

# Traditional tenure rights in the clam fishery of the Volta estuary



Project implemented by:



**Hen Mpoano**

With financial support from:



**Far Dwuma Nkodo**

**Securing Sustainable Fisheries**



## Far Dwuma Nkodo

Securing Sustainable Fisheries

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# Introduction

## Background

Within the Volta estuary in Ghana, clams are collected from the river bed by divers who refer to themselves as “miners”. Most clam fishing crews employ the use of locally manufactured air pumping machines to supply compressed air to divers underwater through tubes. Clams are collected into woven bags then pulled up into the canoes. The diver waits for the bag to be emptied and resumes collection after the bag is delivered to him via weights. The clams are transported to the landing sites and sold in plastic buckets to prospective buyers.

Fishing for clams is said to have evolved over the last 10 to 20 years from collection mainly in the wild to populating individually cultivated plots within the river with young clams. The clams are allowed to grow to bigger sizes for harvesting during a closed season instituted by local customs.

Women divers restrict themselves to basic diving gear and fish in the shallower regions of the river. Rising fuel costs, longer distances between landing sites and clam farms and the high cost of outboard motors have resulted in declines in the number of women active in clam fishing.

Clam processing and sale has been the sole preserve of women. After processing and selling the flesh, the shells are accumulated and sold either to nearby mills for processing into poultry feed supplements or to masons who use the shells for aesthetic purposes in building construction. Preliminary clam processing involves boiling the clams to expose the flesh and removing sand and stones. The clams are then packaged in this state, dried or fried for sale.



A clam landing site along the Volta river in Ghana.

## Tenurial arrangements

Land tenure is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land, which may include natural resources such as water and trees (Food and Agriculture Organization of the United Nations (FAO), 2002).

Tenure systems face increasing strain as the world's growing population requires food security, and as environmental degradation and climate change reduce access to land, fisheries and forests. Inadequate and insecure tenure rights have been identified to increase vulnerability, hunger and poverty, and have the potential to lead to conflict and environmental degradation when competing users contest for control of these resources (FAO, 2012).

Tenurial arrangements practiced within the context of the freshwater clam fisheries in the Volta River have rarely been studied. This study represents the first of many steps towards the protection of tenurial rights of indigenous fishers in Ada in the Volta estuary and the surrounding communities.

### Tenure categories and rights

The right that a person has in an entity such as land may be considered as property (FAO, 2002). Land or resource tenure is sometimes described as property rights to land or a resource. Tenure is often categorised as private, communal, open access or state.

Private tenure involves the assignment of rights to a private party who may be an individual, a married couple, a group of people, or a corporate body such as a commercial entity or non-profit organisation (FAO, 2002). Individuals may have exclusive rights to residential plots and farmland. Other members of the community may be excluded from using these resources without the consent of the individual who holds the rights.

In communal tenure, each member of the community has a right to use independently the holdings of the community (FAO, 2002). It is seen in community-managed farmlands where any individual of the community may farm a portion of the shared farmland and be entitled to the produce. The land in this case is not privately owned but the produce belongs to the farmer.

In the case of open access tenure, specific rights are not assigned and no one can be excluded (FAO, 2002). This typically includes marine tenure where access to the sea is open to anyone. It may also include rangelands, forests, etc, where there may be free access to the resources for all. An important difference between open access and communal systems is that, under a communal system, non-members of the community are excluded from using the common areas.

In the case of state tenure, property rights are assigned to some authority in the public sector (FAO, 2002). For example, in some countries, forest lands may fall under the mandate of the state, whether at a central or decentralised level of government. In Ghana, the constitution vests all natural resources in the President.

### Tenure governance

The governance of tenure is a crucial element in determining if and how people, communities and others are able to acquire rights, and associated duties, to use and control land, fisheries and forests (FAO, 2012).

Many tenure problems arise because of weak governance. Weak governance adversely affects social stability, sustainable use of the environment, investment and economic growth (FAO, 2012). Loss of tenurial rights to land, fisheries, forests and associated livelihoods, leading to food insecurity and poverty, can be caused by corrupt tenure practices or if implementing agencies fail to protect tenure rights (FAO, 2012). Responsible governance of tenure, on the other hand, promotes sustainable social and economic development that can help to eradicate poverty and food insecurity, and encourages responsible investment (FAO, 2012).

In Africa, the issue of how best to increase the land tenure security of the poor and protect the land holdings of rural communities has been brought to the fore due to increasing land scarcity caused by population growth, environmental degradation, climate change, and violent conflict (Knight, 2010). The clam fisheries at Ada in the Volta estuary present a unique situation for tenure issues in Ghana because individuals lay claim to sections of the river which they cannot legally own.

## Research Objectives

As parts of efforts to secure the tenurial rights of clam fisherfolk in and around Ada, the study sought to:

- Document tenurial arrangements in place with respect to clam fishing, clam farms, landing sites and processing sites
- Document resource-use challenges within the clam fishing industry

The study sought to achieve the objectives above by asking questions such as:

- What is the structure of the traditional council?
- What are their roles?
- How is land partitioned?
- How is land acquired?
- Who owns/manages land delineated for use as landing sites?
- Do the landing sites have any ownership documents?
- How can the existing landing sites be protected?
- How are clam farming sites selected?
- How is the size of the farm determined?
- How do processors access land for processing activities?



A traditional system used for the depuration (purification) of harvested clams in the Volta estuary.

## Methodology

The study was conducted at Ada in the Greater Accra region of Ghana. Primary data were sourced for the study using a combination of focus group discussions and key informant interviews.

A series of focus group discussions were held at Kponkpo and Agorkpo clam fishing communities for clam fishers, clam farm owners and processors to solicit their views using questionnaires. Further discussions were held to query and validate the findings.



Focus group discussions at Kponkpo.



Focus group discussions at Agorkpo.

Key informant interviews were conducted to solicit information from members of the traditional council, royal family, clan elders and influential clam fishers and processors. Officials from the District Assemblies were also interviewed as part of the study.

## Research Findings

### Traditional governance structure

Unlike the Akan system, where land is vested in the paramountcy, the land in Ada is administered by clan leaders. The paramount chief is the traditional head of the Ada Traditional Council. He is supported by a council of elders and sub-chiefs. The linguist, secretary and selected sub-chiefs constitute the traditional council. The “Senake”, a sub chief, takes over administration of the traditional council in the absence of the paramount chief.

### Land ownership and administration

#### Land ownership

The land within the boundaries of the Ada is under the custodianship of clans. The head of the clan, assisted by family heads, controls access to the land. After a particular parcel of land has been purchased, the traditional council members append their signatures to the land title documents to give recognition of ownership and to witness land-related transactions.

#### Land acquisition process

Prospective buyers are required to see the clan’s representatives to view the stretch of land and select a plot of interest. After the plot has been cleared for sale, payment is made to the clan’s representatives. After the preparation of the land documents is completed, the clan and traditional council representatives sign to give formal recognition.

#### River banks

Land along the river banks belongs to the clan but may be sold to private citizens for development into residential accommodation or tourist/recreational destinations. Riverside developments are approved by the clan heads, the traditional council and the relevant departments of the District Assembly before commencement. Protection of land along the river bank is perceived to be the duty of government through the District Assembly

#### Land acquisition for clam processing

When women need land to set up sheds for processing clams, they are required to contact the land owners to obtain permission and agree to the terms. The land is usually given out for free if the shed is not big. Some women may come together to rent the space or, in very rare cases, purchase the whole plot of land if they have the means to do so. Women who rent land to erect sheds for processing pay up to GH¢ 100 per year for the space.

#### Land erosion and water level rise

In recent years, clam fishers and processors have witnessed loss of land to the river. High water levels are experienced within the periods August-October and February-March. Sections of the landing sites have been lost to the water. Land erosion experienced along the banks of the river is said to have been a gradual process. Dredging machines are usually used to pump sand from the river bed to the river bank to compensate for land loss but only the established resorts and private owners of residential buildings have the capacity to finance the process. The increasing intensity of waves is perceived to have contributed to the rapid loss of land in the area.

## Establishment of clam fisheries and farms

### Landing sites

The Kponkpo community landing site has been kept under communal tenure. All community members have the right to use the site to land clam catch, process clams and as a way-station for river transport.

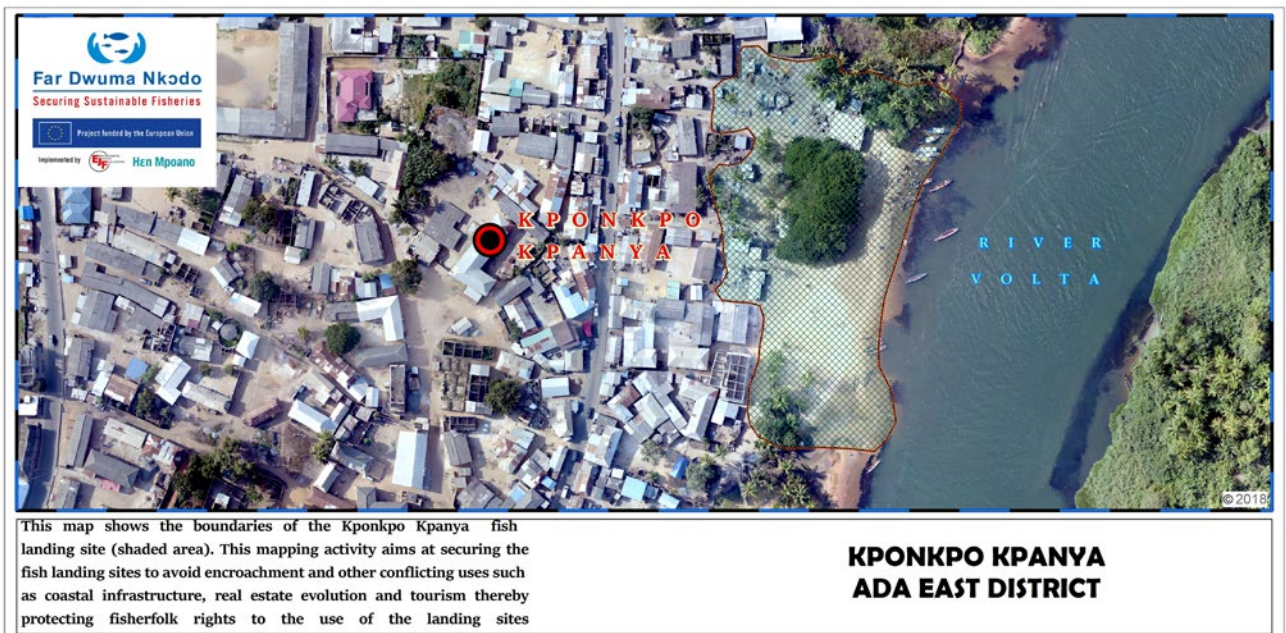
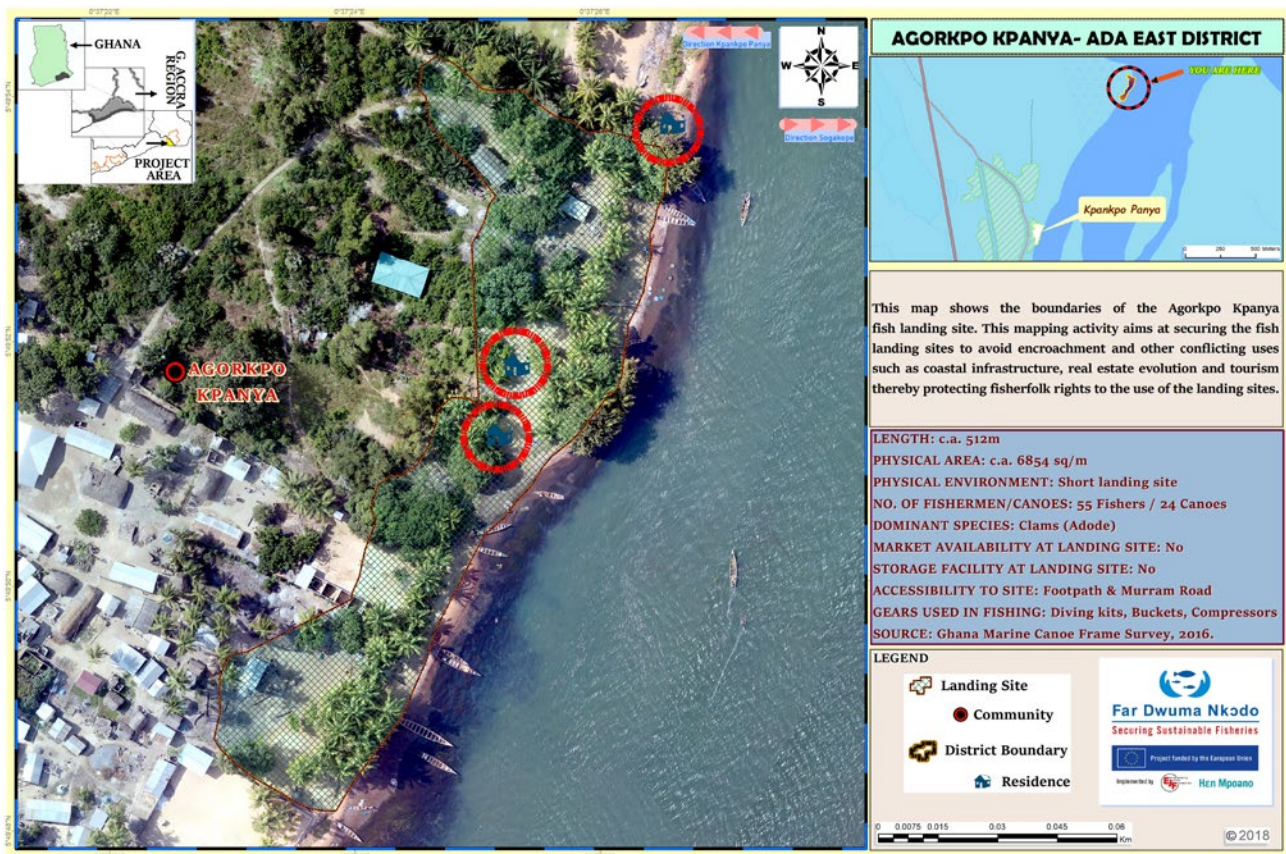
The land used by the Agorkpo community as a landing site is under private ownership. The caretaker, however, allows fishers and processors to land, store and process clams pending development of the land by the owners.



Individual plots of land being used as a landing site at Agorkpo, Ada.



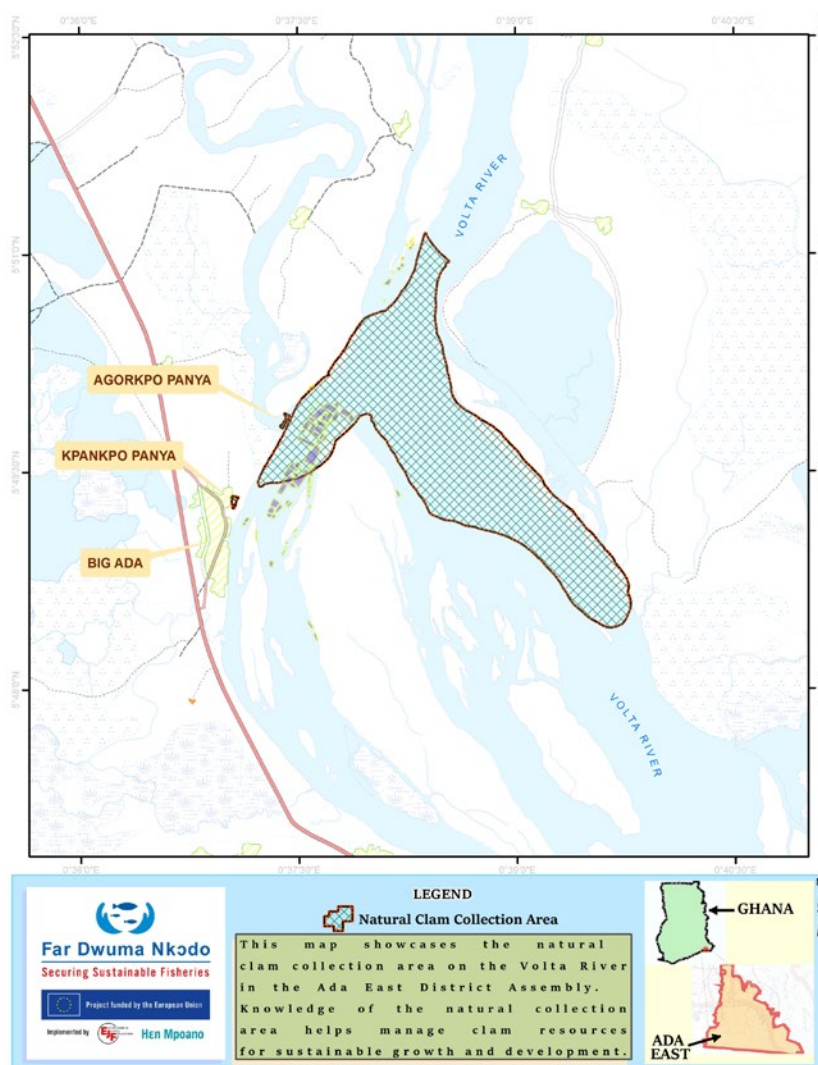
Clam processors display freshly processed clams at a community market.



Agorkpo and Kponkpo Kpanya – the major landing sites for clams in the Ada East District, Greater Accra.

## Natural collection areas

Natural collection areas fall into the open access and communal categories. Until clam farms began to appear in the 1990s, any collector had the right to collect clams from anywhere within the river. Initially, clams were available in the lower part of the Volta River towards the sea. However, salt water intrusion and intensive collection patterns are believed to have forced the clams to move further upstream. Today, certain sections of river have been earmarked as natural collection areas, which still remain under the open access regime.



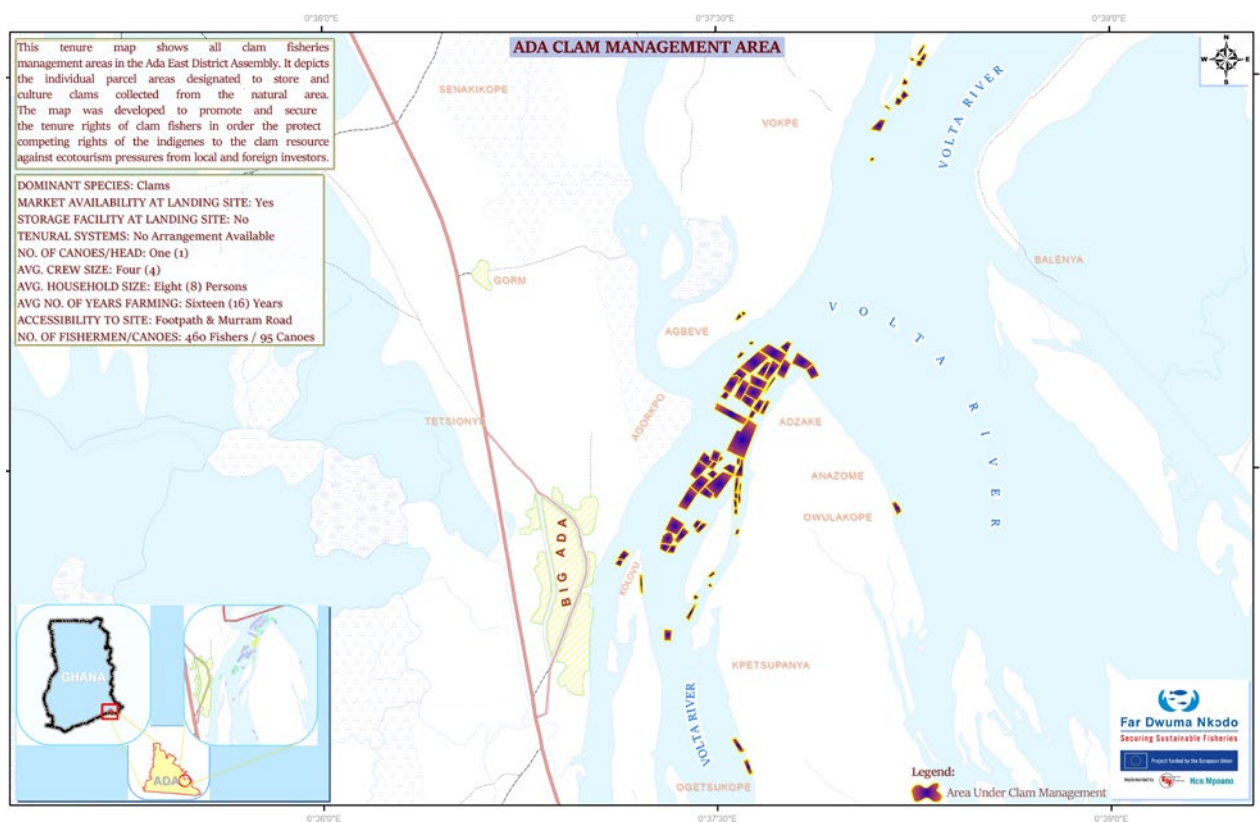
Map of the natural collection area for clams in the Volta estuary.

Some communities are now beginning to appropriate sections of the natural collection area for members of the respective communities. These areas are perceived to be for the communities due to the close proximity of the sites to the communities. However, this claim is being protested as it is perceived to contravene the laws of Ghana concerning ownership of water bodies.

## Clam farms

In response to increases in harvesting effort and salt water intrusion, clam fishers have begun to appropriate sections of the river upstream for use as clam farms, thus establishing a pseudo-private tenure system within the clam fishing area. The farms are demarcated using bamboo poles above water and pegs connected by rope underwater. The clam farms are stocked with clams collected from the natural collection areas which are too small to sell. The farmers tend the farms regularly and wait until the onset of the closed season before harvesting begins.

The tenurial regime for the clam farms has not been agreed hence private access and use rights are neither recognised formally nor traditionally. The District Assembly has no formal data or documentation on the ownership or intensity of usage of the clam farming sites inside the Volta River within the district's boundaries.



Map showing individual clam farms within the Volta estuary.

## Challenges and conflicts

### Fishery resource use conflicts

There has been a series of heated confrontations between the clam miners at Ada in the Ada East District and Tsatsukope in the South Tongu District over the delineation of sections of the Volta River bordering Tsatsukope. It is alleged that clam fishers from Ada have appropriated sections of the natural collection areas and are claiming outright ownership of clam resources they have populated the said areas with. This has resulted in a few disputes which have required the involvement of the local District Assemblies, law enforcement and traditional authorities to find an amicable solution. This has secured a fragile agreement which appears to be on the verge of collapse.

There are concerns that clam farmers originating from Ada (Agorkpo and Kponkpo) have appropriated large sections of the river that were previously used as natural collection areas for fishers. Inhabitants of communities upstream hold the view that sections of the river bordering the respective communities should be left for their occupants to use as natural collection areas. Thus, clam farms established by Ada clam farmers outside the borders of Ada are seen as a threat to the sovereignty and livelihoods of those communities. The continued establishment of more clam farms could strain the already fragile relations between the various riverine communities.

There is also competition between clam fishers who collect from the wild and clam farm owners. The space taken up by the clam farms has reduced the area available for natural collection (fishing).

### **Land use conflicts**

Landing sites have seen a reduction in area due to the sale of waterfront land to private developers for residential and recreational purposes. This has led to a decline in the space available for sale of catch, processing of clams and berthing of canoes.

### **Water resource use conflicts**

Ada has seen a surge in the hospitality industry and is increasingly becoming a destination for recreational speed boating. This has led to confrontations with canoe owners since the speed boats make it relatively unsafe to travel along the river. Resorts have also taken over beach space, reducing the land previously available to clam fishermen.

Other small-scale fishers have complained of destruction of their nets by bamboo stakes which are used as boundary markers by clam farm owners. Some have resorted to removing stakes to allow them to fish within the Volta River, leading to heated confrontations.

### **Saltwater intrusion**

Clam populations near Big Ada are said to have declined due to salt water intrusion. Areas which were previously known as open access fishing areas are now unsuitable for clams because of increasing salinity. This has caused many farmers to set up their farms near Sogakope further upstream. This has also led to a rise in the cost of operating clam farms.

### **Theft**

Theft of farmed clams is becoming an increasingly thorny issue among the clam farmers. Some clam fishers who do not want to farm, venture into other people's farms, especially during the rainy season, to steal clams to sell. Although reports have been made to the police and the traditional authorities, offenders are eventually let off the hook due to a lack of evidence and the absence of clear cut by-laws to send the cases to court for prosecution.

### **Erratic premix supply**

There is currently no facility supplying premix fuel to the clam fishers largely due to lack of recognition. Fishers travel as far as Sogakope, Azizanya, Anyanui and Keta to purchase premix fuel. The fuel is only sold to them after the marine artisanal fishers at these landing sites have been supplied their desired quantities. On some occasions, especially from August to September which forms the peak period for marine artisanal fisheries, the clam fishers are turned away because the fuel supplied to the communities is not sufficient. The tank that was provided for use to sell premix at Kponkpo has since been shut down. This is seen as evidence of a lack of interest of the District Assembly and Fisheries Commission to support the clam fishing industry.

## **Tenurial rights**

Clam fisheries within the Volta River are under an open access tenure regime. Anyone with the requisite knowledge and equipment is allowed to engage in clam fishing. However, the availability of gear and canoe size determines where and when to fish. Women are usually restricted to shallower areas because they lack air pumping machines and other diving gear. They are also restricted by a local norm that prohibits any woman from fishing during her menstrual period. This rule, however, is loosely enforced due to the spread of Islam and Christianity coupled with the rise in educational status of community inhabitants.

Fish landing sites are generally under a communal access regime. Oral permission is usually required to allow canoes to dock at the landing site of a community. This is to notify fellow canoe owners of the presence of a new canoe for security purposes and is free of charge. Fish processing sites are under private ownership.

## Conclusion and Recommendations

Land within the boundaries of Ada and the surrounding communities is administered by clan heads. Land along the river banks belongs to the clan but sections have been sold to private citizens for development into residential accommodation or tourist/recreational destinations. When women need land to set up sheds for processing clams, they are required to contact the land owners who usually give the land out for free or for rent; in very rare cases, the land is acquired through outright purchase.

Whilst the Kponkpo community landing site has been kept under communal ownership, the Agorkpo landing site is privately owned. Natural collection areas are open access resources while the clam farms are privately owned despite regular confrontations. The tenurial regime for the clam farms has not been agreed and private access and use rights are not recognised formally or traditionally.

Challenges and conflicts associated with the clam fisheries resources include clam resource use conflicts, land use conflicts, water resource use conflicts, saltwater intrusion, theft and premix supply.

### Based on the findings of this study, the following are recommended:

- Establishment of co-management arrangements, involving all stakeholders with an interest in tenurial rights and the sustainable exploitation of the clam fishery.
- Recognition of tenurial rights of exclusive access to clam farms to curb resource use conflicts and clam theft.
- Designation and protection of all landing sites as communal resources to prevent encroachment by private individuals.
- Enforcement of existing laws that prevent private ownership of river banks to protect communal access to sites to land clams.
- Mapping and agreement of river transport, eco-tourism and fishing routes to reduce canoe-related accidents on the river.



Clam fishers at work on the Volta river.

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