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SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP) STUDY TOUR TO THE VOLTA REGION



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THE
UNIVERSITY
OF RHODE ISLAND
GRADUATE SCHOOL
OF OCEANOGRAPHY



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Cover photo: Tour participants on a boat to Bomigo (Credit: Hen Mpoano)

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ACRONYMS

CEWEFIA	Central and Western Region Fishmongers and Improvement Association
CRC	Coastal Resource Center
DAA	Development Action Association
DAASGIFT	Daasgift Quality Foundation
FC	Fisheries Commission
MOFAD	Ministry of Fisheries and Aquaculture Development
SFMP	Sustainable Fisheries Management Project
SNV	Netherlands Development Organization
URI	University of Rhode Island
USAID	United States Agency for International Development

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BACKGROUND

The USAID-funded Ghana Sustainable Fisheries Management Project (USAID/SFMP) implemented by the University of Rhode Island works closely with the Ghana Ministry of Fisheries and Aquaculture Development (MOFAD), the Fisheries Commission (FC) and local and international partners to rebuild marine fisheries stocks and catches through adoption of responsible fishing practices. It aims to end overfishing of key stocks important to local food security.

The focus of the SFMP on the two key estuarine environment namely; the Ankobra and Pra estuaries in the Western and Central Region respectively, is because of the critical role they play in fishery, serving as a nursery ground for some key fish species particularly the demersal species.

Most of the natural resources within and along the Ankobra estuary face many challenges including over exploitation by people living along the estuary without any corresponding efforts aimed at management through regeneration. This unfortunate situation has contributed largely to depletion, loss of biodiversity, reduction in livelihood activities and increased level of poverty in these resource-dependent communities.

Little or no attempts have been made by both state and non-state actors to conserve the floral and faunal resource within the Ankobra estuary. This has led to a situation whereby these natural resources are exploited without any management regime put in place to ensure sustainability. Resources such as mangroves, bamboos, rattan and raffia are harvested on commercial scale, which will ultimately have a negative effect on fishery resources if the situation is not properly managed in conjunction with the communities involved.

As part of efforts by the SFMP to sustain these resources through a co-management approach, a replanting activity at the Ankobra estuarine area has been scheduled, in other to sustain the efforts, there was the need for the people of Ankobra area to be able to see the need to manage and sustainably harvest these resources.

Against this background, members of the Ankobra community (Sanwoma) were selected to visit some mangrove growing communities within the Volta Region to learn some of the management systems that exist within these communities.

Study tour objectives

The objectives of the study tour were to:

- Expose participants to some of the different management systems practiced in the Region
- To promote Co-management of resources at the Ankobra

Communities Visited

Four mangrove growing communities were visited. These communities include Anyanui, Bomingo, Galo-Sota and Salo (Mangrove City). These communities are in the coastal district of Keta in the Volta Region. The whole Keta community has been designated as a Ramsar site, together with all its resources. The only major floral resource within these communities visited is the red mangroves, which are harvested for fuel wood.

The clam farming at Ada, which is on the opposite side of the Volta River, was also visited.

History behind the mangrove business

From the study tour it was learnt that, the mangrove growing communities visited were initially fishing communities. In the 1960's when the Akosombo dam was constructed, the

flow of most of the water canals that fed into major water bodies where fishing activities were taking place were seized. The surrounding communities were cut from the regular supply of water; water was no longer fed into the surrounding wetlands to serve as a nursery ground for the fishes and subsequently collapsed the fishing activities. After this incident, most people resorted into mangrove replanting and harvesting. Faced with this major loss of livelihood, the community developed a management regime that has ensured continuous supply of wood through planned replanting. The harvesting of planted mangroves has since become a livelihood option for many people in the area.

“I’ve been replanting mangroves since 1963”

Peter Kwabla Ahiaboy

Land ownership

Most lands within the communities visited are family owned. The farmers go into agreement with the landowners and the piece of land is cultivated with mangroves. Some portion of the mangrove is given to the land owners as a form of payment. The distribution arrangements differ from one community to the other. Ongoing mangrove projects in the area also have arrangements with the community. At Anyannui, farmers divide the replanted mangrove into two halves. Sometimes the landowner decides to sell back their portion to the farmer.

At Salo, it was found out that the farmers divide it into 3 portions, where the farmer takes 2 and give 1 part to the landowner.

Site visit to Anyanui:

The mangrove growers and sellers at Anyanui were visited in the morning. They briefed the the study tour participants on how they started with the mangrove business, the benefits involved, the replanting process and some of the arrangements between the growers and the landowners. From the conversations, one major challenge that the mangrove growers face is the competition of the mangroves with a plant species called the *Acrosticum*. Shrimp farming, which has recently been introduced to the area, is also destroying the lands. When the mangroves are cleared for the shrimp farming they become devastated and replanting of mangroves becomes very difficult.



Figure 1: Mr. Gormey of Hen Mpoano explaining the purpose of the visit at Anyanui



Figure 2: Mr. Kareem of the Wildlife briefing participants on the importance of mangroves

There are also no byelaws governing the buffer zones and people have started harvesting at the edges. When they are maintained, they serve as a safe haven and nursery grounds for some fish species.

QUESTIONS, ANSWERS AND COMMENTS

There was a question and answer session. Some of the questions asked include:

Ques: When mangroves are replanted how long does it take before they are harvested?

Ans: This depends on the substrate they grow in. Those that are found at the banks/edges of the waters where the substrate is very fertile and muddy takes 7 years, but those that thrive in areas where the substrate is not that fertile takes about 10 – 15 years.

Ques: Do you apply fertilizer?

Ans: No

Ques: Where do you get the propagules for replanting?

Ans: Mangrove seedlings are collected when they are matured and fall on the ground; some fall right into the substrate. When that happens we only go in to space them out and also transfer some to places where they are not much.

Ques: Have you experienced any disease that destroy these mangroves?

Ans: There is one major plant that competes with the mangrove for space that is the *Acrosticum* sp. These ferns are invasive, grow from the rhizome and compete with the mangroves. Also crabs feed on the seeds of the mangroves when they are initially planted.

Ques: Does the water destroy the mangroves when they are flooded?

Ans: No they do not; they are flooded for about 6 hours and the water recede for about 6 hours

Ques: When the mangroves are bundled, how much are they sold for?

Ans: They are sold according to sizes. They bundle the main stems, the branches and the roots. The prize of the stem ranges between GHS 4.00 – 5.00 cedis, branches cost 3.00 cedis and the roots for 1.50 cedis.

Ques: How do you know the mangroves have reached maturity for cutting?

Ans: When the mangrove plants get seedlings and start falling into the substrate. That's the only way to ensure continuity and sustainability. If the seeds don't start falling to regenerate before you harvest you eventually run at a loss.



Figure 3: Madam Monica Kwofie from Sanwoma asking question during visit to Anyanui

Quote:

We just harvest mangroves at Ankobra without replanting, never thought or heard that mangroves can be replanted; I thought God himself makes them grow

Madam comfort Nda Sanwoma

Mangrove plants are very lucrative business you can venture

Paul Nato Codjoe, Sanwoma

Site Visit to Bomingo:

Late morning we set off from Anyanui to Bomingo by boat. We visited some mangrove-replanted site. The mangrove site visited is one of the ATIDEV initiated mangrove replanted site for the community. A project which has been in existence from 2012.



Figure 4: Participants at Bomingo mangrove project site

Site Visit to Galo-Sota

Early afternoon we set off from Bomingo to Anyanui by boat and from Anyannui to Galo-Sota. We visited some mangrove conservation site. The mangrove site visited is one of the SNV initiated mangrove conservation site for the community. About 21 hacters of land have been set-aside by individuals and families to be conserved for over 10 years before any harvesting can take place if necessary. In terms of sustaining the livelihood of the people, extra mangrove lands are available for harvesting and in addition, livestock rearing is being piloted in the Galo-Sota community.

The mangrove growers and sellers who are now into conservation briefed the study tour participants on how they started with the mangrove business and the benefits they derive from the mangroves.

Site Visit to Salo (Mangrove City) -

The mangrove growers and sellers at Salo were visited on the late afternoon of Wednesday 23/03/2016. They briefed the study tour participants on how they started with the mangrove business, the benefits involved, the replanting process and some of the arrangements between the growers and the landowners. There is also a big mangrove market at Salo.

The chief and his elders also briefed the team on how the mangroves have a benefit to the Salo community.

From the conversations, one major challenge that the mangrove growers face is the competition of the mangroves with a plant species called the Acrosticum.

ACTION PLAN MEETING ON GOING FORWARD

The study tour participants met at the Hotel in the morning where they reflected on lessons learned, based on this an action plan was developed on the wayforward to help manage and sustain the Ankobra managrove resources.

Visit to the ada clamp harvesting site

On our way back to the Western Region, Participants had the chance to visit the Ada clamp harvesting site before heading back to Takoradi.



Figure 5: Participants at Ada Clam site

ONGOING MANGROVE PROJECTS WITHIN THESE COMMUNITIES

Some of the ongoing mangrove projects within the communities visited included the ATIDEV initiative, which started operations in 2012 and SNV sponsored project which started in 2014.

The ATIDEV initiative is working within 6 Communities, which include Dzita, Anyannui, Bomingo, Tunu, Galo-Sota and Salo. Four out of the 6 communities were visited.

The ATIDEV initiative together with the communities has replanted mangroves and gone into agreement with these communities not to cut until 15 years. After the 15-year period they can either decide to cut or sell them for carbon credit.

The SNV mangrove project is working at Galo-Sota. They went into agreement with farmers who have already planted their mangroves and have been able to convince them not to cut and maintain it as a forest for 10 years. This will help increase the biodiversity and reduce green house effect in the system. It is also an incentive to farmers, because bigger trees will fetch the farmers more money in the future. But the main aim of the SNV project is to ensure that after the 10-year period the people will come to realize the importance of conserving mangroves.

These projects have also introduced some livelihood options for farmers who have decided not to cut their mangroves. The livelihood options include Bee keeping, Grass Cutter rearing, value addition to mat weaving, mango planting, sheep and goat rearing and Fish farming. Lands have also been demarcated for woodlot.

Land owners also receive benefits based on the agreement they have with the farmers. There is also a portion that goes to the community.

LESSONS LEARNED

- Study tour participants got to know that mangroves could be replanted.
- Different techniques of replanting based on the purpose for the planting were also learned.
- Participants were motivated to start replanting degraded site based on what they heard and saw on the field.
- Land ownership among communities visited were different from land owners of Sanwoma (Ankobra)
- Conservation of natural resources among communities/community members should be linked with sustainable diversified livelihood options.

ANNEX 1: ACTION PLAN AND WAY FORWARD

Table 1 Action Plan and Wayforward

Activity	Status
Inform the chief and elders of Sanwoma about the trip and ask for permission and support to do the replanting of the mangroves	Completed
The group will form a committee (mangrove ambassadors) to have one voice to start educating the community especially the resource users	Committee formed
Make a documentary based on the field trip for community sensitization	Documentary made and sensitization underway
Start with the replanting of mangroves at degraded areas	Degraded areas identified

ANNEX 2: PARTICIPANT LIST

Table 2 Participant List

NAMES	LOCATION	Male/Female
Isaac M. Codjoe	Sanwoma	Male
Paul Nato Codjoe	Sanwoma	Male
Christopher Amissah	Sanwoma	Male
Thomas Cudjoe Aheto	Sanwoma	Male
Francis Nyankey	Sanwoma	Male
Vincent Amoah	Sanwoma	Male
Comfort Nda	Sanwoma	Female
Monica Kwofie	Sanwoma	Female
Agnes Minta	Sanwoma	Female
Rose Mary Ackah	Sanwoma	Female
Rose Dogbe	Sanwoma	Female