

Information on ecolabelling of shrimp fisheries in Casamance, Senegal



félé-félé : 150m drift nets



mujas: standing nets at fixed sites



idée
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Background

Casamance is the southern region of Senegal between Gambia and Guinea-Bissau. The Casamance ria is the main artery of the region, forming high-biodiversity wetlands that are rich with water and natural resources. The Casamance estuary has both characteristics of a ria as of a funnel shaped estuary, namely a mixed tidal wave, small and seasonal river discharge, a hypersaline distribution which implicates a well-mixed estuary and a low Estuarine Richardson Number. An explanation for this can be that the Casamance has a ria shape which is slowly transforming into a funnel shape due to the strong sedimentation processes.

Small-scale fishing on wild shrimp in the Casamance ria takes place with *pirogues*, wooden canoes. Fisherfolk are amongst the poorest people in Senegal, a West-African coastal state that itself is amongst the twenty poorest countries in the world.¹ While fishing meets a direct need for food, it can also provide the economic incentive to obtain hard currency for additional basic community needs. When treated under the appropriate conditions, shrimp may generate both high-value nutrition and the required cash. Top-quality shrimp can have the highest return amongst all fish products. Excellent sanitary and food safety conditions are a pre-condition to penetrate at the top end of European and US markets. Today markets in the north offer opportunities for products from fisheries that demonstrate to be sustainable. The growing demand for eco-labelled shrimp products goes hand in hand with high quality production in general. This offers an economic incentive to combat poverty in Casamance at the source and at the same time reassure that the fisheries contribute to a continuing healthy state of the shrimp resources in the wetlands with a rich biodiversity.

Shrimp regenerate quickly and it is not easy for artisanal fisheries to overexploit shrimp. The remaining major issues for sustainability in shrimp fisheries are bycatch and adequate management. The small mesh size of shrimp nets (24 mm stretched for artisanal fishery and 100 mm stretched for trawlers) leads to high bycatches of other species, including juveniles of fish species of commercial interest. In addition, it is necessary to regulate fisheries adequately, and this requires sufficient commitment and organisation of the fishermen and fish merchants.

Shrimp fisheries in Casamance

The southern pink shrimp (or Senegalese white shrimp) *Farfantepenaeus notialis* occurs in the estuaries and coastal waters of West Africa from Mauritania (Cape Blanc 21°N) to Angola. It mostly inhabits muddy sand bottoms at a depth of 2 - 100 metres. It prefers waters with temperatures of 18-24°C. The best season for shrimping is before and after the rainy season, from February to April and from August to October.

Commercial shrimp fishing in Casamance has a tradition of nearly 50 years as fishermen from the north of Senegal moved into the area. The local ethnic group Diola were farmers/fishermen. Today, Casamance shrimpers use three techniques with their wooden canoes or "*pirogues*": (1) *filet fixe* or *mujas*: standing nets at fixed sites, (2) *féle-félé*: 150m drift nets (although the legal maximum length is 30m) attached to pirogues, and (3) *kili*: beach nets, where fishermen wade through water of about 1.5 metres deep. Regular stretched mesh size is 24 mm.

Conflicts exist between fishermen using different techniques and where people do not keep to either the formal legislation or the 'local code'. The reported shrimp landings varied from 800 tonnes to 1 600 tonnes in the period 1984-2007, with an average of 1 107 tonnes.

In the last thirty years, Casamance has been suffering from a conflict between members of a separatist movement and the governmental army. Many people have gone on the move in their desperate search for food and income. People forced to leave their mined habitat turned to fishing. In the same period, the Casamance ria received less rainfall and a subsequent salinity increase, loss of mangroves, etc. Unlike in Asia and elsewhere, the African continent hardly produces any cultivated shrimp. Fishing of wild shrimp remains the only access to these resources.

¹ UN human development index 2005

Local markets consume an estimated 10% and the rest is exported deep-frozen to Europe. Five factories in the Casamance region have export agreement to Europe of which three are actually active. In Dakar, capital of Senegal, processing plants mainly export shrimps fished by trawlers in the coastal waters of Guinea Bissau, Senegal, Mauritania and Gambia. All these shrimps, from coastal trawler fisheries and artisanal inland fisheries, are sent deepfrozen to the European market as a product labelled "wild shrimp of the FAO 34 waters". We think we must take our Casamance artisanal fished shrimp out of this whole bulk and put it on a niche market as a high quality product, exploited by a sustainable shrimp fishery.

The IDEE Casamance activities

In 2003, IDEE Casamance, a not-for-profit association registered in Senegal, started to assist the fishing communities in Casamance, with financial support from *inter alia* the Dutch donor agency. Several studies were conducted on the sector, its actors and the issues of the shrimp fishery in Casamance, aiming at encouraging dialogue between actors and reinforcing structural capacity.

Since 2004, IDEE Casamance is informing and organizing fisherfolk in 10 rural communities. In close partnership with local fishers and their know-how an inventory is dressed of fishermen and their gear in each village, the fishmongers visiting these villages and the women active in the transformation of fish products. We installed a co-management team in each village whose members represent the fishing community and civil society. This committee corrects on village level all deviation of law or codes of conduct commonly agreed for the fishing area. Reunions of members of these committees of several villages form a management team of a larger fishing area. IUCN NL/EGP financially supported the initial activities that are supposed to prepare the field for labelling shrimp fishery in the future. With support of the USAID/Wula Nafaa project, IDEE Casamance enlarged the activities to 22 rural communities from February 2009.

With its strategy of capacity building and spreading information on roots level, IDEE Casamance aims to create an environment that incites fisherfolk to actively participate with civil society to co-manage local fisheries. Collaborative management is a prerequisite for achieving sustainable fisheries. Sustainable fisheries imply that (1) the shrimp populations are healthy, (2) the impact of the fishery on the natural ecosystem is sufficiently low (limited bycatches) and (3) the regulation of the fisheries is shown to be in good order. Fisherfolk will need to resolve existing conflicts and work together in order to safeguard future shrimp availability. The relatively confined region of Casamance makes it easier to regulate the overall fishing pressure.

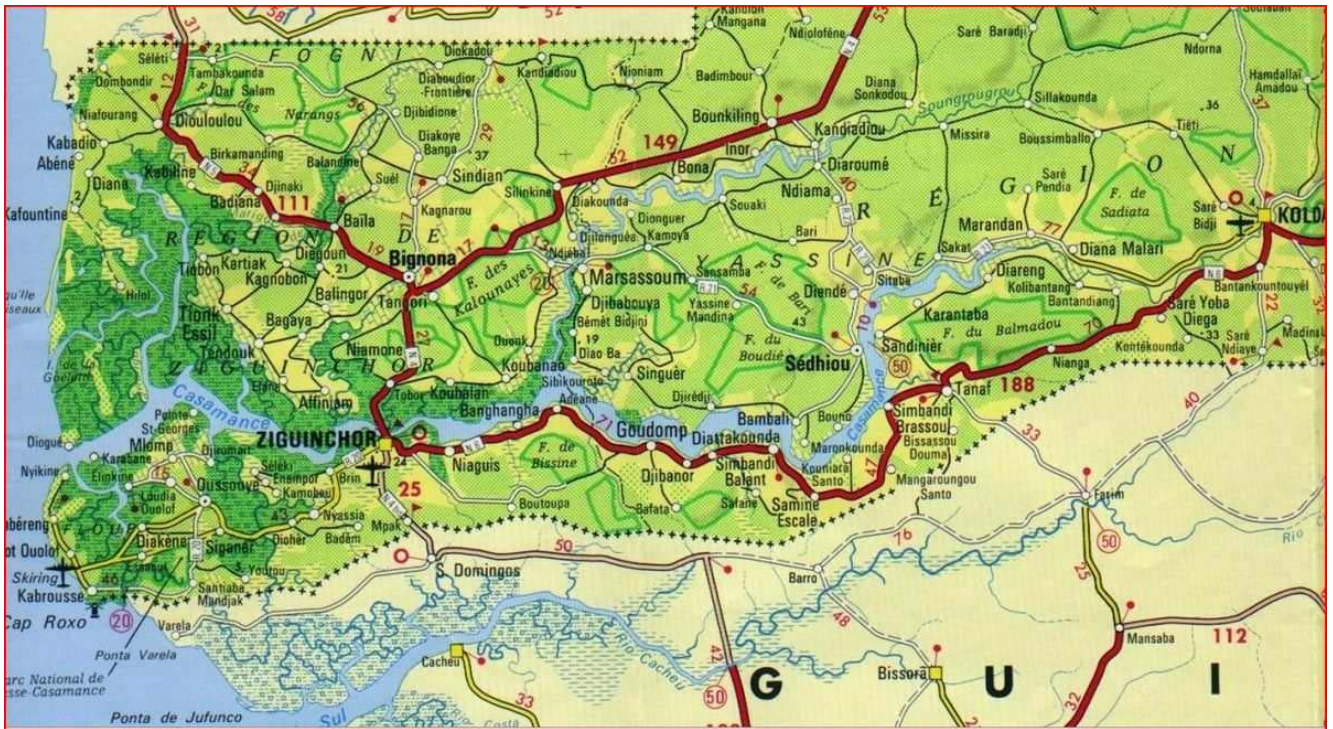
The labelling of the shrimp fisheries of the Casamance ria

Studies by IDEE Casamance recognised the economic opportunities in fisheries can help the associated communities in their development. A promising prospect may be the certification of the shrimp fishery and accentuate its local specificities, thus attracting other markets paying higher prices.

Artisanal shrimp fishery in the Casamance ria is a very basic activity with almost no negative environmental impact. A combined FAO, the Swedish Institute for Food and Biotechnology, CRODT and IDEE Casamance study in 2009 on the Life Cycle Assessment of southern pink shrimp products from Senegal concluded:

There are major differences between the artisanal fishery and the trawl fishery in all environmental impact categories included. Trawling uses much more fuel and refrigerants and leads to much higher amounts of landed fish by-catch, discard and seabed impact than do the artisanal methods. This environmental comparison between artisanal fisheries in the Casamance ria and a trawl fishery based in Dakar also concluded that the only category where artisanal fisheries had higher results than the industrial was in the category terrestrial toxicity, which was because of the use of mercury-containing batteries that were disposed on the beach. The use of less harmful

types of batteries and the collection after use therefore represents an improvement option in this aspect.



Shrimp fishing in the Casamance ria is forbidden by law from Ziguinchor town to the mouth of the estuary. This buffer between the reproduction area at sea and the nursery and growing area in the estuary assures a continuous stock supply of the reproduction area.

If the Senegalese Government can guarantee not to increase the fishing effort by trawlers, we then have a high quality product with a positive analysis with regard to resource use and environmental impact. We therefore believe that the product has a high potential once it is detached from the bulk as it is now commercialised in Europe: all shrimp fished in West African waters by estuarine fisheries or trawlers is commercialised as wild shrimp fished in the FAO 34 waters. And as we said earlier, the Casamance ria is an embedded area where certification restrictions can be easily imposed and controlled.

It may be clear that the more informed European consumer demands each time more quality, traceability and strict production criteria for seafood products. That is why the European Commission asked an expert group to look at the potential on ecolabelling for fisheries products at EU level. See the final report Brussels, 13/12/06 C/4/VA D (2006) 14344. Besides labels of Naturland, Friend of the sea and others, the Marine Stewardship Council (MSC) is by far the most important label for seafood products up to now.

A label is a quality mark that promotes the commercialisation of a product. MSC is the result of a fruitful relationship between Unilever and WWF.

But MSC criteria are too heavy for most of the developing countries whose governments can not subsidise labelling process by millions nor have the infrastructures to assure supervision.

Some background of our ideas about local branding/labelling of homegrown products

In the quest for more sustainable fisheries management, market-based instruments such as food labels are gaining in interest. Food labelling can serve multiple purposes. The existence of labelling schemes can encourage and reward more acceptable fishing practices. They can serve social functions by promoting local and regional identity and preserving local distinctiveness. They can

also act as a tool for local economic development by establishing niche markets which add value to local products.

A growing number of reports tell of fisheries characterised by over-capitalisation and subsequent fleet over-capacity, depleted fish stocks and low incomes for those relying on fishing for their livelihood. The pollution and destruction of mangrove forests adds to the negative impacts on the marine environment. Those involved in new initiatives to improve fisheries management accordingly appear to have a good cause. Labelled goods can gain a competitive advantage in the market place and may therefore help companies survive in a tough market. Ecolabelling can open up market opportunities for traditional, specialised products which can be sold at premium prices.

Traditional ecological knowledge (TEK) and its promotion through labelling are considered with increased interest within the scope of nature protection, as a way to tackle both biodiversity conservation and development issues, and to strengthen the links between local populations and the biodiversity surrounding them. In developing countries, geographical indications (GI), eco-certification, park trademarks and fair trade labels are the more frequently tested labelling schemes.

Recent examples are the commercialisation of the seabass of Brittany in France by the fisherfolk who organised to combat the cheaper product from aquaculture (see <http://www.pointe-de-bretagne.fr> for more info). They created their own label instead of asking the much more recognised MSC award. Another example is the Seychelles Hook and Line Fishermen organisation that recently developed their own label (see <http://seychelles-hookandline-fishermen.org/>)

Like Unilever in its time, a company like Heiploeg, which is one of the biggest European shrimp handlers, can create its own criteria to label artisanal-fished shrimp in a restricted area and use of its commercial power and its influence to improve the commercialisation of such a product.

Heiploeg can also use the 'viswijzer' a consumer list of seafood products published yearly by WWF and Stichting de Noordzee / The North Sea Foundation.

Big European retailers can ask Heiploeg to take this initiative and help the Casamance ria shrimp fishery to become the first sustainable artisanal shrimp fishery in a developing country. The active involvement of European retailers all along the value chain also facilitates the incorporation of fair trade practices and insures better living conditions to local fisherfolk.

Of course, the Heiploeg company name can be changed to any other company interested in taking the initiative!