econlit - The American
Economic Association's Index; EBSCO; IndexCopernicus USA; British International
Libraries; Anton's Weekly Digest;
Econlit (USA); International Abstracts in Operations Research; Environmental
Science and Pollution Management; Research Alert
For the Advancement of Knowledge to the World. www.sachajournals.com*

¹⁰⁰ CLG Lytle, ‘When the Mermaids Cry: The Great Plastic Tide (2017). *Coastal Care*, available at <https://www.plastic-pollution.org> (visited May 31, 2017).

¹⁰¹ CLG Lytle, *ibid*.

¹⁰² M Bernstein, and M Woods, ‘Plastics in Oceans Decompose, Release Hazardous Chemicals, Surprising New Study Says’ (2009) available at <https://www.acs.org> (visited May 27, 2017).