

Report on the Study Tour of Gambian Oyster Harvesters to the Sine-Saloum Region of Senegal

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**By:
The Ba Nafaa Project
in cooperation with the Wula Nafaa Project**

Introduction

The study tour to Sine-Saloum is one of the planned activities of the Year 1 work plan of the Gambia-Senegal Sustainable Fisheries Project (Ba-Nafaa). The main purpose of the tour was to promote bilateral exchanges of communities and fisheries stakeholders to share lessons and experiences in improved management of artisanal fisheries for increased and sustained social and economic benefits. The tour was also meant to expose the Gambian delegation to improved production and processing methods and techniques for cockles and oysters; and also the functioning of the management structures that have been established in the communities with the support of the Wula-Nafaa project. The ultimate objective of the exchange visit is to establish strong cooperation between the Wula-Nafaa and Ba-Nafaa projects.

Tuesday 15 December 2009.

The study tour was held from Tuesday 15 December to Friday 18 December 2009. The Gambian delegation comprised 24 cockle and oyster harvesters from TRY Association (23 females and 1 male), 2 officials of the Department of Fisheries, and 2 officials of the Ba-Nafaa project (the Project Manager and the Fisheries Field staff assigned to the Oyster program). The Gambian delegation travelled to Sine Saloum in a convoy of 2 vehicles.

Upon arrival in **Foundiougne**, the Gambian delegation was received by Dr. Vaque Ndiaye (Project Manager of Wula-Nafaa). A technical meeting was held in the office of the Wula-Nafaa Project Manager during which the program for the visit was finalized. The program was designed taking into account that the TRY Association members are exclusively working in cockles and oysters and it was beneficial to expose them to improved harvesting, processing and marketing of cockles on **Mounde Island**, and to oyster culture and production sites in the community of **Sangako** and **SouCouta**.

The Gambian delegation was briefed on Wula-Nafaa activities in Sine Saloum. Dr. Ndiaye informed the Gambian delegation that cockle and oyster harvesting, processing and marketing are the main activities in Sine Saloum although other species such as mullet, ethmalosa and shrimp are also important and are therefore included in the Wula-Nafaa work program. The aim of the Wula-Nafaa project is to help increase revenue earnings, support sustainable activities/efforts, and help find markets for their products. Before the Wula-Nafaa was launched in Sine Saloum, artisanal economic operators worked as individuals or in small family units. Also, there existed an informal traditional management regime that was generally respected by all. The point of departure of the Wula-Nafaa was to organize the individual units

into Associations, and work with them to develop and implement fishery management plans. In the Wula-Nafaa project communities, there are 50 Associations (referred to as Groups), 35 Groups are engaged in cockle and oyster fisheries and the remaining Groups are engaged in finfish and shrimp fisheries. The night of Tuesday 15 December 2009 was spent in **Foundiougne**.

Wednesday 16 December 2009.

The Gambian delegation took a 2 hours 30 minutes boat trip to Mounde Island for a one day working visit, and night stop as guests of the community. The delegation was welcomed at quayside by the villagers amidst drumming, singing and dancing and led a procession through the village to the compound of the Village Head for salutations and welcoming remarks. Afterwards, the delegation was led to the processing site on the other side of the village (about a kilometre away).



Boat trip from Foundiougne to Mounde Island.



Welcome at quayside, Mounde Island

The women of Mounde Island are specialized in the harvesting, processing and marketing of cockles and oysters with the former (cockles) being the predominant activity. They are well organized into 3 main Groups each with its own elected/selected President and Treasurer. The 3 Groups are as follows: 1). Organization Group responsible for technical matters including the management of the main site at the beach where processing is carried out, and also meetings are held; 2) Production Group: responsible for processing, packing and labelling of products. Among the Group are Inspectors who check products to ensure product quality and market requirements; poor quality products and undersized cockles/oysters are not accepted, 3). Marketing Group: responsible for the marketing of products within and outside the Sine Saloum region..



Gambian women and the women of Mounde harvesting cockles.



Washing cockles before processing

The women usually work in small Groups and each Group brings in its products which are weighed and documented. Selected sellers take the products to markets always seeking the highest possible prices. Each small Group has established a Fund from the sale of products and not from contributions by individual members



Finished products for markets.

Cockles are still harvested manually i.e. digging of cockles from the mud using bare hands. In order to ensure that only mature cockles are brought to the site for processing, the Wula-Nafaa project introduced specially made baskets with openings at the bottom wherein harvested cockles are poured and shifted allowing small-size cockles to fall through the openings; only mature cockles are retained for processing. Upon reaching the processing site, the cockles are washed in large plastic buckets in a mixture of fresh and salt water and cap full of bleach to remove all dirt particles (mud and sand and all dirt particles from cockle shells). The process is repeated 7 times to ensure that the cockles are thoroughly cleaned. The cockles are then put inside a net in the form of a bag which is placed on a raised wooden platform at on the shoreline for up to 3 days to remove sand from inside of the cockles. At high tide the net like bag containing the cockles is submerged in the sea, the cockles open up to feed and in the process releasing remaining sand particles from within. After the 3rd. day when all sand particles have been removed the cockles are again washed several times before the boiling process begins. Boiling time usually depends on the quantity of products and fuel wood available. After boiling, the cockles now open, are again washed 4 times in the large buckets again with a similar mixture of sea water, fresh water and cap-full of bleach. The meat is then removed from the shell ready for the final stages of processing. There are 2 types of finished products: fresh with vinegars in transparent glass containers, and boiled-dried products vacuum packed and sealed in standardized plastic bags of 1 kg weight. It is important to mention that sea water used in the final washing of the products is left untouched for 5 minutes or so to allow sand particles to settle at the bottom before it is used in the mixture with fresh water and bleach.



Study Tour Participants

Thursday 17 December 2009

Departed Mounde Island in the morning after an emotional farewell and took the boat back to the mainland at Foundiougne. At Foundiougne, a debriefing session with Dr. Vaque Ndiaye was held during which the Gambian delegation thanked him and his staff for organizing such a wonderful visit and expressed the hope that the women of the Island can visit Gambia as a continuation of the exchange program. The Gambian delegation departed Foundiougne and proceeded to the village of Sangako to visit oyster processing and culture sites.

At Sangako village, the Gambian delegation was received by Ms. Jariatou Sarr, Messrs Dodou Jammeh, Alieu Jammeh and El-Hajj NDao; these people are actively engaged in oyster production, processing and marketing. The Gambian delegation was taken to the sites and exposed to 2 different culture methods: the Hanging method and the Cultchless methods.

The Hanging method involves the use of long poles from the eucalyptus tree onto which strings/twine with empty oyster shells are hung vertically (usually 5 empty shells per string) and supported by vertical poles (firmly fixed in the mud) at the end of the poles. During spawning season, released oyster spats attach themselves to empty shells from where they grow to mature sizes before being harvested (after 12 to 18 months). The hung shells are regularly washed (at least twice a month) to clean them from mud that had accumulated. The Cultchless method is a cage-like culture method which involves the placing of empty oyster shells in cages with small mesh sizes to ward-off predators (crabs and fish); the cages are easily washable.



TRY Association members studying oyster culture (Hanging) method.



TRY Association members exposed to the Cultchless method of oyster culture at another site.

The Gambian delegation was informed that if proper care is taken 5 empty oyster shells can yield up to 40 oysters. The selling price of 12 fully grown of oysters (in shells) is 3000 CFA francs in Dakar (approx US\$7). The Gambian delegation was able to see that with a good culture system and proper care, the oyster industry can become profitable and the mangrove ecosystem will remain undisturbed. There are other 4 communities within the Sangako area actively engaged in oyster production,

processing and marketing: SouCouta, Medina, Sandikoli and Bambagar. The TRY Association members manifested lots of interest in oyster culture especially in the Hanging method.

There are several uses of the oyster shells: the shells can be used for oyster culture, for combustion (making fires), making cement, making white lime (whitewash), and as supplement feed for poultry.



Meeting between TRY Association members and representatives of the Local Union of SouCouta and Toubacouta (Groupe BOKA YIFF).

Friday 18 December 2009

A big meeting was held at the fish processing site in SouCouta village between the Gambian delegation and their host; the representatives of Groupe BOKA YIFF (an Association of fisheries economic operators working together for the same purpose, for their own social and economic development and well being, their families and communities). It was a very useful meeting especially to the TRY Association which can still be considered as an Association in its formative stage. The speech by Ms. Yandeh Ndaw, President of the Association was well received by the Gambian delegation. She gave a narrative on the genesis of her Association and the initial contact with IUCN (International Union for the Conservation of Nature) when IUCN provided seed money to the tune of 1million CFA francs and the community pledged to fish responsibly and sustainably and also desist from chopping down mangroves for harvesting of oysters or for any other use. The seed money has since multiplied to 15 million CFA francs and a loan scheme has been established to assist members to have access to finance. She talked about the advantages of artisanal fisheries economic operators coming together to work for their collective interests which will

come to benefit them as individuals. She also talked about the importance of convening meetings on a regular basis, willingness of members to make contributions (in kind) to their Association, and exchange visits among communities to strengthen their unity. The coordinator of TRY Association expressed appreciation and gratitude to the representatives of Groupe BOKA YIFF on behalf of the Gambian delegation. She conveyed the wish of the members of TRY Association that the 2 projects (Ba-Nafaa and Wula-Nafaa) will make it possible for the study tour to be reciprocated, that is, the representatives of BOKA JIFF to visit The Gambia.

After lunch and farewell remarks, the Gambian delegation departed for Banjul.

The theme of the visit: improvement of production, processing and management of cockles and oysters.

Matters arising for the study tour and lessons learned:

The 2 Project Managers (Ba-Nafaa and Wula-Nafaa) discussed possible areas of future cooperation:

1. Joint research activity to develop a product for fish smoking to reduce the high demand for fuel wood.

The product will be developed from a mixture of groundnut shells and saw dust (which are readily available in huge quantities in both countries and their usefulness to human society is quite low. i.e. presently, there is no other sector to compete with to secure the supply of groundnut shells and saw dust needed to conduct the research. Food technologists from both countries (The Institute of Food Technology (ITA of Senegal) and DoFish of Gambia) will be entrusted the research

2. Collaboration on oyster culture and cockles processing: The study tour was an eye opener for the members of TRY Association. The visit was very useful because the TRY Association members were exposed to improved technologies which, if adapted, can help improve their work and bring them additional social and economic benefits. However, it was the consensus among the Gambian delegation that the duration of the study tour was rather short for the cockle and oyster harvesters to fully grasp the methods and technologies to which they were exposed, and also to fully comprehend and appreciate the dynamics of the management structures that have been established in the communities visited. The general feeling is that the visit should be reciprocated, it is reckoned that visit by the Sine Saloum communities will be beneficial to the TRY Association members because they may get valuable advice and guidance from the more experienced colleagues on how to improve upon their activities.
3. Individualism (working as individuals) characterized artisanal fisheries all over the world. Before the advent of projects and programs, artisanal fisher folks used to operate as individuals or in small family units. To bring about sustainable management and development for increased social and economic benefits, projects and programs have to implement actions/activities that will lead to the formation of Associations/Groups. This was the situation in the cockle and oyster

fisheries in Sine Saloum before the advent of the Wula-Nafaa project, and similar to the situation in Gambia before the establishment of TRY Association as a community-based grouping representing the 9 communities within the Tanbi Wetlands Complex. The establishment of TRY Association brought together the cockle and oyster harvesters within the Tanbi Wetlands as registered members of the Association although the Association is still in its infancy and not yet as developed as the Associations in the Wula-Nafaa communities. Working with fisher folk communities to bring about sustainable livelihoods and increased social and economic benefits is one of the main pillars of the Ba-Nafaa project. In close collaboration with TRY Association, the Ba-Nafaa project is lending support and helping to guide the activities/actions of its members including the convening of meetings, implementing training sessions and workshops, strengthening the Association through consensus building, and working together to formulate, prepare and implement an Oyster Management Plan in the foreseeable future. The role of Government in all these actions/activities including approval of the management plan will be crucially important.

4. The fair/transparent system of allocation of duties and responsibilities to trusted and dedicated members of the Group(s) is also very important. Trusted leadership can bring about increased confidence of all members; this was an important lesson for the TRY Association members.
5. Regarding market preferences for oysters, there are differences in the 2 countries. In The Gambia there is a preference for boiled/smoked fresh oysters unlike in Senegal where there is a preference for smoked-dried oysters. Of- course, the shelf lives of the 2 products are markedly different; the Gambian product has a shorter shelf life than the Senegalese product which can last up to 6 months if properly stored. The Gambian delegation was lectured on a simple method on how dried oyster can be maintained in good condition for extended periods of time by applying a layer of grounded pepper beneath and on top of the product
6. The exchange of expertise and technology was considered very important and it was highly recommended that this becomes an integral part of the work programs of the 2 projects.
7. Another issue that was of concern to the TRY Association members is the lack of earnings during the closed season. The representatives of Groupe BOKA YIFF advised them to engage in other revenue generating activities to sustain them during this period. They explained that some members are engaged in the rearing of ducks and chickens, others are cultivating watermelons and maize, others are rearing small ruminants (goats and sheep); which are sold to earn people that will sustain them during the closed season. They also suggested that the TRY Association members should endeavour to harvest oysters in excess of existing demand which can be stored and sold during the closed season, however, this implies the need to acquire freezers given the fact that preference in Gambia is fresh oysters.