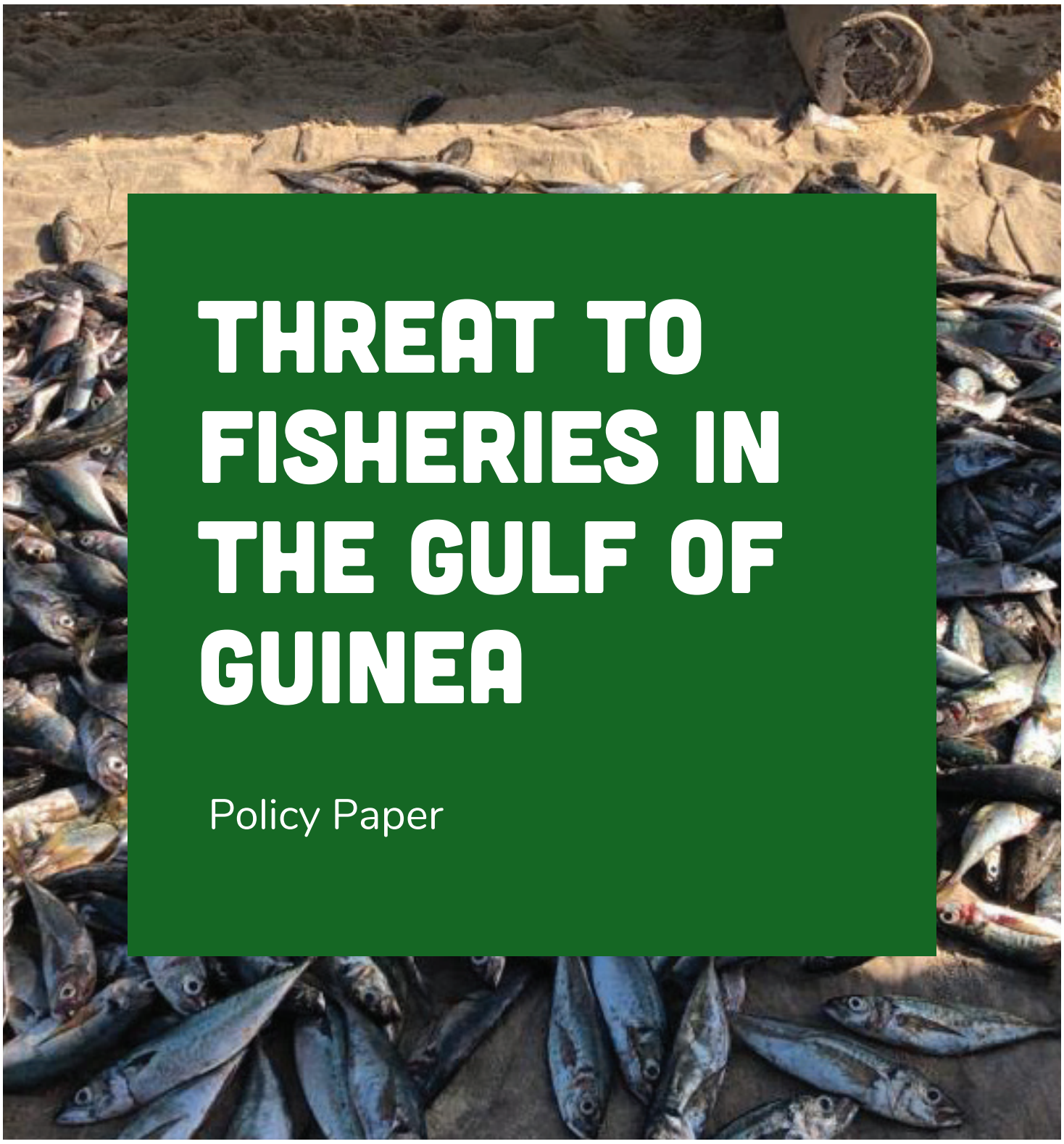

THREAT TO FISHERIES IN THE GULF OF GUINEA

Policy Paper

HOMEF

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Summary

The Gulf of Guinea in which the coastal line of Nigeria falls is an area with a high diversity of marine biodiversity. It is also known to have the largest mangrove water systems in the world. Fisheries provide food and employment to millions of citizens in the zone.

The Gulf of Guinea is also very rich in mineral resources including oil and gas. The exploitation of these resources has resulted in the devastation of the Niger Delta environment with high impact on the quality of the aquatic lives in the area as well as on the freshwater systems. Pollution from industries sited along the coastline add to the degradation of the ecosystems. Violence from sea pirates and other unlawful activities in the zone have made the Gulf of Guinea one of the most unsafe waters today.

Fisherfolks and other coastal stakeholders play a central role in monitoring the happenings in the Gulf of Guinea, including monitoring polluting activities as well enforcing indigenous knowledge and norms in biodiversity conservation. The region also has scientific institutions saddled with duties of monitoring the aquatic species and offering means of protection.

It is clear that a deliberate combination of actions and stakeholders is needed to restore and protect the once fecund marine ecosystem of the Gulf of Guinea.

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Contents

1.0
Background

The Gulf of Guinea, also known ecologically as the Guinea Current Large Marine Ecosystem, covers the marine areas of West, Central and Southern Africa (ACS, 2014). Countries in this zone include Liberia, the Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, Gabon, Sao Tome, Principe, Congo Republic, DR Congo, and Angola.

The Gulf of Guinea is endowed with watercourses such as the Congo and Niger Rivers with access to the sea. The Congo River which is about 4,700 kilometer-long possesses the strongest streams of the world after the Amazon River in Latin America and represents the main commercial artery of equatorial Africa (IMF, 2005). The Niger River which is 4,200 kilometers long takes its source in Guinea and crosses nine countries and is essential to the life of over 110 million people in West Africa (Economist, 2004).

The region is believed to be one of the world's richest and is impacted by an increasing scramble for marine resources over the past several years by the rest of the world. The Gulf of Guinea is tipped to soon be the world's premier 'hotspot' for deepwater offshore petroleum activities as it holds about 35% of the world's total petroleum reserves (Gary, 2007). The region has even been nicknamed the "New Gulf" to depict its enormous offshore petroleum potentials (Ayamdoo, 2016). The region is blessed with many minerals and other natural resources such as diamonds, tin, bitumen, uranium, copper, manganese, gold, phosphates, granite, gas, marble, quartz, lead, zinc, oil etc as well as very rich rain forest accounting for 20% of the world's total rainforest and serves as one of the oxygen generating source of the globe (Babagana, 2017). It serve as a habitat for large biodiversity ranging from fish, planktons, shrimps, tortoises, crabs, cray fish and other sea lives (Babagana, 2017). Access to the sea and other rivers from the Niger provides the neighboring countries with remarkable pool for fishing (IMF, 2005). However, pollution assessments conducted in the Gulf of Guinea show that petroleum exploratory and exploitation activities in Nigeria alone contribute to heavy pollution of the Gulf of Guinea (Scheren et al., 2002) and this has had huge environmental, economic and food security implications for the region.

2.0
Oil Extraction in the Gulf of Guinea

Gulf of Guinea nations produce close to 3 million barrels of oil per day – about 4 percent of the global total mostly for European and American markets, with the bulk coming from Nigeria (1.99 million bpd). Smaller producers include Congo Republic (308,000 bpd), Equatorial Guinea (227,000 bpd), Gabon (210,000 bpd), Cameroon (93,000 bpd) and Ivory Coast (30,000 bpd). As of 31 October 2019, there were 18 active oil rigs in Nigeria, while Angola and Gabon had 10 and 7 active oil rigs as of 2016 and 2014 respectively. According to Nigeria's Department of Petroleum Resources, there are a total of 159 oil fields, 1481 oil wells in operation in Nigeria (the number of active oil wells were as high as 2,168 as of 2012, according to data from OPEC). Angola and Gabon had 1,572 and 396 active oil wells as of 2016 respectively, according to OPEC. In the Niger Delta region of Nigeria, there are six petroleum exportation terminals namely: Forcados Terminal (located in Burutu LGA of Delta State), Bonny Terminal (Bonny, River State), Qua Iboe Terminal (Qua Iboe, Ikot Abasi LGA, Akwa Ibom State), Escravos Terminal (Warri South LGA, Delta State), Brass Terminal (Brass, Port Harcourt) and the Pennington Terminal (Pennington, Bayelsa state), operated by Shell, Mobil, Chevron, Texaco and Agip respectively.

The high rate of prospecting and exploration of oil in the Gulf of Guinea region is not without consequences. The leakage of crude oil, gas flaring and the escape of other chemicals used in the production processes have negatively impacted the biodiversity, flora and fauna of marine ecosystems in the region.

3.0
Economic Value of Fisheries in the Gulf of Guinea

Fisheries and aquaculture sector in Africa is valued at US$17.4 billion. Fisheries sector contributes 6 percent of Africa's total GDPA of US$288.4 billion. Among the various fisheries, the highest contribution is from marine artisanal fisheries contributing 1.82 percent of total GDPA, whereas marine industrial fisheries and inland fisheries have the same contribution of 1.63 percent, and aquaculture contributes almost 1 percent (FAO, 2014). In Nigeria for example, the fisheries sector contributes about 5.4% of the nation's Gross Domestic Product (GDP) (Olaoye and Ojebiyi, 2018).

It is estimated that about 40 percent of West Africa's population live in the coastal areas of the Gulf of Guinea with fisheries serving as their major source of food and means of subsistence. The fisheries sector provides about 9 millions jobs for people living in the West Africa's coastal region alone (Okafor-Yarwood, 2018) and employs an estimated 12.3 million people in the African continent (FAO, 2014). According to FAO, half of the 12.3 million people employed in the whole fisheries sectors are fishers, 4.9 million (42.4 percent) are processors and 0.9 million (7.5 percent) work in fish farming. More than half of the fishers are employed in inland fisheries whereas the largest share of processors (42 percent) works in marine artisanal fisheries followed by 30 percent in inland fisheries and 28 percent in industrial fisheries.

In contrast to the contribution of the fisheries sector to employment, the extractive industries are capital intensive and make a limited direct contribution to employment (IMF, 2005). For instance, the contribution of the oil and gas industry to national employment is small, contributing 1.5 percent of the working population in Saudi Arabia and 4 percent in Equatorial Guinea (UNCTAD, 2008). As of 2013, the oil sector in Nigeria employed a paltry 0.01 percent of Nigeria workforce and was the least employer of labour in Nigeria as of 2013 (Vanguard, 2014). The situation has not improved as up to 95 percent of the investment in the sector still happens offshore.

Unfortunately, the sustainability of the marine environment, the resources that support the lives and livelihoods of communities in the region has been undermined and severely threatened by a wide range of factors such as oil spillages, toxic waste discharge into ocean, piracy, insecurity, illegal, unreported and unregulated (IUU) fishing, and a host of other challenges. All these have led to a steady decline in fisheries resources in this region and have devastated its marine ecosystems and habitats and have affected the means of subsistence of millions of people (Okafor-Yarwood, 2018).

4.0
Threats to Fisheries in the Gulf of Guinea

a) Oil Spillages:

The inordinate exploitation of petroleum resources in the Gulf of Guinea has led to oil spillages, petrochemical industrial waste discharges and their attendant environmental problems to marine ecosystems. According to Plessi et al. (2017), there has been a total of 16,476 oil spills between 1976 and 2015 in the Niger Delta region of Nigeria alone, of which 69% of these spills occurred offshore. It is believed that an estimated 13 million barrels of oil has been spilled in more than 10,000 incidents since oil exploitation started in 1958 in the Niger Delta region of Nigeria. The situation has since worsened over the years due to increasing oil exploration operations over time, pipeline and tanker accidents/leakages and the activities of militants who blow up oil pipelines with its content being discharged into the environment. The Nigerian National Petroleum Corporation (NNPC) states that 300 individual spills occur each year with about 2,300 cubic meters of oil spilled into the environment. The World Bank argues that the quantity of petroleum spilled into the environment could be as much as ten times the officially claimed amount. In as much as sabotage contribute significantly to oil spillage in the region, the truth remains that some of the pipelines used by the oil companies are dilapidated and rusty, thus contributing a significant amount of oil spillages due to corrosion of aging facilities (Okafor-Yarwood, 2018). So far, the largest individual spills include the blowout of a Texaco offshore station in 1980, which dumped an estimated 400,000 barrels of crude oil into the Gulf of Guinea and Royal Dutch Shell, Forcado Terminal tank failure with an estimated spillage of 570,000 barrels (Bassey, 2012). The ecology of aquatic habitats and physiology of marine organisms like fishes become altered when they are exposed to contamination from oil and its constituent chemicals. According to a report by Babagana Abubakar in 2017, experts and villagers have already started noticing rapid decline in fish, planktons, shrimps, tortoise, crabs, cray fish and other species in the Niger Delta coastal territories of the Atlantic Ocean. The food security implications of reduced catch exacerbated by polluted and depleted fish stock have devastating impact on the fisher folks who depend on fish for subsistence. The suffering is made worse because, in most cases they are never compensated for their loss (Okafor-Yarwood, 2018). In Congo Brazzavile, fishermen and farmers report of and complained about how discharges and emissions from offshore petroleum operations have negatively affected them and polluted the environment (Mbaki and Ngoubangoyi, 2016). Dwindling catches and a polluted sea is a familiar refrain for fishermen in Angola (Reed, 2009). Between 2009 and 2011, offshore petroleum operators in Ghana spilled large quantities of low toxicity oil-based mud and these spills have been linked to the death of whales.

b) Marine Pollution from Solid Wastes and Hazardous Chemicals:

Environmental pollution in the Gulf of Guinea coastal zone has caused eutrophication and oxygen depletion in lagoon systems, particularly around urban centers, resulting in decreased fish reproduction levels and waterborne diseases (Scheren et al., 2002). According to a pollution source assessment undertaken by six countries in the Gulf of Guinea region, 90% of solid wastes were produced by households, while substantial amount of hazardous wastes was produced by industry, specifically the Nigeria petroleum industry (Scheren et al., 2002). According to (Babagana, 2017), one major source of pollution to ocean life in the Gulf of Guinea outside oil spillages is the activities that go on in the sea ports within the region where chemical stains on the "Quay Aprons" of sea ports are washed into the ocean incessantly and on a regular basis in various seaports around the region. Interactions among chemicals, both the ones being discharged at the Quay Aprons and the ones used in the washing of the Quay Apron can result in new chemical solutions with potential of harming marine lives within these seaports in the region. Also in most of the countries within the Gulf of Guinea, there is a poor waste management culture and lack of effective waste management policies which has resulted in many residents in this countries discharging their household wastes such as plastic bags and polyethylene products into rivers and water bodies that find their way into the Atlantic Ocean (Babagana, 2017). All these pollutants from both industry and households within the region exacerbate the already existing pollution problems from oil spillage, thereby worsening the situation for fisheries and the communities that depend on them for livelihood and survival. The region also currently faces threats from the illegal dumping of toxic and hazardous wastes at sea by ships from foreign countries.

c) Piracy and insecurity:

Piracy in the Gulf of Guinea accounted for nearly 30% of attacks (427 of 1,434) in African waters between 2003 and 2011, and that proportion is increasing. According to the International Maritime Bureau's (IMB) latest report, the seas around West Africa remain the world's most dangerous for piracy. Of the 75 seafarers taken hostage on board or kidnapped for ransom worldwide so far this year, 62 were captured in the Gulf of Guinea – off the coasts of Benin, Cameroon, Guinea, Nigeria and Togo. The IMB report shows that 73% of all kidnappings at sea, and 92% of hostage takings, took place in the Gulf of Guinea. The situation in the region may be worse as many of the criminal activities go unreported. Piracy and insecurity in the Gulf of Guinea have severe implications for maritime resources, fish, aquaculture and intact ecosystems which contribute directly to the livelihoods of many Africans living in this region.

In Nigeria for instance, fisher men are reported to suffer the highest economic losses because of sea robbery and illegal, unreported and unregulated fishing attacks. Sea robbers sometimes use fisher men as human shield during their attacks on more profitable targets (Taokodi, 2018). Violent attacks by sea robbers against the fishing industry have caused the fleet of fishing trawlers to dwindle, leading to huge loss of revenue to the affected fishermen and traders and massive unemployment (Usim, 2016; Wajilda, 2013). The threat of pirate attacks has prompted many fishermen and trawlers to abandon richest fishing spots in the Gulf of Guinea. Declining catches have raised both

economic and nutrition security concern in the region. The poorest 40% of the regional population depend on fish as a crucial component of their diet.

The security zone around offshore oil/gas facilities are wider than necessary and create needless restrict fishing grounds often forcing fishers into dangerous waters. This should be reviewed in support of local economies.

d) Illegal Fishing:

The West African coastal region has long been regarded as one of the most diverse and fiscally significant, fertile fishing regions in the globe facing the highest levels of illegal, unreported or unregulated (IUU) fishing activities according to several reports (NOAA, 2017; Doumbouya, 2017). In the last several years, the plunder of local fisheries by overseas trawlers has continued without end to the extent that decades of intense exploitation has resulted in the overfishing of over 50% of fisheries stock in West African waters (Alfonso, 2016). It is estimated that 40% of all fish caught in West African Waters occurred illegally by fish firms from across the globe who take advantage of the weak institutions and lack of efficient fisheries management systems in the region to exploit marine resources at low cost. The activities of these companies have gone unchallenged by government authorities in the region and this have driven many fish species towards extinction while destroying the livelihoods of fishing communities in countries of the region (Merem et al., 2019). The documented impacts of IUU fishing is far reaching from how it negatively affects ocean ecologies and habitats, sustainable fishing, food security, to its devastating impact on coastal communities in the Gulf of Guinea region and globally. According to Merem et al. (2019), the $1billion yearly loss from illegal fishing activities in Africa not only impoverishes the people, but the West African zone as a place where many depend on fishery for survival is now threatened from overfishing. This according to him diminishes the income generation capacity of most communities and self-sufficiency in sea food in the zone.

e) Infrastructure:

Big infrastructural projects have impacts on the quality of the ecosystem in the Gulf of Guinea. These range from upstream dams that affect the river and wetland systems at the coastal areas. It also includes the canalization by oil and gas companies for taking industrial infrastructures inland. Some of these canals have led to the destruction of freshwater systems by the intrusion of salt water from the Atlantic.

5.0
Marine Protected Areas:

Marine protected areas or marine reserves have been confirmed by literature to have positive biological effects on the abundance, biodiversity and average size of fish species within the area (Lester et al., 2009; FAO, 2011). In the context of overfishing, marine protected areas are tools for protecting biodiversity. It is generally expected that over several years after the establishment of a marine protected area, there will be an improved fish population status within the reserve boundaries which will cause larval and/or adult spillover in the surrounding areas outside the reserve (FAO, 2017). According to a report published by the Institut de Recherche pour le Development (IRD) in 2012, marine protected areas have significant impact from an economic point of view in terms of fishing activities (which are restricted in the areas) and yields. However, the IRD 2012, study has also shown that for fishermen, the gains experienced outside of the protected area compensate in volume for the loss of activity within, although with a higher market value due to the increase in the number of rarer species who are migrating out of the marine protected areas into the unprotected zones. The close adherence to the Abidjan Convention is one of the instruments that can be useful in the protection of the marine ecosystem of the Gulf of Guinea. The Convention seeks to build cooperation in the protection, management and development of the Marine and Coastal Environment of the Atlantic Coast of West, Central and Southern Africa. Its mission is to "Protect, Conserve and Develop the Abidjan Convention Area and its Resources for the Benefit and Well-being of its People." It was adopted by the governments in 1981 and entered into force in 1984. The convention has two protocols that focus on cooperation by the countries in combating marine/coastal pollutions. These are the Protocol concerning cooperating in combating pollution in cases of emergency (1984) and the Protocol concerning Land-based Sources and Activities (2012). These cover the marine environment, coastal zones and related inland waters that fall within the jurisdiction of the States.

6.0
Local Knowledge and Norms:

Communities dependent on marine ecosystems for socio-cultural and economic purposes have built knowledge and evolved norms for the sustainable management of the resources over the millennia. Such norms include rules about when fishing activities may be carried out in certain areas as well as what types of fish may be caught in what season. The system of knowledge is widespread in the communities and the exploitation of the marine resources are sometimes conducted cooperatively but always with intergenerational equity at heart. The threats posed by different activities in the Gulf of Guinea can be effectively curtailed by the study, adoption and application of indigenous knowledge and norms in the management of the ecosystems.

7.0
Conclusion

Fisheries in the Gulf of Guinea is evidently a major contributor to food security, economic growth and employment in countries that make up the region. It is imperative for governments within the region to protect the marine ecosystems in the region that serve as habitat for this fisheries from degradation and threats posed by oil and toxic waste pollution, piracy, illegal fishing etc. To achieve this there is need for every country in the region to sign up, adopt and ratify the Convention for Cooperation in Protection, Management and Development of Marine and Coastal Environment of the Atlantic Coast of the West and Central and Southern African Region, popularly referred to the Abidjan Convention and then the Protocol Concerning Cooperation in Combating Pollution in Cases of Emergency. The conventions and protocol obligate the parties involved to take all appropriate measures to prevent, reduce, combat, and control pollution and to ensure environmental management of natural resources in the convention area. To meet their obligations, the contracting parties are called upon to cooperate with relevant international, regional, and sub-regional organizations to establish and adopt recommended practices, procedures, and measures designed to fight pollution and safeguard the marine ecosystems in the countries involved in the convention. These initiatives should be supported by national laws.

Governments in the region should take every measure necessary to see that their people, communities, biodiversity do not suffer irreparably as a result of the pollution and unsustainable exploitation/extraction of the regions' resources.

8.0 Recommendations

1. The is need for countries in the Gulf of Guinea region to focus more on the protection of our marine ecosystems including by restoration of mangrove forests that form the basic spawning grounds for fish in the region.
2. Marine ecosystem species in the region's coastal waters need to be mapped and protected for sustenance of local livelihoods
3. More marine protected areas need to be created in the region to deal with the surging threats of overfishing caused by illegal fishers
4. Fisheries and water resources hold key to building resilient economies in the region, thus, there is need for interventions that will ensure integrated, sustainable management and use of marine resources in the region. Artisanal fishers should be supported by governments as they are high food suppliers and employment providers
5. There is need for an integrated multi-sectored approach towards the governance of large marine ecosystems in individual countries of the region.
6. Development of national policies and legislation that support the implementation of the Abidjan Convention in the ratified countries of the region.
7. Oil, gas and mineral exploration and extraction should be strictly prohibited in the Gulf of Guinea. There should be cessation of opening up of new oils and gas fields in the region, since the world is moving away from fossil-based energy sources, thus making the possibility of the extinction of fossil-based fuels a reality
8. Infrastructure development affecting the quality of the ecosystem of the Gulf of Guinea must be strictly assessed and only endorsed on the free, prior informed consent of dependent communities, fisher associations and other stakeholders.
9. There should be mechanisms for ensuring that corporations who pollute our marine environment pay heavy fines for such pollutions and clean up the environment without delay.
10. Governments across the Gulf of Guinea need to put in place policies that ensures that multinational oil companies within the region overhaul their facilities, making sure that no company still uses old, dilapidated and rusty pipelines in their operations.
11. There should be stronger collaborations by the member countries in the Gulf of Guinea in providing joint security around the region to halt the activities of criminals whose activities pollute the environment.
12. Bodies such as Nigerian Institute for Oceanography and Marine Research (NIOMR) and Nigerian Maritime Administration and Safety Agency (NIMASA) in the countries of the region should be supported and their capacities enhanced.
13. The is need for a transnational boundary joint security outfit that should be properly equipped, motivated and given free access to provide security across the regional waters and ensure protection of citizens engaged in lawful activities in the waters.

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About HOMEF

HOMEF is the ecological think tank organization advocating for environmental/ climate justice and food sovereignty in Nigeria and Africa at large. As a result of our dissatisfaction with impunity in our environment, we believe that the rights of Mother Earth must be safe guarded; communities should be equipped to voice protest against oppression and pollution in their environment and justice must prevail in our engagement with the environment and nature's cycles at policy, corporate, and individual level.

Our work is built around 3 core areas: Hunger Politics, Fossil politics and space for knowledge generation and sharing.

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