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Perceptions of socio-cultural beliefs and taboos among the Ghanaian fishers and fisheries authorities

*A case study of the Jamestown fishing community in the Greater Accra
Region of Ghana*

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George Dosu

Master thesis in International Fisheries Management (30 ECTS) – May 2017



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George Dosu

May, 2017

Tromsø - Norway

DECLARATION

I hereby declare that this thesis is the result of my own original research and that no part of it has been submitted anywhere, or else for any purpose. All references have been duly acknowledged and I therefore bear a sole responsibility for any shortcomings.

Tromsø, Norway

May 2017

George Dosu

I hereby certify that this thesis was supervised in accordance with the procedures laid down by UiT – The Arctic University of Norway, Faculty of Biosciences, Fisheries and Economics, Norwegian College of Fisheries Science.

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DEDICATION

I humbly dedicate this thesis to my mother, Mrs. Evelyn Allotey, and my father, Mr. Simon Dosu, for their immense contribution towards my education; and to my siblings, for their love support and encouragement.

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May 2017,
Tromsø, Norway,
George Dosu.

ABSTRACT

Small scale Artisanal fishing accounts for majority of fish catches in Ghana and it is increasingly substantial to the traditional fishing communities of the country. The existence of fishing dependent communities in Ghana has predominantly been intertwined with the existence of socio-cultural beliefs and taboos. As an attempt to contribute to exploring how these socio-cultural beliefs and taboos pervade fisheries communities in modern Ghana, this research aims to map socio-cultural beliefs and taboos practiced in Jamestown, one of the most fishing intensive communities in Ghana, highlighting perceptions of both fishers and authorities about the influence of these practices on fishing activities. In this regard, data for the study was collected using semi-structured interviews with 16 fishers of various religions, the Chief fisherman and the Head of the Fisheries Directorate in the Jamestown community, in addition to observation. Data for the study provides detailed background of the general characteristics of the fisher groups involving gender, age, occupation, marital status, educational background and religious denominations. Findings indicate that fishers of various religious groups practice several beliefs and taboos. The most prevalent socio-cultural taboo that is practiced and enforced in the Jamestown fishing community is the 'no-fishing on Tuesdays'. As a result of this enforcement, the practice of this taboo breeds misunderstandings among fishers of various religions. Further findings affirm that the Chief fisherman and the fishers of Jamestown are of the view that the beliefs and taboos positively influence their fishing activities by providing them with high catches and protection from gods. Contrasting with the accounts of the fishers and the Chief fisherman that the traditional beliefs and taboos are still highly practice in the community, the representative of state authorities is of the opinion that these practices are fading away. However, the perception of this representative is that connecting these practices with fisheries state laws would improve fishers' compliance with these state laws.

Keywords: Beliefs, Taboos, Socio-cultural practices, Traditional religion, Non-fishing days.

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List of Acronyms and Abbreviations

CBFMC - Community-Based Fisheries Management Committee

DoF - Department of Fisheries

DA - District Assembly

DCE - District Chief Executive

EEZ - Exclusive Economic Zone

FEU - Fisheries Enforcement Unit

FSCBP - Fisheries Subsector Capacity Building Project

FAO - Food and Agricultural Organization

GNCFC - Ghana National Canoe Fishermen Council

GSS - Ghana Statistical Service

GoG - Government of Ghana

GDP - Gross Domestic Product

IEZ - Inshore Exclusion Zone

Km² - kilometer square

MDA - Ministries, Departments and Agencies

MoF - Ministry of Fisheries

MFAD - Ministry of Fisheries and Aquaculture Development

MLGRD - Ministry of local Government and Rural Development

MCS - Monitoring, Control and Surveillance

NAFAG - National Fisheries Association of Ghana

NGO - Non-Governmental Organization

PHC - Population and Housing Census

PNDC - Provisional National Defence Council

SFC - State Fishing Cooperation

UNCLOS - United Nations Convention Law of the Sea

USD - United State Dollar

1. Introduction

1.1. Settings

Fishing in Ghana has been the prime source and provider of food for the country, and serves a major avenue of employment and economic benefit for many inhabitants along the coastal shore communities. The fishing sector has also been a backbone to the economy of the country in terms of food security and poverty alleviation, and it contributed 4.5% of the gross domestic product (GDP) to the national economy (FAO, 2016). Similarly to other African countries, some others consider that the fishing regime of Ghana has progressed this far due to the country's very high culture and traditions, which helped with controlling activities of the people and conserving nature (Acheampong, 2010).

The fishing industry in Ghana is characterized by both an industrial fleet and artisanal canoes, with the small-scale artisanal fleet being the biggest in the sector (Tanner et al., 2014). Nonetheless, there have been some challenges in the artisanal fishing sector that have led to strong emphasis on modernizing and industrializing fishing fleets in order to increase growth in production (Béné, Macfadyen, & Allison, 2007). The lack of finance and operating capital, lack of national human resources and a lack of supporting infrastructure contributed to the low productivity and poor economic performance in the artisanal fishing sector (Adjetey, 1973). Again, erratic rainfall patterns, insufficient knowledge of fishers, poor infrastructure, low level of input use, as well as lack of incentives to local fishers are constraints contributing against increased production (Quaye, 2008). Hence, the fishing sector has a potential for growing when these constraints associated with low productivity are alleviated.

However, in the Ghanaian fishing sector, particularly the artisanal one, there may be other factors than lack of management, skills or high technology that are preventing development and growth. One such factor is considered to be the socio-cultural beliefs and taboos of the coastal communities, which could hinder the increase in fisheries productivity (VOA, 2009), even though some authors considered that these aspects played a key role in environmental protection (Botchway & Sarpong, 2015).

In July 2014, during a one-time discussion with a group of fishers in Elmina (Central Region of Ghana), I was told that those who go fishing on Tuesday will see what human beings are not supposed to see on the seas, and as such, culprits flouting this taboo are always brought to justice for their actions. These fishers also told me that there were strong prohibitions for both fishers and visitors to wear slippers along the sea shores and beach sites, as it is believed that this practice drives fish away from fishers. During this conversation, I started thinking how these particular beliefs and taboos influence the Ghanaian artisanal fishing sector, and how the members of the fishing dependent communities are involved in the practice of these beliefs and taboos. This discussion reinforced my interest and curiosity about the topic of the presence of socio-cultural beliefs and taboos in fishing communities of the modern Ghana. In the search for answers I decided to focus my Master's thesis research on this subject. This study is therefore my contribution to the discussion of the practice of beliefs and taboos among traditional fishers in modern Ghana.

1.2. Problem Statement

Fishing, among other agricultural practices forming the main sustaining resources of local communities and indigenous peoples across the world, has seen many epochs in their control and management, use and benefit. The fishing sector has seen many control paradigms, one of which is the socio-cultural beliefs and taboos associated with the environmental and resource sustainability of the sector. For example, in some coastal communities in Ghana, particularly in Accra, it is strongly forbidden to go fishing on Tuesdays, in order not to disturb the goddess (referred to as "Abosom") and her children, which are mostly fish (Acheampong, 2010). A taboo day is a day set aside by the community when nobody is supposed to go fishing. Following this taboo day is a tradition, and it is believed that whoever breaks this "law" incurs the wrath of the gods and invites evil to the community, such as drought or famine. Thus, during the taboo day, most beach and in-shore activities come to a standstill, not only in Jamestown, but at other fishing sites in Accra (Acheampong, 2010).

According to Boamah (2015), there is an ongoing debate on the roles of taboos resolving the contemporary environmental crisis in Ghana, such as coastal erosion, river pollution and loss of species. This debate abounds as a result of the high influence from western and scientific knowledge that perceives African beliefs and taboos as diabolic and regressive (Boamah, 2015). Because of this influence, socio-cultural beliefs and taboos have begun to face problems and, as a result, the system of the non-fishing day and the long rest period in several fishing communities are reported to be breaking down due to disregard for the taboos associated with them (Ntiama-Baidu, 1991). Thus, some authors have expressed concern about the sustainability of beliefs and taboos practices and livelihoods in the Ghanaian fishing communities (Boaten, 1998; Ntiama-Baidu, 1995).

Even though there is no action plan laid down to mitigate the breakdown of taboos, there has been several attempts by the traditional Ghanaian society to save the situation for the wellbeing of the fishing community whose basic survival depends on these fishery resources. An example is when the Jamestown fishers organized a special communal force to place a ban on noise making during their harvest festival, since the noise is perceived to be driving the fishes away (Asante, 2011).

The main focus of this research is to explore what belief systems and associated taboos are incorporated by local fishers in Ghana, and what is the perception of fishers about how these beliefs and taboos influence their fishing activities. This study also seeks to probe into the response of authorities regarding the practice of beliefs and taboos among fishers and the perception of these authorities on the importance of these practices in fisheries management.

This research used Jamestown fishing community in the Greater Accra Region of Ghana as a case study. I chose to place my research in this area because this community is one of the oldest fishing sites in the country, and, while it is the home for various ethnic groups, it is still mostly inhabited by traditional people. The main activity of people in this community full-time fishers, as it was reported that most of the traditional fishers find pleasure and satisfaction belonging to this occupation (Quayson, 2014). Thus, I found the Jamestown

fishing community a relevant case to explore if fishers are still practicing fisheries related beliefs and taboos, and how do they, and the fisheries authorities, perceive these practices.

1.3. Research Objectives and Research Questions

The main objective of the study is to identify the socio-cultural beliefs and taboos practiced in the Jamestown community, Greater Accra Region, Ghana, and how are these perceived by the fishers and fisheries authorities.

Based on the main objective of the study, this research aims to answer the following research questions:

1. What beliefs and taboos are practiced by fishers in Jamestown fishing community?
2. What is the perception of fishers about how these beliefs and taboos influence their fishing activities?
3. What is the response of authorities regarding the practice of beliefs and taboos among fishers?
4. What is the perception of authorities on the effect of these practices on fisheries activities?

1.4. Relevance of Study

The existence of fishing dependent communities in Ghana has predominantly been intertwined with the existence of socio-cultural beliefs and taboos. As an attempt to contribute to exploring how these socio-cultural beliefs and taboo pervade fisheries communities in modern Ghana, this research aims to map socio-cultural beliefs and taboos practiced in one of the most fishing intensive community in Ghana, highlighting perceptions of both fishers and authorities about the influence of these practices on fishing activities.

1.5. Structure of the Study

The study is further structured into six chapters. Chapter 2 introduces the concepts of beliefs and taboos, and it is based on a literature review. Chapter 3 focuses on the general governing structure of the Ghanaian fishing sector, both formal (or national state institutions) and informal institutions (or traditional state institutions), and their role in the processes of fisheries management. The methodological approach to answering the research questions as well as the research design used in the study are described in Chapter 4. The ethical considerations and limitations associated with the study are also discussed in this chapter. Chapter 5 presents the findings of my study, together with a discussion of these results. Chapter 6 gives a general summary of this research.

2. Beliefs and Taboos, Theoretical Considerations and Practices in Ghana

In an ever-changing society with staggering population growth leading to food shortages in some parts of the world, sustainable agricultural traditional practices have become an indispensable tool in finding optimized solutions to major challenges in natural resource management (Altieri, 2004). Most of these practices emerged during unmemorable times and have been passed on from generation to generation together with accompanying beliefs and taboos. It is considered that the use of the beliefs and taboos systems was geared toward protecting and promoting communal wellbeing, rather than individual interests (Diawuo & Issifu, 2015). Furthermore, these systems have been the prime policies guiding traditional natural resource management, with various impacts on sustainability (Diawuo & Issifu, 2015).

2.1. Belief Systems in Africa and Ghana

Belief is defined as the mental representation in which a person thinks something to be the case, with or without there being empirical evidence to prove that something is the case with factual certainty (Schwitzgebel, 2006). Belief is also perceived as the phenomenon of admitting or accepting of any proposition as true, upon arguments or proofs that are found to persuade us to receive it as true, without certain knowledge that it is so (Leicester, 2008; Locke, 1975).

2.1.1. Classification of Beliefs

Beliefs of the Traditional religion in Ghana has been presented in a hierarchical structure of the spirit forces, and the intersection of all the forces in deriving their ultimate source and power from the Creator (see Figure 1). This structure also serves as a paradigm for the understanding of religion in other West African traditional societies (Assimeng, 2010).

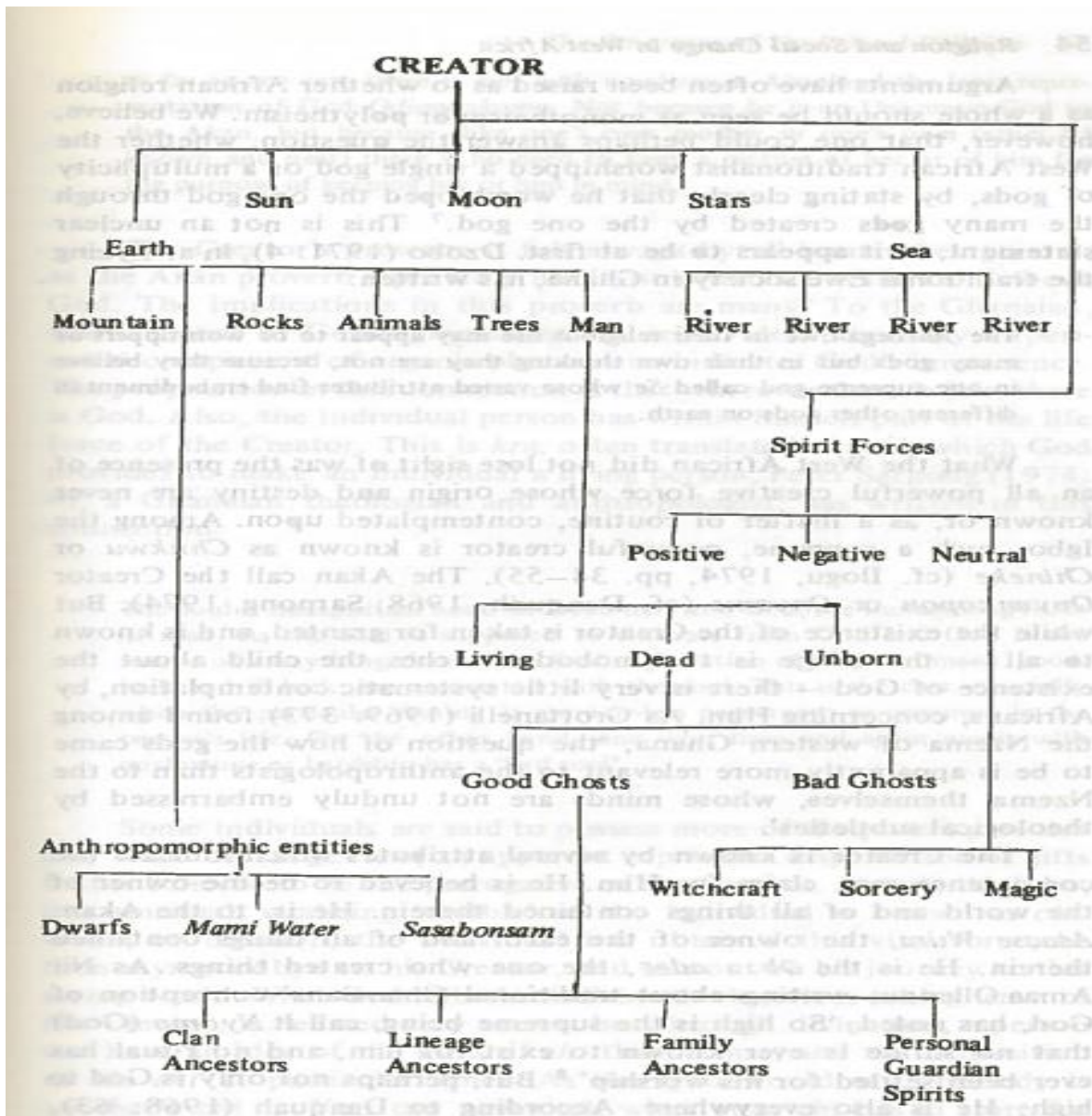


Figure 1: The structure of the Traditional Ghanaian religion. Source: (Assimeng, 2010)

Generally, there are four fundamental components of the religious beliefs system that are essential to the interpretation of the African traditional religion (Turaki, 2000):

i. The belief in impersonal (mystical) powers

The belief in the impersonal (mystical) power is dominant in the traditional African religious perspective, and it is thought to consume the whole creation and its entirety. This same belief in mystical powers has been given several names such as, “mana”, “life force”, “life

essence” and “dynamism”. Although this belief in the African context has some theological basis, the source of this impersonal or mysterious power is not always known, but usually attributed to the activities of higher “mysterious” powers believed to generate or deposit such powers in objects (Turaki, 2000).

The uses of these impersonal powers are mostly related to the practices of medicine men and women and also natural objects, plants and animals used by soothsayers for magic, charms, amulets and medicinal purposes. For instance, some spiritualists believe that these mysterious powers are embedded in things and can be extracted for special uses. Others also believe that these powers can be transmitted via pure spiritual means from one object medium to another, and can be sent to specific destinations for an intended good or evil. This is because people believe that “mystical powers are contagious by contact of an object carrying or mediating the power” (Turaki, 2000). The belief in impersonal powers can be used for both good and evil, and is very much reflected in the religious practices and behaviour of the Traditional African life (Turaki, 2000).

ii. The belief in Supreme being

The belief in Supreme being is one of the fundamental beliefs that cuts across the Traditional African religion. It is argued on the fact that Africans have a concept of a universal God and a Creator (see Figure 1), even though the Traditional Africans exclusively do not worship the Supreme being (Assimeng, 2010; Idowu, 1962). Thus, the belief in Supreme being seems to be far remote and less functional in the Traditional settings of Africa since the religious activities of the Traditional African society revolve mainly around the beliefs in mystical powers, spirit beings and divinities. For instance, the African divinities who are termed as “smaller gods” have been actively involved in daily religious activities, since it is believed that they receive sacrifices, offerings and prayers made through divinities and ancestors. In some parts of Africa and the modern world, special attributes to the Supreme being are usually mentioned in prayers, songs and in some religious occasions as a sign to exalt the Supreme being.

iii. The belief in divinities/deities

The belief in divinities or deities although not prevalent is still practiced in the Traditional religions in Africa. Some ethnic groups in Africa believe in divinities as their “gods” whilst others also perceive them as an “intermediaries” or point of contact to their Supreme being (Turaki, 2000). These divinities were originally mythological figures in some African legends and primordial histories, while some were tribal heroes or heroines (Turaki, 2000). Thus, the African divinities and deities took the forms of mountains, rivers, forests, the mother earth, the sun, the moon, the stars, and ancestors. Some others, covering different aspects of life, society and community, were usually established, such as divinities of the sea or the waters, rain, thunder, fertility, health or sickness, planting or harvest, tribal, clan or family deities. For example, most ethnic groups in Ghana have beliefs related to majority of water bodies as deities, since it is perceived that rivers symbolize the gods of the people (Ntiama-Baidu, 1991, 1995; Sarfo-Mensah & Oduro, 2007). Hence, most ethnic groups around these waterbodies worship them as these protect and serve as potable water source for the community dwellers. Some people regard the rivers as source of life and fertility, where barren women go for cleansing in the hope of getting fertilized according to Ohemeng Boakye (1980) cited by (Sarfo-Mensah & Oduro, 2007). In the Traditional African life, sacrifices, offerings and prayers are offered indirectly through divinities and ancestors to the Supreme being.

iv. The belief in spirit beings

The belief in spirit beings play a key role in the concept of reality and destiny in the traditional African setting. Thus, most actions and the activities in the spirit world govern all social and spiritual phenomena. The spirit world can be divided into two categories: a. *non-human spirits*, and b. *the spirits of the dead*.

These spirit beings are ranked per their importance and power, depending upon their role in the spiritual world (Oji, 1988:17 cited Turaki, 2000). This hierarchy of importance begins with the Creator (Supreme being in the spirit world), then the deities, object-embodied

spirits, ancestral spirits and other miscellaneous spirits that include both good and harmless spirits, and evil spirits (see Figure 1).

The embodiment of the spirit world is described as follows: (i) *the whole world is full of spirits*; (ii) *the abode of spirits are numerous, such as the silk cotton tree, baobab tree, sycamore tree, burial grounds and other places*; (iii) *the spirits are classified into two categories, the bad ones and the good ones*; (iv) *a firm belief in reincarnation*; (v) *a belief in and practice of exorcism or spirit possession*; (vi) *a belief in life after death, future reward and future punishment*; (vii) *evil spirits are always associated with Satan*; (viii) *a belief in spirit possession* (Kato, 1975).

2.2. Taboos in Africa and Ghana

A taboo (sometimes spelled '*tabu*') is a ban or prohibition. The word comes from the Polynesian languages, where it means a religious restriction (forbidden), which when violated would entail some automatic punishment (M. Douglas, 1989). It is comparable to the concept of *Sacer* in Latin, *Nso* in the Igbo language of Nigeria, and *Mmusu* in the indigenous Akan language of Ghana (Osei, 2006). Sometimes taboo is referred to as a "phenomenon that is universal", which literally means 'marked off' or 'off-limits' (Durkheim, 1963; Holden, 2000). Taboos may also be particularly used in the noun form to refer to as "persons, places, objects, or conditions which are endowed with a mysterious attribute and the prohibitions arising from the same attribute" (Levine 1986:995). Taboos can be seen as an obligatory task more rather than an option, which in turn validates the need for punishment for breaking or not observing since "a taboo is an offense against ancestors and Supreme Being" (Fisher, 1998). Punishment from flouting of taboos could come from the Supreme being, ancestors or spirits (Scanlan, 2003).

According to M. Douglas (1989), it was argued that primitive tribes observed countless taboos as part of the general ignorance about the physical world. However, opposing arguments state that taboos are not a feature of 'primitive' societies', as it was assumed by some anthropologists, but are a fundamental characteristic of any society (Holden, 2000).

In an African context, a taboo is perceived as something that is designated as “sacred, placing prohibition or restriction on a particular thing or person, and therefore, when breached, it will unleash dangers, while abiding by the rules would amount to avoiding dangers and sickness” (M. P. Douglas, 1966). Hence, the breach of these taboos will result to crop failures in farmland, sickness, hunting accidents, famine, drought, epidemic etc. These taboos are said to be “prohibitions which, when violated, produce automatically in the offender a state of ritual disability; and can only be relieved whenever possible, by a ceremony of purification” (Barre et al, 2009:31).

Taboos are arguably expressed as an interconnectedness of two inseparable dimensions in the African worldview: the “visible and the invisible world”. This interconnectedness can also be seen as a sort of mutuality whereby the quality of life of the living in the invisible world (ancestors) and of people living in the visible world depends on each other's actions. This is because ancestors are seen as originators and custodians of taboos (Parrinder, 1969:89 cited Boamah, 2015). The connection between taboos and ancestors has valid implications for how humans cohabit and relate with their natural environment, considering the fact that these ancestral spirits, supposedly live in objects such as trees, rivers, and rocks as study among the Akan people of Ghana revealed (Aye-Addo, 2013).

Sometimes the taboo appears in ways that seem far from their point of origin. For example, among the Lele tribe of Congo, it was observed a taboo to bring fishing equipment direct into the village from the streams or lakes where it had been in use. All around the village, fishing traps and baskets would be hung in trees overnight. People practiced this because they say coughs and disease would enter the village if the fishing equipment was not left out each night (M. P. Douglas, 1966). In some tribal societies, it is thought that shedding of animal blood will cause severe droughts and other environmental disasters. Elsewhere, any contact with the dead or menstrual blood is thought to be very dangerous and in other places adultery is liable to cause illness.

Even though the previously mentioned belief in punishment from ancestors, including death, accidents, and incurable illnesses, has been highly criticized as irrational and unscientific by the modern society, it is worth noting that these notions continue to thrive in

most part of Africa, including Ghana (Sarpong, 1974). The taboos therefore in a way, portrays that the concept of “spirituality” is integral to African community.

2.2.1. Classification of Taboos

Taboo can be applied in two various ways, that is to say, the narrower sense which represents the cultic or purely religious usage, whilst the broader sense represents its usage in socio-economic and political situations (Boamah, 2015). In the narrow perspective, taboo has been a term for a “set of cultic or religious prohibitions established by traditional religious authorities as instruments for moral motivation, guidance, and means for protecting the sanctity of shrines and nonetheless the wellbeing of their worshipping communities” (Boamah, 2015). On the broader sense, the taboos are made applicable to any sort of social prohibition imposed by the heads of a community regarding certain times, places, actions, events, and people particularly, but not restricted to religious reasons and the well-being of the society. In this context, there has been extensive research on socio-cultural practices regarding social taboos and beliefs that include informal institutions. These institutions simply refer to working-rules or rules-in-use, meaning "the set of rules actually used by a set of individuals to organize repetitive activities" (Ostrom, Walker, & Gardner, 1992). As such, these social taboos are embedded in the ruling pattern of most traditional societies. Following these taboos is considered to be highly beneficial as it helps solve complex issues in these societies of developing countries by conserving nature and the environment (Becker & Ostrom, 1995). This is due to certain fear and punishment instilled on defaulters who turn to disobey the norm. Social institutions play a key component in this respect, therefore viewing social taboos as an informal institution is considered to be very beneficial (Berkes & Folke, 1998). These taboos are further described as social mechanism that helps in the management and protection of several threatened species in their biological habitat even though they may have been viewed by many critics as irrelevant to the conservation of natural resources, and consequently, a drawback toward development (Edgerton, 1992; Rea, 1981). Consequently, there has been various debates today centred on the importance of taboos and their role in solving emerging communal problems. In Ghana for instance, some people are of the conservationist stance, and reckon that

traditional beliefs and taboos played a positive and important role in grassroots societies and continue to subtly influence the modern society.

According to Magesa, who quoted Webster, (Magesa, 1997), taboos from various African communities can be classified using four categories.

- i. **Taboos about people:** for instance, women are not to sit with men, not respecting elders, son-in-law is not supposed to greet his mother-in-law, youngsters are not supposed to drink alcohol.
- ii. **Taboos about acts:** for instance, stealing, getting pregnant without having had a marriage ceremony, cheating others, incest, adult children having sex before the funeral of their recently deceased parents, singing at night during having a bath.
- iii. **Taboos about things:** for instance, eating certain food, raising cows of certain colour, sitting on cooking stones.
- iv. **Taboos about situations:** for instance, looking at one's sister bathing, referring to genitals directly, a younger wife planting or harvesting before the first wife.

In the Ghanaian community, there are taboos and sacred days associated with lagoons, which are set to protect the lagoon habitats and help reduce fishing pressure on the lagoon resources (Ntiamoah-Baidu, 1991). Such taboos are referred to as resource and habitat taboos (RHTs) since they regulate the use and access of resources and ecosystems by resource users (Colding & Folke, 1999). These taboos are connected with particular habitat patches and are referred to as *sacred groves* (thus, smaller or larger ecosystems reserved for religious purposes) (Gadgil & Vartak, 1976). Example of such taboos found in these habitat patches are commonly located throughout indigenous groups in India, Africa and Europe as cited by (Colding & Folke, 1997; Frazer, 1992).

Most sacred groves reserved with specific days in Ghana (referred as *dabɔne*) are also kept in commemoration to certain historical relics such as tribal war in which the deities in the sacred grove played a significant role (Adomako, Adomako, & Bayliss-Smith, 1998; Falconer, 1992). Their existence, according to the Ga tribe, may also be associated with the belief that the deity provides some beneficial services such as manufacturing of hoes and cutlasses by the blacksmith god in the Guako sacred grove of Pokuase, Ghana (Adomako et al., 1998; Sarfo-Mensah & Oduro, 2007).

Some food-related taboos are also described as a mechanism used as a means of resource management strategy as they regulate over-exploitation of species to a considerable degree (McDonald, 1977). A good example is the taboo customarily imposed on the consumption of snails among the Ga's and Ewe's Traditional community, while it was also a temporary food taboo for pregnant women among other ethnic groups in Ghana (Gadegbeku, Wayo, Ackah-Badu, Nukpe, & Okai, 2013).

In the Ghanaian context, it was believed that people have died as a consequence from breaking these taboos and by subsequently refusing to pay requisite fines to pacify the gods (Ntiamoa-Baidu, 1991). However, what constitutes such taboos and the sanctions for breaking them may vary from one culture to the other, since taboos vary among tribes within Ghana (Barre, Grant, & Draper, 2009).

Lastly, there is a wide range of prohibitions related to the utilization of the natural resources that are considered to be against the fertility of the land. Similarly, some days are considered to be sacred (no farming or going to the bush), as this days are reserved as resting periods for the goddess of the land (Boaten, 1998).

2.3. Implications of Beliefs and Taboos in Livelihoods

The debate about the relevance of taboos and their traditional values to societal wellbeing has raised discussions among anthropologists. Many assert that there is a crucial distinction between “primitive” and “modern” societies, and taboo has played an important role in establishing this distinction. A typical instance is when the British anthropologist Mary Douglas’ analyzed the concept of pollution (understood as littering an area) as taboo, and identified that there were two types of cultures as far as the sanctions attached to taboos on pollution were concerned: “primitive” and “modern”. In “modern” societies, “pollution is a matter of aesthetics, hygiene or etiquette, which only becomes problematic so far as it may create social discomfort” (M. P. Douglas, 1966). The sanctions are in the form of social sanctions, contempt, ostracism and perhaps even police action. In the “primitive” societies, the effects of pollution are much more wide ranging. This is because, the taboos in primitive societies are stimulated by fear and at the same time are inextricably confused with defilement and hygiene; therefore, by virtue of their religious status and sanctions from the supernatural, become reinforcement of reverence for status. For instance, a grave pollution is a religious offence (M. P. Douglas, 1966).

However, it was argued that before modern natural resource conservation methods came into being, Traditional societies functioned in a complex religious and cultural belief systems by means of elements such as superstitions, myths, taboos, totems and closed seasons to preserve, conserve and manage certain natural resources (Attuquayefio & Gyampoh, 2010). Generally speaking, some authors consider that taboos perform distinctly environmental functions of preserving vegetation and wildlife. These authors also add that these taboos together with other cultural practices might serve as a contributing factor influencing the management and conservation of some fishing areas found in Ghana (Koranteng, Ofori-Danson, & Entsua-Mensah, 2000). Some examples of taboos that are used in the Traditional fishery systems include that: (i) *only indigenous people are allowed to fish in their respective waterbodies*, (ii) *the prohibition of fishing on Wednesdays*, and (iii) *women in their menstrual period are not allowed to cross the lagoon* (Koranteng et al., 2000).

These beliefs and taboos have been a tradition that is diffused and passed on from generations, and are accepted without any argument. Thus, traditions are made customs that are characterized by these beliefs and values endorsing those customs (Acton, 1952; Fleischacker, 1994). Nevertheless, with the advent of Christianity, Islam, civilization and its accompanying technology in Ghana, it was observed by some authors that many of these beliefs, taboos, customs and traditions have been relegated to the background and are regarded by a mass of religionist, especially Christians, as “fetish, diabolic, demonic, savage, useless and regressive”; though it is considered by some authors that they played a key role in environmental protection (Boamah, 2015; Botchway & Sarpong, 2015). Some authors also believe that reviving such Traditional values associated with taboos would be of benefit to the modern society (Botchway & Sarpong, 2015).

3. Study Area

3.1. Introduction to Ghana

Ghana, officially known as the Republic of Ghana, is a multinational state with a unitary presidential constitutional democracy, located in the sub-region of West Africa (see Figure 2). Ghana is one of the most well-known African nations, and the first to attain independence from European colonization, in 1957 (Mwakikagile, 2009). The country is bordered on the North by Burkina Faso, on the East by Togo, on the West by Ivory Coast, and on the South by the Gulf of Guinea as part of the Atlantic Ocean. The country has a total surface of 238,535 square km (FAO, 2016). The capital town of Ghana is Accra, located along the Atlantic coast.



Figure 2: The country of Ghana. Accra is the capital city and Tamale is the biggest city in the Northern region. Source: <http://www.planwallpaper.com/static/images/ghana-and-ghana-in-africa.jpg>

With a recorded population of 28,409,576 (Ghana, 2016), a little over 40% of the total number of persons aged from 15 years and above are involved in skilled agriculture, forestry and fishery (GSS, 2012). Like most other countries in sub-Saharan Africa, its population is mostly black and it is divided in different ethnic groups: the Akan (44%); the Mole-Dagbon (16%); the Ewe (13%); the Ga (8%) and other minors. Native languages spoken in Ghana include Twi, Ewe and Ga, with English been the official language (Mwakikagile, 2009).

Religion in Ghana forms an important element in every aspect of the Ghanaian life and is entwined by a variety of religious belief systems and practices. Traditional religion, Christianity and Islam are the three main forms of religions practiced in Ghana, with Christianity predominating in the southern half of the country, whilst the Islam is mostly prominent in the northern regions (Salm & Falola, 2002). Christian religion constitutes almost 70% of the total population, devoted to numerous Christian denominations (Catholic, Pentecostal, Charismatic etc.), followed by Islam (15.9%), and Traditional religions (8.5%) respectively. The introduction of missionary activities in the past decades has accounted to the increasing practice of Christianity as a primary religion in the country (Langer, 2007; Salm & Falola, 2002). Although the Christian religion is commonly practiced among various ethnic groups of Ghana, the traditional way of life is still an important basis to overall social organization. This is evident in the fact that many of those who declare themselves as part of Christianity or Islam still continue to withhold traditional beliefs and practices across the country (Salm & Falola, 2002).

Ghana is well endowed with natural mineral resources and is one of the largest producer of gold in Africa and the world. However, leading to a constant decline in the prices of traditional export commodities, such as gold and cocoa, which has adversely affected foreign earnings, government aims at increasing the production of non-traditional export commodities, such as fish, to meet the growing domestic demand and export (Akapula, 2002). With the diversion of the country's input to non-traditional commodities, it has been calculated that the fishery sector contributed 21% (US 53.8\$ million) to export earnings in 2013 (FAO, 2016).

Like other African countries, the economy of Ghana is heavily dependent on the agricultural sector (forestry, agriculture and fishing), as this strengthens the economy of Ghana by accounting approximately one-quarter of the GDP, and employs also majority of the workforce (Habeeb, 2014). Ghana's fisheries sector, especially the small-scale, is no exception with regards to poverty, as poverty exists in small-scale fisheries worldwide (Ofori-Danson, Sarpong, Sumaila, Nunoo, & Asiedu, 2013). In Ghana, there is a prevailing effect of the attractiveness of the fisheries sector, a situation that encourages several people to enter the fishing sector (Christophe & Friend, 2011). This leads to the economic and biological overexploitation of the fishery since its resources are shared among all the very many resource users (Ernest Amano Boateng, 2017). However, it is considered that poverty in small-scale fisheries is mainly fuelled by economic, political and institutional set-up of the fishing communities, which tends to deprive many of the fishers to gain access to economic institutions and consequently unable fishers in the small-scale sector to attain the minimum required investment capital to allow them generate financial profits (Allison, Horemans, & Béné, 2006; Christophe & Friend, 2011). In addition, illiteracy rate and limited education is most prevalent amongst traditional people in fishing communities (Medard, Sobo, Ngatunga, & Chirwa, 2002). Most of the illiterate population, both men and women, venture into fishing practices (fishing, fish processing and trading) in order to achieve a sustainable livelihood to alleviate poverty since this occupation requires minimum or no skill proficiency (Béné, Bennett, & Neiland, 2004; Pauly, 1976).

3.2. Jamestown

This study was conducted in Jamestown, a notable fishing community in Greater Accra Region of Ghana (see Figure 3). Jamestown, a suburb in Ga Mashie, is the oldest district in the City of Accra. The statistics according to (GSS, 2012), projected about 125,000 population in the district and indicated it as one of the most densely populated district in the Capital, and the entire country at large. The district is inhabited mainly by the Gas, of the Ga-Adangbe tribe, with an appreciable number of other tribes in the district, which includes the Akans, Ewes, Guans and others (Quartey-Papafio, 2006).

Since the 17th century, the main economic activities of Jamestown remain fishing and petty trading. Thus, fishing is the major occupation and source of livelihood for the people in the district and has currently employed over 16,000 people. Historically, fishing in this community has always contained a division of labour; men are involved in the main fishing activities, such as going to sea, whilst women are notable for their involvement in fish preservation, marketing and trading (Mahama, Acheampong, Peprah, & Boafo, 2011).

Jamestown is the most powerful fishing Ga township in Ghana and home to various ethnic groups that been established along the coastal community (Quayson, 2014). Most of the Gas are traditionalist and are associated, among others, with rituals practiced during their harvest festival (*"Homowo"*), where there is a ban on noise making in all Ga communities (Asante, 2011; Goshadze, 2015). The study was carried out at the local level of the fishing community, led by their Chief fisherman.

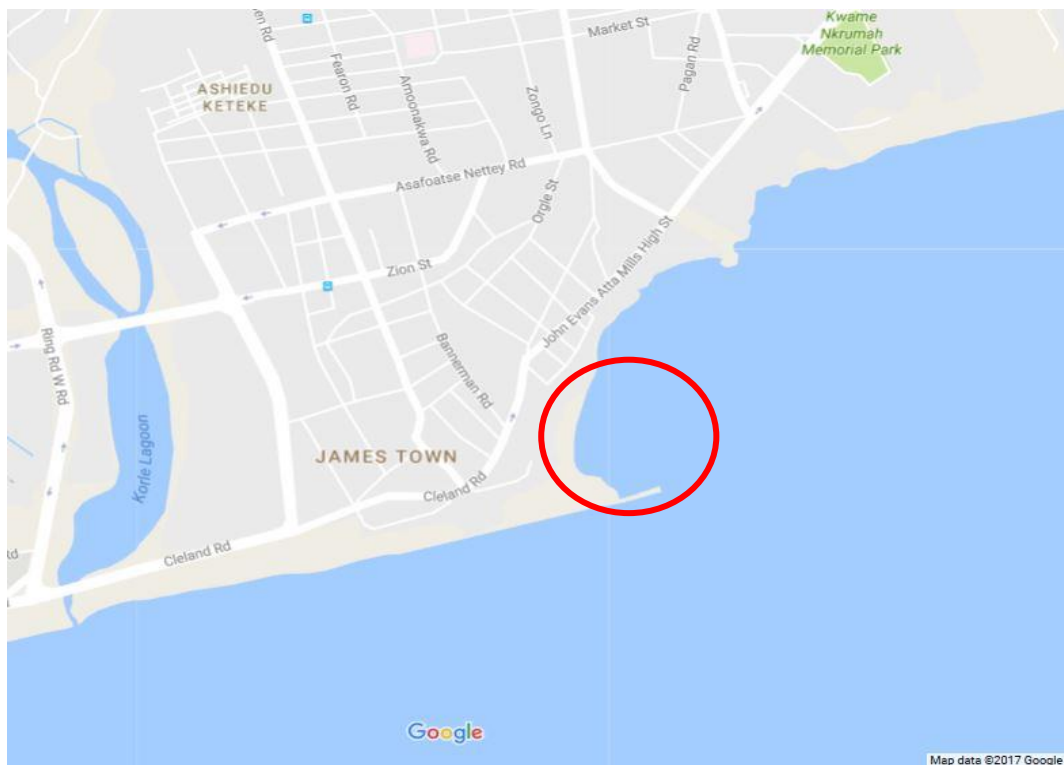


Figure 3: Jamestown, in Greater Accra Region of Ghana. The red circle indicates the Jamestown beach, the place where I carried on my research in July, 2016. Source: Google Maps.

The Ghana National Canoe Fishermen Council of the Jamestown community employs a 'Casting-shift system', an approach that regulates fishing intensity at the beach site owing to the large number of fishers and the fact that all the canoes cannot go to the sea at the same time. During this period, only selected fishers by the Traditional council are allowed to operate on the set aside day or time as it is argued that this system regulate the quantity of fish, overcrowding and competition amongst fishers at a time (Lindqvist & Mölsä, 1992).

3.3. Fisheries Sector

3.3.1. Overview

Ghana's coastline is 538 km long. The coastline comprises a long stretch of sandy beach interspersed with estuaries, lagoons and rocky shores (Kwadjosse, 2009). These waterbodies serve as a habitat for several marine species along the coastline, with the average temperature of between 25°C and 35°C (Mensah, Korateng, Bortey, & Yeboah, 2006). The country's fish production is mainly driven by the oceanography of the western Gulf of Guinea, with a seasonal upwelling occurring annually from July to September as the major upwelling, whilst the minor upwelling occurs either December to January or February to March (Kwadjosse, 2009).

The fishing sector in Ghana has been in existence for many years, even before the country attained independence in 1957. The sector started as a small-scale fishery, which was mainly comprised of different ethnic groups of fishers living along the coastline regions (see Table 1), with about 185 coastal fishing villages and 304 beach landing sites in 2001 (Mensah et al., 2006). The Ghanaian artisanal fishing sector began to expand as the demand for fish attracted entrepreneurs to invest in the sector, which led to the emergence of the commercial fishery sector in the second half of the 20th Century (Atta-Mills, Alder, & Rashid Sumaila, 2004). This encouraged the formation of fishing companies in the sector, most of which had foreign aids directing the operations of semi-industrial fleets in distant waters (Atta-Mills et al., 2004; Kwadjosse, 2009)

To further strengthen the fishing sector, the State Fishing Corporation (SFC) was established in 1962 for both inland and commercial purposes. The objectives of this institution were to

effectively manage the small-scale industry and to import industrial technology (trawlers) whose fishing operations falls outside the coastal shores of Ghana waters through bilateral agreements (Kwadjosse, 2009). However, many fishing companies, including the SFC, collapsed drastically in the 1980's due to poor management and financial constraints (Atta-Mills et al., 2004). The above challenges in the late 20th century was intensified by the adoption of the Exclusive Economic Zones (EEZs) by most coastal West African nations in 1980's, thus restricting Ghanaian vessels from fishing in what were formally used as Ghanaian waters. Nonetheless, the Ghanaian fishing sector saw a steady recovery towards the turn of the Century, by the aid of foreign investment (Fisheries Commission, 2010).

In 1983, Ghana commissioned the United Nations Convention Law of the Sea (UNCLOS) that established a jurisdiction over the EEZ, taking into consideration management and conservation rights to fishing zones (Kwadjosse, 2009). The process of conserving fishing effort within fishing zones include licensing of fishing vessels, establishment of fishing zones, restrictions on fishing gears and establishment of the Monitoring, Control and Surveillance (MSC) system. Based on stock assessment carried in the Ghanaian EEZ, it is considered that although fish species such as sardinella may be depleted in the EEZ, tuna stocks as well as other stocks (e.g. seabream and triggerfish) reportedly remain existing (Clark, 1994).

Table 1. Characteristics of Ghana's coastal regions. Source: Mensah et al. (2006)

Coastal Region	Ethnic Groups	Coastline (km)	No. of fishers
Western	Nzema	105	6,750
	Ahanta	80	10,990
Central	Fante	150	28,300
	Awutu-Effutu	25	6,450
Greater Accra	Ga	45	16,150
	Dangbe	70	13,370
Volta	Anlo-Ewe	75	14,355

3.3.2. Status quo of the Ghanaian Fishing Industry

The Ghanaian fishing sector consists of inland, aquaculture and marine components. The marine component, which is made up of sea and lagoons, consists of both the artisanal and the industrial sector, whilst the inland fishery component, comprising the lakes, rivers and reservoirs, is characterized mainly by the small-scale sector (Kwadjosse, 2009). The following sections give more details about the artisanal sector of the marine component, as this research is focused only on this sector.

3.3.3. Marine Fisheries

The fisheries in the marine sector in Ghana consists of three elements: artisanal, semi-industrial and industrial operations (see Figure 4). The fisheries activities of the various sectors exploit both pelagic and demersal fishery resources.

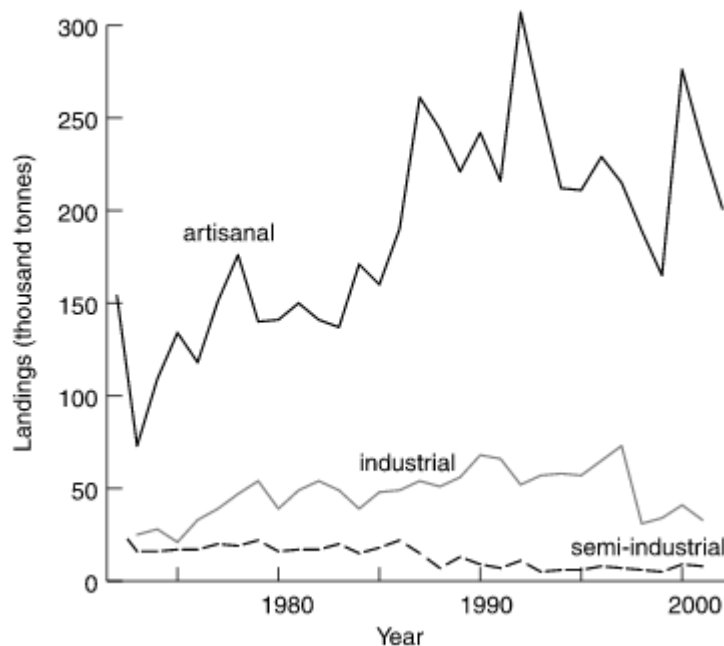


Figure 4: Landings in the Ghanaian marine fisheries sector (1971 - 2001). Source: (Atta-Mills et al., 2004).

The average total capture of fish is around 325,000 ton per year. Fish catch from the marine sector constitutes about 85% of total domestic fish production (Akapula, 2002). The marine fisheries are exploited by a small-scale fleet, which lands about 70% of the total capture

with about 11,213 dugout canoes, of which 57% of them been motorized (Kwadjosse, 2009). The fisheries resources on the industrial level are exploited by a semi-industrial fleet of 230 locally manufactured wooden vessels, which lands 2% of the total marine fish production from seven landing sites, with small pelagic (e.g. anchovy and sardinella) species and tuna species (see Figure 5) being exploited in the sector (Kwadjosse, 2009).

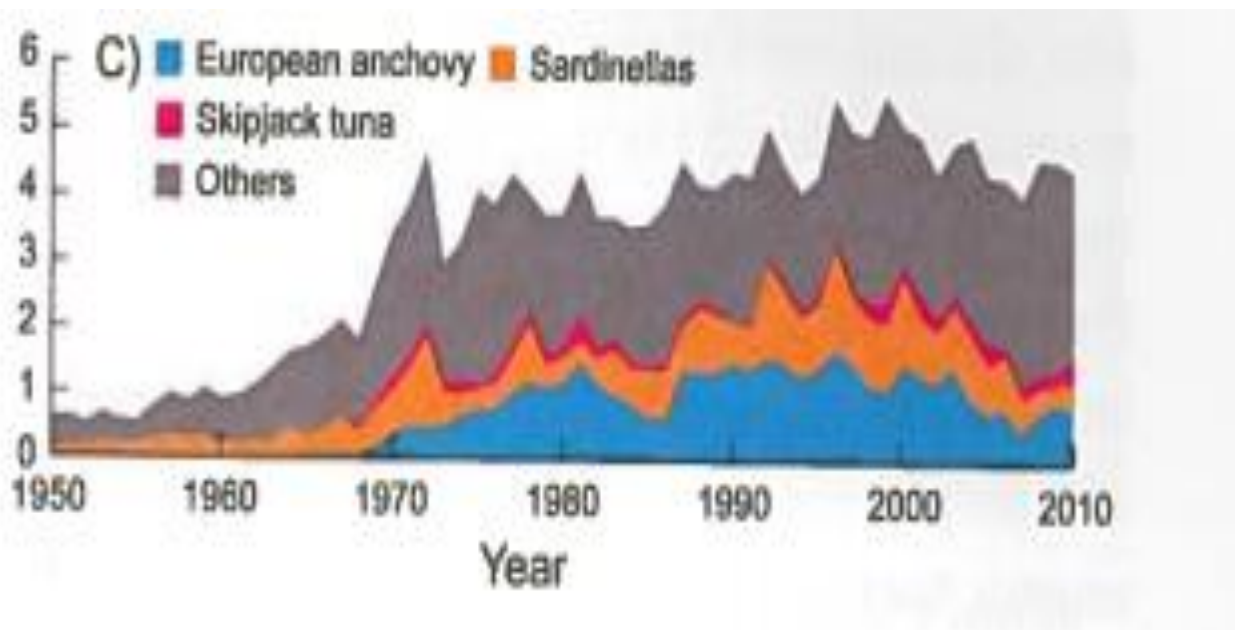


Figure 5: Main species in the Ghanaian marine fisheries sector. Source: (Nunoo et al., 2014)

3.3.4. Artisanal Fishery Sector

The artisanal fishing sector is the largest in the Ghanaian fishing industry and accounts for 60-70% of the marine fish output (Mensah et al., 2006). The sector is officially allocated an exclusive zone for fishing up to the 30 meter-depth-line from the coast, within which the industrial and semi-industrial sector cannot operate (Aryeetey, 2002). Various fishing gears and vessels are employed in the artisanal fishery sector, making the sector more diverse. These gears used are classified into five categories: purse seine nets (39.8%), set nets (29.7%), hook and lines (11.9%), beach seine (8.9%) and drifting gill nets (2.9%) (Ferraris, Koranteng, & Samba, 1998). The various artisanal gears target different resources. The target species are small pelagic (mainly the sardinella and anchovies), large pelagic (mainly tuna species), and some demersal species (Mensah et al., 2006), all these species being in high demand within the country (R Overå, 2002). The artisanal fishing sector has

contributed effectively to the national economy by providing employment (primarily for unskilled young adults), national food security, enterprise development and foreign exchange earnings (see Table 2) (Lenselink, 2002; Pauly, 1976).

Table 2: Contribution of the Ghanaian artisanal fishery sector to national economy. Source: (Lenselink, 2002).

Employment	110,000 fishers 290,000 processors, fishmongers etc.
Per capita consumption per year (kg)	26.1
Production (tons/year live weight)	477.000
Value of Imports (million \$EU)	19
Value of Exports (million \$EU)	56

The artisanal fishing sector has shown a steady progress in landings from the 1960's as compared to the semi-industrial and industrial sector, hence has proved to be much more viable to the Ghanaian fishing sector (Atta-Mills et al., 2004). The people involved in this sector are mainly the local inhabitants and migrant fishers from neighbouring regions and countries (Kraan, 2009).

3.3.5. Fish output and processing

The total fish landings have increased considerably since the 1970's (see Figure 6). The small-scale sector of both marine fishery and inland fishery undergoes post-harvest processes, which involves a number of fish processors (mostly women), wholesalers and retailers in the industry. There are also cannery, cold stores and transshipment companies in the industrial sector, which absorb most of the fish supply and process it (Kwadjosse, 2009).

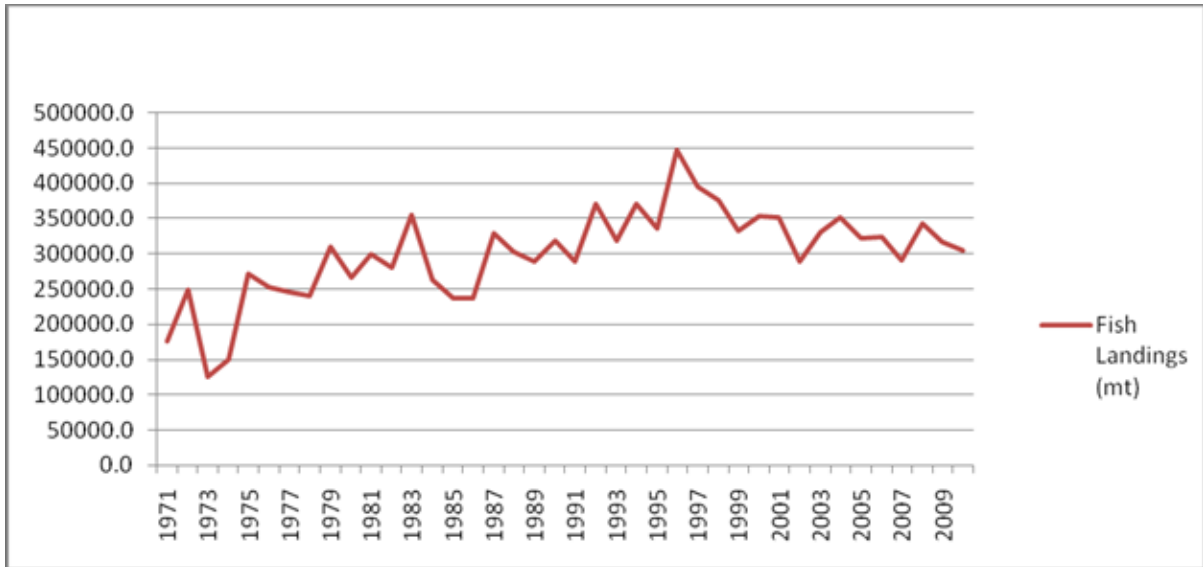


Figure 6: Fish Landings in Ghana 1971 – 2010 (tonnes). Source: Data from Directorate of Fisheries, Ghana (2012).

3.4. Fisheries Governance

Ghana is a multiparty constitutional democracy, whereby the President is both head of state and head of government. The main arms of the Government are the Executive, Legislature and Judiciary, each of which functions independently of the other. The country is administratively subdivided into ten regions. These regions are partitioned into 138 districts and these are further subdivided into areas. The coastal regions are located in the Southern part of the country which include, the Greater Accra Region, Central Region, Volta Region and Western Region (Kraan, 2009). The ten regions are operated by a Regional Minister and his deputy, and the regional heads of the decentralized ministries.

The various districts are regulated by the District Assemblies (DA) and the District Chief Executives (DCE), who are key representatives of the respective districts in charge (Mensah et al., 2006). The DA provides services to the communities through its own developmental programs organized through revenues e.g. basic tax, market tolls etc. (Mensah et al., 2006).

The coastal communities are also represented by their assemblymen, who hold positions in the town council of the villages and towns. For instance, there is one assemblyman representing the Jamestown electoral area who holds a position in the town council of the

coastal community. The town council is the lowest level governance organization of the decentralized Ghanaian state. The town council also has appointed unit representatives, government appointees, and extra committee such as the traditional council, led by the Chief fisherman, who has linkage to the traditional governance structure and to important economic groups like local fishers (Kraan, 2009).

3.4.1. Governance Structure

Governance can be defined as the process of decision-making and implementation (or non-implementation) of decisions, the way power is distributed and exercised within a society in a variety of social contexts, such as corporate governance, international, national and local governance (Jentoft & Chuenpagdee, 2009). A typical governance structure, focusing on fisheries governance in the Ghanaian setting, has been outlined by Kraan (2009) in an ideal sketch. The diagram (see Figure 7) depicts how the governance structure in Ghana operates in different settings at village level. This diagram might help the reader not accustomed with the Ghanaian fisheries governance sector to understand the different levels of decision making.

Kraan (2009) describes the different units of governing system according to shaded and non-shaded elements, triangular shapes, round forms and square blocks. The shaded element consists a hybrid or a mixture of both national and traditional (local) organizations, whilst the non-shaded elements are organizations related to the Government of Ghana; except for the rhombus shapes, which denotes non-governmental organizations (NGOs). The round figures represent agencies comprising of individuals such as Chief fisherman. The square block element denotes organizations such as councils, departments and ministries. Kraan (2009) explained the differences in the various shades of colour at each level the organizations operate, such that the darker the colour, the higher the level.

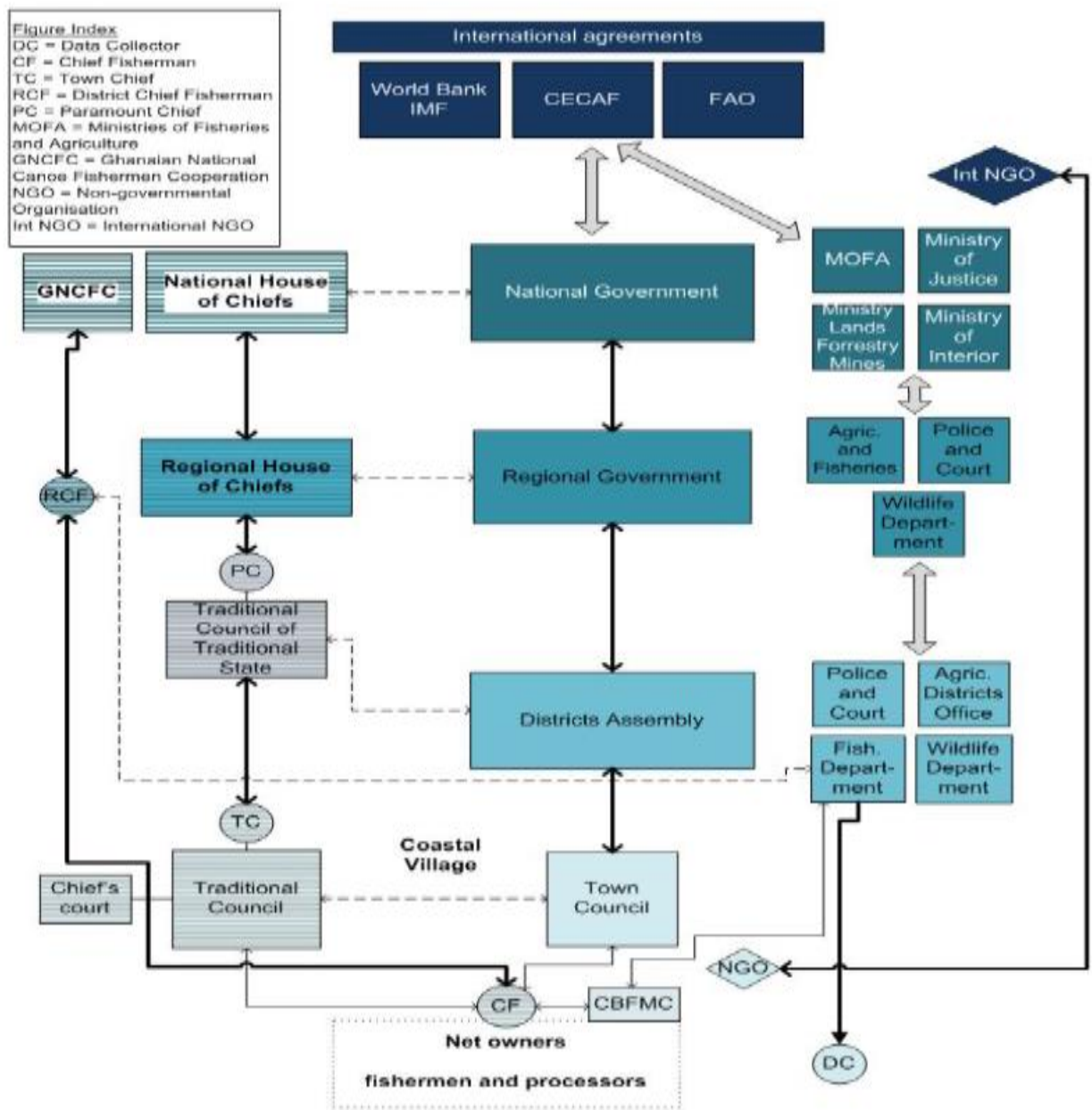


Figure 7: The governance structure of a coastal village in Ghana. Source: Kraan (2009).

Thus, there are seven levels of organization:

- i. Sub-village level – this level consists of the chief fisherman, CBFMC, fishers, fish processors etc.
- ii. Village level – consists of the Town council, chief’s court and the traditional council including the fisher’s council, led by the Chief fisherman.

- iii. District level – consists of the District Assemblies.
- iv. Traditional state level – comprises of the traditional council of the traditional state.
- v. Regional level – this comprises of the regional House of Chiefs, regional offices of the Ministry of Fish and Aquaculture Development and the regional government.
- vi. National level – this consist of the Government of Ghana, Fisheries related ministries, National House of Chiefs and finally;
- vii. International level – where the fisheries sector shares a number of agreements with other stakeholders in the field e.g. World Bank, FAO, IMF etc.

3.4.2. Fisheries Management Institutions

Institutions are an essential part of the fishing sector, and hence an integral tool in the structure and operations of the governing system. That is, the ‘institutions’ can be said as the rule of the game that governs a particular society since they have both direct and indirect impact on daily lives (Jentoft, 2007). Institutions are also regarded as systems of norms that “regulate the relations of individuals to each other” and that define “what the relations of individuals ought to be (Jentoft, 2004). According to Kukwaw (2013), institutions in the Ghanaian fishing sector involve various government and non-government organizations (NGOs) that can be categorized under national state (i.e. formal institutions) and traditional state (i.e. informal institutions), which function both at local and national level.

3.4.3. Formal Institutions

3.4.3.1. Ministry of Fisheries and Aquaculture Development

The Ministry of Fisheries and Aquaculture Development, in collaboration with the Fisheries Commission and the Directorate of Fisheries, forms the formal institution of the Ghanaian artisanal fisheries sector. The mission of the Ministry is to promote sustainability of fishery management through research, technology, extension and other support services to fisher folks (local fishers, processors and traders) in order to achieve its role in ensuring food security and poverty alleviation (FAO, 2004). The Ministry coordinates with other Ministries,

Departments and Agencies (MDAs) for the enforcement of Fisheries Laws, and for promoting human resource capacity in fishery management, by providing technical support and facilitating financial aid to fishers, fish processors and marketers within the value chain in the fishing industry.

In order to achieve the above state's mission, the Ministry aims at:

- i. Increasing fish production consistent with the long-term sustainability of the resources, for domestic consumption and for exports.
- ii. Reducing post-harvest losses to end-products of fisheries for high income and for the generation of foreign exchange to the nation.
- iii. Intensifying Monitoring, Control and Surveillance (MCS) activities to ensure responsible fishing.

3.4.3.2. Directorate of Fisheries

The Directorate of Fisheries (DoF), formerly known as the Department of Fisheries, operates with five sub divisions under the implementation secretariat of the Fisheries Commission, as stipulated by the Fisheries Act 625 of 2002 (FAO, 2004). These divisions include: Marine Fisheries Division, Inland Fisheries Division, Monitoring Control and Surveillance Division, Finance and Administration Division, and the Marine Fisheries Research Division.

The DoF functions within the Ministry of Fisheries and Aquaculture by fulfilling the role of preparing fishery resource management plans, developing regulations for the fishing industry, organizing MCS for the national fishery resources and ensuring compliance with national fisheries law (FAO, 2004). The Directorate of Fisheries discharges these functions through several mechanisms, including sea patrols, observer programmes, port and landing inspection, vessel registration, licensing and improving the Community-Based Fisheries Management Committees (CBFMCs), statistics gathering and analysis, and capacity building. Other objectives include the improving the living standards and welfare of local fishers and helping to alleviate rural poverty.

The Monitoring, Control, and Surveillance (MCS) Division of the DoF was set up under the Fisheries Subsector Capacity Building Project (FSCBP) with a command to enforce the Fisheries Laws. The MCS Division, with the cooperation of the Ghana Navy, executes sea patrols to relegate industrial fishing vessels from the 30 meters Inshore Exclusion Zone (IEZ), reserved for the artisanal fishers.

Monitoring, Control and Surveillance comprises the integral part of fishery management and is made up of various regulatory operations undertaken to check that management goals are implemented and observed both at sea and inshore activities (Hersoug & Paulsen, 1996). A concrete definition of the three components of MCS has been provided by the FAO (2016):

- a) *Monitoring* - the continuous requirement for the measurement of fishing effort characteristics and resource yields;
- b) *Control* - the regulatory conditions under which the exploitation of the resource may be conducted;
- c) *Surveillance* - the degree and types of observations required to maintain compliance with the regulatory controls imposed on fishing activities”.

The main objective of the MCS is to contribute effectively to the optimal sustainability of fishery management by ensuring that adequate input, output and technical controls are adhered. These controls refer to regulatory tools in fishery management that are aimed to check direct or indirect fishing effort. They include: (i) *limited entry licensing*; (ii) *gear and vessel restrictions*; (iii) *area closures, time closures, and area zoning*; (iv) *global non-allocated catch quotas (TAC)*; (v) *allocated catch quotas*; (vi) *taxes/fees on catch*; (vii) *selectivity of gear/mesh sizes* (Fisheries Act 625, 2002).

3.4.4. Informal Institutions in the Artisanal Fishing Sector

3.4.4.1. Community-Based Fisheries Management Committee

At the community level, a Community-Based Fisheries Management Committee (CBFMC) is established to steer the affairs of the coastal artisanal fishing sector. The committee is headed by the Chief fisherman, who is elected into custody by its own fishers (Kraan, 2009). The main duty allocated to the Chief fisherman, based on existing traditional authorities and local government structures, is to manage and supervise the overall sustainability of the artisanal fishing sector, by ensuring the national fisheries laws are obeyed at the community level, as well as that their own by-laws, including beliefs and socio-cultural practices, are followed (Ragnhild Overå, 2005). He also deliberates environmental issues concerning fishing sites by consulting other subordinates and other fishers by means of co-management when necessary. This includes beach hygiene and regulation of light fishing. During CBFMC's meetings, different opinions from representatives of the community regarding management of the fishery are relayed to the ministry of fisheries through the district assemblies.

3.4.4.2. The Chief fisherman

The institution of the Chief fisherman is very important in Ghanaian artisanal fisheries as far as fisheries management is concerned in the coastal communities. The Chief fisherman, who is always a man, is one of the sub-chiefs of the village chief, and chairs the fisheries board at the local committee. He is in the person who performs his responsibility by providing advice on all fisheries-related matters and fulfils a coordinating role between the local fishers and higher level organizations (Kraan, 2009).

In the artisanal fishery sector, which has been in practice for centuries (mostly amongst the Fantes and Effutus coastal communities), the Chief fishermen position is a hereditary function. Nonetheless, the individual selected to be a Chief fisherman must possess some good qualities: must be exceptionally experienced with the natural flare, sound judgement, wise, and a very respectable person in the fishing community (Ragnhild Overå, 2001).

Chief fisherman helps the Chief of the town with the settling of all fisheries-related matters in the sector and is involved in religious rituals believed to implement good catches at sea (Kraan, 2009). As part of his role, the Chief fisherman works with a council of elders, and together they settle disputes between local fishers, fish traders and fish processors. He also is in charge of accruing revenue from fines of fishers who default the rules at the beach site, and of coordinating rescue operations in the event of accidents at sea (Bannerman, 1998).

In addition, the fisher's association, referred to as the Ghana National Canoe Fishermen's Council (GNCFC) is led by the Chief fisherman, and is the council that helps to resolve conflicts amongst local fisher folks as well as seek to achieve the welfare of the coastal community in the artisanal fishery sector.

4. Methodology

This section provides a justification of the choice of method used in carrying out the research. It gives a detailed description of the methodological design of the study, of accessing the study area and respondents, as well as the research process employed in sampling data. Finally, it discusses the data sources, data collection method and data analysis methods, as well as ethical considerations and limitations encountered during the data collection process.

4.1. Research Process

The main research method used is the ethnographic method of research. Ethnography is a method of research that describes and interprets the patterns of values, behaviours, beliefs and language of people by focusing on their way of life (Harris, 1968). Following this approach, I spent a significant amount of time in the field, immersing myself in the day-to-day lives of the local fishers.

4.2. Data Collection

Both quantitative and qualitative data were collected during this study. I collected these data through observation and administering semi-structured interviews as research instruments (Chaleunvong, 2013). Prior to field work I decided to interview a representative of local state authorities, the Chief fisherman, and several fishers, as well as observing the latter during their activities.

4.2.1. Observation

Observation, as described by (Cohen & Crabtree, 2006), is a method that provides researchers the opportunity to observe and engage in what is happening in social settings as they interact with participants. It also said to provide insight into the aspects of everyday activities of research participants that are taken for granted, but can contribute to the richness of the field data (Patton, 1990). Observations can take form of photographs, audio and visual recording and can either be carried out in a participatory or non-participatory

approach. The participatory approach “combines engagement in the activities and lives of the people being under study with maintaining a professional distance that allows adequate observation and data recording” (Fetterman, 1998), while the non-participatory approach is interaction with limited engagement with the people’s activities (Cohen & Crabtree, 2006).

During this study, I have used the participatory observation approach, since it provides the researcher with a direct experience to the phenomenon being studied and creates an opportunity to see and hear what is happening in the social setting rather than focusing partly on narrative descriptions from participants (see Figure 8). I spent four weeks (1st – 30th July, 2016) in the fishing community I have explored, and took my role as an observer very seriously. Observing immediate fishing community, respondents’ attitudes, choice of words and answers, mannerism and their day-to-day fishing lives were variables of which I took note. I also joined respondents during the interview session on a Tuesday morning and helped them mending broken nets and other fishing gear (see Figure 8).



Figure 8: The researcher (first on the left) and local fishers mending a broken net during field work (Jamestown, Accra, July, 2016).

4.2.2. Semi-structured Interviews

Interviews typically involve the researcher asking questions and hopefully, receiving answers from the people been interviewed (Robson, 2011). There are different kinds of interviews, e.g. fully structured, semi-structured and unstructured, however semi-structured interview and unstructured interview are widely used in flexible designs, as described by Miles and Huberman (1994).

A semi-structured interview is the phenomenon by which verbal interchange is employed by the interviewer following loosely a list of questions, in pursuit to draw out information from the interviewee (Longhurst, 2003). This inter-communication offers interviewer the possibility to explore issues that are felt and seen as relevant.

Using a semi-structured interview scheme (see Annex 1 – 3), the aim of the interviews I conducted with local fishers and Chief fisherman (level i in section 3.4.1.), was to seek their perceptions regarding socio-cultural beliefs and taboos that influence fishing in the community and management response to the consequences of flouting these beliefs and taboos. Other sections of the interview with the government official, more precisely the Fisheries Directorate (level v in 3.4.1.) aimed at finding the authorities view on socio-cultural practices, and whether there are any governing rules and regulations concerning the beliefs and taboos as well any Monitoring Control Surveillance (MCS) systems established to address these practices.

4.2.2.1. Assessing the Study Area and Finding Respondents

Going to the field for research and not knowing anyone or having any contacts is quite a challenging task. I was not particularly familiar with the Jamestown community, thus first I had to accustom myself with the place: I have asked for directions to find the beach, I walked on the beach observing activities and taking pictures of the fishing grounds (for an example, see Figure 9 and Figure 10).



Figure 9: Jamestown beach in the early Friday morning as fish traders awaits landings.

Source: Author's own shot. Field work, July (2016).



Figure 10: Late Tuesday afternoon at the beach of Jamestown community. Source: Author's own shot. Field work, July (2016).

Following the ethnographic approach to research, I stayed one month in a hostel about 6 kilometres from the coastal shore of the fishing community I planned to study. Upon arrival at the community and after several interactions with people, I finally got directions to the residence of the Chief fisherman, who is the general overseer of the fishing area (see section 3.4.4.2). Meeting him was a very important milestone in performing my research project, as he gave permission to talk with fishers in his community and provided me crucial information, such as the name of the person at the Fisheries Directorate who could give me the most relevant information. In the case of this research, the Chief Fisherman in the Jamestown fishing community, whom I met three times, was the primary “gatekeeper”. A “gatekeeper” is a person who controls access to information by helping or hindering research depending on his or her discretion on the validity of the research and its values, as well as his or her approach to the welfare of the people under their charge (Reeves, 2010). Having the go ahead from my gatekeeper was very essential to my project because gaining his support established credibility for my research with the other persons to whom I was directed to. I therefore do not overlook the possibility of the gatekeeper influencing my respondents by talking to them before-hand to influence the kind of responses they gave.

With the objective of finding what are the beliefs and taboos in the fishing community that I decided to study, purposive sampling was employed: one of the most common sampling strategies, which classifies participants with respect to preselected criteria relevant to a specific research question.

The target population for the study included key informants such as the Chief fisherman and a senior representative at the Ministry of Fisheries and Aquaculture and the Fisheries Commission. I selected the respondents based on their specific role as the Executive Chairperson to the Ghana National Canoe Fisherman Council (GNCFC) (i.e. the Chief fisherman, see Figure 11 for a picture of his office), and the Head of Fisheries Department who is also the Head of Administration of Fisheries Commission. This method and criteria helped to focus on the people most likely to have experience and insight into the research topic owing to the limited period available for field work.



Figure 11: Ghana National Canoe Fishermen Council, the office of the Jamestown Chief Fisherman. Source: Author's own shot. Field work, July (2016).

I used a convenience method of sampling to select respondents among the local fishers in the Jamestown community, and to administer semi-structured interviews. This method was chosen because of the heterogenous nature of the coastal community in Jamestown; the convenience sampling helps to select each member of the population who are readily available and agree to participate in the study (Teddlie & Yu, 2007). A sample size of sixteen (16) local fishers were interviewed with a gender inequality in favour of men (no women were interviewed). This is because in the Ghanaian fishing communities, males are highly dominant at going the sea whilst the females partake only in marketing and processing of fishes. Four different groups were interviewed with every group comprising of four local fishers working as co-partners on same fishing boat. Interviews of the first two set of groups were carried as fishers were mending broken nets in the morning, followed up by several shorter field visits during when they were free to depart from the coastal shores to their

households. The third interviewed group set included four out of seven persons gathered on one side of the shore while they were duly resting after a hard day’s work. This group of respondents included the boat owner and other crew members. Additional interviews were conducted with a fourth group of fishers when they were fuelling up their motorized fishing boats in the afternoon at the beach site.

In conclusion, the target population for this study were inhabitants of the Jamestown fishing community. They include the Directorate of fisheries, the Chief fisherman, and local fishers (see Table 3).

Table 3: Respondents interviewed in the Jamestown fishing community, July, 2016.

Respondents (Number)	Data collection method
Chief fisherman (1)	Semi-structured interview
Local fishers (16)	Semi-structured interviews and observation
Head, Administration and Operation Division (1)	Semi-structured interview
<i>Total (18)</i>	

4.2.2.2. Performing Semi-Structured Interviews

The interview of the Chief fisherman occurred in his premise on the 3rd of July, 2016, Accra, and it was conducted in English. The interview session started after he offered me a warm reception into his office at Jamestown, at the expense of his busy schedule. Interaction with the Chief fisherman was made very informal as he educated me beyond the context of my research work. To obtain information relevant to my research, I started with questions that explored the available socio-cultural practices in the fishing community to which the Chief fisherman responded diligently (see Annex 2). The Chief fisherman also functioned as an ‘expert informant’ during the interview session. He provided a translator during my visits to field sites, to assist with interpretation (this translator spoke both English and the local language of the fishers). Alongside interviews to elicit verbal accounts, an important part of the meeting with the Chief fisherman offered me the ability of observing the everyday life of the Jamestown fishing community. My meeting with the Chief fisherman was on three different occasions, during which I also took field notes and recorded observations. The

Chief fisherman also allowed me to record the conversations collected from the interview during each visit.

The interview with the representative of the Ministry of Fisheries and Aquaculture was conducted in English, on the 5th of July, 2016 in Accra (see Figure 12 for a picture of the main entrance to his office). During this session, the interviewee, the Head of Administration and Operation Division (also Fisheries Directorate), showed great interest and willingness to share information and have discussions where necessary. Secondary data was also provided to me in the form of fisheries regulations act and strategy plans among others. Even though the interview commenced with a question from my list, I proceeded in a conversational manner that allowed the informant to answer questions in a natural manner (Longhurst, 2003), and also not cook ideas, but to access them naturally together with their perspectives on issues (Patton, 1990). At the same time, I did not face any challenge from this respondent when I sought his consent for audio recording our session. The interview shaped my thoughts and gave me new directions as some questions became relevant to be probed into during the session.

Interviews with the local fishers in the community begun on the 6th July to 20th July 2016 in Accra. Conducting and administering semi-structured interviews with the fishers in their working environments offered me the opportunity to observe their working conditions, attachment of one-self to beliefs and taboos, which consequently helped to find meanings to the information and narratives I obtained. The main aim of the interview in this structure was to solicit views of local fishers involved in the artisanal fishery about their socio-cultural beliefs and taboos. The questions from the semi-structured interview (see Annex 1) had to be translated into the local language (i.e. Ga) to ensure that the respondents understand the questions, thus enabling them to provide appropriate responses to all sections indicated in the open-ended questions. This was so because very few of the local fishers in the community had attained basic education, hence could not read, write and speak in the English parlance, while I do not speak myself Ga (I am part of the ethnic group Ewe, and my own language is very different from the Ga language). I initially faced a challenge of finding the right words in the local language to make my respondents understand my questions best. I resorted to seeking the assistance of a translator who is good in the English language

to help translate words or particular sentences more appropriately. This again led to spending a lot more time filling out the semi-structured interview, because a question sometimes had to be put in different ways and contexts without losing the intent and purpose needed to be achieved for the respondent to understand and give due answers.



Figure 12: Main entrance to the Ministry of Fisheries and Aquaculture Development in Greater Accra, Ghana, the office of Head, Administration and Operation Division. Source: Author's own short. Field work, July, 2016.

4.2.3. Data Source

Both primary and secondary data were collected and used to provide the main sources of information. The secondary data were extracted from the related ministries and the fisheries commission, published journals and documents from the internet, whilst the primary data were extracted from semi-structured interviews as a source to gain understanding of the social complexity in Jamestown fishing community.

4.2.4. Ethical Considerations

Some fishers of Jamestown community who have been in contact with researchers before, thought of researchers as “using them as tool to achieve a desired result” in their research and projects. These fishers were adamant about speaking or answering questions, because there have been several researchers who solicited their knowledge, and they do not hear from them anymore (let alone know how their ideas and knowledge was used for). But after convincing the respondents that the study was purely an academic work in order to clear their doubts and possible expectations of interfering in their entire daily activities, they were more willing to talk and share knowledge.

Considering the harm or threat caused by a research to participants in social science, the entire research neither posed any threats nor harm to the privacy of the respondents since no personal questions were asked. It observed during my fieldwork that the people of Jamestown had a routine that consisted of going to the sea in the morning and returning late afternoon, except on Tuesday, which is their taboo day. In a pursuit, not to “cause harm to participants” by distracting them from their normal routine, I collected the data following the constraints raised by my respondents (e.g. I interviewed one fisher at his home because he said he had finished his work on the beach and he must rush home, but he will be happy and willing to answer my questions there).

Apart from taboo days (every Tuesday of the week), when the respondents were off normal fishing activities and taking rest, the interviews could be stressful for them since they had to stop in the middle of other regular activities to answer questions. Due to this, I made sure respondents confirmed they agreed to answer questions. I explained to them that it was a voluntary process and that they could withdraw at any point in time if they deemed it necessary. With their consent sought and ample time given to decide when a semi-structured interview session supposed to kick-off, I consider that their answers were not influenced by my behaviour and no harm is believed to have been caused to them by this research.

4.2.5. Limitations

There are no perfect research designs (Patton, 1990). In every research project, there are inherent limitations, and this research is no exception to the rule. Some limitations became prevalent in the study and are worth noting.

Although consent was sought from respective respondents by presenting an introductory letter issued by the Norwegian College of Fisheries Science that clearly stated the mission of the research before conducting interviews in the fishing community, one fisher noted: *'you have been coming around every year asking us series of questions, yet you don't assist us in any form'*. Then the fisher said he has not enough time for me, which might be biased. Additionally, real time constraints might have played a crucial part, since the study was carried out within the limited period of give exact period.

Another limitation of the methodology was the language barrier. Albeit I understand the local language of the people of Jamestown fishing community (i.e. Ga), during my first interview with a local fisher, I realized I needed an interpreter. This is because, as it was fine to use one or two English words when speaking Ga in my community in Accra, it was not appropriate to do so in this context. Hence, translating the questions from the semi-structured interview into the local language of my respondents led to spending a lot of time in filling out questions during interviews, because appropriate words in the local language needed to be used to make the respondents understand the questions more precisely.

4.3. Data Analysis

Data analysis involves organizing the data to some desirable criteria, reducing it to a more manageable form and displaying it in a form to aid better interpretation (Miles & Huberman, 1994). Thus, collected data was analyzed by selecting, focusing, simplifying, sorting and transcribing the raw data in such a way that final conclusion can be drawn (Miles & Huberman, 1994).

Also, data was reduced by organizing a summarized version of field note-taking and transcribing audio recordings around themes of the research questions. Data display was the final part of the analysis. The data were displayed as narrative text, tables, photographs and visual display, as they create a clearer picture and better understanding of the study.

5. Research Findings and Discussion

5.1. Observation: No Slippers on the Beach, No Fishing on Tuesdays

The observation of fishers took part during the full-time period of the four weeks of fieldwork and included spending time at the fishing ground. I observed that no fishing takes place on the beach site on Tuesdays, as the beach sites were found bare, which indicated high levels of practice of this taboo in the fishing community (see Figure 10 in section 4.2.2.1.). Instead, most fishers occupied their time by mending broken nets and repairing canoes. This observation is also evident in several other studies (Acheampong, 2010; Antwi-Asare & Abbey, 2013; Ntiama-Baidu, 1991; Sarfo-Mensah & Oduro, 2007). Meanwhile, I observed fishing and other fishing activities taking place on Sundays, even though this is non-working day for Christians. Fishers were drawing their boats into the sea to set out to fish during this day.

I also observed a pattern in which slippers or shoes were not carried along by fishers on boat during fishing, even though some visitors at the beach site were spotted wearing slippers (see Figure 9 in section 4.2.2.1.). This observation contradicts the research reported in VOA (2009), stating that fishers do not only wear slippers at the beach, but also carry them along on canoes during fishing.

I also noticed a fisher (Muslim) at the beach who sat on his boat during a mid-day on Friday. He was meditating over a rosary about half an hour, which also proved to be an ideal opportunity as I could observe the routine aspects of the Islamic belief. After he finished his prayer, I interviewed this fisher.

Finally, I observed how the Chief fisherman was settling a dispute between a group of fishers and fish traders at GNCFC (see Figure 13). The cause of dispute among the two groups was regarding the beach hygiene situation of the coastal community. The local fishers were complaining to the Chief fisherman on how the fish traders are seen openly contaminating the beach site by illegally using the beach as a refuse site, which tends to put the fishing ground in a bad smell. A prayer was said by the Chief fisherman by means of pouring down libation. The Chief fisherman opened a bottle of liquor (mostly gin), then he

poured down each drop following some recitations to bid for intercession from the gods prior to the conflict resolution. This is also confirmed in a previous research indicating that the act of pouring libation is to invoke the presence of divinities and also ask for a sense of good judgment (Kilson, 1969).



Figure 13: The Chief fisherman (first on the left) of Jamestown solving disputes regarding beach hygiene between local fishers (the two men on the right of the Chief fisherman) and fish traders (the two women). Three other fish traders (all females) are not included in the picture. Source: Author's own observation. Field work, July, 2016.

5.2. Interviews with Fishers: Different Religions, Different Practices

The interviews carried out in the community were among the artisanal fishers group of the Jamestown fishing community. The interview sessions started with inquiring the socio-economic aspects of the fishers since the socio-economic indices are important in determining livelihood conditions of fishers (Villareal, 2004).

5.2.1. Socio-Economic Characteristics of Respondents

Data gathered provided a detailed background information on gender, age, marital status, occupation, education and religious denomination of the Jamestown fishing respondents, which are presented in the following sections and supported with tabular representation.

5.2.2. Ethnic Membership and Religious Denomination of Respondents

All the 16 fishers I have interviewed belonged to the ethnic group of Ga. This is not surprising, since Jamestown is mainly inhabited by Ga people (see section 3.2). The majority of the respondents (50%) practice the Traditional religion. The other significant religions are Christianity (37.5%) and Islam (6.25%), the remaining respondent (6.25%) practicing both Christian religion and the Traditional one. These figures depict this fishing community as heterogenous in terms of religion, but having a reversed composition from the country level, where Christianity is the dominant religion and the Traditional religion the least dominant (see section 3.1). This difference is due to the fact that most of the inhabitants of this community belong to the Ga ethnic group, one of the groups that kept the traditional religion.

5.2.3. Age of Respondents

The age of fishers ranged from 24 to 60 years (see Table 4). The majority of the fishers I have interviewed were middle-aged or older. One explanation for the low number of young people in my sample might be the high cost of joining the fishery with own canoe (VOA, 2009), thus possibly making the occupation less attractive for the young people.

Table 4: Age group of fishers. Source: field data, July, 2016, Jamestown, Ghana.

Age Group	Absolute figure	Percentage (%)
24-29	1	6.25
30-39	8	50
40-49	5	31.25
50+	2	12.5
Total	16	100

5.2.4. Education Level of Respondents

Generally, education plays a significant role in the success of any socio-economic activity. However, the fishers included in this study area were mostly uneducated, even though they were highly skilled in their fishing activities. More than half of the respondents had no form of education, while the remaining had only primary education (in Ghana, primary school has a duration of 6 years, usually starting when the child is 6 years old) (see Table 5). The high level of no education or low-level education among selected sample in the fishing community gives an indication that people resorts to fishing practices to make a living by being self employed, as fishing requires minimum skill (Béné et al., 2007).

Table 5: Education level of Respondents. Source: field data, July, 2016, Jamestown, Ghana.

Level of Education	Absolute figure	Percentage (%)
None	9	56.25
Primary	7	43.75
High school (junior and senior)	0	0
Tertiary	0	0
Total	16	100

5.2.5. Occupation of Respondents

Of the 16 fishers I interviewed, twelve were full-time fishers (75%), three were engage in fishing and other occupations such as boxing and petty trading (18.75%), while one person (6.25%) was newly employed in fishing as an apprentice (see Table 6). This confirms the previous research indicating that fishing is a full-time economic occupation of the people in Jamestown community who involve in fishing activities (Quayson, 2014).

Table 6: Occupational status of respondents. Source: field data, July, 2016, Jamestown, Ghana.

Occupation	Absolute figure	Percentage (%)
Fisher (Full-time)	12	75
Fisher/Boxer/Petty trading	3	18.75
Fisher (Apprentice)	1	6.25
Total	16	100

5.2.6. Marital Status of Respondents

Marriage is an important institution that forms part of any social life of an individual. As shown in Table 7, data from the fishing community revealed that majority of respondents (81.25%) were married (13 persons), while 12.5% were widowers (2 persons), and 1 person (the youngest in the sample) was single.

Table 7: Marital status of respondents. Source: field data, July, 2016, Jamestown, Ghana.

Marital status	Absolute figure	Percentage (%)
Married	13	81.25
Widowed	2	12.5
Single	1	6.25
Total	16	100

5.2.7. Religion vs. Educational Level

Among the fishers in the community who had formal education (7 persons), the Christian fishers were more predominant (5 persons), followed by the Traditional fishers (2 persons). Out of the fishers without formal education (9 persons), the Traditional fishers are the largest group (7 persons), followed by Islam (1 person) and Christian fishers (1 person). Most of the Traditional fishers in my sample were lacking formal education, thus confirming previous research indicating high illiteracy rates among the Traditional fishers (Medard et al., 2002).

5.2.8. Practices and Perceptions of Beliefs and Taboos, and Their Influence of Fishing Activities

The first objective of the research study is to investigate the beliefs and taboos influencing fishing pattern of the Jamestown community and how are these beliefs and taboos practiced.

The fishers I interviewed explained that the fishing grounds are enshrined in beliefs and taboos through means of inheritance. As such all respondents indicated the practice of socio-cultural beliefs, regardless the differences in religion, age, marital status, profession or

education. This therefore is contrary to previously reported researches (Derkyi, Boateng, & Owusu, 2009; Mathooko, 2005; VOA, 2009) saying that the practice of Traditional beliefs and taboos among some fishermen are fading.

Among the various socio-cultural practices amongst fisher groups, the taboo of not fishing on Tuesdays is the most prevalent. Most Traditional respondents usually began by stating the taboo that forbids fishing on Tuesdays in Jamestown, and they also mentioned the taboo that women are not allowed to go fishing, whereas slippers are not allowed to be worn to sea or at the coastal shores.

Furthermore, it was also highlighted by respondents of the Traditional religion that there are several practices that influence their fishing activities. These include pouring libations in order to bid for guidance and protection, and the slaughtering of cattle on yearly basis for a request of bounty harvest from gods. The Traditional fishers also believe in pouring libations even before carving their wooden boats since the woods are perceived to be spirits and needed to be appeased. When asked what they think about the beliefs and taboos and how these influence their fishing activities, most fishers of the Traditional religion mentioned that the socio-cultural practice has made a great impact on their lives by providing them good catches overtime. One of the interviewed fishers said,

“I do not joke with the beliefs and taboos system since it provides us protection from the gods during fishing. Fishing helps to feed our family and the community, and if the community is well fed, everything will go well and everyone will be happy”.

Another Traditional fisher also indicated that aside the bounty harvest provided, the beliefs and taboos help to protect fishers against any unforeseen disaster in the community.

According to Traditional respondents, selected households (normally 7 persons per household) are allowed to go fishing every year before the ‘Homowo’ festival is celebrated. The catches made from the fishing are used to pacify the gods before a new fishing season begins. Sometimes appreciable amount of fish caught together with one-tenth of the

revenue made from sales of fish are given to the religious leaders to provide spiritual protection.

The fishers of the Traditional religion also believed that some fishes in the sea (usually fingerlings) are not supposed to be caught since they are perceived as “children of sea gods”. Respondents added that these set of beliefs are dependent on respective religious practises of individual fishers in the fishing area.

Generally, I was explained by a Traditional respondent that, libations are poured sometimes to seek for calmness of the sea storms and to ask for good luck from gods before and during fishing.

One fisher of the Traditional religion, whom I interviewed whilst he was about to set out the sea to fishing during early morning, explained that libations are poured to bid for guidance and mercies before fishing begins. When asked how and why does this belief affect his fishing ways, he said,

“I have been fishing for ages now... let’s say 36 years ago, and they affect me in the sense that I was born in this and have to live with it whilst I was still learning to fish with my dead father at age 10; and yes!, the gods of the sea are providers of bounty harvest and hence the practise had yielded a good catch for me overtime [he smiled]”.

The various fishers practicing the Traditional religion shared similar perspectives, as they also mentioned pouring of libations and slaughtering of cattles. They explained the act is done to pacify the smaller gods ahead of a new fishing season.

Similar beliefs, but no taboos, were reported by the Christian and muslim fishers in my sample.

A Christian fisher mentioned that, *“Usually we Christians do pray to the “Most High” [referring to the Supreme being], ...forinstance I say a word of prayer after which I use and*

smear olive oil and/or holy water to pray and sanctify my body before embarking fishing journeys". The Christian respondents also included that they have beliefs associated with their biblical practices that influence their activities on the fishing grounds. One example that was mentioned is the 'Lord's Prayer', which is frequently recited before going to fishing. The respondents who are mostly Christians also noted that the presence of these beliefs system creates peace and oneness within fishers.

Furthermore, I was told by a muslim respondent that the muslims read the Quran and use water from a bottle to sanctify their canoes before setting off; a practise which is lead by a "Mallam" (i.e. Imam). This is done because they believe the boats is their god, and worshipping it will bring them good luck at sea. According to this fisher, certain recitations are also performed using the "Tasba" (Muslim rosary) as a means to praise the Almighty Allah ask for guidance and protections. Monthly offerings are made to the Chief Imam for prayer request. People believe he is the connection to the gods of the sea and intercessor for their daily needs.

Table 8 summarises the beliefs and taboos associated with various religions in the Jamestown fishing community, based on the interview of 16 fishers selected from this community (categorization based on section 2.1.1. and section 2.2.1. respectively).

A major factor posing as a challenge that was also recorded by most fishers, particularly those who practice Traditional religion, and mentioned as an often cause of disharmony, was the irregular fishing patterns of some Christians. These Christians did not follow the rule of 'no fishing on Tuesdays'. During an interview session, the respondents indicated that there have been conflicting views on following this taboo day, and the majority of the Traditional fishers lamented on the effects of people not observing it. According to one Traditional fisher, the consequence of breaking this law would be that: *"Thunder and lightening will strike your canoe and drown all your crew members"* [sounded earnestly].

Table 8: Religious denomination and their respective practice based on beliefs and taboos, based on a sample of 16 fishers. Source: Field data, July, 2016, Jamestown, Ghana.

Religion	Associate Beliefs	Associate Taboos
Traditional (9 respondents, including the fisher saying he belongs both to Christianity and the Traditional religion)	<p><u>Belief in mystical powers</u></p> <ul style="list-style-type: none"> - Slaughtering of cattle on yearly basis. - 1/10th of earnings made from fish trade is given to Traditional leader. <p><u>Belief in divinities/deities</u></p> <ul style="list-style-type: none"> - Pouring of libations to gods. - Special rituals performed to pacify gods before carving wooden boats. <p><u>Belief in spirit beings</u></p> <ul style="list-style-type: none"> - Pouring of libations to ancestors. 	<p><u>Taboo about acts</u></p> <ul style="list-style-type: none"> - No fishing on Tuesdays. - Some fishes are not caught during fishing (e.g. fingerlings). <p><u>Taboo about people</u></p> <ul style="list-style-type: none"> - Women in menstrual period do not go fishing. <p><u>Taboo about things</u></p> <ul style="list-style-type: none"> - Wearing of slippers and cooking not allowed at sea.
Christianity (6 respondents)	<p><u>Belief in Supreme being</u></p> <ul style="list-style-type: none"> - Holy water and olive oil to sanctify their body before fishing. - Reciting the Lord’s prayer. 	- No related taboos
Islam (respondent)	<p><u>Belief in mystical powers</u></p> <ul style="list-style-type: none"> - Water from bottle is used to sanctify boats and canoes before fishing. - Monthly offerings to Imam. <p><u>Belief in Supreme being</u></p> <ul style="list-style-type: none"> - Prayer using the Quran (Holy book). - Reciting the ‘<i>Tasba</i>’ before fishing. 	- No related taboos

Nonetheless, a Christian fisher sharing his view about the forbidden Tuesdays fishing had this to say, *“Personally, I think it will do us better if a resting day should be introduced on Sundays aside Tuesdays to help us the Christians to observe our own religious gatherings and services.”*

Although ‘no fishing on special days’ and the ‘casting-shift system’ (see section 3.2) was emphasized as traditions to regulate fishing patterns, some fishers, mostly Christians, flout

the taboo of 'no fishing on special days', whilst some others also go to fishing during certain periods designated to some only selected fishers. According to a Traditional fisher, some religious fishers (mostly Christians) perceive some taboos as irrelevant since these deprive them (Christians) of fishing at certain periods, hence affecting their production output.

This implies that the attitudes of these Christians towards Traditional practices are in line with the findings of, for example, Boamah (2015), but not as extreme in their assessment of the Traditional religion, as Boamah's results indicate that the Christian religion perceives Traditional beliefs as regressive and obsolete.

According to a respondent among the fishers I interviewed, those who flout the taboos are summoned to the Chief fisherman where they are fined with huge sums of money and sometimes oblige to perform certain rites by pouring libations to pacify the gods where imperative. The Chief fisherman of the Ghana National Canoe Fishermen Council (GNCFC) of the Jamestown fishing community confirmed this in an interview. When asked what are the authorities responses regarding the belief and taboo practices, the Chief fisherman answered by saying,

"Yes! There are consequences [spoke affirmatively]; Once upon a time there was a Christian fisherman who was found fishing at sea on Tuesday. He was summoned to me [the Chief fisherman] and was suspended for some months and later fined to pay some money for Schnapps as a sacrifice to the gods. He almost lost his boat and fishing gears in the process due to his stupidity [he said scornfully whilst the other fishers laughed aloud]".

The act of offering sacrifices to bid for spiritual cleansing from the sea gods certifies the claim according to Barre et al. (2009) that taboos when broken can only be fixed by a ceremony of purification.

As part of responses for the cause of irregular fishing pattern, respondents also mentioned that some fishers within the fishing community overlook such beliefs associated with non-fishing days due to their greed and selfish desire to make profit, regardless their religion.

The reason which contributed to overlooking the beliefs and taboos practice was given as some fishers having the ulterior motives and greed of catching more fish to meet their personal interests.

According to my respondents, women do not go fishing during periods of menstrual cycle although they have equal access to the resource. This is due to the Traditional belief that women in their menstrual periods are considered to be unclean, and needs not to come in contact with the sea, which is a god in the fishing community. However, studies conducted by R Overå (2002) and Owusu (2009), apart from the Traditional belief associated with the taboo, the tedious nature of fishing prevents active involvement of women. These authors were of the view that the act of paddling a canoe, pulling the beach seine along the shore and anchoring a canoe with net involves a lot of energy, therefore women stay at home and work with fish trading and processing.

According to a Traditional fisher I interviewed, an annual festival called '*Homowo*' among the people of Jamestown community is celebrated, during which all fishing activities in the community are brought to halt. During this period, about seven people from specific households are selected to go fishing which is used purposely to pacify the gods. The Chief fisherman and other Traditional leaders of the land pour libation during the festival to the smaller gods and ancestors in bid for spiritual guidance and protection, long life and bumper harvest. Therefore, every household in the fishing community is expected to be present to receive such blessings from the gods. Fishing is also not allowed during Traditional festivals and sometimes during funerals of deceased personalities that are prominent in the fishing communities. Moreover, the 'no fishing' during these funeral periods were observed to make it possible to sustain fish stocks (Alhassan, 2006).

To add to this, the perception of the fishers I have interviewed is that compliance to beliefs and taboos has moulded the social pattern and moral life of fishers in the fishing community of Jamestown. Thus, the presence of these socio-cultural practices regulates the fishers' way of life in an acceptable way by the entire GNCFC board in the fishing community since complying with moral obligations in the community is highly esteemed. Consequently, the

beliefs and taboos have fostered unity and harmony generally, as these fishers will comply to practices they consider to be fair and necessary with respect to their various religions.

However, to some few respondents, the presence of beliefs and taboos has caused lack of respect and disputes amongst several fishers of different religious groups. One fisher (of the Christian religion) described the coercion to beliefs and taboos as a 'kill joy', since it denies the happiness to fish at certain periods even though contrary to own religious beliefs. This, as a result, has bred conflicts among the different ethnic groups of people living in Jamestown, leading to break down in marriages, neighbourhood relations and friendships in the fishing community.

5.3. Interview with Chief Fisherman: the Custodian of Both Traditional Practices and Compliance with State Rules

In order to identify and gain a better understanding of the socio-cultural practices influencing the fishing ground, I interviewed the Chief fisherman of Jamestown fishing village. The questions spanned from what beliefs and taboos are practice in the fishing area, to how and why do these affect the daily fishing activities.

The Chief fisherman started by narrating a brief history behind the artisanal fishing in Jamestown in the late 17th century, before colonialism. He mentioned that the land of the ancestors is accustomed with rich cultural values and traditions that were observed and governed by beliefs and taboos during ancient days, even before fishing started. He continued to explain how fishing related beliefs and taboos are paramount, as custom demands to check defaulters, since fishing has been the only source of livelihood in the community.

Thus, the fishing community is highly enshrined in the belief of spiritual forces such as smaller gods being capable of manifesting high yields in their daily fishing activities, and as well as providing protection in the fishing community (see section 2.1.1.). As to the impacts made by the introduction of beliefs and taboos in the fishing community, he said:

“They were so powerful that their positive impact has contributed to successful landings for our local fishers and has provided us with divine protection from the gods till today”.

By a default settings and a usual routine observed in the Ghanaian artisanal fishing, fishers in the Jamestown community do not go to fishing on Tuesdays. This taboo is seen by many as a tradition which is passed to them by their ancestors. According to the Chief fisherman, it is believed to be a sacred day set aside for the sea god and her children to visit the people of the community. But according to Hens (2006), some people believe there is no Traditional belief connected with it, as Tuesdays are only set aside for fishers and the ecosystem to rest.

The Chief fisherman of the Jamestown community said, when asked to mention drivers seen to be the source of beliefs and taboos in the fishing community:

“Let me ask you this [said sarcastically], if you go to Rome, what do you do? It is believed by our ancestors that these practices are fuelled by the ‘belief in divinities’ such that the smaller gods are their protection for their way of life. You see, our forefathers have been practicing the beliefs and taboos from time memorial [although he could not be more precise], and they have passed them on from generations to generations. So, you see, I came to meet this system myself and with my observation overtime, it has appeared to be the reality.”

The Chief fisherman indicated several other beliefs and taboos practiced in the Jamestown fishing area: slaughtering cattle as a yearly ritual to pacify gods; some selected households in the community go to fishing for the annual ‘Homowo’ festival; women are not allowed to go fishing; smoking, cooking, wearing of slippers and bringing of dead bodies are also not allowed at sea. However, the most prominent practice is the taboo of not fishing on Tuesdays, a sacred day reserved for the sea gods. He mentioned that the day is used to settle existing conflicts amongst fishers in the community and to perform necessary rites for the gods. Some fishers also use this day to mend up their broken fishing gears.

When asked to highlight some impacts or effects of beliefs and taboos in the fishing community of Jamestown, the Chief fisherman responded that,

‘The influence of these practices has made positive impacts in the lives of the people as it grants them with protection from the gods of the sea and ancestors, and subsequently blessed the fishers with bounty catches over the time’.

The responses given by the Chief fisherman on the practice of beliefs and taboos in the Jamestown fishing community is perceived as having positive effects of biological and ecological nature. According to the Chief fisherman, beliefs and taboos have preserved fishing communities during the spawning periods of fish. He believes that these practices have helped the fishing areas to recover stocks that otherwise would have been over-exploited.

Meanwhile, the Chief fisherman indicated that there are laid down mechanisms to check those who go against the beliefs and taboos, since, from the perspective of the community, the fishing beliefs and taboos preserve the fishing community against disasters such as sickness and premature death, and help fishers to make a good harvest.

The Chief fisherman revealed that certain artisanal fishers in the Jamestown fishing community assist the entire board of GNCFC in monitoring the activities of their fellow fishers, to safeguard conformity with the social-cultural beliefs and taboos of the fishing community. These concerned fishers and other coastal dwellers act as vigilantes who are taboo-minded and have the most complex set of social boundaries to preserve taboos and beliefs in fishing. Hence, they invest much time and energy controlling behaviours of others in Jamestown. The vigilantes at the beach site usually help to check defaulters by reporting culprits who fish on irregular days or hours to the Chief fisherman, and the Chief fisherman also makes sure the defaulters are sanctioned. The cooperation therefore creates an interaction between the various actors (Chief fisherman and vigilantes) and helps check local fishers who are defaulters of the beliefs and taboos systems in fishery management. Although the main responsibility of vigilantes is to report the defaulters of beliefs and taboos, they as well report culprits breaking state laws to Chief fisherman.

It was also stressed out by the Chief fisherman that the effort of vigilantes will encourage a fishing environment where maximum compliance from fishers with the Traditional taboos will be attained since the MCS activities are less effective in the fishing area and are not even related to the beliefs and taboos.

The Ghana National Canoe Fishermen Council (GNCFC) forms the informal/traditional institution in the local community level that helps to regulate the activities and behaviours of fishers, managing the use of resources and providing assistance through the government (see section 3.4.4.2.). As the head of this council, which forms the informal institution of Jamestown fishing community, the Chief fisherman has important religious position, which is backed by strong beliefs and taboos, and he uses these beliefs and taboos efficiently in the enforcement of both Traditional practices and state fisheries regulations and in decision making in the fishing community. The role of this institution of Jamestown concurs with the study according to Colding and Folke (1999), that institutions help to regulate access and manage fisheries resource with 'social taboos' that guide human conduct toward natural environment.

According to him, the Traditional institution is very strong along the coastline and ensures that the codes of conduct concerning beliefs and taboos are obeyed in the fishing community. He however also plays a major role in the decision-making process regarding regulations for the fishing community (see section 3.4.4.2.). This is because, the fishers of the Jamestown community have high trust and regard for the Chief fisherman and hence he is the mediator of these beliefs and taboos to the fishers. Also, the Chief fisherman is the "first point of call" prior to critical announcement and dissemination of information from the government and district level where necessary, since they are the only people who can summon the fishers.

Although most conflicts, such as quarrels and insults, are resolved amicably among the involved parties at the beach site, the Chief fisherman is majorly referred for settling complicated disputes and conflicts that are beyond the fishers. This is because, the Chief fisherman serves as a significant unifying medium by intervening and solving frequent and multifaceted conflicts (Ragnhild Overå, 2005).

The Chief fisherman of Jamestown fishing community resolves conflicts amongst fishers in a systemic order. There is an arbitration process to which the Chief fisherman is made the chairperson. During this session, the Chief fisherman performs Traditional religion rituals by pouring libations to seek wisdom from the gods in the resolution of the conflict, regardless the religion of the involved parties. The issues are deliberated from both sides of the parties involved in the conflict and judgment is made by the help of other impartial council members appointed by mutual consent.

Most conflicts of the fishers that are resolved, according to the Chief fisherman, were mostly regarding some fishers overlooking the Traditional beliefs and taboos. The Chief fisherman cited lack of respect for their traditions by certain fishers and non-conformance with certain taboos (such as sexual intercourse right before fishing or failure to give offerings to the spiritual leaders after bumper harvest). Some other social and environmental-related conflicts spring up during fishing at sea such as fighting over caught fishes and the issue of beach hygiene, which are also solved by the Chief fisherman (see Figure 13 in section 5.1.). Also, the Chief fisherman together with his Traditional council members handle cases of severe criminal offense in their custody, but the Police are only involved at worse scenarios.

According to the Chief fisherman, similar to the government who has established penalty for state rules non-compliance with a legal order, the GNCFC in Jamestown community also have their laid down sanctions and penalties which are imposed when fishers violate the beliefs and taboos governing the local institution.

The payment of fine was established by the GNCFC of the Jamestown community and was emphasized as the major sanction according to the Chief fisherman and other respondents. According to the Chief fisherman, nobody is allowed to enter the seas during non-fishing days as there are some huge consequences that comes along in the process. He further added that *"In fact those who break the taboo by fishing on Tuesday encounter an apparition as a sign of warning and may drown into the sea and die after subsequent violations"* [stated meticulously]. This is also evident according to the study by Assimeng

(2010) since the fishing community have belief in spirits of the dead such as ghost and ancestors (see Figure 1 in section 2.1.1.).

To serve as a deterrent to other fishers, these culprits are made to pay a fine to the Chief fisherman (and the GNCFC) after which they offer sacrifice by slaughtering an animal (usually lamb) to ask for forgiveness and spiritual cleansing; since the sea is regard as a god (see *iii. about the belief in deities* in section 2.1.1.). This was also evident according to a case study conducted by Odotei (2002), such that the Gas (largest tribe of the Jamestown community) regards the sea as a god and the third son of God (creature) after the sky and earth, and thus the pouring of libation and sacrifices cleanses a fisher from all ungodliness and curses. It also certifies the claim according to Tvedten and Hersoug (1992) that magic and rituals forms an integral parts of fishers belief in the Sub-Sahara Africa.

The Chief fisherman raises some revenue accrued from payment of fines when fishers break fishing regulations and by-laws to help regulate the fishery resources in the Jamestown community regardless whether these are local taboos or fishing regulations that the Chief fisherman has been instructed to enforce by the Fisheries Directorate. This was also evident in a research according to Alhassan (2006), where he mentioned that the payment of fines to chiefs and the Traditional council is to “check improper resource management”.

However, the Chief fisherman confirmed that the boats and fishing gears of fishers who fail to pay fines levelled against them are ceased and suspended from fishing grounds for about three months. Others who fail to adhere to the socio-cultural beliefs and taboos of the fishing community after several attempts of warning are banned from the fishing community.

Most of the negative impacts of beliefs and taboos in the fishing community of Jamestown, according to the Chief fisherman and most respondents, were mostly social. The Chief fisherman of this fishing community cited beliefs and taboos to be a source of conflict amongst fishers.

5.4. Interview with the Head of Fisheries Directorate: Powerhouse for Fisheries Rules and Regulations

The Head of Fisheries Directorate indicated that, based on his personal interactions with the Chief fishermen and fishers in Jamestown community, he knows about the practice of socio-cultural beliefs and taboos. However, he perceived the practice of beliefs and taboos as something beneficial to the fishing community, even though their effects cannot be scientifically proven. He explained that:

“At the beginning of every fishing season, several fishers would usually make a quick visit to lagoons where rituals are performed. I am sure they go there for some spiritual fortification and to bid for a bumper harvest”.

The Fisheries Directorate official gave an interesting remark when asked how the beliefs and taboos practice influence fisheries management, from his own perspective;

“Yes, I think it [practicing beliefs and taboos] has positive impacts in large extent. I am saying so because the beliefs and taboos were there to manage the fishing community long ago before scientific knowledge came into the scene, and thus people were afraid of the consequences unlike in the modern scientific method of fishery management”.

In addition, the Fisheries Directorate official was of an opinion that the state employees in the Ministry of Fisheries and Aquaculture respect the beliefs and taboos of the fishers, which results to the fishers trusting the authorities and thus, in general follow the state fisheries rules. According to him, the interaction between the fisheries authorities and the fishers has reached a stage where decision-making is made transparent and flexible in changing circumstances; as such, discussions which includes a form of seminars, workshops, forums etc. are held with local fishers before the laws are put in place and executed. This has established common ground and trust between fisheries authorities and the fishers by appreciating/acknowledging the credibility of each other’s viewpoint.

The Fisheries Directorate official mentioned that there are state fishery laws and regulations that regulate compliance to legal fishing activities in the community, although there are no state laws regarding compliance to the beliefs and taboos.

The Fisheries Directorate official, when asked whether fishers accept and abide by these state fishing regulations, emphasized the following:

“Hmmm [sigh deeply], honestly, I must say some fishers are not too pleased with some fishing regulations passed by the State. An example is the introduction of light fishing in Jamestown as the fishers strongly detested it, since they complain that the act of light fishing scares fishes away”.

In the opinion of this respondent, the role of these practices is somewhat inter-related to the fishery management in the fishing area, and was of the view that sustainability in the fishery management would be easily achieved if beliefs and taboos were combined with the state laws. This confirms previous research in Muslim fishing villages in Tanzania, where government collaborate with religious leaders (sheiks) to communicate Islamic teachings to fishers about the appropriate use of God’s creation (where appropriate was connected with the way in which the state law was describing such a way of fishing), which led to stopping illegal fishing practices by fishers (ARC Projects, 2011).

According to the perception of the Head of Fisheries Directorate, the scientific knowledge of fishery management introduced by the Fishery Authorities has now been mixed with the beliefs and taboos and has been propagated to local fishers in scientific terms. Thus, fishing holidays and other Traditional beliefs and taboos were the people own way of preserving certain fishing areas and stock; and even though people could not explain why, but perceived these as a good step in the right direction to ensure conservation of resources. For instance, the respondent noted that these socio-cultural practices were expressing Seasonal Closures as – *“do not go fishing”* and Marine Protected Areas as – *“the gods said this area should not be fished or trawled”*. He further explained that these were some kind of Traditional management strategies to recover fish stocks in an improvised way.

An example is the closed seasons that is interpreted locally or traditionally as the people's sacred grounds for the gods where fishers were not allowed to fish, and *"those were basically the spawning grounds of fish"*, according to the respondent. This perception is also evident in previous researches that taboos are used to reserve fishing grounds and lagoons that are sacred for the gods (Boaten, 1998; Ntiamoa-Baidu, 1991). The Traditional beliefs and taboos also served as a positive impact to some large extent and therefore was connected to repercussions as that, one will die or suffer severe illness when attempted to fish in those areas; and it strongly influenced the way of life of the fishing community as the people believed in these consequences.

However, fishers in this community gradually are getting to believe that there are no severe repercussions for fishing as indicated by certain beliefs and taboos, and that this was just a traditional way to mystify that they do not go for fishing at certain periods. This is because, the respondent perceived modern way of sustaining resource has influenced most fishers in the fishing community to easily flout the by-laws they otherwise would have been observed in the traditional setting. Consequently, this implies that Traditional beliefs and taboos as a way of enforcing laws were more effective and productive than scientific knowledge, because fishers feared to break the rules of the old Traditional systems, but they do not fear breaking the state rules. This perception is also apparent in previous research conducted by Eliza Barclay (2007), since her study was of the view that "if fishers are told to do something from their religious leaders, they are likely to obey".

The Fisheries Directorate official further added that some fishers do involve in illegal fishing practices that are against state law such as the use of fishing nets made of monofilament. Nonetheless, the establishment of the Monitoring, Control and Surveillance (MCS) operations and the Fisheries Enforcement Unit (FEU) helps ensuring that the state fisheries laws and regulations are obeyed by the fishers along the coast (see roles of the MCS unit in section 3.4.3.2).

According to him, the call for effective MCS in the artisanal fisheries in Jamestown recently has heightened since fishers are increasingly flouting the state regulations. The behaviour shown by most fishers in the community reflects a mixed-level of compliance towards the

present state fishing regulations. Thus, some fishers obey these regulations whilst others do not. For instance, some fishers in Jamestown community would rather employ the use of monofilament net in deploying fishing activities instead of practicing light fishing although it is against the law. The Head of Administration and Operation Division through an interview mentioned that *“The law does not allow monofilament fishing gear because it has very high catchability so all sorts of fish in the sea are caught by the net, since mesh size used is small”*. Meanwhile, the prohibition of the use of monofilament is not effectively enforced because some fishers say “no” to the practise and yet, some practice “yes”. Indeed, in many cases, fishers are against the law avoiding the use of monofilament in the fishing community which undermine the legal interest of the fishers to follow. Generally, MCS guards arrest people who go against the monofilament law. However, they do not arrest those people breaking the taboos.

Nonetheless, the most challenging aspect of MCS is that the unit includes only few task force spread along the coast line of the Jamestown fishing shore. In most cases, fishers who violate fishing laws move to other areas on the fishing grounds when trapped. Hence, it becomes difficult to monitor fishers and track them down from all angles at the same time. There is need for more personnel to be hired in the MCS unit, coupled with adequate resources and logistics to work and run thorough checks at all parts of the coastline in the fishing community.

5.5. Putting Threads Together

Trying to put together my understanding of the perceptions of influence of beliefs and taboos on fisheries activities in the Jamestown fishing community, I have made a conceptual framework (made following suggestions in Miles and Huberman (Miles & Huberman, 1994). This framework provides the main factors under focus, which include fisheries authorities and fishers, and their perceptions on beliefs and taboos in Jamestown fishing community (see Figure 14).

The local fishers are of the perception that the practice of various beliefs and taboos, such as no-fishing on special days, pouring libation, reciting prayers (using Holy Bible, Quran etc.) and slaughtering animals to the gods influence the outcome of their fishing activities. Thus, most fishers of the same religion perceive these socio-cultural practices to have positive impacts on their fishing outcomes such as high yields during fishing. Moreover, their perception is that practicing these beliefs and taboos is enabling them to provide food for their respective families and to fish traders. However, fishers are of the opinion that conflicts emerge between fishers of different religious groups, as a result of their various beliefs and taboos.

The Chief fisherman refers to the practice of beliefs and taboos as an essential tool for conserving the natural resource. Thus, biologically, he perceives the presence of beliefs and taboos as having a positive impact, as it protects resources from over-exploitation. The Chief fisherman collaborates with the vigilantes, who keep an "eagle eye" on fishers' activities in the community. Their role also might help to reduce MSC activities in the fishing community, as the vigilante also report against fishers breaking state rules.

The conceptual framework also displays the perception of the Head of the Fisheries Directorate concerning the socio-cultural practices. The Head of Fisheries Directorate perceives the integration of Traditional practices together with the modern regulations as a sustainable way to maintain stock size in the Jamestown fishing community. At the same time, he is of the view that the practice of beliefs and taboos is fading away, an opinion contradicting the one of the Chief fisherman and of the fishers themselves. As future work, it would be interesting to take the exploration even deeper, and identify what is the cause of this difference in perception over beliefs and taboos practices among these actors.

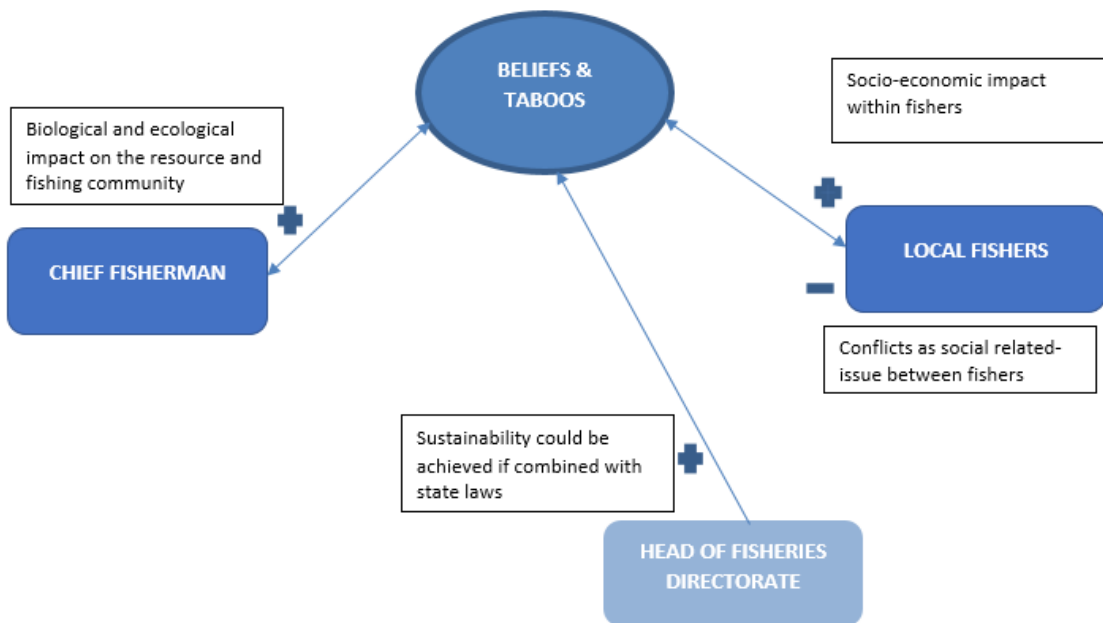


Figure 14: Perceptions of fishers and fisheries authorities on beliefs and taboos.

The actors depicted in dark blue consider that beliefs and taboos are well practiced in the community, while the actor in light blue considers that the practice of beliefs and taboos is fading. Source: Authors own design. Field work, July, 2016.

6. Conclusion

This study focused on the practice and perception of beliefs and taboos among fishers and fisheries authorities in the artisanal fishing community of Jamestown, Accra-Ghana. The research was necessitated by the heightening interest in the practice of beliefs and taboos in fisheries activities.

The Jamestown fishing community was chosen as a case study because from my point of view this community epitomizes the issue I aimed to study. It also forms one of the main fishing grounds in the Accra township which is highly Traditional and strongly revered to old customs and traditions.

Data for the study was drawn mainly from a sample survey of targeted population. The fieldwork involved a semi-interview with 16 fishers of various religions, the Chief fisherman and the Head of the Fisheries Directorate in the Jamestown community. The thesis provides detailed background of the general characteristics of the fisher groups involving gender, age, occupation, marital status, educational background and religious denominations.

Analysis of field data revealed that majority of the fishers I have interviewed have no form of formal education. Those who are educated have only primary school. There is a clear indication that most fishers in the area are highly conventional as they solely depend on Traditional practices. More than two-thirds of the respondents constitute the middle and upper-aged bracket group who are mostly Traditional fishers. Thus, the Traditional religion constitutes the largest religious group, followed by Christianity and Islam.

The research further showed that a multitude of beliefs were spread among the respondents of various religions (e.g. pouring libation, slaughtering animals, monthly offerings to Traditional leaders, reciting prayers using Holy Bible, Quran etc.), while taboos were reported as connected only to the Traditional religion. Among these, the non-fishing day was the most apparent taboo in the fishing community, regardless the religion of the respondent. Most fishers believe that establishment of these taboos system in the fishing community were some of the solutions to low yields. However, certain drivers identified to

trigger the adherence of beliefs and taboos is that the socio-cultural practice protects fishers against disasters and brings good fortune to the fishers during regular fishing. Conflicts sometimes occurs between fishers of various religious standings. Payment of fines and sacrifices to pacify the gods are established as penalty measures by Chief fisherman and his Traditional council to defaulters.

The research indicates that some fishers known as vigilantes at the beach site take the responsibility by reporting other fishers who break fishing taboos. The Chief fisherman and members of the Traditional council do the resolution of conflicts brought to them by these vigilantes.

The taboos are also observed by the fishery directorate officials as a sign of respect for their tradition. This relationship has created trust and enabled a conducive environment for sustaining and managing fishery resources in Jamestown. Thus, unlike in many fishing communities where there is conflict or friction between the formal institutions and resource-using community, in the Jamestown fishing community there is a good and cordial relationship between fishers and the fishery directorate officials.

At the same time, it is generally common for non-Traditional fishers to respect the taboo systems of the Traditional people. However, sometimes these non-Traditional fishers break these taboos.

The study further underscored the perception of the fishers on the influence of these beliefs and taboos on their fishing activities. In the view of the fishers I have interviewed, the positive impacts include bumper harvest, conservation of fish stock, building good moral standards amongst fishers and instilling peace and harmony within the community of fishers belonging to the Traditional religion. Negative impacts include lack of respect among fishers of different religions having as consequence the start of conflicts amongst fishers with different religious positions.

To conclude, the research indicates that beliefs and taboos still pervade the fishing activities of the people of Jamestown community in these modern times, even though the perception over the intensity of their practice is different between the fishers and the Chief fisherman on one side and the Head of the Fisheries Directorate on the other side. Regardless their religion, most of the fishers follow these beliefs and taboos, whereas national state authorities respect these practices, but not involve in enforcing them, as the representatives of the national state focus only on enforcing state fisheries regulations. The representative of the Traditional state, the Chief fisherman, is the one through which the practice of beliefs and taboos are enforced in the community, with a group of vigilantes helping this activity. Both fishers and authorities (representing the national state as well as the Traditional state) perceive following these practices as something beneficial for the community from a social and biological point of view. In addition, most of the fishers believe that continuing these practices will preserve the fish in the sea, with positive consequences on the economy of the community.

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APPENDICES

ANNEX 1

SEMI-STRUCTURE INTERVIEW GUIDE FOR LOCAL FISHERS

AIM: TO SOLICITE VIEWS OF FISHERS INVOLVED IN ARTISANAL FISHERY ABOUT THEIR SOCIO-CULTURAL BELIEFS AND TABOOS, HOW IT INFLUENCES FISHING GROUNDS, PATTERNS AND THE CHALLENGES ASSOCIATED IN THE SECTOR.

TARGET GROUP: LOCAL FISHERS OF JAMESTOWN COMMUNITY

PART I

SECTION A:

1. Age.....
2. Sex: a. Male [] b. Female []
3. Marital Status:
Single [] Married [] Divorced [] Widow(er) []
4. Religion:
Christian [] Islamic [] Traditional [] None []
5. Educational Background:
None [] Basic [] Secondary [] Tertiary [] Others [], Specify.....
6. Occupation.....

SECTION B: COMPLIANCE TO SOCIO-CULTURAL BELIEFS

7. Are you a local or migrant fisher?
 - a. How long have you been fishing in this area?
.....
8. Are there beliefs and taboos about fishing you know?
Yes [] No []

a. If yes, what are some of your beliefs and taboos about fishing?

.....
.....
.....
.....

b. How does these beliefs and taboos influence/affect fishing?

- i.
- ii.
- iii.
- iv.
- v.

c. Why does these specific beliefs and taboos affect you?

.....

d. What are some of the challenges faced as a local fisher regarding this set of beliefs and taboos?

- i.
- ii.
- iii.

9. How did you get influenced by socio-cultural beliefs and taboos on fishing grounds or lands?

Marriage [] Inheritance [] Institution [] Others [], specify.....

10a. Do fishers easily comply by the beliefs and taboos?

Yes [] No []

b. If no, what mechanisms/factors in your opinion should be put in place to enable fishers to abide by these beliefs and taboos:

- i.
- ii.
- iii.

11 a. Do you sometimes overlook some of these sets of beliefs and taboos?

Yes [] No []

b. If yes, specify which beliefs and taboos you overlook?
.....
.....

c. What are some of the reasons why you overlook them?

- i.
- ii.
- iii.

12a. Do conflict/dispute sometimes emerge between local fishers?

Yes [] No []

b. If yes, what are some of the main causes of these conflicts/disputes?

.....
.....
.....
.....

13a. Are some of these conflicts related/connected to beliefs and taboos?

Yes [] No []

If yes give examples.

.....
.....
.....

b. Which institutions settle/resolve conflicts when they emerge? Tick as many as possible;

Chief fisherman (informal) [] Village headman [] Government official []

Church [] Others [], specify.....

c. Which organization helps in conflict resolution in the fishing community?

Religious [] Non-religious []

Is there any other information you think i should know about?

ANNEX 2

INTERVIEW GUIDE FOR CHIEF FISHERMAN

TARGET GROUP: CHIEF FISHERMEN OF JAMESTOWN COMMUNITY.

1. A brief history of artisanal fishing in Jamestown.
2. What are some of the socio-cultural beliefs and taboos across the coastal shores?
3. In your opinion, how do these beliefs and taboos influence/affect artisanal fishing in the community?
4. Are there rules and regulations somewhat connected to these socio-cultural values and traditions?
 - b. What are some of the mechanisms put in place to check the compliance to these practices (beliefs and taboos)?
5. Do conflicts/disputes sometimes emerge among fishers on how to comply with these beliefs and taboos?
 - a. Identify some of these conflicts.
 - b. What role do you (informal institution) play to resolve/prevent these conflicts?
6. Do church organizations and/or other non-governmental organizations play any role in influencing the fishing community with regards to these beliefs and taboos?
 - a. Identify some of these roles.
7. What are the factors/drivers of these beliefs and taboos?
8. What are some of the impacts, influences or challenges of these beliefs and taboos on your fishing community?
9. Is there any form of Monitoring Control Surveillance (MCS) activities in your fishing community to help regulate these socio-cultural beliefs and taboos?

ANNEX 3

INTERVIEW GUIDE FOR FISHERIES DIRECTORATE

1.a. Do the fishers have any socio-cultural beliefs and taboos that influence fishing activities?

If Yes, what are some of them? (examples)

b. (i) Why these particular socio-cultural beliefs and taboos affecting fishing in the communities?

(ii) How are these beliefs and taboos influencing fisheries management in your perspective? (negative and positive)

2.a What are your responses to the consequences of the beliefs and taboos?

b. Are there strategic tools laid down to counteract these consequences?

3.a Are there any governing rules/regulations regarding the socio-cultural beliefs and taboos in the fishing communities?

b. How do the fishers in these communities relate to the present fishing regulations in the country? (Do they accept/abide by these regulations)

4a. Are the Chief fishermen often involved or consulted in decision-making processes regarding these laws?

b. In what manner are they involved/consulted? (one-way or two-way)

5a. Are there any Monitoring Control Surveillance (MCS) systems/activities put in place in these communities to help in check of certain beliefs and taboo practices?

b. How are these MCS' services improving fishing activities in James-town precisely.

c. Does the fisheries commission intend/has plans of intensifying its MCS activities around the coast to help check these socio-cultural beliefs and taboos?

6. What do you think is the future prospects of the Ghanaian fishing industry/communities with/without these socio-cultural beliefs and taboos?