

**THE LAW OF THE SEA: IMPACTS ON THE
CONSERVATION AND MANAGEMENT OF
FISHERIES RESOURCES OF DEVELOPING
COASTAL STATES – THE GHANA CASE STUDY**

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Abstract

During the early 1950s through to the late 1970s, Ghana was noted as a leading fishing nation in the West African sub-region, with her fishing fleets ranging as far as the coasts of Angola and Mauritania. Hence Ghana depends quite heavily on her coastal resources for food, human

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Acronyms

ADC	-	Agricultural Development Corporation
ANAF	-	Agriculture Network for Africa
CBFMC	-	Community Based Fisheries Management Committees
DFMC	-	District Fisheries Management Committees
DoF	-	Directorate of Fisheries
EEZ	-	Exclusive Economic Zone
EIA	-	Environmental Impact Assessment
FAO	-	Food and Agricultural Organization
FSCBP	-	Fisheries Sub-sector Capacity Building Project
HSTF	-	High Seas Task Force
IACS	-	International Association of Classification Societies
ICCAT	-	International Convention for the Conservation of Atlantic Tunas
IUCN	-	International Union for Conservation of Nature
IEZ	-	Inshore Exclusive Zone
IPOA	-	International Plan of Action
MCS	-	Monitoring Control and Surveillance
MCSD	-	Monitoring Control and Surveillance Division
MRAG	-	Marine Resources Assessment Group
NGAP	-	National Guidelines for Aquaculture Production
NGO	-	Non-Governmental Organization
NPOA	-	National Plan of Action
RFMO	-	Regional Fisheries Management Organization
SADC	-	South African Development Community
SFC	-	State Fishing Corporation
SRFC	-	Sub-Regional Fisheries Commission
UNCLOS	-	United Nations Convention of the Law of the Sea
UNFA	-	United Nations Fisheries Agreement
VMS	-	Vessel Monitoring System
WWF	-	World Wildlife Fund

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1.0. OVERVIEW OF THE GHANAIAN FISHING INDUSTRY

1.1. COASTAL MORPHOLOGY AND OCEANOGRAPHY OF GHANA

The Ghanaian coastline, measuring about 538 km long, comprises long stretches of sandy beach interspersed with rocky shores, estuaries and lagoons. These lagoons, estuaries and the many wetlands dotting the coastline form breeding grounds for many marine fish and crustaceans¹.

Fish production in Ghanaian coastal waters is driven by the oceanography of the western Gulf of Guinea, a seasonal coastal upwelling. For Ghana, this consists of a yearly major upwelling of about three month's duration (July – September) and a minor upwelling of about three weeks duration (December – January or February – March). The rich fisheries resources made available by this four-month upwelling is what supports the total fishing industry in Ghanaian waters.

1.2. BRIEF HISTORY

Ghana's fishery industry started as an artisanal fishery using very simple, low-efficiency gear and methods in lagoons, lakes, rivers, estuaries and marine waters very close to shore. Despite the simplicity of their gears and methods, the Ghanaian artisanal fishers were very industrious and adventurous, venturing as far as Liberian and Nigerian waters as early as the 1800s and early 1900s². The fishery was however mostly for subsistence purposes.

The commercial fishery sector did not emerge until later in the 1900s. Demand for fish and associated trade and investment opportunities encouraged the formation of fishing companies, many of which had foreign offices directing the operations of semi-industrial fishing operations

¹ Mensah, M A; Koranteng, K A; Bortey A; Yeboah, D A; The State of the World Fisheries from a Fish worker Perspective: The Ghanaian Situation.

² For more on the history of Ghana fisheries, see Atta-Mills, J; Alder, J; Sumaila, U R; 2004: The Decline of a Regional Fishing Nation- The Case of Ghana and West Africa Natural Resources Forum 28 (2004) 13–21. See also Hernæs, P O 1991: Modernizing Ghanaian Fisheries: The Need for “Social Carriers” of Technology Oslo: Ad Notam 1991.

well managed. This led to the collapse of many of t

trawlers, 14 pair trawlers, 2 shrimpers, 33 pole-and-line and 10 tuna purse seiners operating from two landing sites. This fleet lands the remaining 28% of the total fish production¹¹. The industrial sector as a whole is in serious need of modernization, the fleet being relatively old and inefficient.

Thus the marine capture fishery lands an average of

1.3.4. AQUACULTURE

Aquaculture is in a developmental stage in Ghana¹². The sector is dominated by non-commercial systems mostly using earthen ponds. 80% of the species produced in these systems

laws and regulations with regard to their relationships with the resource and all are expected to

2.0. FISHERIES GOVERNANCE IN GHANA

Fisheries in Ghana has over the years been managed and regulated by a number of laws and regulations. Yet, as noted by many authors and indicated by various research findings¹⁶, the status of fisheries management cannot be said to be satisfactory.

2.1. HISTORICAL DEVELOPMENT

2.1.1. INTRODUCTION

A study of these legislations reveal that major sections were dedicated to the building and importation of fishing craft and manning of the craft, with very little or no attention to means of effective conservation of the fisheries resources for which the craft were meant. This lackadaisical attitude towards conservation is actually a reflection of a worldwide mindset of the industry of that period, the perception that the fisheries resource was infinite. This was however more evident in the developing coastal States. For example, Ghana had a Wholesale Fish Marketing Act passed in 1963 before passing a fisheries regulation in 1964. Even when this was done, the focus was not on conservation but on the fishing vessels and their manning.

However in order to make a balanced assessment and have a good understanding of these laws, it is important to examine them in the context or environment within which they were passed.

The period from the late 1950s through the 1960s to the late 1980s could be considered the golden years of Ghana's marine fisheries, and in fact, Ghana fishing industry as a whole. The period recorded constant increases in the number of vessels in all sectors of the fishing industry. In 1960, 198 motorized vessels in all were registered, of which 193 were in the inshore fleet. The opening of the Tema Fishing Harbour gave further impetus for growth. As one author noted "there was a rapid expansion in the industrial sector" and by 1974 there were as many as 315 registered in the industry¹⁸. This rapid fleet expansion was followed by increased fish landings, an increase which by far exceeded the numerical growth of registered units. This obviously made the sector one of the most lucrative ventures available for Ghanaians and hence there was a lot of investment (both Government and private) in the sector.

The constant increase in fish landings year after year (refer to table 2 below), and the perception that the fishing resource was limitless, may well have been the reasons for the focus (whereby conservation concerns were sidelined for the regulation control of fishing vessels in the industry) of the fisheries related laws of this period. In fact, in the 1960s, strategies for fisheries development in Ghana were based on the assumption that the sea will set on limit on the amount of fish that can be caught off the shores of Ghana and the belief that Ghana has an

¹⁸ Hernæs, P O 1991 Modernizing Ghanaian Fisheries: The Need for Social Carriers of Technology. Ad Notam, Oslo.

enormous fishing potential¹⁹.



typical example is the then Agricultural Development Corporation (ADC) which through its

The PNDC Law 256 of 1991 was then passed to begin the process of the conservation effort. It tried to do this through licensing, a widely used and recommended method to control access to the resource. In effect the major aim of the PNDC Law 256 was to manage or conserve the fishery resources by controlling access through licensing, establishment of fishing zones and restrictions on fishing gear to be used within and without these zones and in the industry as a whole, and establishment of Monitoring Control and Surveillance (MCS).

The PNDC Law 256 was followed by the Fisheries Commission Act of 1993. 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 a major step in the efforts to manage the fisheries resources. With its main function of being 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.

2.2. THE GHANA FISHERIES ACT 625 OF 2009

2.2.1. THE FISHERIES COMMISSION²³

Due to the crucial role it is to play in the development and management of the fishery resources of Ghana, it is important to have an understanding of the makeup of the Commission and the provisions made for it under the Fisheries Act.

Specifically, Section 1 of the Act establishes the Fisheries Commission, and subsequent Section 2 states the main object of the Commission as “to regulate and manage the utilization of the fishery resources of Ghana and co-ordinate the policies in relation to them”.

Considering the interdependence of the various sections and the role of the fisheries sector in the economic growth of the country, the composition of the Commission is such that it must include the most important stakeholders in the sector.

conserving and managing natural resources²⁴, duty to conserve living resources²⁵, protection of shipping, marine scientific research²⁶ as well as pollution control and response²⁷.

The members of the Commission are to be nominated by the bodies concerned and are to be persons not below the rank of Deputy Director in the Civil Service, or in the case of a functional group in the private sector, not below the rank of a Vice-Chairman or its equivalent. By this measure, the Act aims to ensure that members of the Commission are competent high level decision makers with a wealth of experience in their fields of expertise, as well as ensure fair representation through democratic processes (with all its implications). Hence the requirement for nomination of persons by members of the bodies concerned. To further ensure transparency in all the dealings of the Commission, the Act provides that any member of the Commission who has a personal interest, directly or indirectly in any matter being considered by the Commission or a committee of the Commission shall disclose verbally or in writing the nature of the interest at a meeting of the Commission or committee and shall not take part in any deliberations or decisions of the Commission or committee with respect to the matter²⁸. Any member who fails to do so shall be removed from the Commission or committee.

With the exception of the Director of the Commission, each member has tenure of four years and may be reappointed on the expiration of the period²⁹. This provision is obviously aimed at ensuring a constant infusion of fresh ideas as well

2. Inland Fisheries Division;
3. Fisheries Scientific Survey Division (i.e. Fisheries Research);

The Act establishes funds to meet expenditures of the Commission as consisting of money approved by the Ghanaian Parliament for the Commission⁴⁰, and such proportions of the monies in the Fisheries Development Fund as Parliament may direct as payable towards the expenditures of the Commission. In addition to these, the Commission is vested with borrowing powers by the Act⁴¹, empowering the Commission to obtain loans and other credit facilities on the guarantee of the Government from such banks and financial institutions as the Minister may approve, all of these subject to the provisions on loans as contained in the Constitution of Ghana⁴². Furthermore, the Act establishes a Fisheries Development Fund⁴³ and states the sources of monies for the fund as:

1. Fees for licenses, permits and other authorizations for fishing issued under the Act;
2. Damages and costs granted by the courts to the State in respect of any action under the Act or Regulation made under the Act;
3. Sums of money received from compounded offenses;
4. Proceeds of sale of forfeited items collected, imposed or received by or under the Act;
5. Such amounts of money that Parliament may approve for payment into the Fund; and
6. Loans and grants.

The overarching objective of this Fund is toward the promotion and development of fisheries in the country⁴⁴. It is also intended to be used to meet liabilities of the Commission in respect to the monitoring, control and surveillance of the fishery waters, provide assistance to small scale fishery co-operative enterprises, promote research studies of the fishing industry and such other purposes as may be determined by the Commission in consultation with the Minister.

Having thus underlined the key factors necessary for achieving objectives set out in national and international management strategies, the Act goes on to provide for several other important factors that also needed to be addressed.

⁴⁰ Section 24

⁴¹ Section 27

⁴² Article 181 of the Ghana Constitution

⁴³ See supra note 37

⁴⁴ Section 38

2.2.2. FISHERY PLANS

The Fisheries Act 625 of 2002 echoes the admonitions of the Code of Conduct for Responsible Fisheries in its provisions on fishery plans⁴⁵. It begins by stating that any fishery plan prepared for the management and development of fisheries should be based on the best scientific information available, ensures optimum utilization of the resources while avoiding over-exploitation and must also be consistent with good management principles. Each fishery plan, irrespective of the target water area or fish species for which it is meant⁴⁶ should:

1. Identify the fishery resource and its characteristics, economic and social values and interrelationship with other species in the ecosystem;
2. Assess the present state of exploitation of each resource and taking into account relevant biological and economic factors, determine the potential average annual yields from the resource;
3. Specify the measures to be taken to promote the development of the local fishing enterprises, both industrial and artisanal;
4. Determine the amount of the fishery resource to be made available to licensed foreign vessels;
5. Specify the conservation measures to be enforced to protect the resources from over-exploitation;
6. Indicate the research necessary to enhance management and development of fisheries; and
7. Take into account relevant artisanal fishery methods or principles.

A close study of these provisions shows they closely follow the suggestions for management measures proposed by the Code of Conduct for Responsible Fisheries.

In the process of formulating fishery plans, the Act directs that the Commission carry out consultations with organizations, authorities and persons affected by the fishery plan⁴⁷. Any person may reasonably be required to furnish relevant data and information on any matter required by the Commission to help recommend appropriate measures for the fishery plan. The consultation process is further enhanced by the provision that each fishery plan and review of such a plan be submitted to the Minister for onward submission to the Cabinet for approval,

⁴⁵ Section 42

⁴⁶ A fishery plan may relate to a specific water area or specified species of fish

⁴⁷ See section 44

after which the plan shall come into force at a time specified in the approval. The Minister is also charged to publish the effective date of implementation of an approved fishery plan in the Gazette and other mass media.

To facilitate sound recommendation on the international aspects of fishery plans, the Act provides that the Minister may and shall, on the advice of the Commission, consult with foreign Governments, either directly with the Governments or persons concerned, or through existing appropriate regional, sub-regional or international agencies⁴⁸. The purpose here is to ensure the closest practicable harmonization or co-operation of their respective fisheries management and development plans and regulations, systems for the collection of statistics, the carrying out of surveys and procedures for assessing the state of the fishery resource in the region. These are very essential, particularly for States sharing the same or interrelated fish stocks. Another important reason for this provision is to facilitate the formulation for sub-regional or regional fisheries management development plans including monitoring, control and surveillance, and for taking sub-regional or regional joint conservation measures.

2.2.3. LICENSING

A major portion of Part IV of the Act is dedicated to licensing. One primary purpose of fishing licensing is for the control of fishing opportunities so that regulations for sustainable fisheries can be met. The Fisheries Act sets out provisions outlining conditions under which licenses are to be issued for any fishing activity, be it in the local industrial or semi-industrial, artisanal or aquaculture sector.

2.2.3.1. CONDITIONS OF LICENCE

The structure of the provisions on licensing for each of the fishery sectors is basically the same, with the primary provision being that no person shall engage in any kind of fishing activity in

above are satisfied.

- a) Authorized to do so by the terms of a licence or permit issued it under this Act or under any applicable access agreement in force;
or
- b) It is under circumstances recognized by international law

(3) Subsection (2) does not apply to a foreign fishing vessel entering the fishery waters for the sole purpose of innocent passage; or by reason of force majeure or distress or for the purpose of rendering assistance to persons, ships or aircraft in danger or distress or for any other purpose recognized by international law.”⁵⁸

The Act goes on to define the conduct of foreign fishing vessels in Ghanaian fishery waters as follows:

- “(4) A foreign fishing vessel entering the fishery waters for any of the reasons specified in subsection (3) shall
- a) Observe Regulations made under this Act including Regulations on storage of fishing gear
 - b)

of international dimensions attached to it. Primary among these are the 1995 UN Fish Stocks Agreement, 1993 FAO Compliance and IPOA on IUU fishing. Thus, the Act is guided by both

in Section 64 by the following:

1. The Minister may on the advise of the Commission enter into international arrangement on behalf of the Government with any foreign government, foreign association or other legally constituted foreign body which has power and authority to enforce compliance with the terms of the access arrangement
2. An access arrangement shall provide for the allowable allocation of fish which shall not exceed a level consistent with the conservation and management of fishery resources, provide for the protection of local fishermen and shall also be consistent with any fishery plans
3. Every access arrangement shall include such provisions as may be required to implement minimum terms and conditions of fisheries access in accordance with this Act, including
 - a. Establishing the responsibility of the foreign party to take measures to ensure compliance by its vessels with the terms and conditions of the access arrangement and with all applicable laws, including those relating to fishing and related activities in the fishery waters
 - b. The issuance of licenses and payments of fees for fishing related activities or other activities or operations described in the Act
 - c. Provisions that the owner, charter, operator, master or any other person responsible for the operation of a license

important issue: marine research and ~~trial~~17(d)-0.9E ~~is~~ ~~being~~ ~~put~~, research forms the basis of any management strategy and is hence an integra17(d)-0.9E

4. A person authorized in accordance with this section shall comply with all applicable laws of Ghana and the conditions of the authorization
5. The Minister may refuse to issue, suspend or cancel the authorization in accordance with this Act if there is failure to comply with the requirements of this Act or the conditions of the authorization.⁶⁴

Other requirements under the Act for the issuance of licences to a foreign fishing vessel are the appointment of agents and posting of bonds. Section 67 empowers the Minister to require that, prior to the issue of a fishing license to a foreign fishing vessel in which there is no Ghanaian ownership or shareholding, the applicant appoints an agent within Ghana, who is a citizen or non-citizen who has resided continuously with Ghana for a period of at least five years immediately prior to the proposed appointment, with no record of conviction, and the person shall be authorized to receive and respond to any legal process issued in Ghana with respect to the activities of the vessel, its owner, operator, master and crew members.

In relation to the posting of bonds, the law empowers the Minister to require that, prior to the issuer of a fishing licence to a foreign fishing vessel, the applicant or its authorized agent posts a performance bond which may be applied for the payment of any fine, penalty or other determination of any offence under the Act committed by or in respect of that vessel or for any liability in relation to the vessel arising under the Act⁶⁵. Further, the Minister may require that the posting of a performance bond during the period of validity of the license shall be a condition for the licence.

2.2.3.5. REGISTER OF LICENCES

Every licence issued by the Commission under the Act is to be entered into a Register of Licences maintained by the Commission⁶⁶. The register is to contain information on:

1. The vessel

⁶⁴ Section 65

⁶⁵ Section 68

⁶⁶ See section 79

industry⁷³

Chief Justice may determine.”⁸⁰ In the case of a foreign fishing vessel, the matter shall be dealt with by the High Court⁸¹. The jurisdiction of the courts also cover contraventions to directions of authorized officers exercising powers conferred on them in accordance with the Act even outside the fishery waters of Ghana. Provisions are also made by the Act on issues such as compounding of offences and evidence. The provisions on evidence cover certificates of evidence, their validity and procedures, designated machines and photographic evidence and presumptions, onus of proof and destruction of evidence⁸².

Section 125 touches on the liability of masters and officers of companies. The Act makes the masters of vessels liable for offences committed by crew members and companies liable for offences committed by masters of vessels belonging to the company.

2.2.9. CONCLUSION

To sum up, the Ghana Fisheries Act 625 of 2002 practically covers every aspect of the fisheries industry and is consistent with the current global fisheries management and development strategies, making provisions to draw on other laws that address issues it does not cover⁸³. It is thus a comprehensive piece of legislation with an international character and dimension, a sound foundation on which to base a national fisheries policy.

⁸⁰ Section 115

⁸¹ Ibid

⁸² Sections 117 to 124

2.3. THE DRAFT NATIONAL FISHERIES AND AQUACULTURE POLICY⁸⁴

The National Fisheries and Aquaculture Policy is structured around four major policy areas⁸⁵.

These are:

1. management of fisheries, conservation of aquatic resources and protection of their natural environment;
2. promotion of value addition and improving the livelihood of fisheries communities;
3. development of aquaculture; and
4. improvement of services provided to the sector by the Ministry and other institutions.

These four strategic areas stem from the vision the Ghana Government has for the sector over the next 15 years, the mission of the Ministry of Fisheries, and strategies for the sustainable development of the sector.

The vision for the sector takes into consideration its characteristics, potentials and constraints and aims to contribute significantly to socio-economic development through food and nutritional security and poverty reduction in a sustainable and economically efficient manner within the natural limits of capture fisheries resources and environmental protection

improvement in fishing communities⁸⁷.

Of the three objectives of the Ministry of Fisheries, i.e. making significant contributions to economic development, ensuring food security and po

12. Transparency and accountability. These general principles of good governance also guide Government action.

2.3.1. GENERAL LAYOUT AND DESCRIPTION OF THE POLICY

Each of the four strategic areas on which the policy is structured is referenced to a strategic goal for which a course of action is drawn up, with the aim of achieving a specific set of operational objectives for the area in focus.

2.3.1.1. POLICY AREA 1: MANAGEMENT OF FISHERIES, CONSERVATION OF AQUATIC RESOURCES AND PROTECTION OF THEIR NATURAL ENVIRONMENT

The main goal of the policy with respect to this area is the effective implementation of fisheries management and conservation measures to ensure the long term contribution of fisheries to the national economy and to allow the present generation to meet its needs without compromising those of future generations⁸⁹. Hence the objectives set for this area are designed to address the problems of over-exploitation, environmental degradation and unsustainable fisheries in general through the strengthening of the regulatory framework to ensure effective implementation of conservation and habitat protection measures.

The operational objectives are as follows⁹⁰:

1. To establish advise on specific management and conservation measures based on regular assessments of the status of fisheries and their aquatic environment.
2. To ensure the sustainability of commercial fisheries through appropriate regulations.
3. To protect biodiversity and habitats of the aquatic environment.
4. To improve the effectiveness of stakeholder institutions and mechanisms for co-management.
5. To combat IUU fishing through more appropriate regulations and more effective monitoring, control and surveillance.

⁸⁹ Ibid p. 22

⁹⁰ Ibid p. 22

6. To promote national and international collaboration for coordinated fisheries management and conservation.

In short, the objectives stated above tackle issues of monitoring and assessment, adaptation of management measures, protection of aquatic environments, promoting co-management, strengthening MCS and enhancing regional collaboration. In line with these, courses of action drawn up for each of the above objectives.

For the first objective, the courses of action include the assessment and streamlining of statistical monitoring to improve on the quality of information regarding fishing units, catch and data effort. Another course of action is to conduct a cost benefit analysis of a lesser reliance on the routine collection of data and a greater emphasis on periodic frame surveys and catch-effort surveys⁹¹.

The course of action for adaptation of management measures include periodic assessment of fisheries management measures, their relevance in a changing environment, the degree to which they are implemented and their effectiveness. Those measures that are of very limited use to the purpose for which they were introduced or are very difficult to implement, are to be expressly deleted from the regulatory framework⁹².

The protection of aquatic environments, according to the policy document, will involve actions such as monitoring aquatic biodiversity and key habitats through periodic assessments so as to identify critical changes and their origin, identify vulnerable marine and freshwater ecosystems and advise on steps that could be taken to prevent adverse effect on these ecosystems⁹³.

Promoting co-management, the fourth objective, will in0.958863(n)-0.958863(s)8.27264()250]TJ -263j7(f)2.3

national plan of action to combat IUU fishing, in line with the FAO International Plan of Action. Another action is to strengthen and increase the coverage of observer programmes.

Finally, enhancing regional collaboration will involve pursuing collaboration with the West Africa Sub-Regional Fisheries Commission (SRFC) and the World Bank with the aim of improving governance and MCS for fisheries management, and collaborating with the International Convention for the Conservation of Atlantic Tunas (ICCAT) for the management of tuna fisheries with emphasis on managing existing fisheries and promoting further development of the Ghanaian fishery within allocated quotas.

2.3.1.2. POLICY AREA 2: PROMOTE VALUE ADDITION IN THE FISHERIES SECTOR

The goal here is to promote the concept of addin odub-la01(o)-0.95657ceomond(s)-1.7465(.)-0.480885(()-0.4

5. To promote exports and increased value addition in the supply of remunerative foreign markets.

The course of action for achieving the value chain analyses (objective 1) include conducting value chain analyses for main fisheries products and markets with the view of acquiring better understanding of the origin and allocation of value added and the documenting and building awareness of best practices relevant to fishing, landing, processing and marketing, starting with

both small and large scale fisheries sectors and assisting the processing industry in improving quality and hygiene standards in relation to HACCP requirements and facilitating their approval as exporters to key market such as the EU market¹⁰⁰.

**2.3.1.3. POLICY AREA 3: ESTABLISH THE BASIS REQUIRED FOR
AQUACULTURE DEVELOPMENT**

The goal for this policy area is to promote aquaculture by establishing strong basis for its accelerated development, with emphasis on commercial aquaculture and access by farmers to markets¹⁰¹.

The importance of this policy area stems from the recognition of the limitations of the Ghanaian fisheries sector, imposed by its current fully exploited or over-exploited state. With aquaculture looking like the potential choice to play the key role of bridging the dea60.5454(A)-6-50.33658(t)-2.(h)-

7. To establish quarantine and certification measures and develop guidelines for introduction of exotic fish species
8. To develop guidelines on culture based fisheries
9. To develop guidelines in collaboration with relevant institutions on Environmental Impact Assessment (EIA)
10. To define regulatory framework on Aquaculture Development

The course of action to achieve the objective relat

present policy framework.

The new challenges of the Ministry are the promotion of sustainable and responsible fisheries and the development of commercial aquaculture. In addressing these challenges, the Ministry faces significant constraints that require reviewing of its legal and regulatory framework as well as a significant effort to improve staff capabilities. The Ministry needs to play a catalytic role in providing for livelihood improvements in fisheries communities. New partnerships need to be developed and appropriate financing is required.

Hence the operational objectives of this policy area are:

1. To adjust institutions, laws and regulation to the requirements for effective implementation of the Policy.
2. To enhance capacities and capability of staff that provides administrative, managerial and technical support to the sector.
3. To improve the livelihood of fishing communities through a catalytic approach, in collaboration with all relevant institutions.
4. To develop partnerships with national insti In l--2.536586(l)-2.53(--.16033(h)-0.958863(,)-0.4794

and incentives for local and foreign sustainable investments into the fisheries and aquaculture industry. Yet another course is to provide low interest micro finance credit facilities for small scale operators in line with sustainability and gender requirements of the sector¹¹⁸.

Finally, the courses of action to achieve the objective of capacity building for research, according to the policy document¹¹⁹ will involve actions such as reviewing and assessing research needs in connection with the key requireme

2.4. INTERNATIONAL RESPONSE TO IUU FISHING AND LESSONS FOR GHANA

Illegal, unreported and unregulated fishing has been defined variously by different studies, each

1. in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality¹²³, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or
2. in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law¹²⁴.

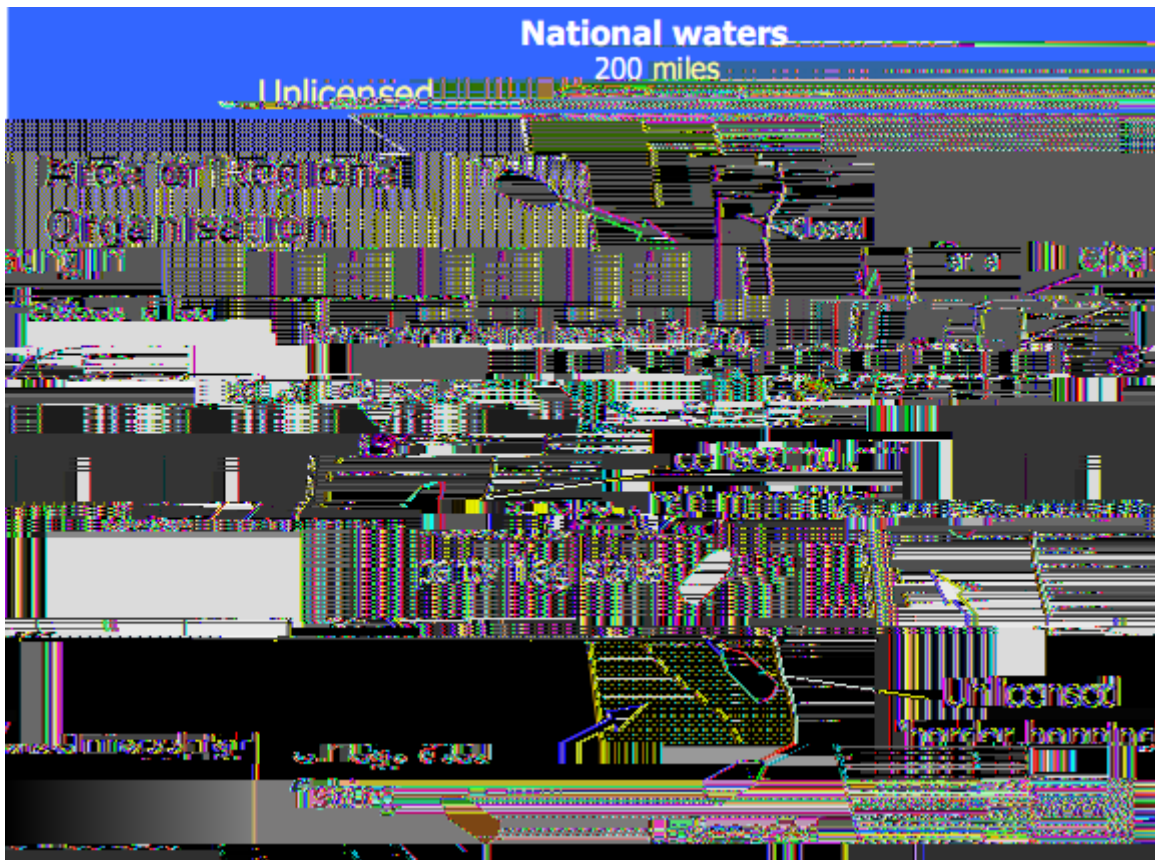


Figure 2 Illustration of types of IUU fishing. Within an EEZ there may be unlicensed fishing (poaching), under- or non-reporting, or unauthorized fishing by area, seasonal, gear, quota or species. Outside EEZs there may be non-compliance with an RFMO, or there may be

Fish is consumed by all groups of society as a daily staple throughout Ghana. It is recognized as the most important source of animal protein and the national per capita fish consumption is estimated at 25kg, much higher than the global average of 13kg per capita¹³⁰. IUU activities reduce the productivity and biodiversity of ecosystems as well as the ability of exploited target species to recover. This implies a reduction in food security for the people who depend on fish as a major source of animal protein hence creating a social problem, notably for the over 110,000 artisanal fishers and their dependants living in the coastal communities.

There are many serious conflicts existing between fishers in all the three sectors of the fisheries industries in the West African Sub-Region and for that matter Ghana¹³¹; i.e. within and between the artisanal and industrial, and between the two, the semi or local industrial sector. These conflicts are heightened by the activities of IUU fishing because they undermine the efficiency of the legal fishers. Furthermore, these legal fishers, most often the artisanal fishers, do not get compensated for losses incurred through damage of their gear and vessels and accidents caused by IUU fishing activities. All these and other contributing factors prejudice the interest of fishers

possible to do so with respect to seabirds, marine mammals, sea turtles and marine biodiversity as a whole. One can only imagine the amount of IUU by-catches of non-target fish species, let

May 2000	Expert Consultation on IUU fishing (Sidney, Australia)	A draft text for IPOA-IUU fishing
October 2000 February 2001	Technical Consultation on IUU fishing (Rome, FAO)	A draft text for IPOA-IUU fishing
April 2001	24 th Session of the FAO Technical Committee	IPOA-IUU fishing (endorsement)
June 2001		

enforcement to State control over nationals¹³⁶, others suggest among other things, targeting IUU operations at links where there are fewer possibilities of avoiding regulations and where enforcement can be made in more cost-efficient ways¹³⁷, yet others suggest getting down to the basics to examine the institutional designs and dynamics of fisheries management institutions and embrace a concept of institution that captures the social processes and governance mechanisms that are essential to fisheries manageme

acknowledges the importance of this document as a base upon which other plans action could be built to combat issues of concern and more States are likely to publish their NPOA-IUU in the near future. African coastal States, which are the hardest hit by the activities of IUU fishing¹⁴³, are endeavoring to fulfill their part in the fight against IUU fishing. Notable among these are Namibia and Mozambique who have developed full first drafts of their NPOA-IUU. Two other members of the Southern African Development Community (SADC), Tanzania and Angola, have developed preliminary drafts and are working to arrive at full first drafts¹⁴⁴. It is in this vein that the Ghana Ministry of Fisheries is working to elaborate and adopt a national plan of action on IUU fishing as per the Draft National Fisheries and Aquaculture Policy.

2.4.1. A NATIONAL PLAN OF ACTION ON IUU FOR GHANA

The national plans of action on illegal, unreported and unregulated (IUU) fishing are intended to be the vehicles for the implementation of the FAO IPOA-IUU. However as has been noted by many authorities on the subject, the IPOA-IUU provides a ‘toolbox’ of measures for States and RFMOs to adopt in their fight against IUU fishing¹⁴⁵. The idea here is for each coastal State to select from the measures provided those that are best suited to their particular circumstances. Hence the IPOA-IUU provides measures that can be used as formats on which more effective measures can be modeled to fight IUU fishing activities in a particular EEZ or Sub-Region; there are absolutely no strict rules for the development of the national plans. This flexibility is a very important characteristic that Ghana has to explore when drawing up a NPOA-IUU.

Though experiencing similar problems as other West African developing coastal States, the Ghanaian fisheries industry has its own unique circumstances which require appropriate modifications of the IPOA-IUU measures to address them. For example, Ghana has to cope with more fishing vessels “border hopping” into Ghanaian fishery waters from neighboring countries than these same countries have to deal with Ghanaian fishing vessels due to the better MCS

¹⁴³ See Closing the Net: Stopping Illegal Fishing on the High Seas, Final Report of the Ministerially-led Task Force on IUU Fishing on the High Seas 3p.

¹⁴⁴ SIF Programme Study: IPOA-IUU status for SADC and RFOs Volume 1 Executive Summary p.5. See also www.stopillegalifishing.com/docs/maputo_vol1.pdf for document and www.stopillegalifishing.com/statement_of_commitment.html for related document concerning the SIF programme. See also supra note 132.

¹⁴⁵ See for example IPOA-IUU Implementation status report for the SADC region members and RFBs Vol.1-Exec-11.4 Td [0239(n)5.06907(a789(n)-0.950724(IId)-11uc-11.4 Td [0239(n)5.06907583(A)9)-3.5012(I)-.71694 Td [0239(n)5.9(n

capability of Ghana¹⁴⁶. For this same reason Ghanaian fisheries authorities are to a higher extent, though not very efficiently, better able to detect and act against foreign fishing vessels involved or suspected to be involved in IUU fishing activities¹⁴⁷. Below is a table of some high profile arrests of IUU fishing vessels arrested in Ghanaian fishery waters.

Table 2 Some high profile arrests of IUU fishing vessels by Ghanaian fisheries authorities

VESSEL NAME	OFFENCE
<i>Cidade de Faro</i>	Poaching in the fishery waters of Ghana.
<i>Mirenlux</i> (2004)	Fishing without licenses from any country.
<i>Strombus</i> (2007)	Fishing without authorization
<i>Turbinella</i> (2007)	Fishing without authorization

Source: Presentation on Fisheries Compliance in Ghana by Head of MCSD at NOAA- MOFI Observer

required under international law¹⁵¹.

The Monitoring Control and Surveillance Division of the Ministry of Fisheries is the newest divisional addition to be made to the Directorate of Fisheries¹⁵². This, and the fact that it is the first time such an institution was established in the history of the resource, is an indication of its limitations¹⁵³. Established in 1997, the Division only collected statistics on catches and was not effective in enforcing the existing fisheries regulations. It later organized joint patrols with the Ghana Navy on both marine and inland waters but could not sustain the cost of the operations due to limited funding. Currently, MCS capacities remain limited for small-scale fisheries and are largely ineffective, with continued illegal encroachment and poaching in inshore waters by industrial vessels and the use of illegal fishing methods in both marine and inland capture fisheries¹⁵⁴. There has however been significant improvement (though not a high standard) as is25789789(257

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which aim at ensuring that there are no unauthorize

to whether Ghana could meet the MCS requirements needed to effectively enforce the fisheries regulations to safeguard its fisheries resources against imminent depletion from IUU activities. The answer still remains a no, at least not in the near future because MCS is plagued by serious issues that are militating against its development and contribution towards achieving any

Another major shortfall was the lack of prioritization of the policy objectives. It is important to prioritize objectives because some problems may need to be solved first in order to solve others. The merits associated with this are discussed in the subsequent section.

Although the policy in question is only a draft, this very fact presents an opportunity to make crucial evaluations in order to ensure an effective policy development process and help shape the resultant policy into a robust and e

problems during policy development include making decisions not based on solid evidence, which lead to policy solutions developed on unreliable basis, and unknowingly repeating policies that have not worked well in similar contexts in other jurisdictions.

The next step after defining the problem is to generate solutions. At this stage, having a conceptual framework and a clear sense of the desired outcomes or goals to be achieved by the chosen policy solutions is crucial. The conceptual framework should guide the selection of the policy options¹⁶⁴ to be accessed and must contain working parameters¹⁶⁵, key principles¹⁶⁶

meet expected outcomes¹⁶⁸. The more specific one can be about expected outcomes, the easier it is to determine the relative merits and limitations of policy options¹⁶⁹.

As stated above, the steps in the policy developmen

forestall any chances of resistance and other difficulties that might ensue from failure to consult internally at the outset of the policy development process.

The plan should also include steps to counter potential fall-out in case there has to be a scaled back consultation process. Finally, it is important to note that informing people about what is going on and how it may impact on them is also part of the consultation process and hence provision should be made to cater for this aspect of the process as well.

Implemented policy solutions need to be monitored in order to determine if there are solving the problems for which they were implemented. Performance monitoring or

process, it needs to be determined which policy solutions are going to be monitored and evaluated. Once a range of indicators have been selected, an assessment of each one in terms of feasibility and meaningfulness is made. This process should be guided by criteria developed for the purpose. Such criteria could include factors such as level of funding that will be allocated to implementation of the policy solution, degree of risk associated with the policy, the significance of groups impacted and what would be forgone if there is no monitoring and evaluation. The risks associated with not undertaking performance measurement are that the misallocation of funds is potentially perpetuated and policies that may not be working optimally are continued.

3.2. SHORTFALLS AND SUGGESTED SOLUTIONS

With the above view of the attributes of a policy in mind, it is now easier to make recommendations concerning the Ghana National Fisheries and Aquaculture Policy. The recommendations do not concern the shortfalls identified but also concern other issues of the fisheries industry that should be considered by policy makers for the development of the policy.

3.2.1. PRIORITIZATION

The first issue is the fact that this policy document is the first of its kind to be developed for the fisheries sector. The implication of this is mainly that of time, i.e. time for the document to go through all the phases of the policy cycle¹⁷⁵. It is a given that at certain phases of the policy cycle, especially at the implementation phase, the fisheries

be done in many cases may only involve fine-tuning the underlying and existing processes to achieve the set objectives. However, several factors, chief among them lack of funding and personnel¹⁷⁶, may come into play and complicate the whole process. Succinctly put, developing and honing the policy into an effective tool cannot be accomplished in a matter of a few years, which is just as it should be if the policy were to be effective at all. It is also important to note another observation drawn from the conclusions: there are no specific timeframes for achieving the objectives set out in the policy document. This is a serious shortfall in the policy that needs to be addressed because a significant amount of the policy development process such as consultations and most of the criteria for selecting options are based on timeframes¹⁷⁷.

Hence time becomes an important factor due to the current state of the resources to be managed, the attitude of most users regarding the r

resources at the forefront and being implemented first before or during the implementation phase. Specifically, compliance improvement based objectives should be prioritized to run concurrently with research improvement based objectives, hence increasing compliance of the players in the sector with whatever regulations are in place, while at the same time conducting the much needed research to establish what is there of the resources to be managed. Results obtained from such research programmes can then be fed into the policy process to advice the next round of decisions.

3.2.2. COMPLIANCE

The best way to increase the present state of compliance by users of the fisheries resources is by strengthening MCS¹⁷⁸. However, there are arguments against the manner of application of MCS (and fisheries enforcement in general) to solve problems of

becomes clear that with the artisanal sector forming the larger part of the fisheries industry, the drive towards achieving improved compliance will be more than half-won if win the support of this sector. In short, recognizing the existence of traditional systems and promoting participatory approaches through CBFMCs to harness their potential to be used in terms of monitoring and control of resources, not to mention research, will not only help narrow the focus of the compliance improvement drive but also reduce the cost of the exercise in the long run, making the whole process thus achievable.

Considering the advanced training the fisheries observers of the MCSD have already acquired and would be acquiring from various training programs organized by the Ministry and international bodies such as the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administrat

that centralized governance arrangements have more often than not failed in fisheries management worldwide and has led to developing more devolved and locally accountable management structures in the developing world (Munro, 1999; Botsford, 2003; Grafton, 2003; Grafton & Squires, 2003; Grafton & Squires, 2004; Grafton & Squires, 2005; Grafton & Squires, 2006; Grafton & Squires, 2007; Grafton & Squires, 2008; Grafton & Squires, 2009; Grafton & Squires, 2010; Grafton & Squires, 2011; Grafton & Squires, 2012; Grafton & Squires, 2013; Grafton & Squires, 2014; Grafton & Squires, 2015; Grafton & Squires, 2016; Grafton & Squires, 2017; Grafton & Squires, 2018; Grafton & Squires, 2019; Grafton & Squires, 2020; Grafton & Squires, 2021; Grafton & Squires, 2022; Grafton & Squires, 2023; Grafton & Squires, 2024; Grafton & Squires, 2025).

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Annex

History of international actions and initiatives against IUU/FOC fishing activities

Since 1992, the international community has promoted major initiatives and actions for the long- term sustainable management of fisheries resources.

In 1992 International Conference on Responsible Fishing (Cancun, Mexico) adopted the *Cancun Declaration*, which called upon FAO to develop an International Code of Conduct on Responsible Fishing. Following the Cancun conference, United Nations Conference on Sustainable Development (UNCED, Rio, Brazil) adopted *Agenda 21*, programme of action for sustainable development. Among Agenda 21, Chapter 17 pointed out problems of unregulated fishing, vessel reflagging to escape control and lack of sufficient co-operation between States in the management of high seas fisheries.

Based on the Cancun Declaration and Agenda 21, FAO supported technical consultations on high seas fishing that provided technical input for the UN fish stock conference in September 1992. As a result, the Compliance Agreement was approved by the 24 session of the FAO conference (November 1993). The motivation for the negotiation of the Compliance Agreement was directly related to the IUU fishing issue. The Agreement seeks to ensure that flag States exercise more effective control over their vessels while fishing on the high seas by requiring vessels to be authorized to engage in such fishing. In this way the Agreement would deter unauthorized vessels from high seas fishing and from not complying with conservation and management measures that have been agreed by competent organizations.

The United Nations General Assembly considered, for the first time in 1994, the issue of unauthorised fishing in zones of national jurisdiction and its impact on living marine resources of the world's oceans and seas. In so doing the Assembly adopted 'UN Fish Stock Agreement' in 1995. Also in 1995 the FAO Code of Conduct which was adopted. Although voluntary, the Code embrace all fisheries while the Compliance Agreement and UN Fish Stock Agreement, respectively, are more restricted in application in terms of area (high seas) and stocks

In September 2002, WSSD reaffirmed to put the IPOA-IUU into effect by the agreed dates (June 2004) and have agreed to eliminate subsidies