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The Law of Marine Fishing: Challenges and Coping Strategies for Sustainable Marine Fishing in Ghana

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ARTICLE INFO

Article history

Received: 6 July 2020

Accepted: 31 July 2020

Published Online: 31 August 2020

Keywords:

Sustainable marine fishing

Marine laws

Ghana

Coping strategies

ABSTRACT

Waters off the coasts of West Africa are very rich with many different types of fish and marine life. Some species like sardines, tuna, mackerel, tilapia and shrimps are important to many local communities and economies in West Africa. However, the current overfishing of these fish affects the sustainability of fishery industry. Despite Ghana ratifying to a number of international marine laws to ensure a sustainable marine fishing, there seem to be some challenges that are associated with marine fishing in Ghana. This paper further examines the strategies that have been employed by the fishing community and the fisheries ministry in Ghana as a response to restrictive measures for the challenges identified and discussed in literature. This paper is fundamentally an extensive review of marine fisheries literature. In general terms, it was found that, Ghana has ratified to a number of international marine laws including the UNCLOS.

1. Introduction

There are a lot of marine waters in West Africa, which are very rich with many different types of marine life. Ghana is one of the countries in West Africa that cannot be overlooked in terms of marine life issues. Ghana is a West Africa country located along the Gulf of Guinea with longitude 7.9465° N, and latitude 1.0232° W^[1] and it share borders in the north with Burkina Faso, east with Togo, west with Ivory Coast and south with the Gulf of Guinea. A large num-

ber of Ghanaians dwell on fish supplies for their daily animal protein supply^[2]. The fishery sector of Ghana over the years has played a significant role in supporting economic growth and the livelihood of the people^[3]. In Ghana, fishing engages more than 500,000 people as fishermen, fish traders and fishing boat builders and accounts for about 3.6 per cent of the gross domestic product.^[2]

Studies on marine fishing^[4-6] suggest that to ensure sustainable marine fishing, there should be a complete un-

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derstanding of the multifaceted relationship between the environment and the laws that regulates them. Fishing in Ghana faces a lot of challenges and without strong and robust laws and regulations in place, its negative impact will continue in the marine sector.

In the second half of the 20th century, there has been a lot of emerging scientific and technological advancements to effectively find a more sustainable way to improve fishing in Ghana not forgetting the existing laws and regulations.^[7] However, it is becoming very evident that there is a lot of substantial increase in the challenges that is collapsing the fishing industry in Ghana. In recent time, sustainable fishing in Ghana has been questioned a number of times largely due to the overexploitation. Overexploitation and sustainability have been core concepts in the management of renewable resources since the 1600s. Fishes are not only renewable resources for mankind, but they also provide a variety of benefits, recreational pleasure, as well as supporting livelihoods^[8].

Ghana has significant fish stocks and a strong tradition and culture of fishing. Over 440,000 tons of fish are produce every year from the country’s marine fisheries. However, more than 2.3 million of the total population depend on the fishery sector for their livelihoods^[9]. The fish resources in Ghana are mostly overexploited. Per the sources, the country produces only 50% of its annual requirements. The sector plays an important role by contributing towards the country’s economic development relating to employment opportunities, livelihood support, food security, poverty reduction, sustaining resources and foreign exchange earnings. In estimation, the fish sector support the country’s total GDP of about 3% and 5% in the agricultural sector^[10]. However, more than 10% of the entire population is engaged in the fishing industry, and over 70% of the total fish requirements are undertaken by the artisanal fishing in the country^[5]. About 60% of the women population in the country is being employed in the fishing industry. The seabed in Ghana’s sea has been destructed by the improper fishing activities such as overfishing and fishing with dynamite and light which has contributed to fish catch reduction rate for over two decades in the country. Currently, the country has no effective management regulations and policies to deal with these problems. Consequently, this paper sought to extensively discuss the laws on marine fishing in Ghana emphasizing on the challenges and effective strategies for sustainable marine fishing in Ghana. It also seeks to find out the current status of these regulations, effectiveness and trends in the marine laws and its application.

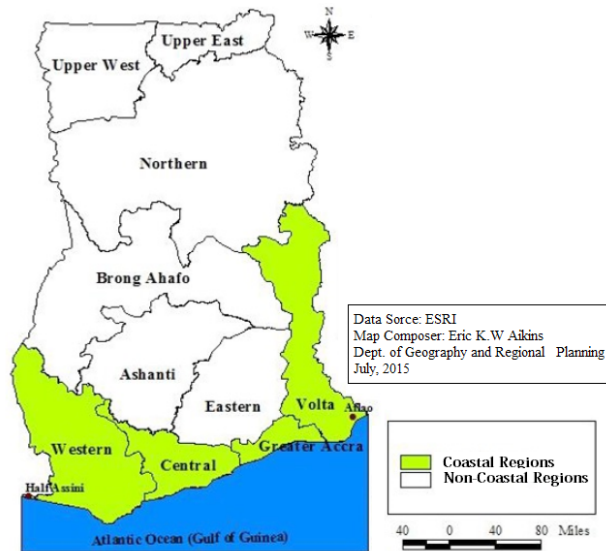


Figure 1. A map of Ghana Showing Coastal and Non Coastal Regions of Ghana

2. Methodological Approaches

In a manner to identify a significant works published to date concerning marine laws and sustainable fishing in Ghana, an extensive literature review was conducted. A range of online scholarly databases, search engines and websites of recognized international as well as national organizations and publishers was searched, to spot out the substantial works carried out in the area of marine laws and sustainable fishing. Varied search terms such as “Fisheries management”, “marine laws”, “sustainable fishing”, “strategies and challenges of fishing” among others were used for retrieving the literature. The researchers further reviewed various laws on fisheries in Ghana; “Fisheries Management Plan 2015-2019”, “Sustainable Fisheries Management Project 2018”, “Ghana Project under the First Phase of the West Africa Regional Fisheries Program P124775”, “National Plan for Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, 2014”

3. Previous Researches

3.1 History of the Fishing Industry in Ghana

During the era of colonization, the fishing industry in Ghana arrived late following the earlier emergence of cocoa among other valuable economic products. In the era of 1930s, the industry received much attention and its first regulatory law in 1946 and the Fisheries Ordinance Cap 165^[11]. The fishing technology had a new face during the early 1950s, and its scope was extended to capture issues

of safety. However, the industry continues recording more and more casualties, and over 25,000 casualties are being recorded every year. The environmental effects on marine fishing have reduce but have significantly increased the capacity to catch fish ^[12]. In a very long run, since the early 1970s, growth in employment in the primary sectors of fisheries may be slowing down significantly. Moving forward, fishing in Ghana has grown to employ a lot of people directly or indirectly. Since 1998, fishing is estimated to have primarily employed about 36 million people, comprising about 15 million full-time, 13 million part-time and 8 million occasional workers, of which it is estimated that about 60% are employed in marine fisheries.

Between 1950 and 1970, the ocean ecosystems food supply for direct human consumption doubled practically and stabilized since then at 9.0 to 10 kg of fish per caput, despite world population growth ^[13]. As total marine capture production stagnates, supply from marine capture fisheries is likely to decrease substantially, unless more effective management of capture fisheries and further development of aquaculture can increase production. Marine fisheries were Carrefour after receiving a rapid geographic expansion and technical advances, and several-fold increases in the annual harvest. The current fishery of sustainability is being questionable as almost all the fishery resources are either overexploited or exploited heavily. The environmental impacts awareness campaign has been to the societies. Browman also contributed that a series of eco-labeling schemes are being proposed and tested ^[14]. There is an assurance that, an ecosystem-based fisheries management (EBFM) approach might also help to set free some of the impediments that conventional management has experienced.

3.2 Challenges Facing the Fishing Industry in Ghana

Marine fishing in Ghana is one of the important traditional economic activities of the coastal communities and contributes more than 80 per cent of the total fish catch. Mensah and Antwi posit that the challenges of marine fishing in Ghana continue their perilous existence in the coastal environment ^[7]. In a study on “Challenges of marine fishing in Ghana,” identified some of the continue challenges in the marine fishing industry in Ghana ^[15]. Such challenges included;

(1) Overfishing: Usually overfishing is described as a fishing activity where fish resources are over exploited and above the fish reproductive capacity of affected marine ecosystem. Over fishing is touted as one of the main challenges of the marine fishing industry in Ghana because it negatively affects the stability and sustainable

reproduction of fishes in the marine ecosystem. Friends of Nation added that over fishing does not only affect the stability and reproduction within the ecosystem, but also negatively affects the spatio-economic wellbeing of affected fishing communities that depend on the marine habitat ^[16]. Food and Agriculture Organization, further suggest that, as a way to control overfishing, in this study highlighted the need for fishing communities to consider having another source of livelihood that will help lessen the overdependence on fishing ^[17].

(2) There is a limited use of sustainable modern techniques of fishing and overdependence on subsistence fishing: In this fast developing economic era, a lot of fishermen still rely on the use of outdated use of sustainable techniques of fishing and heavily rely on traditional fishing such as DDT and dynamite for fishing. This negatively affects the ecological stability of the marine habitat, sustainable reproduction. Ministerielle adds that, fishermen heavily depend on subsistence fish farming for their livelihood that they can do anything to get a big catch ^[18]. Some of the techniques that are used in modern day marine fishing include the use of un-prescribed nets (nets with smaller mesh size), light aggregating machines, DDT and dynamites lower the reproductive capacities that affect marine habitats. Also, these bad fishing practices large quantities of fish tend to be destroyed in the process of local fishers extracting fish resources from the affected marine habitats.

(3) There is a limited local knowledge and participation in the maintenance and conservation of marine biodiversity: Basically, a lot of fishermen have low knowledge and participate poorly in what we term as marine conservation fishing. Aikins further unravels in his study that, the general low level of education of fishers and the limited-inclusion of marine fishers in the management and conservation of Ghana's marine biodiversity explains this ^[15]. Although the fisheries Act 625 empowers the sector minister on fisheries to open and close the fishing season where necessary for the effective conservation, management and use of marine resources with the sole aim of achieving a sustainable marine biodiversity and conservation to some extent limits the complete observance to effective biodiversity management and conservation policies that are capable of helping Ghana to achieve a sustainable marine biodiversity, conservation and sustainable fish production. The study finalized that, the enforcement policy to marine fishing sustainability is limited. However, the law enforcement agencies are limited to establish, and to handle issues of marine biodiversity in the country. The effort to attain a sustainable marine biodiversity and sustainable fish production is also limited due to the fact that, most of

the fishermen uses chemical such as DDT and carbides, and the use of explosives such dynamites to harvest more fish. The use of chemicals such as DDT and carbides, and the explosives such as dynamites for more fish harvest limit the country's efforts to attain a sustainable marine biodiversity and sustainable fish production.

(4) Pair Trawling: According to Aikins and Mead pair trawling is a form of fishing where two trawlers move shoulder to shoulder with a net sandwiched between them that scope the marine habitat between the two trawlers for any available fish that could be trapped^[15, 19]. The type of fishes caught is directly based on the net mesh size. In reality, pair trawling sinks the productive capacity of affected marine habitats through the damage of fish reproduction and nurturing habitats of affected marine ecosystems that commonly require an unchanging and undisturbed habitat for fish reproduction and production. The researchers further posits that, pair trawling cause the removal of seaweeds which in essence provide food and essential resources for fish growth and production. Correspondingly, Law further adds that smaller fishes that are not mature for consumption are lost from their habitat. This thereby affects the numbers of the available possible mature fish reserves for the fisheries industry^[20].

(5) The Use of Unapproved Methods of Fishing: Over the past two decade, the fishing industry in Ghana has seen a lot of unapproved methods of fishing largely including; the use of chemicals (DDT, carbides, dynamite), small mesh net for fishing among others. These have consequently led to the lowering of Ghana's fish productivity. Williams also adds that the mean fish production of Ghana which is about 400,000 metric tons is about 50 percent lower than the estimated annual fish requirement of about 820,000 metric tons^[21]. Although fish harvested by this means is less poisonous and relatively healthier for human consumption, the repeated use of this technique in fishing creates an unhealthy habitat for the affected fish that moves farther away from affected habitats to newer and healthy habitats to enjoy a better sleep and a healthier environment.

(6) Lack and Increase of Premix Fuel Price and Fishing Equipment: The fishing industry in Ghana, seasonally see an unexpected increase in premix fuel and prices that generally affect the operational cost and productivity level in the fishing industry in Ghana. The researchers throw more light that, fishermen in Ghana still suffers and incur a lot of operational cost also because they do not have a direct access to the capitals. They however mobilize their own funds from family, friends and self. As a result, most of the fishermen are being prevented to the operational cost to compete the fish scarce and to located in farther

distances away from their yet usually not too long a distance habitat. Predominantly, the frequent increase price of premix fuel, turn to set restrictions for the productive capacity of the fishing industry in Ghana.

3.3 International Regulatory Instruments and Policies for the Conservation and Sustainability of Marine Fisheries in Ghana

3.3.1 Marine Fisheries in Ghana before the UNLOS

The era of the pre-UNLOS in Ghana is marked between the years 1960s and the 1970s. The country was in an aggressive state as there was much call for independence. During this period, the government was unwilling to disturb the economic situation as its main focus was to consolidate their power base. They also felt under force to produce speedy economic results and social developments^[22]. However, the fisheries sector then had its first regulatory legislation around 1946 as the Fisheries Ordinance (Cap 165) of the Gold Coast to regulate all issues associated with fisheries and marine issues. This ordinance was enacted and enforced by the then colonial government^[23]. After the Fisheries Ordinance, the colonial government further enacted other fisheries legislation in the quest of strengthening the already existed Fisheries ordinance in the quest protecting and sustaining marine fishing. These other legislations included Wholesale Fish Marketing Act passed in 1963; Fisheries Act 1964; Fisheries Regulations LI 364 of 1964; NRCD 87 of 1972 (Fisheries Decree 1972); Fisheries (Amendment) Regulations 1977; and AFRD 30 of 1979 and the accompanying regulation, Fisheries Regulation 1979 LI 1235. These legislations did not stand the test of time as they were keen to address issues on importation and operating of fishing crafts. Kwadjosse further expounded that the pre-UNLOS recorded a rising increase in the number of vessels in all the sectors of the fishing industry. The expansion in the fishing sector made the sector one of the lucrative ventures drawing a lot of investment from both public and private ventures. Hernæs contributed to this argument that, the strategies for developing the fisheries sector were mainly based on assumptions that sea will limit the amount of fish caught with the belief that Ghana had an enormous fishing potential^[22,24,25]. The Fisheries sector by then did not have full mandate from the colonial government to enforce the fisheries regulation since the sector was an opened field for investment from anyone.

3.3.2 Marine Fisheries in Ghana after the UNLOS

Prior to the advancement the fisheries sector had made

earlier, Ghana continued to ratify the UNCLOS in 1983. The post-UNCLOS legislations showed an increasing awareness for the need for conservation. Since Ghana ratified to the UNCLOS in 1983, there have been five (5) fisheries legislations established in Ghana:

- (1) Fisheries Regulation 1984, (LI 1294);
- (2) Maritime Zones (Delimitation) Law, 1986;
- (3) PNDC Law 256 of 1991;
- (4) Fisheries Commission Act of 1993;
- (5) Fisheries Act 625 of 2002

Consequently, there has been increased awareness for the management marine fisheries as a result; these laws have been legislated to see to it that marine fisheries are conserved and sustained. The initial passing of the Maritime Zone Law established the jurisdiction over the Exclusive Economic Zone (EEZ), making it possible to determine exactly what is to be conserved and in what areas these measures are needed.

Abobi et al., contributed to this discourse that, the PNDC Law (256) of 1991 was then passed to begin the process of the conservation effort through licensing and establishment of fishing zones to control the access of fish stocks in the country. Since the enactment, there has been restrictions placed on some fishing equipment used in fishing and established a Monitoring Control and Surveillance System.

This was also followed by the Fisheries Commission Act of 1993 and defined as “an Act to establish a Commission, provide for its composition and functions relating to the regulation and management of the utilization of the fishery resources of Ghana and for connected purposes.” This law can be considered as a major step in the attempt to manage the fisheries resources. The main function of the Fisheries Commission Act, 1993 is responsible for the regulation and management of the utilization of the fisheries resources and co-ordination of policies in relation to them, the Commission had duties that included inter alia the establishing of systems to manage, protect and effectively use the fish resources to achieve the most productive use; foster international co-operation and collaboration in fisheries for the benefit of the nation within the framework of Ghana’s foreign policy and international commitments; and advise the Minister on the importation of fish as a supplement to local fish production. Hence, the Commission when established would be the mainstay of the whole fisheries management and conservation effort.

Ghana’s Fisheries Act 625 of 2002 is defined an “an ACT to consolidate with the amendments of the law on fisheries; to provide the regulation and management of fisheries; to provide for the development of the fishing industry and the sustainable exploitation of fishery resources

and to provide for connected matters.”

3.4 Strength and Weaknesses of the International Regulatory Instruments

Despite the efforts made at dealing with the challenges facing the industry, there is ineffective management within the systems in charge of the sector. Also lack of political wills are factors weakening the sector to properly manage it. The industry has been neglected over the years, which have allowed for the influx of foreign vessels daily depleting marine fish resources. Asante et al., adds to literature that, waste is not treated in the country^[26]. These wastes are channeled through water bodies which end up in the sea at the end of the day which pollutes and affect the quantity of reproduction of fish stocks. Ntiamao-Baidu et al., diet, feeding styles and diurnal activity patterns are described for waterbirds using two brackish water lagoon systems in coastal Ghana, the Songor and Keta Lagoons. We project the habitat and activity data on a guild structure defined on the basis of individual feeding style and the sensory mechanism used to detect food. A total of 3 19 9 flocks containing 1 18,648 individuals of 3 6 different waterbird species were examined during October-November 19 94. Feeding habitats varied from dry mudflats to wet mud and shallow water of not more than 20 cm. The depth of water selected by waterbirds for foraging (but not for roosting further adds that’s, there are structural developments along wetlands and water bodies which are habitats to many different species of fish. Because of this structural development, habitats for fish are being destroyed^[27].

Consequently, the government of Ghana, however, in its effort to conserve and sustain fish stocks have declared an open and close season^[28]. This was not taken lightly at first by the fishermen but in the end it has helped restore and restock marine fisheries. The government is also working with local traditional leaders in fishing communities along the coastal areas to enact and implement bye laws for those fisher folks living in those communities to follow and observe them.

3.5 Coping Strategies for Sustainable Marine Fishing in Ghana

According to Agardy there are a number of coping strategies for sustainable marine fishing^[29]. This paper outlines the coping strategies for sustainable marine fishing and they are expounded below:

- (1) Formulated policies and created regulatory frameworks to enhance other government interventions including finance mobilization and infrastructure development

Regulatory bodies and government agencies have ensured the compliance to standards and participate in the capacity building of stakeholders in relevant areas (responsible fisheries and proper harvesting). Nunoo employment, livelihood support and socio-economic benefits to the Ghanaian economy. Fishery resources of Ghana are under stress from population pressure, increasing demand of fish and fishery products and open-access regime. Formal fisheries management practices have not yielded the desired results. There is an increasing need for traditional fisheries practices to be incorporated into formal fisheries management practices. The aim of this paper is to conduct an in-depth study on traditional marine fisheries management systems in Ghana in order to provide information to enhance the management of the artisanal fisheries. Data was collected through document analysis (between May 2014 and January 2015) explains that, the government of Ghana, however, in its effort to conserve and sustain fish stocks have declared an open and close season. This was not taken lightly at first by the fishermen but in the end it has helped restore and restock marine fisheries.

(2) There has been an improved Knowledge and Community Participation in the Maintenance and Conservation of Marine Biodiversity: Mutimukuru-Maravanyika explains that, although the subject of marine biodiversity management and conservation requires some level of education, the general appreciation of the need for a sustainable management and conservation of marine fisheries resources could not be daunting to the local marine fisher^[30]. There has however been a full addition of marine fishers in the management and conservation of Ghana's marine resources as introduced to by the 2003 Ghana coastal fisheries discussion structured by the "Hen Mpoano" initiative could be implemented without delay^[29].

(3) There has been an increased and timely supply of subsidized premix fuel timely supply of premix fuel all year round: In Ghana, the fish plenteous season in particular is from August to September. Intended premix fuel shortages, hoarding and illegal resale of government subsidized premix fuel due to frequent premix shortages, particularly during the plenteous harvest period (August) negatively affect the level of annual seasonal fish production. Short supply or long delays in the supply of premix to affected fishing communities largely frustrates and discourages marine fishers who consider this once a year plenteous harvest period a prime business period within which affected fishers work hard to defray larger portions of their investment cost and generate additional income for the expansion of already existing fishing businesses. An improvement in the quantity and quality of premix fuel supplied to coastal fishing communities in Ghana at

the official subsidized prices could help eliminate negative consequences of perennial premix fuel shortages that often results in the payment of bribes for the timely supply of premix to the needed fishing communities and the payment of unapproved high prices for available premix fuel.

(4) There has been an improved use of sustainable methods of fishing: According to "The fishing sub-sector and Ghana's economy" by the Bank of Ghana, the use of improved sustainable method of fishing through the use of suitable modern fishing methods that are locally and environmentally responsive (use of fuel economy outboard motors, fishing boats and fast moving big canoes with some form of modern refrigeration facilities) could help Ghana to improve on the productive capacity of its subsistence traditional marine fishing, which is by far the most prevalent type of marine fishing in Ghana. The use of improved method of fishing and fishing technology could contribute substantially to the overall improvement in the quality and quantity of marine fish landed per annum.

4. Discussions and Implication

Fisheries have been one of the major sources of food for a large number of people globally^[22]. Till date fisheries continue to provide employment to a lot of people and also economic benefits throughout the world. In many developing countries where Ghana is no exception, there are limited opportunities for employment. A lot of researches^[31,32] confirms that, around 59.6 million people are employed globally in the fisheries industry. There is evidence that easier access to fishery resources has not always interpreted on the long term into higher incomes and increased well-being of coastal communities. However, the practice of inappropriate use of marine fish resources has recently been increased and completed in most parts of the globe to prevent sustainability, and contribute to the major causes of overfishing, fish stocks degradation, ecosystem habitats and biological diversity.

Davis and Wagner in their study "*A right to fish for a living? The case for coastal fishing people's determination of access and participation,*" explains that sustainable marine fishing implies leaving enough fish in the ocean, respecting habitats and ensuring people who depend solely on fishing can maintain their livelihoods. Undoubtedly, Ghana still has a great potential to increase and sustain its marine fish production. The Ghana ministry of fisheries and Aquaculture Development on in 2019 announced a closed fishing season for inshore and artisanal fishers with the aim of leaving enough fish stock in the sea. Although the Fisheries Act of Ghana, 2002 (Act 625) made it mandatory for the fisheries sector to observe a closed season

as part of the ratification of the UNCLOS, however, it had been silent and never been implemented. The ministry was of the view that, if fully observed, it would be the first time the Ministry would have implemented a major fisheries policy intervention. The Ministry in collaboration with the Fisheries Enforcement Unit, comprising representatives from the Fisheries Commission, Ghana Navy, Ghana Maritime Authority and Attorney-General's Office, will monitor and ensure compliance of the closed season. A lot of stakeholders were of the views that the closed season was too short to ensure that fishes are restocked. A lot of researches^[32, 33] have aimed explaining the closed fishing season for artisanal and marine fishing in an effective management measure for restoring the fish stock. Their study confirms that the impacts of the closed fishing season was too short and/or lack of strict supervision to realize any significant change in fish population and sizes.

Notwithstanding, a lot of fishermen in Ghana still hardly adhere to the basic sustainable marine fishing practices despite the regulations and set by authorities. For example, fishermen still use the same old equipment and outdated fishing practices for fishing with some gradual improvements overtime because of new regulations. A study on marine fishing in Ghana. In his study he noted that fishermen use illegal light attraction equipment to improve their catches in the Ghana's marine waters^[34]. This negatively affects the sustainability of marine fishing in Ghana. The practice of light fishing has led to overfishing of wild fish stocks. Fish of all kinds are attracted towards the artificial light so that they can be easily harvested. It can be concluded that the overexploitation of the wild fish stocks has the potential to collapse it and reduce future levels of fishing.

In most fishing communities in Ghana, the fishermen have established fishing associations. These Associations help them to better understand some fishing challenges and also pull resources to support their operations. Through these fishing associations, most fishermen have gained sufficient knowledge of traditional sustainable fishing practices in the fishing communities although they need to be empowered to practice them the more. These traditional sustainable fishing practices are simple, yet effective ways to improve marine fishing in Ghana. These Associations act as structures established to ensure that the sustainable marine practices are adhered to. These fishing Associations are established base on the national fisheries rules and regulations. However, some fishermen do not have the desire to obey national fishing rules and regulations. In a similar study on Artisanal Fisheries and Climate Change in Ghana,^[35] it was unraveled that a lot of fishermen are always reluctant to adhere to the national

policy but are quick to respond and adhere to the traditional fisheries associations rules and regulations. These associations are in the same community with them and will be quick to punish offenders. It can be concluded that, these fisheries management policies must be implemented as a policy hand in hand with the fisheries associations in the various fishing communities and the national fisheries policies to ensure that Ghana derives the maximum benefits from its fisheries resources for the current and future generations.

Since 1983, the marine fishing industry in Ghana and its sustainability has been recognized internationally. Due to this, the agenda for sustainable development has also been fully committed to make certain of an international goal on marine, Oceans and seas. Due to this, the Sustainable Development Goals (SDGs) 14 is solely committed to "conserve the use seas, oceans and the marine resources in a sustainable manner to ensure continue sustainability". The major aim of this goal is to reduce or eliminating marine pollution, ensuring marine and coastal ecosystems safety, reducing ocean acidification, sustainable management of fisheries and ending harmful fisheries subsidies, protecting coastal and marine areas, increasing economic benefits to SIDS and Least Developed Countries (LDCs). In order for Ghana to fully realize and achieve this international goal, there must be more implementation of policies, investment and innovations to restore the productive capacity of the oceans and increase economic benefits to developing countries. There should be an innovation in relation to the policies and laws enacted which will integrate best practices for marine fishing which can benefit greatly the future generation.

The environmental implication of unsustainable marine fishing is significant. The marine waters of Ghana are more likely to see a reduction in the marine fish stock. Fishermen in the future will end up bring dead fishes instead of live one. To a larger extent, fishermen will end up catching immature fishes from the marine waters of Ghana. Despite the numerous policies and marine laws coupled with the fishermen associations, there are still fishermen who flout these policies and laws. It is interesting to note that, fishermen will be the ones to benefit when they adhere accordingly to these marine laws. They will have a bumper catch all year round while protecting and sustaining our marine waters for the future generations.

5. Conclusion

Ghana is struggling to effectively deal with illegal, unreported, and unregulated (IUU) fishing. Even with the ratification of these conventions, there is weak management systems coupled with corrupt government officials

who refuse to tackle issues of sustainable marine fishing because they themselves are involved in it and they get a share from what the illegal trawlers and foreign vessels harvest from the sea bed off the country's waters. In order to prevent the unregulated growth in the country's fishing canoe fleet, and has been blamed for the fast-falling small oceanic catch in the country, the fisheries ministry in Ghana has launched the first ever Canoe Authorization Card in the sub-region, as Ghana moves to address the influx of new canoes that have flourished under the country's previous open-access policy, which has been linked to the fast diminishing sardinella species and other small pelagic fishery. The Ministry in its efforts to address the issue has made an open and close season for fishing in Ghanaian waters. This declaration was to help prevent the pressure on fish stocks, safeguard marine habitats, and to ensure that fish stocks within the marine waters in the country are exploited within the biologically acceptable levels.

6. Recommendation

To reverse overfishing trends in Ghana, the following recommendations are therefore suggested to effectively achieve sustainable marine fishing. However, when these recommendations are adopted and adhered to, will further strengthen marine laws to ensure a sustainable marine fishing in Ghana.

(1) There should be an adoption of international legal instruments in the field of maritime fisheries and updating national regulations The use of improved sustainable methods for fishing should be encouraged

(2) The fisheries sector should limit the activities of pair trawling

(3) Provision of subsidized supply of premix fuel

(4) There should be participation of community folks in educative programs in the maintenance and conservation of marine biodiversity

(5) There should be a strengthening of research capacities and the scientific opinion to support the decisions of development and rational and sustainable management of fisheries resources

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