

Diagnosis of the problems of the participative management of fisheries in Senegal: case of the Local Artisanal Fisheries Councils (LAFC) of the department of Mbour

¹Demba Tine, ²Abdoulaye Ndour, ³Isabelle Niang

¹Department of Geography Cheikh Anta Diop University, Dakar, Senegal

²Department of Geology, Cheikh Anta Diop University, Dakar, Senegal

Summary: To be in line with international institutions, Senegal has adopted a participatory approach involving all the actors for a sustainable management of fisheries resources. The state then sets up a strategy aiming to abandon the management approach called "top-down" for an approach favoring dialogue at the base called "bottom-up" through new structures called Local Artisanal Fishing Council (LAFC). However, institutional structural and regulatory constraints, communication finance, organizational and socio-economic etc. have been noted in this sub-sector of fishing in Mbour.

Keywords: sustainable management, Mbour, fisheries, LAFC, Senegal

Introduction

The fishery boom of the 1970s and 1980s due to the generalization of new technologies and the overexploitation and scarcity of fisheries resources, and the insufficiency of management policies reflect the colonization of new coastal and continental areas. Therefore, fisheries management remains more than ever a challenge at the global level. This is the case in Africa, where for all fishing communities and more generally for operators in the sector, through sector planning or more, prosaically, fisheries development and management projects were in turn marked by the processes of decentralization of powers and participatory approach (Weigel, 2000). In Senegal, despite the strong competition from industrial fishing, the sector is characterized by the development of small-scale fishing, which provides a large part of the population's supply. It provides over 80% of landings in the area. Aware of the importance of the socio-economic stakes of artisanal fisheries and to work for a dynamic of sustainable development, Senegal, through its Ministry of Fisheries and Maritime Economy, had in 1998 a real desire to introduce effective involvement of local stakeholders in the management and decisions making of small-scale fisheries.

It is in this context that strategic axes of sector reform in the context of a sectorial policy aiming mainly the sustainable management and the restoration of fisheries resources, through a professional-centered approach, have been elaborated and developed in local co-management of fisheries through new structures called Local Artisanal Fisheries Councils (LAFC). Nevertheless, these LAFC suffer from several problems, which limit their effectiveness in their participative management policies of the artisanal fisheries of the department of Mbour which remains one of the capital poles of the artisanal fishing in Senegal.

This paper is a diagnosis of the problems of LAFC in the department of Mbour. First, we expose the institutional and regulatory problems, structural, financial, and communication problems, but also organizational and socio-economic ones and in its case recommendations to overcome the problems are given.

1. Methodology

For an objective evaluation of the constraints of the LAFC of the department of Mbour, we have adopted a methodology focused on the collection of information on the field and the data processing.

1.2 For the collection of information:

1.2.1 Qualitative surveys

Qualitative surveys are carried out thanks to an interview guide for the authorities responsible of structures dealing with fisheries issues and the people in charge of organizations of fisheries (the Prefect of Mbour, the head of control post of Mbour, Joal-Fadiouth, the head of monitoring center, the head of the departmental fishing, the municipal authorities in charge of fisheries in the town halls of the department of Mbour, the EIGs of transformers, the fish wholesalers and economic interest groups of fishermen.

1.2.2 Quantitative surveys

The quantitative surveys are done through direct interviews and a questionnaire given to the fishers, fish wholesalers, transformer women and members of LAFC. The survey method for questioning is the focus group in their "mbaars"; gathering places for artisanal fishermen.

Table 1: Distribution of the statistics of the interviewed actors.

Actors	Surveyed
Fishermen	160
Fish wholesalers	120
Transformer Women	60
Members of LAFC	60
Total	400

1.3 Data processing

For the processing of the data we collected in the field, we used two methods:

- Schematization of the stakeholder network via Word to show the operating chart of the LAFC
- Analysis of the data from the surveys of artisanal fishermen in the department of Mbour, which make up LAFCs via sphinx and Excel.

2. Definition of a LAFC

The LAFC is an apolitical, non-profit organization that brings together artisanal fishing actors from a specific locality. It is a local governance body for fisheries.

The main objective of the LAFC is to unite all actors around the sustainable management of fisheries resources. It is also a part of conflict management between actors at the local sector.

3. Institutional and regulatory problems

If it is widely recognized that the poor performance of fishery policies in terms of rationalization of production and resource conservation (FAO 1997; OCD 1997) is due to the lack of standard methods of regulation (Hardin 1968; Mackenzie 1993; Keen 1988; Troadec 1989; De Alesi 1998) in Senegal, it is undeniable that the regulation of the fishing sector has always presented serious shortcomings despite the codification of the sector.

It is undeniable that the regulation of Senegal's fishery sector still has serious gaps despite its codification.

The general observation is that the regulation of the fishing sector is not only badly applied but is in addition insufficient and unsuited to the reality on the field.

More, the fishermen ignore the content of Senegalese maritime fishing code. This code establishes and regulates fishing in waters under Senegalese jurisdiction.

Any policy affecting the artisanal fishing sub-sector must be correlated with this governance tool about Senegalese marine resources.

The fact that Senegal's maritime fishing code is written in French, the high rate of illiterate artisanal fishermen, the lack of communication and training in the local language do not facilitate the understanding of the regulations in force. This is all the more true as 81.9% of artisanal fishers admit that they do not know the code of marine fishing, compared to only 18.1% who say the opposite (Figure 1).

These surveys indicate that the state must take its responsibilities to help the artisanal fishing sub-sector with a training and sensitization policy so that artisanal fishermen can master the basic principles of good fisheries governance in order to respect them for a sustainable fishery in Senegal.

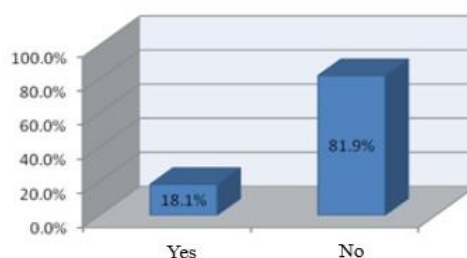


Figure1: Assessment of the level of understanding of the maritime fishing code by the fishermen of the department of Mbour

The non-implementation of the regulation stems from the inefficiency of the control system and the monitoring of fisheries. The reality of the field reveals other negative points such as the insufficient human resources (monitoring stations in Mbour are composed of less than five agents), financial and logistical (lack of patrol boats capable of covering the perimeter), the lack of an urgent procedure to impose immediate sanctions, and at last the lack of a procedure adapted to the artisanal fishing.

Current regulations are often inappropriate and difficult to implement. Indeed, some regulatory approaches are too direct; they lack information and pedagogical aspects, and do not take into account the need to sensitize the concerned actors, especially those of the artisanal fishing. In addition, local organs lack decision-making power.

Among the problems making sustainable management of marine and coastal resources difficult, is the overlap between the two ministries, the Minister of the Sea Economy and the Minister of the Environment. In addition, there is the lack of a structure that serves intermittence to facilitate the management of marine and coastal resources.

The codes created, which were supposed to facilitate the sustainable management of sea and coastal resources, are not or are incorrectly implemented; the State Domain Code (July, 1976), the Mining Code (August, 1988), the Environment Code (January 2001) and the Maritime Fishery Code (1998).

The fact that there are several regulatory texts regulating the activities of the territorial authority that are related to the laws on decentralization and the codes of the local authorities, are not all adapted to the fishing sector, does not promote easy implementation (eg community orders and sanctions). This in fact undermines the consolidation, empowerment and efficiency of LAFC.

What proves today that the evolution of the institutions, even if it is oriented, takes various ways that do not lead to any definite stable state (Troadec, 2000). Institutional readjustments are always essential.

4. Structural problems

Then on-accountableness of actors in the structuring of the LAFC would further reinforce the power of the administration (President and Secretary General) can only encourage their habit of control type.

The fact that the actors can only meet to their representatives' summons and that the councils meet only on convocation of the president can only harm the effort of recognition of the merits and the importance of the LAFC under the "Genuine and Responsible Local Fisheries Governance" framework.

Given the LAFC structuring, the grassroots actors are subordinated in decision-making processes because key positions are reserved to the administration (Figure 2).

A local administrative authority (Prefect, Sous / Prefect ...) who is the president;

An official of the Maritime Fishery Office (MFO) who is the secretary;

All representatives of existing colleges in the locality;

Representatives of colleges of wise and the notable of the locality;

Representatives of local elected members (mayor) of the locality;

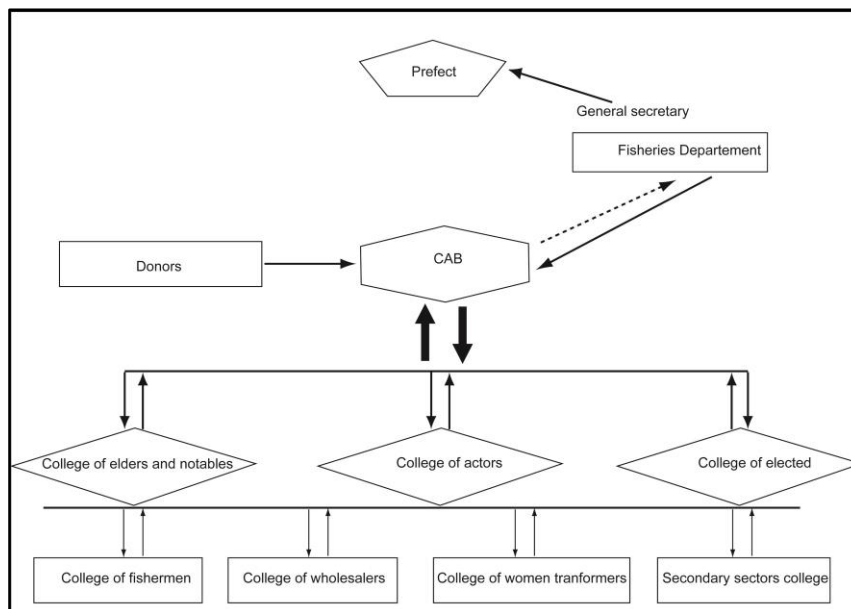


Figure 2: Local LAFC operating flow chart, CAB=coordinating and advising body.

5. Financial problems

The management of marine and coastal resources involves many financial, logistical and human means because of the complexity of the marine environment and the heaviness of this task.

Unfortunately, this is not the case in the department of Mbour, where fisheries monitoring services, control centers and the LAFC suffer from a lack of human resources with less than five agents per center.

In addition, there is a lack of logistical means and this insufficient monitoring equipment sometimes lacks fuel. More, the supervision volunteers are not remunerated because of a lack of a monitoring budget.

To resolve this problem, the state has to re-equip the supervisory structures with material and human resources and to give them a budget to ensure their sovereign mission. This is more than necessary because the sea is a non-transferred domain.

The total lack of financial resources for the operation can only limit the efficiency of LAFCs. The absence or insufficiency of support by Ministry of the Maritime Economy programs in terms of capacity building and especially their lack of involvement in initiatives do not favor the emergence of LAFC.

To do so, the focus should not be done on the standards and processes of validating initiatives, but also on monitoring activities and benefiting from the results of its initiatives in the context of Income Generating Activities (IGA).

Members' perception about LAFC funding is also mixed up, showing that some people do not understand this structure.

48.3% do not know the financial method of LAFC, 40% say that it is the NGOs that finance them, 6.7% consider that it is the local actors, as for 5%, they think that it is the state (Figure 3).

Although it is the state that has set up the LAFCs, those of the Mbour department are currently working with the support of NGOs such as Comfish USAID, COGEPAS since the Funding Support Funds (FSF) LAFC are not yet available, membership fees are not sufficient as operating funds.

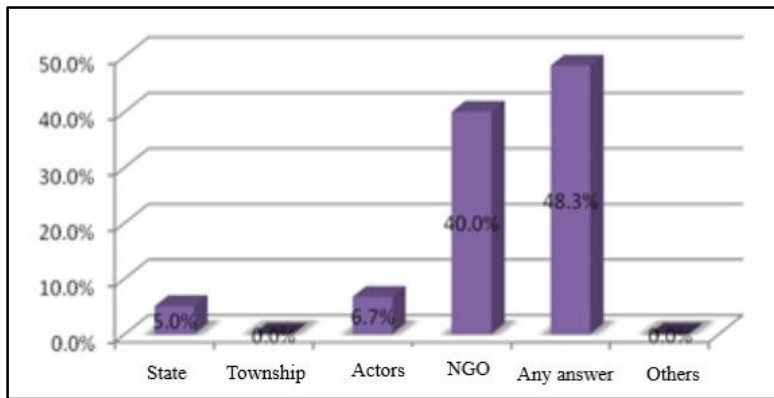


Figure 3: Level of Understanding of LAFC A Funding Mechanisms

6. The problems of communication

The lack of communication between the LAFC organs on the one hand and fisheries administration on the other, and the lack of understanding of the texts governing the LAFC can only delay the efficient working of local governance of artisanal fisheries. The Figure4 show that 63.3% of wholesalers, who constitute a part of the key actors of the artisanal fishing in Mbour department didn't receive information about the LAFC creation.

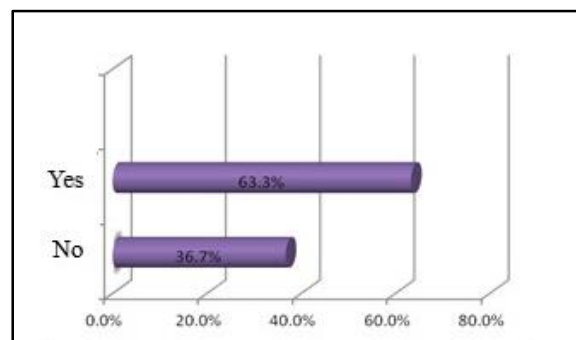


Figure 4: Level of information of LAFC wholesalers

The women transformers of the department of Mbour are part of the LAFC that are local governance structures for a sustainable artisanal fishery. They are represented in the coordinating and advising body (CAB) of the LAFC and they also have their own college called Women Transformers College.

Therefore, they are stakeholders in the decision-making process and this has made them aware of the LAFC.

The LAFC are local governance organs that allow exchanges on the management and sustainable development policies of the artisanal fishery of Senegal in general and of the department of Mbour in particular. Its success depends on a large extent of a good policy of communication, sensitization and awareness of all actors dealing with the issues of artisanal fishery. Unfortunately, this policy is not widely implemented among women transformers in the department of Mbour who admit to 81.7% that they are not informed of the establishment of LAFC and their importance (Figure 5). However, in the department of Mbour, this activity plays a fundamental role in the valuation of mainly artisanal fishery products by reducing losses after capture.

In addition to these intrinsic problems with Mbour LAFC, processing in Senegal is generally confronted with major constraints of quality, marketing and adapted financing.

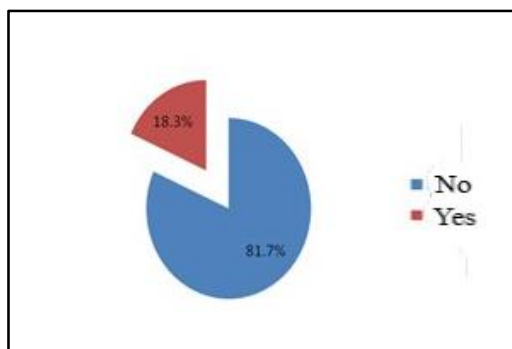


Figure 5: Level of information of LAFC women transformers

Surveys on fishermen show also that 50.6% of them receive information from LAFC while 49.4% claim that they do not receive it (Figure 6).

However, the configuration of LAFC does not allow a lack of communication because each activity sector is represented and the delegates are designated by their peers and serve as relays between the LAFC and their colleges.

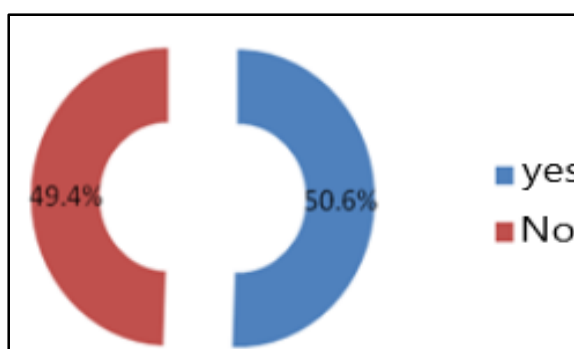


Figure 6: Information level of LAFC fishermen

We notice that, most of the fishermen have the information but pretend not to be informed to justify the no-respect of the policies; others do not consider their membership in the LAFC because for them the LAFC block their activities.

The choice of representatives in some colleges is political; this pushes some fishermen to be reluctant in the LAFC

It would be useful to have a good communication and information transfer structure between the several instances involved for an effective output of the LAFC.

To mitigate this phenomenon, which partly limits the efficient working of the LAFCs of the Mbour department the reorganization of the process of designation of LAFC members by college must be improved and a policy of sensitization, awareness, communication and information close to the fishermen, wholesalers, and women transformers done in the benefit of fishermen improved for participative management.

The LAFC are local governance organs that allow exchanges on the management and sustainable development policies of the artisanal fishery of Senegal in general and of the department of Mbour in particular. Its success depends on a large extent of a good policy of communication, information, and heightening awareness of all actors dealing with the issues of artisanal fishery, and between the several instances involved for an effective output of the LAFC.

7. Organizational problems

The efficiency and effectiveness of the LAFC depend primarily on the ability of stakeholders to meet the requirements of their roles.

Their structuring and especially the appropriate and continuous training programs are lacking. This, conditions the flowchart of the LAFC.

The achievement of the objectives that the Ministry of the Maritime Economy has set for the sustainable management of local fisheries is based first of all on the appropriate and assimilated capacity of local actors, which requires continuous training; but it is not the case now.

The perception of LAFC members in the department of Mbour on the effectiveness of LAFC in the co-management of fisheries is very negative.

Surveys reveal that 95% of members consider LAFC as ineffective structures compared to only 5% who consider them effective.

This skepticism of members about this local governance structure is related to the fact that the State that has set up the LAFC does not accompany them.

The LAFCs have neither the economic means nor the logistical ones or the recognition of the status of the fisherman or the wholesaler supervisor for the monitoring of co-management measures.

Added to this, in the organization chart, the no-state actors are a little bit marginalized by their role. The presidency, the secretariat and the sanctioning power come under the jurisdiction of the state, and local actors have only power of assistance, denunciation and information.

8. Problems related to socio-economic realities

The local population, because of its economic and cultural structure, does not facilitate the implementation of certain modes or management measures. Most fishermen, like Lebous, only use the sea for their own survival. When implementing the management of resources by establishing biological rest, by creating protected fishing areas (PFA)..., fishermen's incomes begin to fall, which sometimes leads to the disapproval of fishermen and may compromise the efficiency of some modes of management of marine and coastal resources.

To solve these problems, it is essential to try to diversify fishermen's incomes. Many fishermen are aware of the need of sustainable management of marine and coastal resources, but more than this, it is their daily life that they are obliged to give priority.

The actors are divided on this question, such as: Do the decisions made by the LAFC take into account the interests of the actors concerned?

The statistics of the response reveal that 66.7% confirm this statement, compared to 33.3% of members who do not (Figure 7).

The high value of negative answers is explained by the fact that the management measures taken by the LAFC constitutes for the actors losses in their activities.

They do not think about the future consequences of these management policies on their business, but rather their current daily gain.

This is why 33.3% think that LAFC do not take their interests into account.

Nevertheless, the majority, 66.7%, considers LAFC policies as being in the interests of the actors, advocating the rational and sustainable exploitation of artisanal fisheries in the department of Mbour.

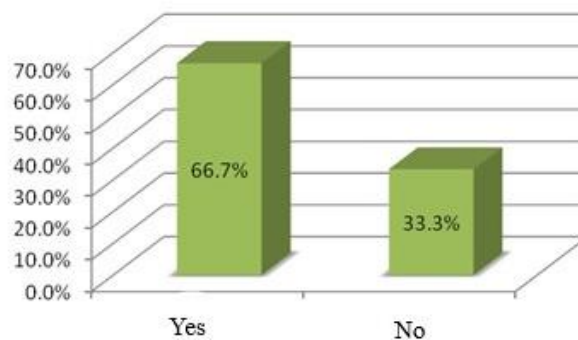


Figure 7: Socio-Economic Perception of LAFC Members

Conclusion

The diagnosis of LAFC problems in the department of Mbour has shown many deficiencies that need to be addressed for the LAFC to play their roles in local fisheries management. These are institutional and regulatory, structural, financial, communication, and organizational and socio-economic issues.

This requires a fisheries co-management approach that integrates all actors dealing with fisheries issues, a policy of support and support from public authorities in the areas of finance, training, scientific research and, above all, awareness-raising in the regulatory framework.

This situation of inadequate management also deserves a particular attention because it is amplified by the perverse effects of decentralization, the intervention of partners and the proliferation of professional organizations involved in artisanal fisheries, with over-representation that do not often reach the needs of the actors and generating struggles for positioning and strong rivalries.

BIBLIOGRAPHY

De Alesi M (1998). « Fishing for solutions ». IEA Studies on the Environment, 11: 88 p

FAO (1997). The state of world fisheries and aquaculture. FAO. Rom.

OECD (1997). "Towards sustainable fisheries. Economic aspects of the management of living marine resources ". OECD, Paris.

Hardin (1968). The Tragedy of Commons. Science, 162, 1243-1248.

Keen E.A (1988). Ownership and productivity of marine fishery resources. An essay on the resolution of conflict in the use of the ocean pasture. Essays on a changing planet. The McDonald and Woodward Publishing Company, Blackburg, Virg., USA: 122 p.

Mackenzie W.C(1993). An introduction to the economics of fisheries management. FOA *Fisb.Techn.Paper*

Trodec J.P (1989). Man and the fishery resources' Test on the use of a renewable common resource. Ifremer, Paris: 278 p.

Trodec, J.P. 2000. Beyond the regulatory route: controlling overfishing by regulating access. Conference Act. SRFC. 286 p, pp 102-122.

Weigel J.Y, (2000). Challenges and challenges of African fisheries. Dynamics of fisheries resource management in West Africa. Act of the International Symposium held in Nouadhibou November 20 to 23, 2000, pp 65-76.