

This is the Author's Accepted Manuscript version of the article: Okafor-Yarwood, I., (2019). Illegal, Unreported and Unregulated Fishing, and the Complexities of the Sustainable Development Goals (SDGs) for Countries in the Gulf of Guinea. Marine Policy. Accepted for publication on 13 September 2017.

Abstract

The significance of the ocean and the resources that lie beneath it is well represented in the United Nations Sustainable Development Goals (SDGs). Specifically, goal 14 of the SDGs focuses on the conservation and sustainable use of the ocean, seas and marine resources. It is also a significant contributor to other SDGs. Goals 1 and 2 are aimed at bringing an end to poverty and hunger and a plentiful supply of fish would provide both food and income. Fisheries also make a substantial contribution to the trading revenue of many developing countries, therefore are useful for the attainment of goal 8 which seeks to ensure sustainable economic growth.

However, the pervasiveness of unsustainable practices that are harmful to the marine environment, such as pollution, overfishing and illegal, unreported and unregulated (IUU) fishing, threatens the ability of developing countries especially those in the Gulf of Guinea to effectively maximise the use of their ocean resources. The paper focuses on the Gulf of Guinea due to the significance of the resource to littoral communities as well as the severity of IUU fishing across the region. The paper is also aimed at emphasising the threat to the attainment of some of the SDGs by 2030. It does so by arguing that the unabated IUU fishing is due to the respective government's lack of awareness of their maritime domain, reflected in the dearth of human resource and inadequate financial investment to solve the problems of maritime security and the lack of cooperation between countries in the region thus rendering existing surveillance operations ineffective.

Keywords: SDGs, Gulf of Guinea, Goal 14, IUU fishing, Food Security, Marine Environment, Maritime Security, MCS, Nigeria, Senegal, Guinea-Bissau

1. Introduction

On the 25th of September 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, along with a new set of goals that are collectively termed the SDGs. The Agenda is a culmination of years of negotiation and was endorsed by all of the 193 member states of the General Assembly, (UNDP 2016). Amongst other things, the SDGs seek to change the course of the 21st century by addressing key issues such as hunger, poverty, inequality, violence against women and the conservation of the oceans' resources. It is underpinned by the premise that no human should be left behind, with priority given to the most vulnerable and hard-to-reach in society, to ensure that they live a more fulfilling and healthy life (UNDP 2016).¹

Underlining the decision to focus on the fisheries aspect of goal 14 of the SDGs, which seeks to ensure the sustainable use of the oceans, seas and marine resources, is the fact that fisheries makes a significant contribution to the lives of millions living in the Gulf of Guinea region as it serves as a source of food, nutrition, income and tradition (Lam et al. 2012). Specifically, in the West African region of the Gulf of Guinea, an estimated 40% of the population lives in the coastal areas, with over 9 million people dependent directly or indirectly on the fisheries sector for income, thereby contributing to the revenue of countries in the region (Brown & Crawford 2010; AU-IBAR 2016b). According to Belhabib et al the artisanal fishers in West Africa generate an estimated income of \$3.6 billion per annum (Belhabib et al. 2017: 2). Some of the countries in the region such as Nigeria, Guinea-Bissau, Ghana, Guinea, and Senegal also rely on fisheries for foreign direct investments as they seek to generate millions of dollars through exports, license fees, and a Fisheries' Partnership Agreement (FPA) with Distant Water Fishing Nations (DWFN), such as those in the European Union (EU),

and other countries like China, South Korea and Russia (Belhabib, Sumaila & Pauly 2015; Tsamenyi 2014; Ilnyckyj 2007; European Commission 2017a; Belhabib, Sumaila, Lam, et al. 2015; André Standing 2017; Lawrence Etim, Dyhia Belhabib 2015). According to Belhabib et al, EU paid an estimated \$307 million per year for fishing access in West Africa between 2000 to 2010, (Belhabib, Sumaila, Lam, et al. 2015:12).

Nevertheless, the ability of fisheries to continue to contribute to the food, nutrition and the income of these countries and their people is existentially threatened by IUU fishing by commercial and foreign vessels (UNCTAD 2017; Doumbouya et al. 2017; Daniels et al. 2016; Belhabib et al. 2017; Falaye 2008; André Standing 2017; Belhabib, Sumaila, Lam, et al. 2015). ‘IUU fishing’ can cover a wide range of issues (see: (Telesetsky 2015; Donald Liddick 2014; Agnew et al. 2009; Boto et al. 2012; Tafsir Malick Ndiaye 2011; Mike Beke & Blomeyer 2014). In line with Agnew & Barnes IUU fishing refers to fishing activities by (commercial and foreign vessels) ‘that are inconsistent with or in contravention of the management or conservation measures in force for a particular fishery’, (Agnew & Colin T. Barnes 2004). On the one hand, for many countries in the Gulf of Guinea such activities involve fishing within their inshore waters and Exclusive Economic Zone (EEZ), which as Agnew et al observe are both illegal and unreported, (Agnew et al. 2009:1). On the other hand, unregulated fishing generally refers to fishing activities by ‘conducted by vessels without nationality, or vessels flying the flag of a State not party to the regional organization governing the particular fishing region or species’, (Don Liddick 2014). It also relates to ‘fishing in areas or for fish stocks where there is a lack of detailed knowledge of the resource, and therefore no conservation or management resources in place’, (Don Liddick 2014).

The threat is predominantly associated with weak governance system, corrupt practices by fisheries' officials, lack of cooperation between countries across the region and a perceived sense of lack of maritime domain awareness (MRAG 2016; Telesetsky 2015; Onuoha 2012; André Standing 2017; Doumbouya et al. 2017; Le-Gallic & Cox 2006). Although IUU fishing is not the only contributory factor to the depletion of fisheries resources, it does play a significant role in undermining the marine environment. In West Africa for example, the depletion of fisheries is in part due to years of overfishing (including legal fishing) and pollution from the multinational oil companies operating across the region; yet, it is also true that the threat amounts to 65% of the legal reported catch, (Doumbouya et al. 2017:1). According to Doumbouya et al, the economic cost of the threat for some countries in the region, such as Mauritania, Senegal, The Gambia, Guinea Bissau, Guinea, and Sierra Leone, is an estimated \$2.3 billion annually (Doumbouya et al. 2017:1).

The pervasiveness of the threat leads to the depletion of ocean resources. Such depletion results in reduced catch and lost income for the artisanal fishers, thereby endangering the security of many in littoral communities who depend on them as a source of food, nutrition and livelihood (Liddick 2014:292; Liddick 2011:82; Belhabib et al. 2017:1). Therefore, IUU fishing frustrates global efforts aimed at ensuring a sustainable marine environment, thereby impeding the ability of countries in the region to meet goal 14 of the SDG (See: UNCTAD 2017). It follows that unabated it also casts a shadow on the realisation of some of the other goals such as seeing an end to poverty, hunger, ensuring economic growth, good health and even access to education for the many people living in the littoral areas who depend on the fisheries for subsistence.

The paper is based on secondary review of existing literature, and some primary data from Nigeria, with case studies drawn from across the Gulf of Guinea.² The paper

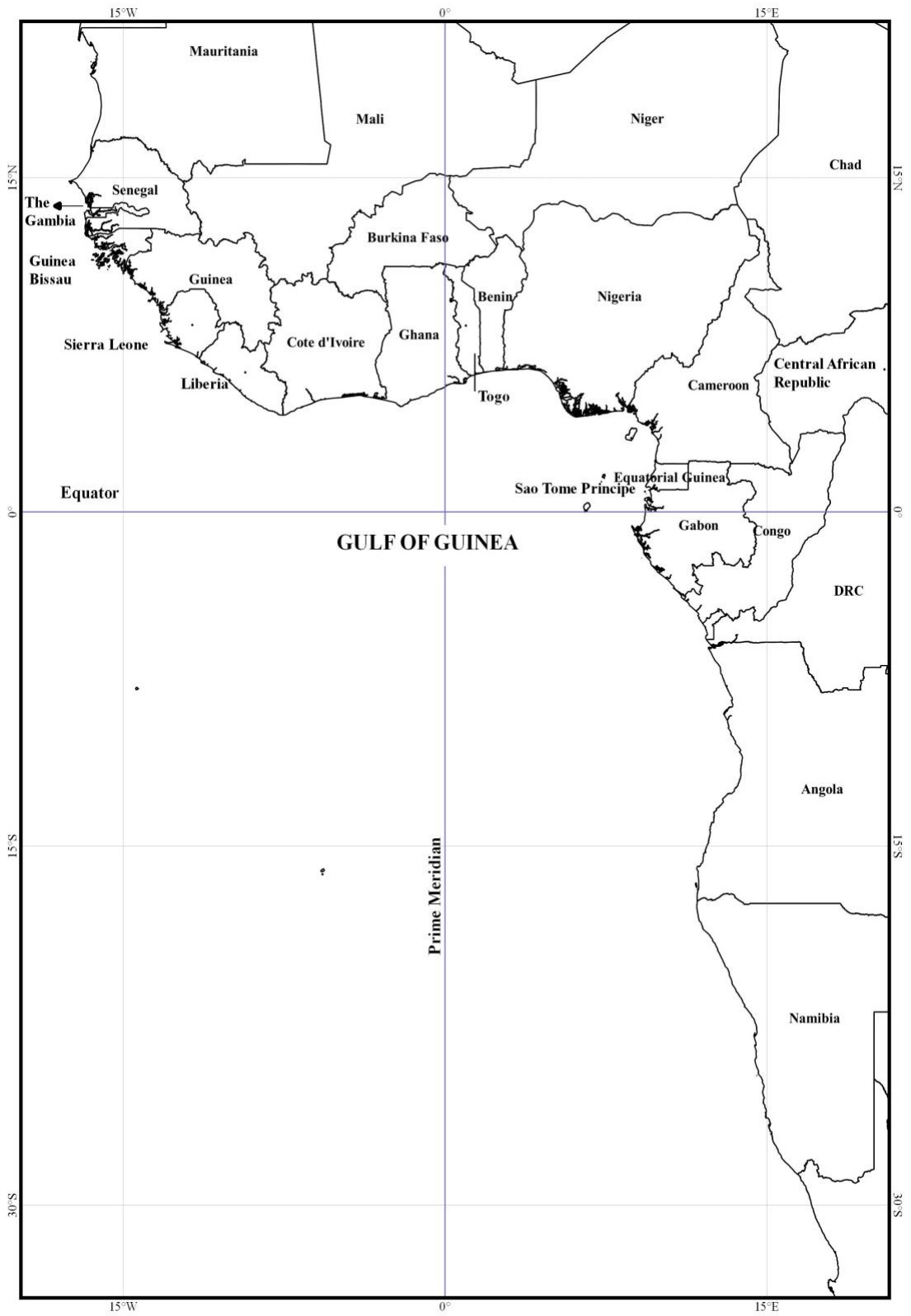
posits that it will be impossible for goal 14 of the SDG to be actualised given the current state of fisheries' management protocols across the region. It makes a useful contribution to the debate on the link between maritime (in)security, IUU fishing and the SDGs by arguing that for majority of the countries in the region, the attainment of some of the SDGs is dependent on their ability to institute robust maritime security measures which will include adequately funding the relevant institutions to implement effective fisheries management.

The paper sets the background in the second section with an overview of the state of fisheries in the Gulf of Guinea with selected case studies from across the region. This is followed in the third section by an analysis of the state of maritime security, with emphasis on fisheries management in certain countries across the region. The fourth section explores the existing policies and strategies aimed at ensuring sustainable fisheries in the region. The article concludes with a discussion on the imperative of ensuring the sustainable exploitation of the ocean, sea and marine resources in the region.

2. The Gulf of Guinea and the State of Fisheries in the Region

As a geographical area, the Gulf of Guinea means different things to different scholars and policy makers. As such, whatever definition is given to it largely depends on the perception of the person or group of persons trying to define it. This paper adopts a broader definition based on the geographical location of the region. The Gulf of Guinea is thus defined here as comprising of many countries from West and Central Africa (see figure 1 below): Angola, Benin, Cameroon, Central African Republic (CAR), Cote d'Ivoire, the Democratic Republic of Congo (DRC), Equatorial Guinea, Gabon, Gambia, Ghana, Guinea-Bissau, Liberia, Nigeria, Republic of Congo, Saó Tomé and Príncipe, Senegal, Sierra Leone and Togo (Okafor-Yarwood 2015:285).

Fig. 1. An extended map of the Gulf of Guinea.



The region is endowed with vast marine and energy resources. It is home to some of the world's most sought-after fisheries and aquaculture. It is estimated that the region is home to over 300 species of finfish, 17 species of cephalopods, 25 species of crustaceans, and 3 species of turtles. These resources are exploited by both artisanal and industrial fishing fleets, of which the latter is made up of both local and foreign vessels (Belhabib et al. 2016; Perry & Sumaila 2007:126). Fisheries contribute directly to the livelihood of the regional population and serves as a useful source of revenue for many of the countries in the region (Garcia 2005; Heinbuch 1994; Lafraniere 2008; OECD-ECOWAS 2008; Segniagbeto et al. 2014; Thrush et al. 1998; Witbooi 2011; The World Bank 2014; Young 2012; Tsamenyi 2014; Falaye 2008; FCWC 2016; Belhabib, Sumaila, Lam, et al. 2015; Seto et al. 2017). Small-scale and artisanal fishermen and women, in countries across the region primarily exploit fisheries for food as the primary source and sometimes the only source of animal protein due to its affordability and also as a source of income (FAO 2005a; Drammeh 2000; Harper et al. 2013). For majority of the people living in the region, fisheries contributes between 41 – 75% of their animal protein (FAO 2006; FAO 2016a; FAO 2016c; Belton & Thilsted 2014; EJF Staff 2017; Belhabib et al. 2014:2).³ In littoral communities such as those in the resource rich Niger Delta area of Bonny in Nigeria, fish is not only seen as a source of income, but also as a tradition that must be upheld. Most the people living in fishing settlements such as Sandfill, River 7 and Light House rely on fisheries for subsistence either as fishermen or fish mongers. The income from fisheries is used to feed and clothe as well as to provide medical care and send their children to school.⁴

While the pervasiveness of IUU fishing in the region is well documented in the literature, it has been impossible to ascertain the real extent of the threat due to its clandestine nature and the overall paucity of data, as most of the countries in the region

do not have access to robust Monitoring Surveillance and Control (MCS) systems (Lawrence Etim, Dyhia Belhabib 2015; Doumbouya et al. 2017; Belhabib, Sumaila, Lam, et al. 2015; Belhabib, Sumaila & Pauly 2015; D Belhabib et al. 2016). Nevertheless, expounding on the financial cost of IUU fishing for Nigeria, Onuoha opines that the country losses an estimated US\$800 million each year (Onuoha 2012). Onuoha's assertion, however, is difficult to corroborate due to the paucity of data. Nevertheless, figures from the Nigerian Department of Fisheries show that IUU fishing by commercial and foreign vessels accounts for an estimated US\$29 million loss in shrimps alone. This is equivalent to the amount generated from the country's shrimping exports.⁵ The extensiveness of unsustainable practices that are harmful to the marine environment and consequently impact on the economy of Nigeria is further evidenced by the significant drop in Nigeria's earnings from shrimp exports, which have reduced from \$38.3 million in 2007 to \$29 million in 2015 (Nigeria Department of Fisheries n.d.). For their part, INTERPOL notes that IUU fishing and other associated crimes destabilize the sustainability of marine living resources, and threaten the economic, social and political stability of coastal communities, especially in West Africa where small-scale or artisanal fishermen depend on sustainable near-shore fisheries for their source of revenue and survival (2014:8). With more than 50% of the fisheries resources in the stretch of Nigeria and Senegal's coastline already over-exploited (Daniels et al. 2016), INTERPOL's submission emphasises the impact of unsustainable fishing practices in Nigeria, where the existence of traditional fishing communities is threatened.

Highlighting the impact of depleting fisheries which he argues is exacerbated by IUU fishing, the Co-ordinating Chairman of the Niger Delta Artisanal Fishermen Association of Nigeria (ARFAN), Rev. Samuel Ayadi, notes that foreign vessels

encroach into the inshore waters that have been reserved for artisanal fishers, which undermines the marine environment. He went on to add that the fact that these vessels come in at night to avoid detection means that the association members come back to find that their nets have been damaged by the predatory vessel(s). In order to make ends meet some of the fisher men, who are experiencing reduced catch, travel beyond the legal permissible limits by fishing in the infamous Bakassi Peninsula, an area that has been the cause of major dispute between Nigeria and Cameroon until 2002 when both countries reached an agreement (Okoi 2017:56-8; United Nations 2006). Their activities add undue pressure on the sustainability of fish stock in the region, thereby exacerbating the depletion of fisheries resources. Rev. Ayadi also noted that the actions of his ARFAN members in trying to make ends meet has on many occasion resulted in fines, physical abuse and or the confiscation of their fishing gear by the Cameroonian ‘*Gendarme*’ police. ⁶ According to Kamal-Deen Ali & Martin Tsamenyi, the delineation agreement between Nigeria and Cameroon ensured that fishing rights of local communities were preserved (Ali & Tsamenyi 2013). The encroachment of these fishers to Cameroonian waters have resulted in an increased tension between the two countries not least as the Cameroonian *gendarme* were alleged to have killed 97 Nigerian Fishermen over the non-payment of their boat levies in July 2017 (Ovuakporie 2017).

Further, examples from Senegal also espouse the possible security implications of unsustainable fishing which has resulted in the commercial extinction of certain species such as the grouper (Belhabib et al. 2014: 2). Traditionally, the local fishing community caught an estimated 80% of fish consumed locally, but this figure has now reduced to 50%. This fall is in part due to the over exploitation and illegal exploitation of fisheries by foreign fleets, which has in turn driven an increased incursion of artisanal

fishers into neighbouring countries' fish (Belhabib et al. 2014; Witbooi 2011). According to Belhabib et al, Senegalese artisanal fishers get an estimated 48% of their catches from Mauritania, 33% from Guinea-Bissau, 19% from Gambia and 1% from Guinea, (Belhabib et al. 2014). Given the historical difficult relationship between Senegal and Guinea-Bissau over their maritime boundary and the Casamance separatists, the potential for conflict between fisher folks from Senegal and Guinea-Bissau cannot be ruled out (Okafor-Yarwood 2015; Centurion Law Group 2016). Additionally, depleted fish stock has resulted in some traditional fishermen switching their activities to transporting interested parties by boat to Europe in search of a better future and to make ends meet. For example, Eshelby observes, that to alleviate the impact of reduced fisheries catch, some traditional Senegalese fisher folks are increasingly abandoning their trade. They convert their fishing boats to human cargo vessels, shipping young Senegalese to Europe, as fisheries resources, which were once available in plenty, are now hardly enough to go round (Eshelby 2007). Hence, depleting fisheries is already affecting the ability of some traditional fishers as they lose their source of livelihood thus impeding on their ability to meet their food and nutrition security needs.

3. The Gulf of Guinea and Maritime (In)security

Hobbes and Weber note that, the primary role of a state includes, amongst other things, securing its borders and internal features from security threats (Hobbes 1996; Weber 1946). In recognition of the significance of safeguarding the ocean resources, Till observes that the sea-based resources such as oil, gas, and fisheries are crucial to the economic growth of littoral states, and as such must be effectively managed (Till 1996:24). However, far from effectively managing the resources within their maritime domain, the Gulf of Guinea has in recent times been identified as a hub for maritime

security threats such as piracy/armed robbery at sea, having over taken the Gulf of Aden in this respect, (Leymarie et al. 2013; Fiorelli 2014; Ameringen 2014; Onuoha 2012). Its marine resources are also endangered by pollution, overfishing and IUU fishing related activities (Tsamenyi 2014; Falaye 2008; Onuoha 2012; Belhabib et al. 2014; Agnew et al. 2010; Daniels et al. 2016; Anyimadu 2013).

According to Onuoha, the laxity in ensuring the optimum utilisation of their maritime domain is due to a perceived sea blindness which has resulted in the region been plagued by a litany of maritime security threats such as piracy/armed robbery at sea, toxic waste dumping, illegal oil bunkering and IUU fishing amongst others (Onuoha 2012). While it is difficult to individually ascertain the abilities of the countries that make up the region to secure their maritime borders, the current state of affairs in the region's littoral area shows that it faces significant challenges. Specifically, it is a generally accepted dictum in fisheries literature that IUU fishing is prevalent in the region due to limited investment in the sector, limited financial means, outdated fisheries laws, and poorly trained personnel, (Lawrence Etim, Dyhia Belhabib 2015; D Belhabib et al. 2016; Belhabib et al. 2017; Seto et al. 2017; Lewerenz & Vorrath 2015; Doumbouya et al. 2017). Additionally, fisheries management officials in select countries across the region have been known to collect bribes in exchange for allowing free passage of potential IUU fishing vessels (Ali & Tsamenyi 2013; Vrēy 2013; Onuoha 2012; INTERPOL 2014; Falaye 2008; Daniels et al. 2016; Ousmane 2003). Whereas this might not be the place to plunge into extensive literature on maritime security, the literature is replete with the implications of maritime insecurity on socio-economic development and the overall security of the state, (Bueger 2015; Jacobsen & Johannes Riber Nordby 2015; Vrēy 2013; Kamal-Deen Ali 2015; Onuoha 2012).

In Nigeria, for example, many of the difficulties in the sector are caused by bureaucratic problems in government, which has resulted in the neglect of the fisheries sector with respect to making funds available and ensuring that their monitoring capacity is efficient. Specifically, the department of fisheries is grossly underfunded and understaffed, with field officers that are inexperienced, which makes it difficult to collect fisheries data from the many different landing sites, which are spread across the country because Nigeria does not have a designated landing site for fishing (FAO 2007; FDF Nigeria 2007; Akankali & Jamabo 2011).⁷ Additionally, the regulation that is currently overseeing the exploitation of fisheries is 25 years old, which is not up to date with statutes aimed at adapting to modern challenges such as IUU fishing.⁸

For their part, the Nigerian Navy is responsible for safeguarding oil installations from militant attacks, combating illegal oil bunkering, combating piracy and armed robbery at sea as well as engaging in anti-fisheries patrols, which makes it difficult for them to be effective in their overall duty of ensuring maritime security.⁹ The navy is overstretched and severely underfunded, working with sub-standard vessels that are not suited for engaging in the pursuit of a potential illegal fishing vessels. Highlighting this submission, in 2015, the Chief of Naval Staff of the Nigeria Navy posited that the Navy are unable to fulfil their constitutional obligations of ensuring security in the country's littoral areas because half of their fleet is derelict, needing either to be replaced or serviced (Oscar Nkala 2015). The lack of an effective management system makes Nigeria an easy target for an ever-increasing number of IUU fishing vessels. Although it does not currently have a fishing agreement with any DWFN; however, resources from its EEZ continue to be illegally exploited by vessels from China (Belhabib, Sumaila, Lam, et al. 2015: 12-3).

The idea that the increased incidences of piracy/armed robbery at sea along Nigeria's waters would serve as a deterrence to commercial or foreign vessels from fishing close to shore or enter the country's EEZ respectively is incorrect, as vessels from China and Russia continue to fish illegally in Nigeria, (Lawrence Etim, Dyhia Belhabib 2015; Olawale Ajimotokan 2017; Belhabib, Sumaila, Lam, et al. 2015: 12-3). Evidently, piracy/armed robbery at sea threatens the abilities of artisanal and commercial fishers to operate, however, according to a representative of the Department of Fisheries, there have been instances when commercial vessels that are licensed to fish in Nigeria violate the terms of their license by fishing too close to shore. The Nigerian Navy and the Department of Fisheries only become aware of the presence of such vessel in the area because there had been a pirate attack which was subsequently reported by the vessel.¹⁰

Highlighting the responsibilities of the member state to protect and preserve the marine environment, the United Nations Convention on the Law of the Seas (UNCLOS) 1982 Part XII (Art. 192) noted that 'states have the right to exploit their natural resources pursuant their environmental policies and in accordance with their duty to protect and preserve the marine environment' (UNCLOS 1982: 100). However, many countries across the region appear to favour short term economic interests over the needs of their people, even though some of the fish species such as demersal resources are either fully or over exploited (FAO 2005b; Mensah & S.N.K Quatey 2002). In Liberia, where as much as 80% of the population is dependent on cheap fish for their diets, the government is proposing to reduce the inshore fishing zone which is currently reserved for artisanal fishing from 6NM to 3NM, which would allow industrial trawlers access to inshore waters. Reducing the limit threatens the survival of

artisanal fishing as well as the wellbeing of the thousands of people who depend on them for subsistence (EJF Staff 2017; Cholo Brooks 2017).

For the rest of the region, the pervasiveness of the threat and the perceived ignorance of the governments of the respective countries to the problem have resulted in some of the countries being blacklisted or warned by the European Union as part of its efforts to combat the threat globally. One of the first countries in the region to be identified as failing to implement measures aimed at combat IUU fishing in accordance with the European Union ‘IUU Regulation’, which came into force in 2010, was Guinea. Guinea was issued a ‘yellow card’ by the European Commission in 2012. The card serves as a warning that any more failings would lead to a red card. Failing to improve their MCS measures, the Commission went on to black list the country in 2013 – this was in the form of a ‘red card’ which saw the banning of fisheries products caught by vessels from Guinea from being imported into the EU (European Commission 2015; European Commission 2012). The red card was however lifted in July 2016 because Guinea adopted a new Fisheries Act (White 2016).

Relatedly, Ghana received a warning in the form of a ‘yellow card’ in 2013, which was subsequently lifted following the implementation of measures stipulated by the European Commission (European Commission 2015). Likewise, Sierra-Leone is currently on the warning list (yellow carded) and unless they improve might be banned like Guinea (European Commission 2016b). Additionally, despite not having the capacity to monitor their activities, Liberia has over 100 vessels registered under its flag, which has resulted in the listing of a Liberian vessel on the international black list last October (EEAS 2017). Subsequently, on the 23rd of May 2017, the European Commission issued Liberia a ‘yellow card’, citing that, despite being the second biggest shipping registry in the world, the national fisheries authority does not have the capacity

or means to control the vessels they flag. Although the country has taken some plausible measures such as revising their fisheries laws which are aimed at ensuring that vessels operate within the fisheries regulations. However, such measures have not resulted in any tangible outcome as IUU fishing activities continue to be perpetuated by vessels flagged by Liberia, many of which are owned by the EU (European Commission 2017b).¹¹ What these countries have in common is that, despite not having an effective monitoring system to control the activities of vessels in their waters, they continue to flag vessels, issue fishing licenses and even sign fisheries agreements with DWFNs. It is this lax monitoring capacity that vessels from DWFNs, such as China and Russia among others, take advantage of by illegally fishing in their waters (Belhabib, Sumaila, Lam, et al. 2015; Liddick 2014:293; INTERPOL 2014:29).

Senegal has one of the strongest MCS in the sub-region (SRFC Commission 2011:4; Pramod et al. 2017:3). It has a number of foreign fleets fishing legally (and illegally) in its waters, along with the most developed artisanal fleet of Africa which operates within and outside the country's EEZ (Belhabib et al. 2014:1-2). The country has nine coastal stations, of which five out of the nine have radar, albeit some of the five radars not functional. Their responsibility is to control the movements of the industrial vessels (some of whom are foreign fleets). The Senegalese Navy have access to patrol vessels and an aircraft – which is undergoing repairs – that can potentially enhance its fisheries enforcement capabilities (Pramod et al. 2017). The country's fisheries regulations require that all licensed foreign vessels operating within its EEZ declare their entry and exit, as well as reporting their catches and vessel positions while in the EEZ. However, as Pramod et al note, this regulation is not strictly implemented which makes it easy for IUU fishing activities to continue unabated (Pramod et al. 2017).

Additionally, Senegal's quest for generating foreign exchange has resulted in the uninhibited issuance of fishing licenses to commercial and foreign fleets, the expansion of fishing subsidies and the motorisation of the small-scale fishing sector, all of which have resulted in the overexploitation of the country's fisheries (Belhabib et al. 2014:2), the opposite of what SDG 14 seeks to achieve. This has resulted in the further depletion of fisheries resources, and possibly income insecurity for the people as an estimated 60 per cent of the fish caught and landed along the Senegalese coast is earmarked for sale to the EU market. This has resulted in a hike in the price of the commodity which was once very affordable for the local population especially those living in the rural and littoral areas. This is no longer the case and resources that were once the only source of animal protein for many are now denied to them (Pierre Vanneste 2017; Young 2012).

In Guinea-Bissau, IUU fishing accounts for an estimated 50-60 percent of the total catch in the country (Kamal-Deen Ali 2015: 99). The high extent of the threat in Guinea-Bissau arises from by the country's lax maritime security regime, which in turn stems from a lack of an effective fisheries management system and years of political fragility – the later continues till date. While this paper accepts that, as a poor and politically unstable country, it is impossible for Guinea-Bissau to manage its 88 islands, it argues nonetheless that the government's actions (and, in this case, inaction) encourage the overexploitation of the country's fisheries resources. Specifically, the navy only has 350 personnel managing the affairs of the country's 88 islands using two patrol boats whose operational status is uncertain (Kamal-Deen Ali 2015; Arinze Ngwube 2014). Yet, it continues to flag vessels and sign agreements with the European Union, China and Russia even though it lacks the capacity to monitor their activities

and or enforce the conditions of the said agreements (ECOWAS 2013; European Commission 2017a; Belhabib, Sumaila, Lam, et al. 2015:7).

Espousing this submission, Belhabib et al note that the value of access agreement with the European Union for the period between 2000 to 2010 was \$5.7 million. This access agreement enabled EU vessels to catch fisheries species to the value of \$27.6 million – \$25.4 million being the value of legal catch and \$2.2 million for illegal catch. Similarly, the value of access agreement with China for the period between 2000 to 2010 was \$2.9 million. The agreement enabled Chinese vessels to exploit fisheries species up to the value of approximately \$34 million – \$23.9 million accounting for the legal catch and \$10 million for the illegal catch (Belhabib, Sumaila, Lam, et al. 2015:13).

Arguably, some of the revenue generated from the fisheries and or license agreements can go towards developing the sector, but this is not always the case. For example, according to Keijzer, patrol vessels purchased from such funds were reported to have been used for drug trafficking by the ruling elites (Keijzer 2011:23). The outcome is even worse for the food security of the people as only an estimated 10% of the catch made by foreign vessels is sold locally (Ilnyckyj 2007). Therefore, faced with diminishing fish stock exacerbated by the overexploitation of their fisheries, and no legal alternative source of livelihood, fisher folks in Guinea-Bissau have themselves been known to engage in illicit drug trafficking by using their boats to cargo drugs to neighbouring countries like The Gambia, Senegal, and Guinea Conakry (INTERPOL 2014:29).

4. Strategic efforts to Strengthen Maritime Security and their Shortcomings

So far, this paper has shown the significance of fisheries as well as the extent of unsustainable fishing practices, indirectly encouraged by the actions and, in many instances, inactions of countries in the region. The implications for the region's ability to accomplish goal 14 of the SDGs is severe; therefore, there is an urgent need for a more robust and effective fisheries management regime to be implemented. While the eagerness to stamp out IUU fishing in countries across the region exists, what is lacking is the political will to implement new laws and the financial commitment to support relevant agencies.

That said, the African Union should be commended for working towards ensuring the optimum maximization of the fisheries resources as witnessed by their discussions at the recently concluded Summit in Lomé, in October 2016. Amongst other things, the Summit saw the signing of the African Charter on Maritime Security, Safety, and Development, a legally binding instrument aimed at facilitating the consolidation of efforts in combating maritime security threats, promoting trade, and most importantly ensuring the sustainable exploitation of Africa's marine resources (AU 2016). Undoubtedly, the adoption of the African Charter on Maritime Security, Safety and Development by the African Union member states (many of whom are from the Gulf of Guinea region) is a step in the right direction. Looking at the way other projects aimed at ensuring maritime security on the regional level have ended, however, one might be right to argue that it takes more than signing on dotted lines to implement the much-needed changes.

The Gulf of Guinea Commission suitably exemplifies how implemented policies on maritime security have failed to achieve their mandate due to lack of commitment by the participating states. In 2001, eight Gulf of Guinea countries met in Gabon and signed a treaty to set up the Gulf of Guinea Commission (GGC), the treaty

coming into force in 2006, and, subsequently, a secretariat was established in Angola in 2007. The member states of the newly formed GGC are Nigeria, Cameroon, Gabon, Republic of Congo (Brazzaville), Democratic Republic of Congo (DRC), Equatorial Guinea, Sao Tomé and Príncipe, and Angola. Their mandate included aims such as strengthening cooperation and harmonizing policies regarding the exploration and exploitation of the resources in the region, among others (AFCSC 2012: 23).

However, since the GGC commission was established, it is yet to function effectively due to lack of commitment by the signatory states, and scarcity of funds, as only two members – Nigeria and Cameroon – have paid their annual contributions up to 2011. Sao-Tomé and Príncipe are reported as not paying a dime to the commission since it was established in 2007 (AFCSC 2012: 23). Identifying the continued lack of funds as a challenge to meeting its mandate, the executive secretary of the commission, Miguel Trovoada, noted in 2014 that the member states need to provide the necessary and scheduled funding for the committee to work effectively (Ines Ortega 2014). For its part, Angola which hosts the GGC, seems to lack the enthusiasm to support its ideas thereby making it more difficult for the commission to fulfil its mandate (AFCSC 2012: 23).

Comparably, bilateral arrangements aimed at combating IUU fishing, for example, appear to be more effective. The West Africa Task Force is a classic example. The Task Force comprises six member countries namely Benin, Ghana, Nigeria, Liberia, Côte D'Ivoire, and Togo, as part of the Norwegian government funded Fisheries Committee for West Central Gulf of Guinea (FCWC) project. The six member states can alert each other to the activities of vessels that engage in IUU fishing, as well as checking whether a vessel that alleges to be registered/flagged by a participating state is indeed registered in that country. This initiative has proven to be more efficient

in monitoring activities of fishing vessels operating in the region not least because, for the most part, the project is funded through bilateral arrangements, with Norway currently funding a three years' project aimed at strengthening research expertise and information sharing to fight against IUU fishing (AU-IBAR 2016a: 22).

The lack of human resources and the weakness of capacities and governance common to fisheries agencies in countries across the region have resulted in very low responses in signing up to or ratifying international conventions aimed at combating IUU fishing such as the Port State Measures to Prevent, Deter and Eliminate IUU Fishing (PSMA). The PSMA came into force in 2016 and is aimed at consolidating controls in ports where fisheries catches are landed and reported thereby denying access to vessels suspected of engaging in illegal fishing, which can be a useful tool for combating the threat if a majority of the countries in the region are able to ratify it (FAO 2017; Daniels et al. 2016:12-3). The interesting thing about the PSMA is that signing and ratifying the measure brings with it the responsibility for member countries to implement robust monitoring, surveillance and control measures, which, as such, comes as a big added responsibility for countries in the region who are already struggling to monitor fisheries activities in their waters. So far, countries like Gabon, The Gambia, Guinea, Guinea-Bissau, Ghana, Senegal and Togo have either ratified or are just party states (Daniels et al. 2016; FAO 2010; FAO 2017; FAO 2016b). The irony of the decisions of these countries to sign up to the convention is that, apart from Senegal which has an advanced monitoring, surveillance and control system, the other countries are still struggling to effectively manage the activities of vessels flying their flags and or operating in their waters and, as such, implementing the PSMA will be an arduous task for them unless the international community steps in to provide some support (See: SRFC Commission 2011). For example, Guinea-Bissau is currently

struggling with political instability that is undermining socio-economic progress in the country and, as a result, the political will and funds needed to strengthen the fisheries sector are lacking (UN 2017; Dabo 2016; Whatsinblue 2017). This makes it almost impossible for them to fulfil their responsibly associated with the PSMA without any support.

It goes without saying that, although the countries in the Gulf of Guinea have a role to play in ensuring the sustainable exploitation of the resources within their marine environment, fisheries subsidies from developed countries are undermining global efforts to manage fisheries resources. Specifically, fisheries literature is replete with evidence that the fisheries subsidies from developed countries (especially the EU) are exacerbating unsustainable fishing practices in developing countries, with emphasis on countries in the Gulf of Guinea (Le Manach, Chaboud, et al. 2013; Le Manach, Andriamahefazafy, et al. 2013; Schroeer et al. 2011; Belhabib, Sumaila, Lam, et al. 2015; Ilnyckyj 2007; Schorr 2004; OECD 2006; Ousmane 2003). And, as the Secretary-General of the United Nations Conference on Trade and Development (UNCTAD) posits, the billions of dollars spent by developed countries aimed at ensuring that their fisheries sectors thrive in fact undermines the conservation effort by supporting the overexploitation of already depleted resources, which in turn destroys the food security and livelihood of littoral communities (UNCTAD 2017).

Without a doubt, ensuring the effective use of marine resources requires global collective efforts; however, countries in the region must show more commitment to protect their marine environment and the resources that lie within it because depending on outside support is detrimental. To start with, not improving MCS systems will see the overexploitation of marine resources across the region, which automatically inhibits the abilities of the affected countries to meet goal 14 of the SDGs to start with.

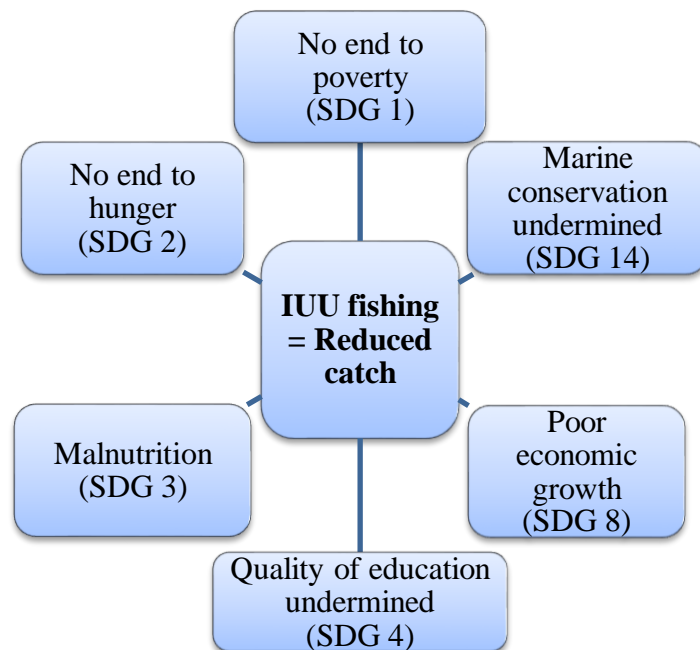
5. Conclusion

It is recognised that developed countries have their own challenges with IUU fishing and other forms of unsustainable fishing practices. As set forth in the preceding paragraphs, however, these pale into insignificance when compared to those in the Gulf of Guinea where such threats are vast, with serious implications for littoral communities. IUU fishing as a threat to the marine environment goes beyond just stealing fisheries resource, it highlights the loophole in the fisheries management systems of countries in the Gulf of Guinea where the crime is prevalent, as perpetrators are known for targeting countries with a weak maritime security system. To ensure that countries in the region can be close to achieving goal 14 of the SDG there is an urgent need to make IUU fishing unattractive by investing generously in the sector. This can only happen when the significance of fisheries to the blue economy of the region, the food security of its people and the importance of goal 14 to the achievement of the rest of the SDGs are recognised.

For Gulf of Guinea countries to ensure that they meet goal 14 of the SDGs by 2030, their governments must first see beyond the short-term revenue associated with fisheries agreements, the sale of licenses and income from fisheries exports, and in doing so be able to visualise the catastrophic consequences that unsustainable exploitation of their resources would cause. Secondly, they must ensure that their fisheries regulations are updated to manage the 21st century threat that is IUU fishing, while also providing adequate funding and trained personnel that can implement MCS measures. Evidently, combating IUU fishing requires the collective commitment and cooperation of all the countries in the region. Most importantly, at present, DWFNs

through their access agreement, or reflagging by countries in the region, seem intent on meeting their own fisheries and food security needs at any cost. Nevertheless, they must do more by reviewing their fisheries policies such as subsidies which have been identified as being harmful to sustainable exploitation of fisheries (WTO 2015). They also have to provide support where and when needed to enable their host countries to ensure the optimum utilisation of their resources.

Figure 2: Hierarchical representation of the impact of IUU fishing on the SDGs



Finally, in every sense, the SDGs embody the UN’s pledge of ‘no human left behind’ which is heightened by the commitment that ‘no goal or target be considered met unless met for all social and economic groups’ (UN General Assembly 2014: p.14 &19). As the evidence has shown, a lot of fisher folks from across the Gulf of Guinea region who depend on fisheries for subsistence already feel left behind as they struggle to make ends meet in the face of the uncertainties caused by IUU fishing. It follows that the link between SDG 14 and the other goals listed above makes a strong case for this

paper to submit that should IUU fishing be allowed to continue unabated, it will be almost impossible for countries in the region to meet the above listed SDGs. Specifically, as summarised in figure 1 above, SDG 1 and 2, which are about seeing an end to hunger, ensuring sustainable agriculture, achieving food security and improved health, can only be achieved for many across the region if SDG 14 is attained. Further, given that fish serves as a source of income for many in the littoral communities which allows them the opportunity to send their children to school, this paper posits that the decline in fisheries will come at a cost to achieving SDG 4 – quality education for many. In the same vein, the associated link fisheries have as a source of animal protein for millions of people across the region means that IUU fishing, in its current state, threatens the attainment of SDG 3 – ensuring healthy lives and well-being. Also, as shown in the preceding paragraphs, the economic damage of IUU fishing for countries across the region – some of whom are already seen as economically insecure – threatens their ability to attain SDG 8. As such, the paper maintains that attaining the conservation of the ocean, seas and marine resources (SDG 14) is fundamental to the actualisation of other SDGs, especially SDG 1, SDG 2, SDG 3, SDG 4 and SDG 8.

Acknowledgements.

Profound gratitude goes to the anonymous reviewers from the marine policy for providing high-quality feedback on the initial draft of this paper. Special gratitude also to the author's PhD supervisors for their continued guidance and Anthony Davenport for editing the paper. The author is grateful also to Peter Sharpe for proof reading and providing useful feedback. The author also thanks her husband, Derrick Yarwood and her children for their continued support. Special gratitude also to the author's family – mum, dad and siblings for believing in her. Finally, the author thanks the almighty God for always being there.

¹ Highlighting the significance of the SDGs, the former Secretary General of the United Nations, Mr Ban Ki Moon noted that the goals are a promise by leaders to all people everywhere, an agenda for people, to end all forms of poverty, (UN General Assembly 2015; UN 2015). It comprises an ambitious 17 sets of targets, with each goal equally as important as the others and sometimes interconnected with each other. For example, the roles of fisheries in development is highlighted in SDG 2 – which places emphasis on the need to end hunger; however, the prioritisation of policies for the sustainable use and conservation of the oceans is underlined by the adoption of an entire and ambitious goal, SDG 14, (UNDP 2016). The paper accepts that as a means of transporting goods and services, the sea is vital and should remain free and safe for its users as stipulated in goal 14. Nevertheless, the paper primarily focuses on fisheries resources, as such will limit its submissions to the conservation of fisheries, ocean and marine resources aspect of the goal.

² An earlier draft of this paper was presented as part of the author's research findings at a symposium organized by the King's College London Brazil Institute in November 2017. An updated version was presented on the 15th of February 2017 at the Symposium 'Transnational and International Environmental Crime: Synergies, Priorities and

Challenges' organized by the Lincoln Centre for Environmental Law & Justice of Lincoln Law School, United Kingdom.

³ In Nigeria, an estimated 41% of animal protein is sourced from fish. This figure is higher in littoral areas.

⁴ The author visited fishing settlements in Bonny Island, in the Niger Delta region of Nigeria as part of her PhD data collection.

⁵ Interview with the Director of Fish Trade, Nigeria Fisheries Department, Abuja. January 2016.

⁶ Telephone interview with Rev. Ayadi who is also the Chairman of the Akwa-Ibom State Artisanal Fishermen Association was conducted in June 2017.

⁷ During an interview with the representatives of the Nigeria Fisheries Department and the Nigeria Trawler Owners Association (NITOA), it was revealed that some of the main challenges facing the fisheries sector in country is bureaucratic in nature – resulting in negligence and underfunding of the sector.

⁸ According to a representative of the Federal Department of Fisheries of Nigeria, the agency had consultations on how to improve the country's fisheries sector, as well as update the laws to meet up with contemporary threats to ocean resources, however, the new laws drafted following the consultations are yet to be discussed and implemented by the law makers.

⁹ Anti-fisheries patrols are exercises by the Navy as part of a memorandum of understanding signed with the FDF which is aimed at combating IUU fishing. It the patrol involves naval officers patrolling the Nigerian EEZ with the hope of identifying and arresting potential perpetrators.

¹⁰ This was also corroborated by a representative of the Nigerian navy during an interview in Abuja in January 2016.

¹¹ Under the EU IUU Regulation, three cards can be issued. First, countries that are seen to have inadequate measures in place to ensure catch is legal may be issued with a formal warning – a 'yellow card'. Second, if they fail to improve, they face having their fish banned from the EU market – 'red card'. Third, when they make the required improvements, they are delisted – 'green card', (Oceana 2016). Sierra-Leone and

Ghana made necessary changes and were delisted after being awarded a yellow card, however, Guinea was first issued a yellow card, which was later upgraded to a red because they failed to make necessary improvements, but have now been delisted.

References

- AFCSC, 2012. *Improving National and Regional Cooperation for Effective Maritime Security in the Gulf of Guinea: a Panacea for Development*, Abuja. Available at: [file:///Users/ifeokafor-yarwood/Downloads/Maritime Security Report Layout FINAL \(2\).pdf](file:///Users/ifeokafor-yarwood/Downloads/Maritime Security Report Layout FINAL (2).pdf).
- Agnew, D. et al., 2010. Estimation of the cost of illegal fishing in West Africa: Final report. *MRAG West Africa regional fisheries project*, (May), pp.1–99.
- Agnew, D.J. et al., 2009. Estimating the worldwide extent of illegal fishing. *PLoS ONE*, 4(2), pp.1–8.
- Agnew, D.J. & Colin T. Barnes, 2004. *Economic Aspects and Drivers of IUU Fishing: Building A Framework*, London. Available at: <http://www.oecd.org/greengrowth/fisheries/29468002.PDF>.
- Akankali, J.A. & Jamabo, N.A., 2011. A Review of Some Factors Militating Against Sustainable Artisanal Fisheries Development in Niger Delta , Nigeria. *Asian Journal of Agricultural Sciences*, 3(5), pp.369–377.
- Ali, K. & Tsamenyi, M., 2013. Fault lines in Maritime Security Analysis of Maritime Boundary Uncertainties in the Gulf of Guinea. *African Security Review*, 22(3), pp.95–119.
- Ameringen, B.S. Van, 2014. The Current State of Global Maritime Piracy. *Geopolitical monitor*. Available at: <https://www.geopoliticalmonitor.com/current-state-global-maritime-piracy/> [Accessed August 25, 2017].
- André Standing, 2017. Criminality in Africa’s fishing industry : A threat to human security. *African Security Brief*, 33, pp.1–13. Available at: <http://africacenter.org/wp-content/uploads/2017/06/ASB33EN-Criminality-in->

- Africas-Fishing-Industry-A-Threat-to-Human-Security.pdf [Accessed August 18, 2017].
- Anyimadu, A., 2013. *Maritime Security in the Gulf of Guinea : Lessons Learned from the Indian Ocean*, London. Available at: ono.
- Arinze Ngwube, 2014. *Drug Trafficking : A threat to Stability in Guinea Bissau*, Montreal. Available at: http://paperroom.ipsa.org/papers/paper_37484.pdf.
- AU, 2016. African Leaders adopt Charter on Maritime Security, Safety and Development. *Press*. Available at: <http://www.au.int/en/pressreleases/31500/african-leaders-adopt-charter-maritime-security-safety-and-development> [Accessed October 18, 2016].
- AU-IBAR, 2016a. *Project Formulation of Soutien à la Pêche, sa Sécurité et son Contrôle en Afrique de l'Ouest (PESCAO) (Support to West Africa Fisheries' Sector, its Security and its control)*,
- AU-IBAR, 2016b. Strengthening Regional Cooperation for Combating Illegal , Unreported and Unregulated Fishing. , pp.1–5. Available at: [file:///Users/ifeokafor-yarwood/Downloads/pb_20160216_strengthening_regional_cooperation_combating_illegal_unreported_unregulated_fishing_en_\(1\).pdf](file:///Users/ifeokafor-yarwood/Downloads/pb_20160216_strengthening_regional_cooperation_combating_illegal_unreported_unregulated_fishing_en_(1).pdf) [Accessed November 24, 2016].
- Belhabib, D., Sumaila, U.R., Lam, V.W.Y., et al., 2015. Euros vs. Yuan: comparing European and Chinese fishing access in West Africa. *Plos One*, 10(3), pp.1–22. Available at: <http://dx.plos.org/10.1371/journal.pone.0118351>.
- Belhabib, D. et al., 2016. Filling a blank on the map : 60 years of fisheries in Equatorial Guinea. *Fisheries Management and Ecology*, 23, pp.119–132.
- Belhabib, D. et al., 2014. Fisheries catch misreporting and its implications: The case of Senegal. *Fisheries Research*, 151, pp.1–11. Available at: <http://dx.doi.org/10.1016/j.fishres.2013.12.006>.
- Belhabib, D. et al., 2016. Fisheries catch under-reporting in The Gambia, Liberia and Namibia and the three large marine ecosystems which they represent. *Environmental Development*, 17(1), pp.157–174.

- Belhabib, D., Greer, K. & Pauly, D., 2017. Trends in Industrial and Artisanal Catch Per Effort in West African Fisheries. *Conservation Letters*, 0(March), pp.1–10.
- Belhabib, D., Sumaila, U.R. & Pauly, D., 2015. Feeding the poor: Contribution of West African fisheries to employment and food security. *Ocean & Coastal Management*, 111, pp.72–81.
- Belton, B. & Thilsted, S.H., 2014. Fisheries in transition: food and nutrition security implications for the global South. *Glob Food Security*, 3, pp.59–66. Available at: <http://dx.doi.org/10.1016/j.gfs.2013.10.001>.
- Boto, I. et al., 2012. *Fighting against Illegal, Unreported and Unregulated (IUU) fishing: Impacts and challenges for ACP countries: Resources on Illegal, Unreported and Unregulated (IUU) fishing*, Brussels. Available at: <https://brusselsbriefings.files.wordpress.com/2012/10/reader-br-10-iuu-fisheries-eng.pdf>.
- Brown, O. & Crawford, A., 2010. Climate Change and the risk of Conflict in Africa. In Jack Mangala, ed. *New Security threats and crises in Africa: Regional and International Perspective*. New York: Palgrave Macmillan, pp. 87–110.
- Bueger, C., 2015. What is Maritime Security ? *Marine Policy*, 53, pp.159–164.
- Centurion Law Group, 2016. *Africa Energy Frontiers: Guinea-Bissau*, Available at: http://www.centurionlawfirm.com/wp-content/uploads/2016/09/Centurion_GuineaBissau_Report_31.8.16_Y_DoublePage_REV.pdf [Accessed June 20, 2017].
- CFFA, 2005. Illegal Fishing In Guinea: Stealing Fish, Stealing Lives. *Coalition for Fair Fisheries Agreement*. Available at: <http://www.cape-cffa.org/new-blog/2005/10/2/illegal-fishing-in-guinea-stealing-fish-stealing-lives> [Accessed April 2, 2015].
- Cholo Brooks, 2017. Liberian Leader Issues Executive Order On Fishery Resources. *Global News Network*. Available at: <http://gnnliberia.com/2017/05/02/liberian-leader-issues-executive-order-fishery-resources/> [Accessed May 25, 2017].
- Dabo, A., 2016. Gridlocked Guinea Bissau names fifth PM in a year. *Reuters*. Available at: <https://sg.news.yahoo.com/guinea-bissau-names-pm-fifth-nine->

- months-181601859.html [Accessed May 9, 2017].
- Daniels, A. et al., 2016. *Western Africa's missing fish; the impacts of illegal, unreported and unregulated fishing and under-reporting catches by foreign fleets*, Available at: <https://www.odi.org/sites/odi.org.uk/files/resource-documents/10665.pdf>.
- Doumbouya, A. et al., 2017. Assessing the Effectiveness of Monitoring Control and Surveillance of Illegal Fishing: The Case of West Africa. *Frontiers in Marine Science*, 4(March).
- Drammeh, O.K.L., 2000. *Illegal, Unreported and Unregulated Fishing in Small-Scale Marine and Inland Capture Fisheries*, Sydney. Available at: <http://www.fao.org/docrep/005/y3274e/y3274e09.htm#bm9>.
- ECOWAS, 2013. *Report of Maritime Technical Assessment Mission to Guinea Bissau*,
- EEAS, 2017. Fight against illegal fishing: Commission lists Saint Vincent and the Grenadines and the Comoros as non-cooperating, and issues warning for Liberia. *Press Release*. Available at: https://eeas.europa.eu/headquarters/headquarters-homepage/26821/fight-against-illegal-fishing-commission-lists-saint-vincent-and-grenadines-and-comoros-non_en [Accessed August 17, 2017].
- EJF Staff, 2017. EJF calls on Liberian government to safeguard inshore exclusive zone. *News and Media*. Available at: <https://ejfoundation.org/news-media/2017/ejf-calls-on-liberian-government-to-safeguard-inshore-exclusion-zone> [Accessed August 16, 2017].
- Eshelby, K., 2007. Pirate Politics. *Ecologist*, 32(2), pp.26–31.
- European Commission, 2017a. *Commission Staff Working Document Evaluation of the Protocol to the Sustainable Fisheries Partnership Agreement concluded between the European Union and Guinea-Bissau*, Brussels. Available at: <http://data.consilium.europa.eu/doc/document/ST-5437-2017-ADD-1/en/pdf>.
- European Commission, 2012. Commission warns third countries over insufficient action to fight illegal fishing More information. *Press Release*, (November). Available at: http://europa.eu/rapid/press-release_IP-12-1215_en.htm [Accessed

August 18, 2017].

European Commission, 2016a. European Union tackling illegal fishing in Western Africa by supporting regional cooperation. *News*.

European Commission, 2017b. Fight against illegal fishing: Commission lists Saint Vincent and the Grenadines and the Comoros as non-cooperating, and issues warning for Liberia. *Fisheries*. Available at: https://ec.europa.eu/fisheries/fight-against-illegal-fishing-commission-lists-saint-vincent-and-grenadines-and-comoros-non_en [Accessed May 25, 2017].

European Commission, 2015. Fighting illegal fishing: Commission warns Taiwan and Comoros with yellow cards and welcomes reforms in Ghana and Papua New Guinea. *Press Release*. Available at: http://europa.eu/rapid/press-release_IP-15-5736_en.htm [Accessed May 5, 2016].

European Commission, 2016b. Fighting illegal fishing: Warnings for Kiribati, Sierra Leone and Trinidad & Tobago, while Sri Lanka is delisted. *Press Release*. Available at: http://europa.eu/rapid/press-release_IP-16-1457_en.htm [Accessed May 5, 2016].

Falaye, A.E., 2008. *Illegal Unreported Unregulated (IUU) Fishing in West Africa (Nigeria & Ghana)*., London. Available at: http://www.imcsnet.org/imcs/docs/iuu_fishing_nigeria_ghana.pdf.

FAO, 2017. Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. Available at: http://www.fao.org/fileadmin/user_upload/legal/docs/037s-e.pdf [Accessed May 26, 2016].

FAO, 2010. *Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, Available at: http://www.fao.org/fileadmin/user_upload/legal/docs/1_037t-e.pdf.

FAO, 2006. *Contribution of Fisheries to National Economies in West and Central Africa: Policies to increase the Wealth Generated by Small-Scale Fisheries.*, Rome.

FAO, 2007. *Country Report: The Federal Republic of Nigeria*, Rome. Available at:

- ftp://ftp.fao.org/FI/DOCUMENT/fcp/en/FI_CP_NG.pdf.
- FAO, 2016a. Fishery and Aquaculture Country Profiles The Republic of Ghana. *Country Profile Fact Sheets. In: FAO Fisheries and Aquaculture Department.* Available at: <http://www.fao.org/fishery/facp/GHA/en> [Accessed October 10, 2016].
- FAO, 2016b. *Ground-breaking illegal fishing accord soon to enter into force*, Rome. Available at: <http://www.fao.org/news/story/en/item/414494/icode/>.
- FAO, 2005a. *Review of the State of the World Marine Fishery Resources*, Rome.
- FAO, 2005b. *Review of the state of world marine fishery resources*, Rome: Food and Agriculture Organization of the United Nations World Health Organization, Food and Nutrition Division, FAO.
- FAO, 2016c. *The State of the World Fisheries and Aquaculture (SOFIA)*, Rome. Available at: <http://www.fao.org/3/a-i5555e.pdf>.
- FCWC, 2016. NIGERIA Nigeria fishery statistics - 2016 Summary report. Available at: <http://www.fcwc-fish.org/fisheries/statistics/nigeria/901-nigeria-fishery-statistics-2016-summary-report> [Accessed March 23, 2017].
- FDF Nigeria, 2007. *Socio-Economics of By-catch Trade: Report of Preliminary Surveys (January -June 2007).*, Nigeria.
- Fiorelli, M., 2014. *Piracy in Africa: The case of the Gulf of Guinea*, Ghana.
- Garcia, S.M., 2005. *World inventory of fisheries. Contribution of fisheries to food security. Issues Fact Sheets.*, Rome.
- Harper, S. et al., 2013. Women and fisheries: Contribution to food security and local economies. *Marine Policy*, 39, pp.56–63.
- Heinbuch, U., 1994. *Animal Protein Sources for Rural and Urban Populations in Ghana*, Cotonou.
- Hobbes, T., 1996. *Leviathan* J. C. A. Gaskin, ed., Oxford: Oxford University Press.
- Inyckyj, M., 2007. The Legality and Sustainability of European Union Fisheries Policy in West Africa. *MIT International Review*, pp.33–41.
- Ines Ortega, 2014. The Gulf of Guinea Commission celebrates its Council of Ministers in Sipopo. *Equatorial Guinea's Press and Information Office*.

- Available at:
<http://www.guineaecuatorialpress.com/noticia.php?id=4841&lang=en> [Accessed May 28, 2016].
- INTERPOL, 2014. *Study on Fisheries Crime in the West African Coastal Region.*, Available at: [file:///Applications/STUDY ON FISHERIES CRIME IN THE WEST AFRICAN COASTAL REGION.pdf](file:///Applications/STUDY%20ON%20FISHERIES%20CRIME%20IN%20THE%20WEST%20AFRICAN%20COASTAL%20REGION.pdf).
- Jacobsen, K.L. & Johannes Riber Nordby, 2015. *Maritime Security in the Gulf of Guinea*, Copenhagen. Available at:
[http://www.fak.dk/publikationer/Documents/Maritime Security in the Gulf of Guinea.pdf](http://www.fak.dk/publikationer/Documents/Maritime%20Security%20in%20the%20Gulf%20of%20Guinea.pdf).
- Kamal-Deen Ali, 2015. *Maritime Security Cooperation in the Gulf of Guinea: Prospects and Challenges*, Leiden & Boston: BRILL NIJHOFF.
- Keijzer, N., 2011. *Fishing in troubled waters? An analysis of the upcoming reform of the Common Fisheries Policy from the perspective of Policy Coherence for Development*, The Netherlands.
- Lafraniere, S., 2008. Empty Seas: Europe Takes Africa's Fish, and Boatloads of Migrants Follow. *The New York Times*. Available at:
http://www.nytimes.com/2008/01/14/world/africa/14fishing.html?pagewanted=all&_r=0.
- Lam, V. et al., 2012. Climate change impacts on fisheries in West Africa: implications for economic, food and nutritional security. *African Journal of Marine Science*, 34(1), pp.103–117.
- Lawrence Etim, Dyhia Belhabib, D.P., 2015. *An overview of the Nigerian marine fisheries and a re-evaluation of its catch data for the years 1950 to 2010*, Vancouver.
- Le-Gallic, B. & Cox, A., 2006. An economic analysis of illegal, unreported and unregulated (IUU) fishing: Key drivers and possible solutions. *Marine Policy*, 30, pp.689–695.
- Lewerenz, C. & Vorrath, J., 2015. *Illegal Fishing and Maritime Security. Towards a Land- and Sea-based Response to Threats in West Africa*,

- Leymarie, P., Rekacewicz, P. & Stienne, A., 2013. *UNOSAT global report on maritime piracy: a geospatial analysis 1995-2013*,
- Liddick, D., 2011. *Crimes against Nature: Illegal Industries and the Global Environment*, Oxford: Greenwood Publishing Group.
- Liddick, D., 2014. *Illegal Fishing and Organized Crime: A Threat to Maritime Security?*, Cardiff. Available at: <http://piracy-studies.org/illegal-fishing-and-organized-crime-a-new-maritime-security-threat/> [Accessed June 17, 2016].
- Liddick, D., 2014. The dimensions of a transnational crime problem: the case of iuu fishing. *Trends in Organized Crime*, 17(4), pp.290–312.
- Le Manach, F., Chaboud, C., et al., 2013. European Union’s public fishing access agreements in developing countries. *PloS One*, 8(11), pp.1–10.
- Le Manach, F., Andriamahefazafy, M., et al., 2013. Who gets what? Developing a more equitable framework for EU fishing agreements. *Marine Policy*, 38, pp.257–266. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0308597X12001406> [Accessed January 7, 2015].
- Mensah, M.. & S.N.K Quaatey, 2002. An overview of fishery resources and fishery research in the Gulf of Guinea. In J. M. McGlade et al., eds. *The Gulf of Guinea Large Marine Ecosystem: Environmental Forcing and Sustainable Development of Marine Resources*. United States of America: Elsevier, pp. 227–240.
- Mike Beke & Blomeyer, R., 2014. *Illegal Unreported and Unregulated Fishing: Sanctions in the EU*, Available at: [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/529074/IPOL_STU\(2014\)529074_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/529074/IPOL_STU(2014)529074_EN.pdf).
- MRAG, 2016. *Towards the Quantification of Illegal, Unreported and Unregulated (IUU) Fishing in the Pacific Islands Region*, Australia.
- Nigeria Department of Fisheries, *Fishery Statistics of Nigeria*, Abuja.
- Oceana, 2016. *The EU IUU Regulation Building on success EU progress in the global fight against illegal fishing*, Available at: http://eu.oceana.org/sites/default/files/oceana_iuu_report_01_02_16_web.pdf.

- OECD, 2006. *Financial Support to Fisheries; Implications for Sustainable Development*, France: Organization for Economic Co-operation and Development.
- OECD-ECOWAS, 2008. *The Development Dimension Fishing for Coherence in West Africa Policy Coherence in the Fisheries Sector in Seven West African Countries: Policy Coherence in the Fisheries Sector in Seven West African Countries*, France.
- Okafor-Yarwood, I., 2015. The Guinea-Bissau–Senegal maritime boundary dispute. *Marine Policy*, 61, pp.284–290. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0308597X15002274>.
- Okoi, O., 2017. Why Nations Fight: The Causes of the Nigeria–Cameroon Bakassi Peninsula Conflict. *African Security*, 9(1), pp.42–65. Available at: <http://dx.doi.org/10.1080/19392206.2016.1132904>.
- Olawale Ajimotokan, 2017. FG Blames Illegal Russian, Chinese Fishing in Nigerian Waters for Low Revenue. *ThisDay Live*. Available at: <https://www.thisdaylive.com/index.php/2017/08/18/fg-blames-illegal-russian-chinese-fishing-in-nigerian-waters-for-low-revenue/>.
- Onuoha, F., 2012. *Piracy and Maritime Security in the Gulf of Guinea : Nigeria as a Microcosm*, Qatar.
- Oscar Nkala, 2015. Fifty per cent of Nigerian Navy vessels broken down, says naval chief of staff. *Defence Web*. Available at: http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=40477:fifty-per-cent-of-nigerian-navy-vessels-broken-down-says-naval-chief-of-staff&catid=51:Sea&Itemid=106.
- Ousmane, N., 2003. International Fish Trade and Food Security – Case of Senegal. In FAO, ed. *Report of the Expert Consultation on International Fish Trade and Food Security*. Rome: United Nations Food and Agriculture Organization, pp. 185–191. Available at: <http://www.fao.org/docrep/006/y4961e/y4961e0d.htm>.
- Ovuakporie, E., 2017. Reps probe alleged killing of 97 Nigerians by Cameroonian Gendarmes. *Vanguard Nigeria*. Available at:

- <http://www.vanguardngr.com/2017/07/reps-probe-alleged-killing-97-nigerians-cameroonian-gendarmes/> [Accessed August 14, 2017].
- Perry, R.I. & Sumaila, U.R., 2007. Marine ecosystem variability and human community responses: the example of Ghana, West Africa. *Marine Policy*, 31, pp.1–35.
- Pierre Vanneste, 2017. The Senegalese fishermen trapped between hunger and exile. *Equal Times*. Available at: <https://www.equaltimes.org/the-senegalese-fishermen-trapped#.WOOZCRLyu8U> [Accessed April 4, 2017].
- Pramod, G., Koutob, V. & Mantha Gopickrishna, 2017. Global Evaluation of Fisheries Monitoring Control and Surveillance in 84 Countries Senegal- Country Report. *IUU Risk Intelligence*, 1(1). Available at: <http://iuriskintelligence.com/admin/wp-content/uploads/2017/04/Angola-country-Report-Global-Fisheries-MCS-Report-2017.pdf>.
- Schorr, D.K., 2004. *Healthy Fisheries, Sustainable Trade: Crafting New Rules on Fishing Subsidies in the World Trade Organization*, Available at: http://www.wto.org/english/forums_e/ngo_e/posp43_wwf_e.pdf.
- Schroerer, A. et al., 2011. *The European Union and Fishing Subsidies*, Available at: http://oceana.org/sites/default/files/reports/EU_Subsidies_Report_FINAL_FINAL-1.pdf.
- Segniagbeto, G.H. et al., 2014. Annotated checklist and fisheries interactions of cetaceans in Togo, with evidence of Antarctic minke whale in the Gulf of Guinea. *Integrative Zoology*, 9, pp.1–13.
- Seto, K. et al., 2017. War, fish, and foreign fleets: The marine fisheries catches of Sierra Leone 1950–2015. *Marine Policy*, 83, pp.153–163.
- SRFC Commission, 2011. *Report on the maiden meeting of the MCS (CT / MCS / SRFC) technical committee of SRFC member States*, Bangul. Available at: http://www.spcsrp.org/sites/default/files/csrp/projets/scs/1st_Meeting_of_the_Technical_Commission_for_MCS.pdf.
- Tafsir Malick Ndiaye, 2011. Illegal, Unreported and Unregulated Fishing: Responses in General and in West Africa. *Chinese Journal of International Law*, 10,

- pp.373–405.
- Telesetsky, A., 2015. Laundering fish in the global undercurrents: Illegal, unreported, and unregulated fishing and transnational organized crime. *Ecology Law Quarterly*, 41(4), pp.939–997.
- The World Bank, 2014. Ebola: New World Bank Group Report Shows Growth Shrinking, Economic Impact Worsening in Guinea, Liberia, and Sierra Leone. *Press Release*. Available at: <http://www.worldbank.org/en/news/press-release/2014/12/02/ebola-world-bank-report-growth-shrinking-economic-impact-guinea-liberia-sierra-leone>.
- Thrush, S.F. et al., 1998. Disturbance of the marine benthic habitat by commercial fishing: Impacts at the scale of the fishery. *Ecological Applications*, 8, pp.866–879.
- Till, G., 1996. Development in Maritime Strategy. In P. Cozens, ed. *New Zealand's Maritime Environment and Security*. New Zealand: Centre for Strategic Studies, pp. 5–27.
- Tsamenyi, M., 2014. *The case of Ghana: sharing Challenges in Implementing Legislations to Combat IUU Fishing*, Brussels. Available at: http://brusselsbriefings-videos.net/admin/videos/298_the-case-of-ghana-sharing-challenges-in-implementing-the-legislation-to-combat-iuu-fishing/16-tsamenyi.pdf.
- UN, 2015. Historic New Sustainable Development Agenda Unanimously Adopted by 193 UN Members. Available at: <http://www.un.org/sustainabledevelopment/blog/2015/09/historic-new-sustainable-development-agenda-unanimously-adopted-by-193-un-members/> [Accessed October 19, 2016].
- UN, 2017. Structural Causes of Instability in Guinea-Bissau Must Be Tackled, Top Official Tells Security Council, Urging Parties to Implement Conakry Accord. *Security Council Meeting 7883rd Meeting*. Available at: <https://www.un.org/press/en/2017/sc12717.doc.htm> [Accessed January 1, 2017].
- UN General Assembly, 2015. *Resolution adopted by the General Assembly on 25*

- September 2015: *Transforming our world: the 2030 Agenda for Sustainable Development*, Available at:
http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.
- UNCLOS, 1982. *United Nations Convention on the Law of the Sea*, Available at:
http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.
- UNCTAD, 2017. *A Man-made Tragedy: The Overexploitation of Fish Stocks*, Youtube. Available at:
https://www.youtube.com/watch?v=_dIwFzGt5ug&t=52s.
- UNDP, 2016. Sustainable Development Goals. Available at:
<http://www.undp.org/content/undp/en/home/sustainable-development-goals/>
 [Accessed October 6, 2016].
- United Nations, 2006. Nigeria, Cameroon sign agreement ending decades-old border dispute; sets procedure for Nigeria withdrawal from Bakassi Peninsula. *Press Release*. Available at: <https://www.un.org/press/en/2006/afr1397.doc.htm>
 [Accessed August 17, 2017].
- Vrēy, F., 2013. Turning the Tide : Revising African Maritime Security. *Scientia militaria, South Africa Journal of Military Studies*, 41(2), pp.1–23.
- Weber, M., 1946. *Essays from Max Weber*, London: Routledge.
- Whatsinblue, 2017. Mandate Renewal of UN Mission in Guinea-Bissau. *Security Council Report*. Available at: <http://www.whatsinblue.org/2017/02/mandate-renewal-of-un-mission-in-guinea-bissau.php#> [Accessed May 8, 2017].
- White, C., 2016. Guinea red card lifted by European Commission. *Sea Food Source*. Available at: <http://www.seafoodsource.com/news/environment-sustainability/guinea-red-card-lifted-by-european-commission> [Accessed January 25, 2017].
- Witbooi, E., 2011. *Fisheries and Sustainability: A Legal Analysis of EU and West African Agreements* 1st ed., The Netherlands: Martinus Nijhoff.
- WTO, 2015. WTO 10th Ministerial Conference Fisheries Subsidies Ministerial Statement 1 on behalf of Australia , Vanuatu and OECS Economic Union WTO Members (Antigua and Barbuda , Dominica , Grenada , St Kitts and Nevis , St

Lucia and St Vincent and the Grenadines). *WTO Ministerial Conference*, pp.1–

2. Available at:

https://www.wto.org/english/thewto_e/minist_e/mc10_e/fishsubsippmc10_e.pdf

[Accessed March 24, 2016].

Young, M., 2012. Food Security, Sustainability and Trade Distortions: Fisheries Subsidies and the WTO. In R. G. Rayfuse & N. Veisfelt, eds. *The Challenge of Food Security: International Policy and Regulatory Frameworks*. Cheltenham: Edward Elgar, pp. 190–205.