

REPORT ON THE STUDY TOUR TO CAYAR, SENEGAL

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**Sponsored by
The BaNafaa Project (Gambia-Senegal Sustainable Fisheries Project)**

A partnership of:

**United States Agency for International Development / West Africa
Coastal Resources Center, University of Rhode Island
World Wide Fund, West Africa Regional Office
Department of Fisheries**

Ministry of Fisheries, Water Resources and National Assembly Matters, The Gambia

Purpose of the Study Tour

The Study Tour was one of the planned activities of the Year 1 workplan of the Ba-Nafaa project. The main purpose of the study tour was to learn about the Cayar experience in artisanal fisheries co-management. The main areas of focus of the tour were the following: the evolution/history of fisheries co-management in Cayar; the structure and functioning of the co-management committee and sub-committees; the co-management of fisheries infrastructure and fisheries resources; participating agencies/institutions and partners in the co-management regime, their duties and responsibilities.



Cayar Beachfront

General Information

Cayar is situated on the northern coast of Senegal and about 50 km north of Dakar the capital city of Senegal. Cayar has a population estimated at 15,000, the vast majority of whom derive their livelihoods from fishing and related activities. Traditionally, the citizens of Cayar were equally engaged in fisheries and agriculture, fishing during the dry season and farming during the rainy season. This respite from fishing during the rainy season allowed fish to grow and multiply, and fish catches were always good when they resumed fishing. The situation has changed somewhat because nowadays the citizens are more engaged in fishing and related activities than in agriculture.

Presently, there are about 1200 fishing boats operating from Cayar, all of them are motorized. Total fish catch landing in 2008 was about 50,000 metric tons, almost 70% comprised pelagic fish species. The total commercial value of the landings was estimated at 8 billion CFA Francs. (1US\$ = 500 CFA), or approximately US\$ 16 million.



Meeting between the Gambian delegation and the Cayar Co-management Team

Major Lessons Learned

Fisheries resources conservation and management is a long standing tradition in Cayar. Going back several generations, the citizens of Cayar consider the fisheries resources as their own God given heritage and they have always stood firm to protect and safeguard them to continue to benefit present and future generations. The preferred fishing method employed by the vast majority of fishers is the hand line which is the most selective fishing gear and augurs well for

sustainable fisheries. A small number of fishers use the purse seine net to fish for pelagic species.

The citizens of Cayar have resisted the call of central Government to open the fishery to outsiders (fishers from other regions) who employ fishing gears/methods and techniques they consider destructive to the resource base. There have been many occasions when citizens of Cayar mounted maritime patrols and forcibly removed set gill nets from the water, took them ashore and burnt them. Similarly, longline fishers found operating in rocky areas had their lines confiscated and set alight upon reaching the shore. This resistance once resulted in a major confrontation with the Government authorities and resulted in the death of a citizen, many injuries and prison sentences to the leaders; but the incident did not deter them but reinforced their will to continue resisting the use of fishing gears, methods and techniques they consider harmful to the fish resources. It should be pointed out that the citizens of Cayar are not anti-foreigners; instead they welcome fishers from St. Louis, Fass Boye and other fishing villages who wish to fish in accordance to their rules.



Confiscated Illegal Longline

Choosing dialogue rather than continued conflict and confrontation, Government decided to engage with the people, which led Government to understand that the resistance was being fuelled by the desire and readiness to conserve their God given natural heritage (fisheries resources). Under a co-management arrangement, legislation has been promulgated in support of the management measures put in place by the citizens of Cayar. Some of the management measures en-force in Cayar include:

- set gill nets are prohibited within a 37 nautical mile radius of Cayar; the nylon monofilament net has been banned
- long lining in rocky areas is not allowed
- only daylight fishing is permitted, fishers set out in the morning and return late afternoon or early evening

Catch quotas: For the artisanal demersal fishery, fishers are permitted to land no more than 45 kilos of fish (three polyboxes) per fishing day. This is a management measure to limit catches/landings, and it is also intended to control fish prices and ensure that those involved in the value chain are deriving most economic benefits. The catch quota is rigorously enforced and fines/penalties' are readily imposed.

Fish Processing: It was observed that fuelwood is not used to smoke fish. The women use the leaves of the Casuarina (whistling pine) tree to smoke fish. The Casuarina is a shoreline tree that act as wind breaks and stabilize the shoreline. This fish smoking method has two positive environmental attributes: saving the forest (not using fuelwood) and preventing coastal erosion. There was not much time for the Gambian delegation to see how fish smoking is done using the leaves of the Casuarina tree, but there was an expression of interest by the women in the Gambian delegation to conduct experiments in Brufut to assess the end product in terms of its quality and shelf-life. The Casuarina tree grows well in The Gambia. The use of the leaves of the Casuarina tree can be an activity/area of study during Year 2 under the Sardinella program.

Credit Scheme: The Credit scheme referred to as *Credit Mutuel* is being managed in a simple, successful and transparent manner. The rate of repayment is very high at about 98%. Members can apply and receive the loan within a day, for example, a fish dealer can borrow money to buy fish on any given day and will receive the money without having a guarantor. Only when there is a case of default will the credit office inform the co-management committee and pressure is applied for prompt repayment; but this rarely happens.

Environmental (Beach) Sanitation: There is a special committee elected to ensure that the fisheries complex area, including public and private infrastructures, are kept clean at all times. There is daily monitoring of the area and fines and penalties are imposed on people who violate the rules.

Monitoring, Control and Surveillance (MCS) and Sea Safety: Within the Fisheries Center, there is a well equipped MCS office (radar, UHF and VHF radios, and satellite link to Headquarters in Dakar, patrol boat and skilled personnel who are also responsible for safety at sea.

Marine Protected Area (MPA). The MPA was created by Presidential Decree on 4 November 2004. It is headed by a Captain of the Department of Parks, assisted by a Lieutenant, four officers and local volunteers with official uniforms. The MPA was identified and mapped out by the fisherfolk and the geographical coordinates fixed by GPS. The fisherfolk are actively participating in the management of the MPA.

Fish Quality Assurance: Under an EU funded program to improve health and hygiene conditions in artisanal fish landing sites, a fish quality control laboratory was established at the Cayar fish landing sites. Laboratory tests to determine fish quality are conducted by qualified quality control officers who also record all data. Fish inspected and certified OK are stored in freezers kept below freezing point. The fish is destined for the export market.

Fisheries co-management: The main stakeholders in the co-management arrangement/regime are the following;

- Interprofessional Grouping of artisanal fisheries operators called “Yallay Mbaner ak Feex- Gui”
- Local Council for Artisanal Fisheries (CLPA)
- Department of Fisheries and Surveillance
- Office responsible for the Marine Protected Area (MPA)
- Gendarmerie
- Office of Mayor of Cayar

The Interprofessional Grouping “Yallay Mbaner ak Feex-Gui” was created in February 2000 and membership comprises eight local and national artisanal fisheries organizations:

- National Committee of Artisanal Fishers of Senegal (CNPS)
- National Federation of Artisanal Fisheries Operators (FENAGIE Peche)
- National Federation of Fish Dealers of Senegal (FENAMS)
- Village Development Committee (CVD)
- Fisheries Committee of Cayar (CPC)
- Organizations of purse seiners and surrounding net fishers
- The Women Fish Processors and Petty Traders
- Youth of Cayar (JADK).

The Grouping is responsible for the management of the fisheries infrastructure (established under aid programs by L’Agence Francaise de Developpment (French Development Agency) and the Japan International Aid Agency (JICA). The Grouping is also responsible for the management of infrastructure (buildings) within the fisheries complex area established by private investors. The members of the Executive Committee are elected to 2-year terms and can serve for only two terms. The day to day management of the infrastructures is entrusted to salaried professionals who are supervised by the Executive Committee. *The management functions of the Interprofessional Grouping are similar to those of the Management Committees of the Community Fisheries Centers in The Gambia.*

The management objectives for the development of the artisanal fishery of Cayar are as follows:

- Improvement of traditional fisheries (catching and landing);
- Professionalize artisanal fishing and related activities;
- Promote private investments within the fisheries complex area;
- Building the capacities of fisheries professionals through training.

The co-management of artisanal fisheries in Cayar can best be described as an evolving success story, much has been achieved so far, and more yet to be achieved. The study tour was a worthwhile venture. During the final meeting between the Gambian delegation and their hosts, it was agreed that a delegation from Cayar will be invited to The Gambia on an exchange visit to share their experience with several fishing communities in The Gambia. The visit will be included in the Year 2 workplan and budget of the Ba-Nafaa project.

The Gambia delegation is grateful to WWF-WAMER Head Office for facilitating the Study Tour particularly to Dr. Ibrahima Niamadio and Mr. Christian Faye for the planning of the study tour with Mr. M.amadou Gaye (Finance and Admin Officer) and Mr. Ousman K.L. Drammeh (Project Manager, Ba-Nafaa). The Gambia Delegation is also grateful to the Mayor of Cayar for the warm welcome to his office; to Mr. Moussa MBenga (Fisheries Officer) and his officials; Mr Bole NDiaye (WWF representative); Mme Maty NDoa and the women of Cayar fishing community; Mr. Aboudlie Diop (President of CNSP), and the entire fisherfolk community for the warm and hospitable welcome accorded to them.

Applying Lessons Learned from Cayar to The Gambia:

Valuable lessons have been learnt from the tour including the following:

- The administrative structure for artisanal fisheries co-management already exist in The Gambia in the form of Community Fisheries Centers and their functions, but the governance level, the levels of effectiveness and professionalism (commitment, dedication and efficiency) are below that of Cayar. This was quite evident to the Gambian delegation during the visit and the experience gained from the tour can be applied in the Gambia. The management committees of the Community Fisheries Centers should be further strengthened and the governance regime further improved. Similar to Cayar, the fisheries infrastructures are rented out to users and fisheries credit/loans are given to fisherfolk through the Community Fisheries Centers; however, the default rates in loan and rental repayments are very high in the Gambia, and the management committees have not been effective in ensuring proper and prompt repayments as is the case in Cayar. The level of commitment, dedication, efficiency and effectiveness of the management committee of Cayar can be emulated in the Gambia.
- The importance of the Casuarina tree as wind breaker and in stabilizing the shoreline, and the use of the leaves to smoke fish were new to the Gambian delegation. The Casuarina tree is abundant in the Gambia but knowledge about its usefulness is limited; the tree is mainly planted alongside the outer perimeter of home fences. Given the serious problem of coastal erosion in the Gambia and our heavy dependence on fuelwood for fish smoking, it is important to consider planting the tree along the beach front to stabilize the shoreline, and use the leaves to smoke fish. In order to do this, the Ba-Nafaa should collaborate with the management committees of the Community Fisheries Centers, Department of Forestry and the Ministry of Forestry and Environment. The use of the leaves of the tree to smoke fish has huge potential in the Gambia but it requires further study. Gambian fish smokers should visit Cayar to study the fish smoking technique (the smoke oven of Cayar is a bit similar to the Gambian oven). It is also important to subject the end product to biological and chemical tests in terms of quality, shelf life and wholesomeness. Given the abundance of the Casuarina tree in the Gambia, it will be

- The active involvement of the fisherfolk in fisheries surveillance (collaboration with the Fisheries Department and the officials of the Marine Protected Area) can also be emulated in the Gambia. Without the involvement of fisherfolk in monitoring, control and surveillance in artisanal fishing grounds, it will be difficult to curb IUU fishing. Awareness creation and sensitization campaigns are important tools in this regard.
- There are no Marine Protected Areas in the Gambia. The Ba-Nafaa project will encourage and support the establishment of MPAs. The Ba-Nafaa project has completed the mapping of hot spots and spawning grounds for sole fish in collaboration with local fishers. According to traditional (local) knowledge, most fish species spawn around the same time, just before the onset of the rainy season (April to June/July) and they come from deep waters (the ocean) to spawn in shallow coastal waters and in the estuarine area. During community meetings under the sole fishery program, certain communities (Bakau, Tanji and Gunjur) have expressed their desire to establish “closed areas” to protect juvenile fish and spawning areas. These discussions should continue and may lead to agreement on “closed areas” as a first step to establishing MPAs. Also, there are legal provisions in the Fisheries Act for the establishment of Special Management Areas, Closed Area and Closed Seasons. The legal provisions coupled with the desire to protect nursery and spawning areas, offer hope that MPAs can be established in the Gambia in the near future.
- Establishing term limits for the members of the Executive committee of Cayar is a good lesson and can also be applied in the Gambia. In the Gambia, Executive committee members tend to serve for long periods of time and this is not quite democratic, they seem indispensable, they have too much power and can influence decisions; and they are averse to change. It is good to change the team from time to time and allow others to serve (equal opportunity).
- The control of fishing effort as practiced in Cayar can best be described as unsustainable and should be seen as a short-term management measure. Limiting catch quotas to 45 kgs per boat can only stabilize fish prices but not the effect on the population of fish stocks as long as the fishery remain open access. There are too many fishing boats in Cayar (1200) and there is no legislation/regulation to limit access, so the number of fishing economic units can increase as long as the fishers operate in accordance to the rules. During one of our meetings in Cayar, I raised the issue of reducing the high fishing effort and informed them that sooner than later, they will have to address the issue; they must reduce the number of fishing boats to avoid overexploitation of fish stocks and the eventual collapse of the fishery. In the Gambia, we should focus on limiting access and enforce regulations on zonal limitations and mesh sizes. Eventually, the Gambia will also be confronted with the same problem to reduce the number of fishing boats. This issue has social and political ramifications: the majority of fishers along the marine coast are Senegalese and they will be the first ones to be affected by a management decision to reduce the number of fishing boats in the Gambia. The Gambia-Senegal Reciprocal Fishing Agreement allows artisanal fishers from both countries to fish in the waters of each country without hindrance; the only conditionality is that the fishers must land their catch in the country in which they are based. However, the reality is that Gambian fishers are sedentary and not migratory, and there is no Gambian fisher based in Senegal.

Study Tour Participants

The Gambian Delegation comprised the following:

1. Mr. Ousman K.L. Drammeh: Project Manager, Ba-Nafaa
2. Mr. Mamadou Gaye: Finance and Admin Officer, WWF-WAMER-Gambia.
3. Mr. Gibril Gabis: Ba-Nafaa Fisheries Staff, Sole Fishery Program.
4. Mr. Ousman Mass Jobe: Principal Fisheries Officer, Fisheries Department.
5. Mr. Ousman Bojang: GAMFIDA, member of the Interim Management Committee for the Sole Fishery.
6. Mr. Dawda Saine: NAAFO, member of the Interim Management Committee for the Sole Fishery.
7. Mr. Alagi Sillah: Association of Fishing Companies, member of the Interim Management Committee for the Sole Fishery.
8. Mr. Eliman Sarr: Fisher, member of the management committee of the Gunjur Community Fisheries Center, and member of the Interim Management Committee for the Sole Fishery.
9. Mr. Mayorro Gaye: Fisher, member of the Village Development Committee of Sanyang, and member of the Interim Management Committee for the Sole Fishery.
10. Ms. Haddyjatou Jallow: Fish smoker, President of the management committee of the Community Fisheries Center of Brufut.
11. Ms. Mama Badjie: Fish Dryer, member of the management committee of the Community Fisheries Center of Sanyang.
12. Ms. Bintou Sawaneh: Manager Natangeh Credit Union, Community Fisheries Center of Tanji.
13. Ms. Amie Jallow: Fisheries Field Assistant, Fisheries Department staff responsible for women affairs at the Community Fisheries Center of Brufut.
14. Mr. Yaya Suwareh: Driver, WWF-WAMER-Gambia.
15. Mr. Alieu Jatta: Driver, WWF-WAMER-Gambia.



Gambian delegation on day of departure