



USAID/UCC FISHERIES AND COASTAL MANAGEMENT CAPACITY BUILDING SUPPORT PROJECT



RESEARCH AND ASSESSMENT ON MARINE FISHERIES GOVERNANCE ISSUES IN GHANA September **2016**

TECHNICAL REPORT

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Cover Photo:

Sea-ravaged coastline at Solo Mpoano, Axim (Photo Credit: Anita Ameyaw Asiedu-Marine Fisheries Governance Study Team Member, 2016).

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EXECUTIVE SUMMARY

Fisheries governance has been defined as a universal arrangement operating within a regulatory authority of which all the players are expected to play their respective roles within the framework of a laid down policy. The policy framework which seeks to link central government to regional/district administrations and the practitioners of the industry is made useless if any of the stakeholders fails to perform their roles as expected. At that stage, there is a complete disconnect between government/local and traditional authority on one hand and the traditional authority and the fisheries practitioners on the other leading to a total breakdown of law and order and constructive stakeholder interaction. This appears to be the current state of the Ghanaian fisheries. The Research and Assessment on Marine Fisheries Governance study in the Western and Central regions is designed to focus on structures of traditional governance or customary social arrangements, local governance and decentralization and collaborative/community rights based management and their legal dimensions. It is envisaged that a thorough assessment of these issues and their proper understanding will provide the necessary ingredients to pave the way for an effective management structure in the fishing industry. It is also envisaged that at this juncture all the stake holders would recognize and play their respective roles in a complementary manner and ultimately restore fisheries governance to its logical stands as pertains in other neighboring countries. The main instrument of study employed in this study is a 70-point structured questionnaire and complemented with desktop information. Due to the heterogeneity of the fishing communities, it is believed that a complete coverage of all the estimated 189 landing beaches in the Western and Central regions would be appropriate. The current study covers 60 landing beaches in the two regions.

A total of 60 landing beaches in seven Districts were fully assessed from February to July, 2016. The mid-term report covered 23 validated landing beaches in three districts (Ellembele District in the Western region, Cape Coast Metropolitan Area (CC Metro) and the Abura/Asebu/Kwamankese (AAK) District in the Central region). Additional 27 landing beaches from five districts; (Jomoro, Nzema East and part of Ellembele, in the Western region; and Komenda/Edna/Eguafo/Abirem (KEEA) Municipality and Mfantsiman District in the Central region) are presented for this report. Findings from the study to date show that traditional fisheries governance tends to follow the behaviours of the ethnic groupings of a fishing locality and vary from landing beach to landing beach depending on the ethnic-mix of the community. Also, the power of the chief fishermen to govern the landing beaches generally erodes as one moves from the rural community, through the peri-urban communities to the urban areas. Furthermore, the power of the chief fishermen to govern the landing beaches is affected by many issues including chieftaincy disputes, political affiliations, absenteeism and disrespectful affluent fisheries practitioners, among others. In several landing beaches, there are no recognized chief fishermen. The women fisheries practitioners are led by a chief fish processor (Konkohemaa) who traditionally fixes fish prices at the landing beach and also serves as an arbitrator in settling disputes that arise among the female fish processors. The way that power is exercised varies markedly from landing beach to landing. While the power is completely lost on some Konkohemaas, in some communities, price fixing for the fishmongers is only applicable to fish landed by migrant fishermen. In the more traditionally conservative fishing communities, fish prices fixed, run for one week before it is revised. The power base also erodes as one move from the rural areas to the more urban fishing communities. Traditionally, the Konkohemaa works with the chief fisherman but does not form part of the governance structure of the landing beach. A few landing beaches have no Konkohemaas.

The demographic characteristics of the communities suggest an average of six children per household out of which three will be in school and one going into fishing. The children's involvement in fisheries activities in the landing beaches may begin at age seven years but this is seen largely as a response to the realities of the present economic situation and they are not considered as child labour. The women have the responsibility of running the homes and ensuring the welfare of the children but are largely not sufficiently empowered to perform the task. A model of women empowerment works in the form of the women completely taking over the fish landed by spouses while the men in turn rely fully on the women for the entire operational cost of the fishing expedition.

The coastline from the Western region to the Central region is characterized by high waves which contribute immensely to land encroachment by the sea. The latter is accentuated by sand winning at the many beaches; an act which appears to be above the control of the traditional authorities. Most of the landing beaches are not very clean as they are used largely as repositories of domestic wastes and places of convenience in the absence of waste bins and lavatories at the beaches.

The fishing methods being practiced in most of the landing beaches include light fishing, chemical fishing, bomb fishing and trawling in inshore waters. While majority of fishermen attest to the presence of those illegal fishing methods, the buck is always passed on to one ethnic group or the other, depending on ethnic allegiance of the respondent. Prospects of adopting a management strategy that will tend to restore the fishery is high among many fishermen but with a proviso that Government shows a lot more commitment at working to restore sanity in the fishing industry by first depoliticizing the entire fisheries business, especially in the area of pre-mix fuel allocations and sales and secondly, making alternative livelihood schemes available to the fishing communities.

An effort at temporarily suspending light fishing for six months in the Nzema area of the Western region (Jomoro, Ellembele and Nzema East districts) by traditional authority came into effect in May 2016. The rationale was to test the effect of light as a lure in fishing on the fish stocks. This gesture, according to respondents ought to have been supported by government by partnering with the effecting communities and possibly extending it to the rest of the country. There are reports of occasional breaches but it appears to be holding gingerly.

While fishermen hope to see speedy recovery of the fish stocks, majority of them do not want to take the initiative. Composite results show that 6 out of 10 fishermen want to see IUUs disbanded; 4 out of 10 want to see light fishing disbanded while 8 out of 10 want to see bomb fishing disbanded. In a sample size of 240, only 18 will support closed season while only 8 will support controlled access. In most instances, it is clearly said that as long as the trawlers are made to fish the pelagics in near shore waters, answers to the questions of giving up the illicit fishing methods will remain mere wishes.

There is a complete disconnect between the local administration and traditional administration as no by-laws are either applied or enforced to regulate the fisheries activities at the landing beaches. Nevertheless, the local administration has demonstrated enough good faith in their preparedness to partner the fishermen in regulating the fisheries and managing the environment provided that they keep their doors open to the local administration.

Immense potential for tourism exist along the beaches of the two regions in the form of castles, forts and long stretches of white sand-strewn beaches interspersed with luxuriant

coconut trees. However, little or no effort is made by the local administration at harnessing these potentials. One main reason cited for not tapping into these resources is that those monuments and relics are under the administration and management of the Ghana National Museums and Monument Board.

Achieving effective fisheries governance in the coastal fishing communities is doable but not until political influences in the fisheries business, especially in the areas of pre-mix fuel distribution, sales and the transshipment of juvenile fishes are abandoned.

Some Ghanaian fishermen spend up to six months every year doing fishing in the lvory Coast where they present themselves as disciplined and well behaved persons who readily comply with all rules and regulations, including flying only the lvorian flag, in the exploitation of that country's marine fisheries.

Some of the notable achievements of the study have been the linking of traditional authority to local administration in fisheries governance and management of the landing beaches and the ensuing provisions of services to be delivered by the local administrations to help keep the beaches clean.

I.0 INTRODUCTION

I.I Background

The United States Agency for International Development (USAID)/University of Cape Coast (UCC) Fisheries and Coastal Management Capacity Building Support Project aims to complement Government of Ghana's (GoG) initiative on food security program. The set objective fits into the GoG's overall grand fisheries and coastal development programme and USAID's Feed the Future Initiative (FtF) (the United States Government (USG)-led global hunger and food security project designed to enhance economic growth in beneficiary countries). The Department of Fisheries and Aquatic Sciences of the University of Cape Coast is presently implementing the programme on capacity building and the fisheries and coastal development sub-component. The latter is intended to provide opportunities, through research and adaptive management-oriented interventions, for fisheries practitioners and households to increase their economic and social capital in all facets along the value chain.

I.2 Specific Task

The assignment on Research and Assessment on Marine Governance aims to perform indepth survey and review of various social issues in fishing communities of the Western and Central regions taking into considerations existing management structures along the fish value chain. Specific areas of concentration are:

- i. traditional governance or customary social arrangements,
- ii. local governance and decentralization and
- iii. collaborative/community rights based management and their legal dimension

In addition to these, the governance structure has been designed to focus on the environment, sanitation, children, gender and tourism issues. It is anticipated that the study will unravel innovative approaches to achieving functionality in the existing marine fisheries governance structure.

I.3 Fisheries Governance

Fisheries governance has been variously defined as the sum of the legal, social, economic and political arrangements used to manage fisheries; a systematic concept that relate to the exercise of economic political, administrative and traditional authority, among others. It develops the policy and regulatory framework that connects central government to civil society and harmonizes individual and societal perspectives to maintain orderliness along the entire value chain of the fisheries business. It also legitimizes and balances stakeholder interaction and controls the allocation of power, resources and benefits while maintaining the governance power to learn more and change as and when it is needed.

1.3.1 Governing Structure of Ghana's Fisheries

As part of its governance structure, the fishing industry of Ghana is regulated by a series of Acts of Parliament and Regulations. For example, the Fisheries Act 2002 (Act 625 of 2002) provides for, *inter-alia*, regulations and management of fisheries resources, development of the fishing industry and sustainable development of the fishery. Furthermore, Sections 77 and 139 of the Act makes it possible to draw on other laws that address any inadequacies in the management of the fisheries. Thus the Government of Ghana's most urgent priority of

putting in place a comprehensive Fisheries management and compliance systems appear to be in place to allow for effective control of all commercial fishing effort including the artisanal fishery in Ghanaian waters. Besides the laws and regulations, private initiatives from Ghana's universities, research institutions and her development partners systematically undertake researches using various instruments into the fisheries. The ultimate objective is to achieve orderliness in the industry by contributing to effective management of the fisheries through adding to the data base and knowledge base of the fisheries.

The recently instituted USAID/UCC Fisheries and Coastal Management Capacity Building Support Project, the Sustainable Fisheries Management Project (SFMP), the Integrated Coastal and Fisheries Governance Initiative (Hen Mpoano), and the West African Regional Fisheries Program (WARFP) are among some of the initiatives contributing to bring sanity into the ailing Ghanaian fisheries. The achievement of all these initiatives are great but in the face of rapidly dwindling fish resources in the Ghanaian fisheries, innovative ways to govern the fisheries must be vigorously pursued until all the major failures of the fisheries are unearthed and more workable governance structures instituted and the ailing fishery restored.

I.3.2 The study

The study on research and assessment on marine fisheries governance discusses findings of 60 landing beaches in Western and Central regions in the general areas of:

- i. demographic characteristics
- ii. traditional governance structure
- iii. local government administration on fisheries
- iv. environment and sanitation
- v. women empowerment
- vi. children
- vii. fisheries governance
- viii. tourism

2.0 METHODOLOGY

The basic social issues at the household and landing beach levels are gauged against contemporary traditional and local government authority in the fishing and fisheries practices and the general community behavior. It is envisaged that the outputs will provide very useful information that the Fisheries Commission and the Ministry of Food and Aquaculture Development could access and incorporate into the Fisheries Management Plan to strengthen the fisheries policies of Ghana.

2.1 Instrument of study

The main instrument of study was a 70-point structured questionnaire. This was complemented with key informant interactions and focus group discussions.

2.2 Sample Design and Coverage

Among other objectives, the study was designed to assess the demographic characteristics of typical fishing households; age structure, roles and responsibilities of fathers (where present), mothers and children; gender disparities and the fundamental roles of children under the age of 18 in the household. The structure and form of traditional authority and their linkages with local authority (District/Municipal/Metropolitan) in fisheries governance in the respective landing beaches were assessed. The study also characterized the environment and assessed the state of sanitary conditions. Women empowerment, child labour and tourism potential in all the landing beaches were studied in detailed. Lastly, the fishing practices, their ills and outputs in present-day fisheries practices were assessed in all the landing beaches.

2.2.1 Survey coverage

2.2.1.1 Demographic characteristics

All persons under the age of 18 years were categorized into the grouping of children and were investigated for their educational status, domestic chores, and other activity patterns.

The educational status of parents, their roles and responsibilities in the day to day running of the household, their livelihood stands, and contribution to the fisheries business were assessed.

2.2.1.2 Traditional authority

Traditional authority was viewed as the way and manner that power is disseminated from customary laws to run the affairs of the fishermen, fishing and fisheries practices within the fishing community.

2.2.1.3 Local Government administration on fisheries issues

The nature of linkages of the decentralized Local Government administration in the regions; (District, Municipal or Metropolitan) with traditional authority was investigated. The respective contributions of local authority in the enforcement of by-laws to regulate the fisheries and environmental issues were also surveyed.

2.2.1.4 Environment and sanitation

The survey of environment and sanitation involved the assessment of coastal processes, anthropogenic influences and general cleanliness of the respective beaches.

2.2.1.5 Women empowerment

The roles and responsibilities of women in the household, fisheries business and contributions to the local governance in the respective landing beaches were assessed. The equity that women possess in the businesses they run and the level of their involvement in the fishing business were also covered.

2.2.1.6 Child labour

Roles, responsibilities and unscheduled domestic chores of children in a typical household were investigated for all persons between the ages of 5 and 18 years. The educational characteristics were investigated for individuals and as a percentage of children in a household.

2.2.1.7 Fishing practices

The fishing practices were covered in the following areas: fishing crafts; their numbers, enumeration status, methods of catching fish and trends in fishing outputs.

2.2.1.8 Maps

To foster a better understanding and strategize for effective governance of the fisheries, GIS maps will be produced to illustrate the distribution and densities of landing beaches surveyed in the districts. It is hoped that by the end of the total coverage of the fish landing beaches in the two regions, a complete map detailing all the landing beaches and their associated coastline geomorphology would be produce to inform policy direction on the marine fisheries governance in the country.

Results of the study is presented and discussed. Detailed baseline account of the study at the landing beach level in the Western region and Central region are presented in the Appendixes I and 2.

3.0 RESULTS

3.1 Study coverage

There are five coastal regions bordering the 550 km coastline stretch between New town on Ghana Western border with Ivory Coast and Aflao on the Eastern border with the republic of Togo (Figure 3.1-1). The study on Research and Assessment of Marine Fisheries Governance issues concentrated on two regions (Western region and Central region). In all, 60 landing beaches were assessed in seven districts of the two regions between February and July 2016. The detailed coastal communities and associated landing beaches are presented by districts in Appendices I and 2 respectively.

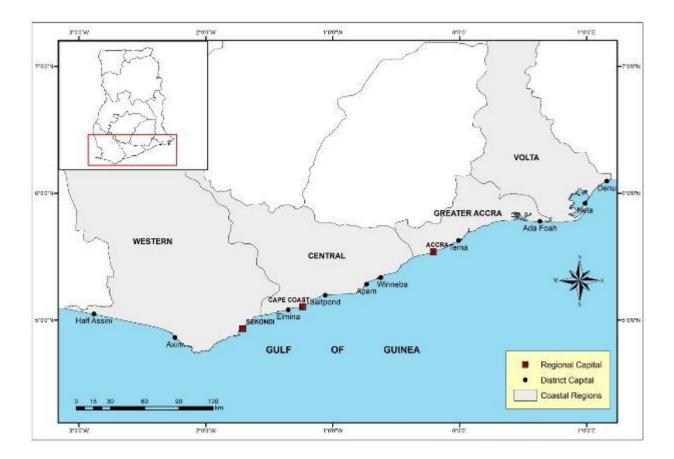


Figure 3.1-1: Map of Coastal regions showing regional capitals and important fishing towns

There are six coastal districts and estimated 96 landing beaches along the coastline of Western region. A total of 31 landing beaches were investigated in 23 fishing communities of three Districts between February and July 2016 (Figure 3.1-1). The detailed coastal communities and associated landing beaches are presented by districts in Table 1-2, 1-3 and 1-4 in the Appendices.

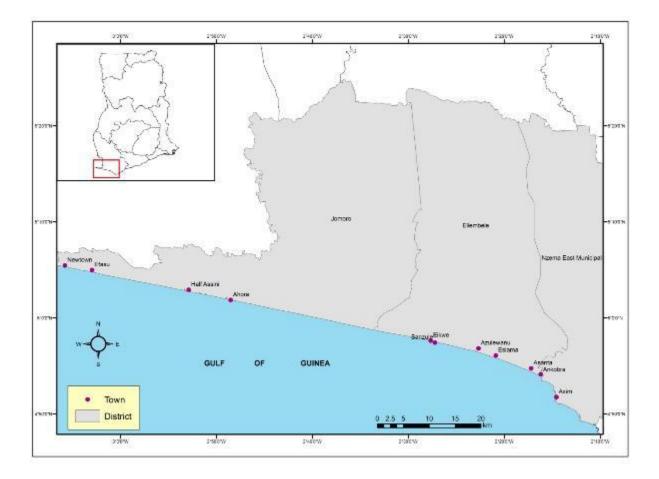


Figure 3.1-2: Map showing some important fish landing sites assessed in Western region (Map produced with assistance from USAID/UCC Capacity Building Project Support Unit)

Central region encompasses nine coastal Districts with 47 coastal communities and an estimated 93 fishing landing beaches. Twenty-nine 29 landing beaches spread across four Districts were investigated. Some important fish landing sites are presented for the four districts in Figure 3.1-3. Detailed names of the communities covered are presented by districts in the appendices.

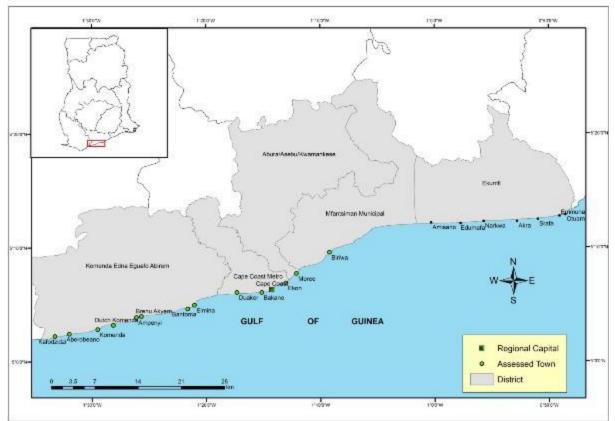


Figure 3.1-3: Important fish landing sites assessed in Central region

3.2 Fishing and Fisheries Governance in Ghana

3.2.1 Fishing

Western and Central region landing beaches, like the rest of the country, operate an open fisheries system where there are no restrictions as to where fishing is done; when it is done; who does the fishing; and which methods are applied.

The ingenuity of the Ghanaian fisherman enables him to readily adapt to new technologies in fishing practices wherever he finds himself. Notwithstanding, fishing communities tend to use fishing methods based on ethnic affiliations. The entire coastline of Ghana is now occupied by a complex of ethnic minorities practicing the fishing methods that they are familiar with. Thus, each settler group brings along with it the fishing methods characteristic of its region and ethnicity.

The Ewe community from the Volta region of Ghana, for example, will be practicing beach seining as its main method of fishing. The Ga and Dangbe community from the Greater Accra region traditionally had been practicing hook and line fishing while the Fante communities were the masters of gill netting and encircling (purse seining) and tuna lines methods of fishing in the past. Findings from the current fisheries governance study indicate that in the parts of the Western region and Central regions covered, while the ethnicrelated fishing methods still prevail in the settler communities, there has been big mix of the original ethnic-affiliated fishing methods and their modules that have evolved over the few years are being practiced throughout the coastal fishing towns. All the illicit fishing methods are rife and practiced in many landing beaches. While some fishermen are employing chemical preservation methods at the high seas, others employ other chemicals fishing methods to kill fish that have been aggregated using powerful light sources in the open sea. In other instances, when good school of fish is encircled, as practiced in the Ali-Poly-Watsa (APW) seine fishing, powerful explosives such as dynamite are detonated sub-marine to ensure that every fish in the approximately half kilometer radius of the explosive's influence is killed, collected and packaged for sale.

The major fish markets do host the trans-shipment fisheries business practices in the country. While the business is very profitable with a very good return on investment for the practitioners, it is one of the main fishing methods that contribute to the depletion of both pelagic and demersal fishes. The industrial fleet, instead of trawling the sea floor, seines the open waters to catch both juvenile and other non-target pelagic fishes. Unconfirmed reports picked up from the research team indicate that the 'saiko' business also promotes other types of offshore businesses.

One of the fallouts of this illegal business is that the huge profit margins are not taxed. The canoes/boats used in the operations are not taxed and so are the owners of the boats. Some of the local administrations propose to impose tax on the businesses in the near future.

3.2.2 Fisheries governance

- By-laws

Fishing and fisheries businesses in Ghana are regulated by an act of Parliament; Fisheries Act 2002 (Act 625 of 2002) which provides for, *inter-alia*, regulations and management of fisheries resources, development of the fishing industry and sustainable development of the fishery. Furthermore, Sections 77 and 139 of the Act makes it possible to draw on other laws that address any inadequacies in the management of the fisheries.

The responses from practitioners on their knowledge of the fisheries laws are largely limited to the use of fine-mesh nets and chemical fishing. Use of light and dynamite is perceived by a section of respondents as fishing enhancement devices. A boat owner's response to the assertion that fishing with dynamite destroys the stocks as it indiscriminately destroys the different cohorts was this 'the biggest bombs are thrown into the seas and fish stocks do not get depleted; how would dynamite destroy fish?' It is obvious that the rules on fisheries regulations is not well understood by many of the fisheries practitioners other than the fact that it is bad to use unauthorized methods of fishing.

- Economic considerations

In the absence of rigid enforcement of the laws regulating fishing in the Ghanaian waters, many factors propel respondents to fish in response to economic considerations. For example, in landing beaches where premix fuel's distribution is shrouded in secrecy, fishermen procure the fuel from the black market at very high prices. While some of the fishermen are able to finance their fishing expeditions, the majority of them are pre-finance by spouses, money lenders and wealthy fish mummies among others. The demands on them are that as soon as they arrive back from their fishing trips, they must settle their indebtedness. In the opinion of the respondents, when confronted with such issues, they must necessarily bring back fish to sell to offset their liabilities. The ways to bring back fish at all cost are listed as follows:

- Use any chemical that will kill as much fish as possible
- Explode dynamite to kill as much of fish encircled to maximize catch
- Use light lures to attract as much fish as possible and have them killed by whatever means available
- Cut back on the use of ice and use preservatives that will keep fish over the life of normal ice blocks and stay at sea longer
- Reduce number of crew members (company size)

The advantages accruing to fishermen are numerous: operational cost is minimized while potentially catch levels go up. Although reducing the fishing crew size results in creating unemployment, the effects are absorbed by the increasing number of women fishing practitioners who have fish to process and make money to run the homes. More importantly, the credit lines are opened to them to run uninterrupted fishing trips.

- Social considerations

Staying at home without going to sea may be interpreted as neglecting one's social responsibilities of catering for the family. While the average fisherman does not provide direct daily feeding money for the home, it would seem appropriate to be seen to be making effort at providing for the home by going to sea even though the returns may be negative.

3.3 Traditional authority

Some landing beaches are run efficiently on the traditional rules and regulation under the directions of the chief fisherman, the traditional head of the fishing community. Among the female fish processors, there are also some landing beaches that the Konkohemaa, the traditional head of the fish mongers, also retains a lot of authority and respect. In such areas, the fisheries businesses are run harmoniously with little to zero illegal fishing practices. Fish pricing done by the Konkohemaa is regulated and in due consideration on running cost of fishing the volume of fish landed. In yet other communities, fish pricing regulation are executed only on migrant fishermen to ensure that the fish mongers get good deals.

In this category of fish landing beach communities that stand at approximately one in twenty landing beaches, traditional governance can be said to be working in the way it ought to be. The governance structure appears to be waning as one move from the remote little community to the large urban fish landing beaches. There are nonetheless many remotely located small landing beaches that operate in defiance to traditional authority.



Traditional Leaders – Erstwhile symbol of authority in the landing beaches

3.3.1 Failing traditional authority

The majority of fish landing beach communities have traditional authority bruised in many ways. In such landing beaches, literally all traditional authority; including fishing taboo days are disregarded. Nevertheless, the extent of erosion of the powers of the traditional authority differs markedly from landing beach to landing beach. The fisheries governance study lists over 15 common causes of failure of traditional authority from about sixty landing beaches. These are presented as follows and briefly discussed. The issues are as follows:

- i. Political affiliation of chief fishermen
- ii. Chieftaincy disputes instigated by interest parties domicile in the cities
- iii. Chieftaincy disputes resulting from inheritance
- iv. Chieftaincy disputes bothering on disputation with main town chiefs
- v. Cosmopolitan nature of the landing beach
- vi. Sidelining of chief fisherman by local administration
- vii. Absenteeism from the landing beach
- viii. Defiant affluent youth fisheries practitioners
- ix. Lack of fishing resources for the fishing community
- x. Youth unemployment
- xi. Lack of alternative livelihood schemes
- xii. Prevalence of the lucrative transshipment fisheries
- xiii. Influence of foreign fishing vessels
- xiv. Lack of collaboration with the law enforcement agencies
- xv. Disconnect with local administration

- Political affiliation

When leadership at some landing beaches is perceived to be split between the two major political parties, loyalty of the fishing fraternity is equally split along party lines. The implications are that, major issues bothering on the welfare of the fishermen are seen as being presented in a biased form to give the impression that everything goes on well or nothing good happens at the landing beach. When it happens at the expense of the fishing practitioners it leads to total defiance of authority.

String-up disputes

Fishing is a big business and there are many people that front for fishing economic inputs such as canoes, boats, fishing nets, outboard engines, etc. Operators of fishing vessels of this nature do not usually lend themselves to the rules running at the landing beach because of the authority wielded by the real owners. Any attempt to bring the operators to order is readily reported to the real vessels owners who in turn strive to create disaffection remotely through their networks. Such acts often result is clash of personalities which divides the landing beach at the expense of the traditional authority

- Inheritance issues.

Usually, the first settler to a coastal community becomes the chief. The title is handed down from generations to generations. Two major issues arise from this kind of inheritance. The polygamous nature of several of the chief fishermen results in offspring coming from different mothers. When the chief passes on the leadership falls to the son. The determination of the rightful heir has always been the problem. The most senior wife may not always be the mother of the oldest son but the lineage of such a wife will insist that their offspring becomes the heir because he the son of the most senior wife. In some cases, the determination of the rightful chief fisherman drags on for many years leaving the landing beach to caretaker groups. These kinds of disputation divide the families thereby splitting loyalty to the royalty.

On the other hand, a prominent person in the community may be elected to the position of chief fisherman in appreciation of what he might have contributed to the fishing community. The younger fisheries practitioners may not know of the causes of the chieftaincy shift from one household to the other and would often insist that the offspring of the original chief must be enthroned. Under such circumstances, the loyalty of the fishermen gets split and makes governance by the local authority very difficult.

In rear cases, the chief of the town elects himself as the chief fisherman. Under such circumstances, the interests of the fishermen are really not properly articulated and the fishermen also go about their duties disregarding the authority of the chief.

- Disputes with the main town chief

Traditionally, it is the chief of the town that enthrones the chief fisherman. Any misunderstanding with the chief fisherman may result in the town chief withdrawing support for the chief fisherman and in some case even the generations that follow him. Under such circumstances the chief may choose to install someone else as the chief fisherman who may not be recognized by the fishermen.

- Cosmopolitan landing beaches

In the larger cities like Axim, Elmina and Cape Coast, the foreign and migrant fishing vessels tend to be large in numbers. Aside from this, the brisk business that goes on in these marketing centers leave very little time for fishers to be leaning to the traditional authority

directives. Furthermore, most of the vessels will be owned by rich men from the cities whose attention will be focused more on making money. Basic rules like fishing taboo days, mesh size, selling under the guide of konkohemaa, among others, become issues of secondary importance.

- Inadvertent sidelining the chief fisherman.

When the chief fisherman is perceived as being on the other side of the government, all the state sponsored fishing inputs and supplies may elude his landing beach. Under such circumstances, the fisheries practitioners may revolt and seek alliance elsewhere all in the hope of keeping their businesses on course.

- Absenteeism from the landing beach

Some chief fishermen, who are by themselves, active practicing fishermen do often sojourn to other landing beaches to go and fish, especially during the periods of abundant fish catch. In their absence, the care taker fishermen are not always obeyed and traditional authority is grossly challenged.

Another group of absentee fishermen are those who reside in the cities taking care of their other businesses. Under such circumstances, the fishermen have no option but turn to other chief fishermen for direction when they need to have their problems resolved. In the course of time, some people may seek to install another chief fisherman who will be handy to deal with issues bothering on their welfare. This often marks the beginning of disputation of the chieftaincy and disregard for traditional authority

- Defiant affluent youth fisheries practitioners

In some fishing communities where the youth fishermen appear to be more endowed with resources, most of them may not show respect to the constituted authority if the rules are not on their side. Such people are always at loggerheads with the landing beach authority and show complete disregard to the landing beach traditional laws.

- Lack of fishing resources for the fishing community

Government subsidized fishing inputs have been previously supplied to the landing beaches through the chief fishermen. The honesty level of the chief fishermen in the distribution of the resources got him endeared to the fishermen. Under such circumstances living with the traditional laws is seen as being rewarding.

On the other hand, when chief fishermen are not involved in the distribution exercises and their fishermen do not benefit as much as their counterparts from other landing beaches, there is always agitation resulting in eroding of confidence in the traditional authority. The consequent anger is vented on the rules and regulation that are supposed to help them to the detriment of sound fishing practices.

- Youth unemployment

The locations of the fish landing beaches present a variety of joblessness levels among the youth. In the urban fishing centers, unemployment levels are so high that it is difficult for the youth to get engaged as boat hands to earn some living. In some large centers, the unemployed are referred to as hustlers

- Lack of alternative livelihood schemes

The downturn in the fishing outputs in recent years means that the people must find something else to do to keep themselves and their families. Where there are other forms of jobs to do, fishing is left in the hands of the relatively fewer persons who could still marshal recourses to continue fishing. Those who find no alternative jobs may join themselves to together to create jobs for themselves. An example of such situations include commercial sand winning in disregard to traditional authority or resorting to the use of IUU fishing, among others.

- Prevalence of the lucrative transshipment fisheries

Transshipment fisheries practice, also called 'saiko', is a very lucrative business practiced largely by the youth in the big landing beaches. It involves the movement of services from the landing beaches to offshore locations where blast-frozen juvenile and by-catch fish are procured from trawlers and transported back to the landing beaches for sale. While most of the practitioners largely front for wealthy businessmen in the cities, the brisk nature of the business leaves no time for consideration of rules and regulations. Because of the connections with influential people, the practitioners tend to command a lot of resources and are often seen as untouchables. Indeed 'saiko' fishing has become a bane in the administration of the landing beaches where it is practiced.

It is believed that the transshipment fisheries may be connected to other offshore businesses. Of which this study has no data to back up. Thus, it may be appropriate for an in-depth study to be conducted into the practices as a practical way of contributing knowledge to the administration of the landing beaches and fisheries development in the country at large.

- Influence of foreign fishing vessels

The saiko fisheries is supported by the offshore trawlers whose origin and ownership remain a subject of debate. Notwithstanding their operations are said to be under the guidance of international law as well as the national fishing laws. Their prime objectives include landing their fish catch at designated landing beaches and harbours, marketing their produce, paying their taxes and moving back to sea. Other things they may bring in and take out will not happen under the view of traditional authority; thus keeping them out of the jurisdiction of traditional authority.

- Lack of collaboration with the law enforcement agencies

The local law enforcement agencies, on the average, may be oblivious of the provisions of the fisheries laws which calls for arrest and prosecution of offenders in the fishing business. Thus, an offending fisheries practitioner or beach sand winner who gets arrested and sent to the police station may be set free and allowed to go without charge. Such actions erode the power of traditional authority and cause them to turn a blind eye to some offences in the landing beaches.

3.4 Environment and Sanitation

3.4.1 Coastline geomorphology

The coastline of Central and Western regions is characterized by very severe waves that wreak havoc on the coastal geomorphology and coastal structures. In many places, the

beaches and erstwhile luxuriant coconut plantations are said to have retreated several meters in the past decade. In some areas, the beaches are decimated to the extent that the canoes are berthed in open waters. Yet in other locations, the eroded materials have left in its trail huge boulders in the low tide marks forcing canoes to depart for fishing operations only at high tide while the return leg is also timed to coincide with the flood tides.

- Anthropologic activity

In the Central region, sand winning is found to be one of the major factors aiding the waves to rapidly devastate the coastal environment. There are by-laws that regulate the amount of sand that can be extracted from the beach which is known to most of the residents but they simply flout the laws citing economic hardship and lack of alternative livelihood schemes to support them in the face of dwindling fish stocks in the sea.

In some landing beaches, large volumes of pebbles are sieved and marked to builders as raw materials for terrazzo. Yet in other localities, truckloads of sand are loaded are from the beaches and supplied to building contractors for their building projects.

In the KEEA municipal area, efforts are made by the security agencies to parade the beaches and arrest offending individuals; an exercise that was intended to be a test for its viability for a long term intervention measure. Elsewhere in the Cape Coast Metropolitan area, the resident fishermen are encouraged to arrest offenders and send them to the assembly or forward particulars of vehicles to the assembly for the necessary follow-up actions.

- Sea Defence wall

Construction of sea defence wall has commenced in the KEEA Metropolis with the potential to extending to Cape Coast. It is thus envisaged that sand winning activities will be naturally curtailed with the completion of the Project. In the interim if the by-laws regulating such activities could be enforced in the regions, the rate of beach retreat could be minimized.



Wave-ravaged Coastal community in Central region

3.4.2 Sanitation

With the exception of very few beaches in both Western and Central regions, the beaches are extremely dirty. In the absence of landfills in most of the coastal communities, domestic sewage finds an easy access at the beach front. Storm waters are also directed to the low lying beaches whenever it rains; thereby cleaning up the wastes in the townships and depositing them at the beaches.

Survey results shows that four in five respondents believe that it is the responsibility of government to keep the beaches clean; unfortunately, that does not happen resulting in the beaches in deplorably dirty states. Communal labour is organized in the proactive communities to periodically clean up the beaches. In most cases, waste bins are not available to cart the garbage away for safe disposal.

According to the Millennium Development Goals (MDGs); Goal 7 and Target 10, which has been duly rectified by the Government of Ghana all houses are expected to have toilets and bath houses by December, 2015. While the district administrations are implementing this legislation by not building any new community latrines at the beaches, it is evident that the communities are unaware that they are supposed to provide toilets in their homes. The beaches are thus used as places of convenience in most communities. Notwithstanding, the reality on the ground is that, in almost all of the coastal communities, the nature of the houses in which they live simply renders it almost technically impossible to fit toilets to them.



Scene of a typical coastal community beach front

3.5 Child Work - a new Paradigm for Child Labour

Children in the 60 landing beaches studied undertake various form of work either on their own or as a means of supporting the household. The activities span a wide range tasks ranging from simple domestic chore of assisting in mending fishing nets to the more difficult task of hauling in beach seine nets or gleaning for marine mollusks at low tide level. In all these tasks, fisheries practitioners never accept the tag of *Child Labour*, preferring a description of *Child* Work even when tasks were being performed at a time when the child ought to have been in the class room.

The Children's Act 1998 (Act 560) defines exploitative labour as "work that deprives the child of his/her health, education or development" or the provisions of international instruments such as International Labour Organization Resolutions (ILO Convention Nos. 138 and 182) which sets the minimum age for admission into employment between ages 13 years to 18 years; for light to dangerous work.

It cannot be determined at this juncture whether child labour goes on in the communities covered in this study but what is certain is that some children as young as seven years are assigned some work by parents and wards both at the household level and the landing beaches. Children who are not at school stay away for a variety of reason; including the inability of parents to fund their ward's education, citing economic hardship.



Out-of-school child support to a mother's fish processing business – Child work

Children of school going age are frequently found loitering around the beaches and in the fishing business areas at times when they should be in school. Research findings are indicating that the native 'Fanti children' by and large go to school but the 'settler-community children' do not go to school. This finding requires future validation. Notwithstanding, there must be a way that children, irrespective of race or sex or economic predicament, are made to stay away from the beaches and the governance study is seeking innovative ways by which this can be accomplished.

In some landing beaches it was noted that sheds built at the beaches for relaxation and other social functions end up as hubs for smokers and delinquent children. Another ill pointer to the welfare of children in such areas is that of 'child smuggling' which is said to be perpetuated largely by women.

The study has gathered that the Sustainable Fisheries Management Project (SFMP) of the USAID and the Central and Western Fishmongers Improvement Association (CEWEFIA) are working towards improving child welfare in the two regions under a working group

called Community Child Protection Committee (CCPC). In other communities, it is reported that large numbers of children spend the nights at the landing beaches. The Fisheries Governance Study Team would seek authorization from the USAID/UCC Project Managers to interact with CCPC and the Department of Social Welfare through the respective District/Metropolitan Assemblies, to synergize effort to arrest the situation.



Young hustler - Looking into the future

3.6 Local government administration

The District Assemblies' role in exercising political and administrative authority in the district is basic to the various local government authorities in all the districts (The Local Government Act – 1993 (ACT 463) - Section 10). Also the fact that in respect of fisheries administration there is no connection with the fishermen resonates throughout the districts and municipalities. The only time there appears to be a connection between the two governance institutions is during implementation of Central Government's programmes; e.g., during distribution of out-board engines, commissioning of cold room facilities or other activities which needed the support of fishermen.

All the Local administrations accepts there is a semblance of disconnect with respect to the Fisheries Commission staff and the fishermen. The reasons are diverse but the fact that the staff of the Ministry of Food and Agriculture in the district is housed in the offices of the local administration but there is no such provision for the staff of the Fisheries Commission presupposes they may not be part of their set-up. More importantly, the decentralization of Local Government administration did not include the Fisheries Commission and therefore, technically, they would not normally be included in the routine major programmes of the assemblies.

Notwithstanding, Part 5 of Section 10 of the Local Government ACT 432 enjoins the district administration to integrate and harmonize the activities of all Government Ministries and other interests in the respective districts on behalf of Central Government. This has

been the missing link which needs to be found and addressed quickly to bring the Fisheries Commission and its interests in the District on board.

That said, the general perception at the District authority level is that the fishermen choose to stay away from the local administration in their day-to-day activities. The fishermen on the other hand charge that the local administration do not carry their concern along and look for them only when their presence will enhance their interests at the time.

What the USAID/UCC Fisheries Governance study has done has been to bridge the link between the two governance groups through validation meeting and sharing more on each other's needs. Areas of concentration in respect of the needs of these two groups are listed as follows:

- i. Imposing taxes on canoes and 'saiko' fisheries businesses
- ii. Taxing men and women equally at fish markets (where the tax systems operate)
- iii. Ensuring equitable distribution of premix allocations and sales;
- iv. Registration of migrant fishing canoe/boats plying their trade in the districts
- v. Arranging toilet facilities at the beaches
- vi. Enforcement of By-laws on fishing activities
- vii. Pre-departure inspection and post/arrival inspection of canoes
- viii. Outlawing chemical fishing, including use of formalin as a fish preservative
- ix. Setting up collaboration between the Department of Fisheries & Aquatic Sciences, Univ. of Cape Coast and the District/ Metropolitan Assembly.

3.6 Women empowerment

Women empowerment in the communities is not visible in any one district. In most of the landing beaches surveyed, results show that none of them owned a fishing craft and where there were women boat owners, the ratios did not exceed 10%. Prior to the down-turn of fishing in the communities, women subsisted on the incomes generated from sale of fish bought from their spouses and other individual fishermen. They used the profits accruing from the sales of their processed fish to run their homes. With the near-collapse of the fishing industry being experienced in most landing beaches in recent times, that aspect of income generation has waned.

Furthermore, there are no alternative livelihood jobs they can resort to. Access to credit facilities and loans such as the Government sponsored MASLOC loan scheme that are so often published, have long been elusive to many of them due to the way it is managed at the district/municipal assembly level. Even in the remotest possibility of being qualified for the loan, women are asked to provide a lien as a backing for the loan aside from the interest rates; which they claim are usually not available. Thus the possibilities of either expanding present businesses or finding alternative livelihoods become more and more unlikely by the day.

Elsewhere in the Western region where they had partly subsisted on farming and copra production to supplement incomes generated from the fish processing businesses, recent oil and gas explorations and operations have rendered their lands, according to respondents, infertile in addition to the mass destruction of the coconut plantations by the Cape St Paul wilt diseases they had had to endure. In places where small scale mining is permitted, they have lost their farmlands to the mine operators who pay higher premium to land owners and traditional leaders. In order to keep food on the table for the family, innovative ways are often sought. Such ways may include small scale fishing where children are made to assist them to seine nearby small water bodies where they are available for fish and crustaceans. They may also glean for marine snails in the sea and even expect children to do the same whenever necessary. In some communities, they patronize the barter trade and exchange scarce stored fish for food stuffs for their homes.

These issues, among others have rendered most women more and more impoverished in the society. The repercussions often manifest on the way the children are brought up; including being dropped out of school.



Bartering fish for food stuff - innovative approach to house keeping

3.7 Tourism

The tourism potential in the two regions is very high. There is a large presence of historic castles and forts some dating back to the 15^{th} century in several landing sites. There are sea turtle nesting sites and crocodile ponds at other locations that could be developed into tourist attractions.

While most of the forts and castles are not kept in the proper state of repair, their presence does very little to benefit the fishing fraternity although they live by and work around those cultural relics. Firstly, the management of the monuments falls to the Ghana Museums and Monuments Board with the local authorities having no power over its running and revenue generation. Secondly, because the facilities have not been placed in positions

to attract many visitors, the secondary benefits that could accrue to them through the potential sales of their commodities to them have also become elusive. The teeming unemployed youth could find jobs for themselves if these monuments, adopted as UNESCO heritage sites, were to function as good tourist destinations.

The great scholars of the Gold Coast (now Ghana) have their roots traced to the ancient coastal communities, including Western and Central regions. An innovative way of creating wealth out of their works for the present generations would be to immortalize their memories and marketed them to the outside world. For example, a well-developed Kwame Nkrumah Mausoleum in his home town or somewhere along the beach in Ellembele, his home district, and patronized by the state itself, could open up the place for tourism and mammoth opportunities for the people of the area.

3.8 Demographic characteristics

In the two regions assessed, there are a total of 189 landing beaches where fishing is actively practiced for most part of the year. There is a very high mobility rate among the fishermen and they have no problems settling at any part of the 550 kilometer shoreline. The only requirement is for the migrant to find the chief fisherman in the area to be located and identify himself in the traditional way. There are no charges levied on the settler fisherman beside occasional landed fish token sent to the chief fisherman which they do without a glitch.

There are a variety of settlers; permanent settlers who are integrated into the new community as a result of parents and grandparents immigration to the new locations. The second group of settlers spends between six to eight months in their new locations doing fishing. The remaining four months, usually coinciding with the lean fishing season and important native festive occasions are spent in their hometowns. This is an annual ritual. The third category of migrants is those who employ the lunar periodicities to locate good fishing grounds and move around for, usually, two week periods. Another group of fishermen just sojourn to places where they can fish and land their catches over very short periods and move on.

Members of all the four groups of migrant fishermen, periodically relocate to neighboring countries as Ghanaians where they readily hailed as much disciplined fishing corps who obey rules and regulation guiding the fisheries practices.

It is not unusual to see two or three landing beaches in one coastal town settlement. Such conditions arise when the settlers aggregate along tribal or ethnic lines and perform a particular fishing practice. They are usually identified by their cultural affinities to their original places of origin and way of life.

The demographic characteristics of the fishing communities show a high density population living along an increasingly diminishing coastline. Housing units appear more temporary although they live in them over generations. There are no defined layouts and no provisions are made for motor vehicle access.

Population density per household is influenced by a variety of factor; including ethnic linkages, type of fishing practices and the status of the man in the community, employment opportunities available and other gender consideration. In the current research and assessment study, the size of the household varied between two and twenty-seven. In the

case of the former, the couple had no children while in the latter case, the man of the house had four wives and twenty-five children. The other three women had either been divorced or they were living separately from the man's home.

In an average household, there will be six children about four of which will be in school and the two either going into adding up to the unemployed youth members; preferring to be referred to as hustlers.

The role of the average man in the household would be to strive to bring fish to the landing beach as often as it is possible. The women have the responsibilities of ensuring that the fish brought in is sold in usually processed form and the man gets paid for it. Profits accruing from the sales are used to run the home; including the upkeep of the children. As long as the fish catch is consistent and adequate, there is harmony in the home.

Ownership of fishing crafts usually rest with the men while the women may loan money to the men as and when they need them for their fishing expeditions. Repayment is usually not a problem as any unpaid loans may be deducted from source in subsequent landed fish purchases.

The age profile of the fishing fraternity spanned a very wide range of six decades; the youngest being twelve years while the oldest fisherman recorded was aged 72 years. The fish processors were, on the average, older than their fishermen counterparts. The oldest fish processor was aged 78 years

3.9 Lessons Learnt and Interventions

The research and assessment on the marine fisheries had been conducted on landing beach basis due to the wide heterogeneity of the people and the ethnicity of the fishing fraternity. The way of doing things are tied-up to the practices of their places of origin in spite of the fact that the migrant and settler communities get largely integrated with the native communities. Any intervention at the fishermen's level, with good chances of successes, will have to factor in the cultural differences.

Lessons Learnt

- 1. The fishing community comprise of a mix of a wide range of ethnic grouping living together but each striving to maintain its cultural identity
- 2. The fishing practices in use at the various landing beaches reflect the fishing practices prevailing in the native regions and by extension, the ethnicity of the people. For example, the Ewe tribe of the Volta region specialize in beach seining; the Ga and Dangbe tribes from the Greater Accra region practice the hook and line fishing, the Fante tribe from the Central region practice the Ali/Poli/Watsa (APW) purse seine methods of encircling fish at the high seas while among the Nzema community the hook and line method of fishing which was hitherto referred to as 'solo'/one man canoe has now given way to a mix of all the fishing methods with their modified forms
- 3. There is a widespread use of the illegal fishing methods being practiced by many of the fishermen of mixed ethnicity and geographical locations.
- 4. The power of traditional authority to regulate the excesses and wrongs in the fishing industry at most of the landing beach levels is seriously eroded and currently reduced to solving disputes arising between feuding fishermen at sea and quarreling fish processors on land.

- 5. The leadership of the fish landing beaches wish to have the law enforcers support them to regulate the fisheries in the wake of their dwindling traditional authority powers.
- 6. There is disconnect between local authority and traditional authority in managing the local fisheries but the willingness to re-connect is established though it varies markedly from administration to administration for many reasons.
- 7. Sale and distribution of pre-mix fuel and other state sponsored supplies is heavily influenced by political considerations resulting in some landing beaches being cut-off from supply of pre-mix fuel and fishing outboard motors to their landing beaches.
- 8. The possibility of having the Millennium Developed Goals (MDGs) of 'one household one toilet' by 2015 has not been achieved due to the structure of housing units in the coastal communities. It is also evident that the transitioning of the MDGs into the 17 Sustainable Development Goals (SDGs) by 2030 may still not provide answers to the problems of environmental sanitation at the beaches. A pragmatic indigenous solution will have to be found.
- 9. Local administration is happy with the work of the USAID/UCC Capacity Building Support Project and willing to partner UCC in finding solutions to the problems of fisheries and the environment in the Districts.
- 10. Human population densities at the coastal communities are very high but enough resources and facilities are not being provided to match up the high increases hence the inability of parents to keep children focused at school to support their intellectual development.
- 11. Women groups seek empowerment on non-partisan basis just to be self-sufficient to be able to manage their homes.
- 12. There is a vibrant fishery in the neighboring La Cote d'Ivoire where some Ghanaian fishermen sojourn to fish periodically.
- 13. Ghanaian fishermen exploiting the lvorian marine fisheries present themselves as a much disciplined corps of fishermen who obey all the laws governing fishing in that country.
- 14. Non-partisan approaches in policing the marine waters by the appointed authorities are cited as one of the causes for uneventful fishing episodes in the lvory Coast.
- 15. Community members are 'research-fatigued' and wish to see action rather than persistent research events

The study has focused on assembling the relevant fisheries governance information and packaging them for redress at the local authority levels. In the six coastal districts assessed to date, the interaction that have gone on with local administrations about the major issues raised have largely been picked up by the respective local administration for remediation where possible and promises of further actions as the need arises. The nature of interventions and responses or promises made to addressing them are presented and discussed further.

Interventions

i. Education

Beside baseline data collection, the fisheries governance and assessment study group analyzes the complex issues and use solutions to educate community members on governance by persuasion and its relevance to the overall realization of fish stock recovery attaining environmental purity in the very near future.

ii. Discussion on alternative livelihood jobs

Some women groups have received directions on how they can access the Governmentsponsored MASLOC loans through the local District Assemblies.

iii. Linking Traditional Authority with Local Administration

One cardinal goal of the fisheries governance and assessment study is to establish workable and sustainable rapport between traditional authority and local administration in the management of the fisheries and the coastal environment. The objective has largely been achieved through key informant interactions like policy Directors at the district assemblies, focus group discussions at the landing beaches and validation sessions with the District/ Municipal/Metropolitan Assemblies.

4.0 PROJECT ACHIEVEMENTS

The major achievement recoded to date include the following:

- i. Open up a dialogue on fisheries governance with over 60 chief fishermen in over 50 landing beaches.
- ii. Gained insight into the causes of usages of the unauthorized fishing methods such as the use of dynamite, light and other IUUs.
- iii. Achieving environmental orderliness through the concept of voluntary compliance with a reward
- iv. On the social structure, the role of women in organizing the household has been noted and the necessary interventions needed to transform the families from one of fish-dependent local economy to a more diversified activity-dependent local economy unearthed.
- v. Awareness has been created on how best to run the environment sustainably. With roundtable discussions involving the traditional authorities, the local administrators and the governance researcher, it is hoped that the necessary by-laws will begin to be applied and the environmental degradation halted.
- vi. Nzema East District has accepted in principle and for experimentation a limited close season but on conditions that there will be a restricted access to other users of the fishing grounds.
- vii. The landing beaches from Jomoro to Axim have also affirmed that they have outlawed light fishing from May to November to affirm the assertion that light fishing is one of the major causes of fish stock depletion in the seas.
- viii. Cape Coast Metropolitan Assembly has made provisions for supply of waste bins to landing beaches in Cape Coast's Abrofo mpoano.
- ix. A program to evacuate refuse from the landing beach on regular basis has been worked out
- x. An engineering solution to curtailing waste transport into the sea through storm water has been slated for implementation by the Cape Coast Metropolitan Assembly.
- xi. Approaches to halting sand winning at the Dua Kor mpoano (CC Metro) is agreed upon whereby fishermen will pass on details of vehicles used in sand winning to the CC Metro officials for action.

- xii. Leadership of Abrofo mpoano fishermen have agreed in principle to pre-departure and postarrival inspection of fishing craft as a strategy to eliminate the use of FADs and IUUs in fishing.
- xiii. Abora/Asebu/Kwamankese (AAK) District is unable to directly provide public lavatories to the fishing communities due to the implementation of the Millennium Challenge Goals but has given promise to traditional authority to facilitate any innovative indigenous plans aimed to solving the problem of environment and sanitation in the coastal towns.
- xiv. Municipal Chief Executive (MCE) of Kommenda/Edna/Eguafo/Abirem (KEEA) has given indications to work with DFAS on fisheries and environment issues in the Municipality.
- xv. Taxation imposed on only women entering the fish market at Elmina is to be reviewed as an intended measure to end discrimination against women.
- xvi. Provisions of places of convenience along the beaches of KEEA are to be made to keep beaches clean.

Challenges

The status of the fishery is not robust enough to allow for 'increase in efficiency' by way of increasing fishing economic units.

Expectation of fisheries practitioners tend to be too much as they expect to have instant solutions to their problems; especially when it involves the Assemblies.

Hostility of some groups, especially the youth, at data collection. It is feared that the governance team will give them bad publicity as a result of their bad fishing practices and chaotic environments.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The following conclusions can be made based on analysis of data gathered from 22 landing beaches in Western and Central regions on the following: beach characterization, environment and sanitations, traditional governance, customary/social arrangements and local governance/decentralization and community rights-based management of the fisheries

Beach characterization

The beaches in the western and central regions are characterized by fast eroding episodes emanating from high energy waves and aided by sand winning for domestic and commercial usages.

While erosion is relentlessly decimating the coastal vegetation, large areas of the beaches are still strewn with luxuriant growth of the coconut trees and pristine mangrove swamps.

The coastline is lined with forts and castles some of which are categorized as UNESCO heritage sites.

Environment and Sanitations

Frequent episodes of high waves are fast eroding the beaches in the two regions. The situation is aggravated by equally high incidence of sand winning by individuals and contractors for commercial use. Traditional authority is helpless at sorting out this problem. Local authority is equally adamant at applying the regulatory by-laws to restore order.

Sanitation in large areas of the coastal environment is not good. A combined effect of seasonal intrusion of large volumes of sea weeds and the use of the beaches as places of convenience by some communities add to the near filthy conditions of those areas.

The general view held by users of the beaches is that it is the responsibility of central Government to ensure that the beaches are kept clean.

Traditional governance

Traditional governance is still operational in coastal communities in both regions. However, where there are disputations on legitimacy of the chief fisherman, the authority of traditional governance gets sufficiently eroded and governing power reduced.

Women are not directly involved in the governing structures of the landing beaches but hold the responsibility of working towards orderliness among the female fish mongers.

The traditional heads serve a better governing purpose in more rural coastal settlements; the authority wanes as one move from the rural communities into the more urban centers. Urbanization and mechanization of the fishing industry are thought to be large contributory factors.

Customary/Social arrangements: Demographic characterization, child and gender issues

Demographic characteristics of fisheries practitioners

The fisheries value chain comprises of a mixed but generally aging population.

The educational level of practitioners is low on the average.

In a typical household in Central region, there will be four children, two of whom are likely to be in school.

In the Western region, an average household will have seven children, three of whom will be at school while four will either be doing fishing or not particularly engaged in any measurable activity.

Child labour

Children are encouraged to go to school but for those who choose to participate in fishing activities, their actions are not perceived as child labour; it is seen more as lending helping hands to poor parents. Some children begin fishing as early as seven years.

Gender Issues

Women in the two regions have the traditional role of running the homes and looking after the children. They largely accomplish the tasks by working in-tandem with their spouses.

Women are not involved in governance or administration of the landing beaches.

The economic power of most female fisheries practitioners are weak and are heavily reliant on the fish catches they receive from the fishermen. Notwithstanding, a few of the women have constituted themselves into financiers of the fishing business; underwriting the operational costs of fishing expeditions and taking control of catches that are made for marketing.

Most women desire to be empowered into doing something for themselves through the provision of alternative livelihood programmes

Local governance/decentralization and community right-based management on fisheries issues

Local governance plays no role in the management of the fisheries. Fishermen deploy whichever gear they perceive will help them to catch fish without any recourse to the injuries that might be done to the fishery or the ecosystem.

Local governance also plays no role in the distribution of pre-mix fuel, besides being represented on the local pre-mix distribution. The distribution, allocation and sale of pre-mix fuel is generally perceived as being corrupt and so are the Fisheries Enforcements Units (FUEs); sometimes accused of selective justice.

There is a general consensus on the need to ban IUUs. Notwithstanding, local authority does not exercise its authority along the lines of the fishermen's thoughts to enforce the requisite by-laws. There is also consensus that application of IUUs methods will cease only when central Government takes charge of the operations of the industrial trawlers and pair trawling and regulate their activities. Local authority is oblivious of this development or if they are aware of it, they are not pursuing it.

There is no community right-based management on fisheries issues other than Tuesday being a taboo day. Even then in some landing beaches, some individuals flout the directives and get punished while in other places it is not observed at all.

Tourism

The coastline of Western and Central regions have a good number of monuments some of which are classified as UNESCO heritage sites. Nevertheless, the state of disrepair of most of these relics does not promote their uses as tourist attractions.

Local authority is hindered from taking charge of the monuments because they are said to be under the control of Ghana National Museums and Monuments Board

5.2 Recommendations

It is recommended that DFAS takes the initiative to intensify its dialogue with the fishing communities on the need for everyone to know that the restoration of the fisheries require the collective efforts of all the practitioners; the fishermen inclusive.

The Fisheries Commission must go beyond just taking fish catch data from the landing beaches and work together to connect with the fishing communities on the sustainable exploitation of the fisheries resources and the management of the environment.

The Local Administration must endeavor to open up to the Fisheries Commission and the traditional authority to enforce by-laws, where they are available or make by-laws peculiar to each environment to bring some sanity into the fisheries operations and the use of the coastal environment.

Given that there are 189 landing beaches, most of whom will have their peculiar problems, it is strongly recommended that the project study life be extended for one year to facilitate complete coverage of all the landing beaches to facilitate linking the entire fishing community to the respective local government administration for effective fisheries governance and good management of the environment.

DFAS should endeavor to link up with the appropriate District/Municipal/ Metropolitan Administration seeking collaboration to implement programs in fisheries and environment in their respective areas of operations.

The Governance study group has research areas that when incorporated into the overall work plan of the Project could contribute knowledge to addressing some of the ills of the fisheries. A few are listed as follows:

- i. Fishing methods in selected landing beaches the sources and mode of applications of IUU fishing devices.
- ii. Map of elemental contaminants in fishes along the beaches of central and western regions
- iii. The biological implications of Saiko fisheries on the fishery of the near shore areas.

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