

Consumption of fishery products: From endogenous practices to the test of innovation in Cote d'Ivoire Azuretti fisheries

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Abstract

This study analyses the social logics of the non-adoption by Fantis fishermen in the Azuretti maritime area of modern practices through the regulation of fishing activity. Starting from a methodological approach based on documentary analysis and data collection from field surveys (observation and interviews) carried out among a category of actors in the Azuretti maritime space, the following results were obtained: Fantis fishermen bypass the new innovative rules considered too restrictive by mobilising factors of subsistence and control of the fishing activity. Also, it should be noted that the occupation of this area for a long time by the Fantis (from Ghana) legitimizes their appropriation behaviour to the detriment of the indigenous Ivorian populations. Perceived as a form of piracy, the persistence of this illegal activity is justified by a lack of control measures on the part of modern and customary administration actors.

Keywords: fisheries piracy, modernisation, fishing, maritime space, Côte D'ivoire

Introduction

The State's participation in the modernization of fishing activity in the Acadian Peninsula has led to tensions, even open conflicts, between inshore fishermen represented by the Maritime Fishermen's Union (MFU) and the mid-shore fishermen represented by the Association des Pêcheurs Professionnels Acadiens. However, thanks to the solidarity networks in Acadian communities, it is possible to foresee new compromises between the Association des Pêcheurs Professionnels Acadiens, the Union des Pêcheurs Maritimes and the Lamèque Cooperation and to envisage possibilities for increased cooperation and exchanges, particularly at the time of the Free Trade Agreement (O. Chouinard, 1992) ^[4]. The establishment of Exclusive Economic Zones (EEZs) in 1982 was a first step towards limiting the plundering of the seas, but by the end of the 1980s it became clear that fisheries resources were overexploited and that the problems posed by EEZs were related to stocks that straddled migratory species. A first international conference on responsible fishing was held in Cancun in 1992, and its contribution was taken up at the Rio conference in the "Agenda 21" programme. The need then arose to draw up a global code of conduct for responsible fishing, which was unanimously adopted in October 1995 by the FAO conference. (J. Chaussade and P. Guillaume, 2006). In addition, the drought of the 1970s caused a massive rural exodus, increasing the numbers of West African fishermen and Senegalese migrant fishermen in particular. Migrant fishermen from the regions of Mauritania, Senegal and the Gambia, many of them climatic refugees, took advantage of the abundance of fish in the waters of neighbouring regions or border countries, helped by development programmes initiated by governments and international organisations, as well as export markets. (P. Failler and V. Turmine, 2015 p.143-156). In fact, the activities of migrant fishermen are more and more located each year in the traditional areas frequented by

indigenous fishermen, which leads to a decrease in their catches or even to the outright withdrawal of the latter from these fishing grounds. (P. Failler and Al, 2009).

In Malawi, about 60,000 people make their living from small-scale fisheries, but the tonnages landed are declining due to overfishing and free access to the resource. Since 2005, a working group has been trying to address the shortcomings of the fisheries regulations and to clarify the roles of the different stakeholders (Njaya, 2008, P.29-34).

Thus, the African heads of state signed in Lomé, under the aegis of the African Union, a charter on maritime safety and security and development in Africa (P.Sié, 2017).

In addition, in Côte d'Ivoire, the first cases of fish piracy were noted by naval officials from the beginning of independence. When the authorities legislated on the fishing limits between industrial and artisanal fishing, they were able to observe the first violations. The situation worsened with the weakening of the central government due to the military-political crisis that the country is going through. The actors of fisheries piracy in Ivorian marine waters are ship owners or fishermen who do not have a fishing licence, all those who fish in unauthorised zones (the first three miles are reserved for artisanal fishing), spawning grounds, and all those who fish outside the official seasons. These pirate fishermen also practice cyanide fishing. The fishermen pour sodium cyanide into the water to stun the fish without killing them. This makes them easier to catch. Also "plundering and abusive exploitation" of fisheries resources by Chinese boats engaged in this type of fishing (CY. Koffie-Bikpo, 2010) ^[10].

In addition, Cote d'Ivoire has recently acquired (insufficient) nautical means to patrol within the limits of its territorial waters. The provisions of the charter should enable it to exercise fully and safely in order to properly dispose of the usufruct of its maritime and fishing resources by sharing its means of surveillance and control with those of neighbouring countries. (P. Sié, idem)

Also, according to the decree N°013 MINAGRA of 17 May 1999 on the creation and organisation of fishing activity zones, fishing offices such as the one in Grand-Bassam were created to monitor fishing and aquaculture activities; to monitor development and management programmes for fishing resources; to monitor the application of fishing regulations; and to monitor the activities of village committees for the management of fishing resources. In addition, in order to carry out this mission, the fisheries and aquaculture office has set itself objectives, in particular the monitoring and control of fisheries (activities); the establishment of reliable statistics on fisheries and aquaculture production; the census of economic operators in the sector and all their means of production; information, awareness-raising and training of economic operators; the creation and monitoring of village committees for the surveillance of water bodies; promoting close collaboration with the administration and development structures; placing particular emphasis on the application of the regulatory texts governing fisheries in Côte d'Ivoire and working towards a considerable reduction in post-harvest or production losses. In addition to this, the Ivorian government with the adoption of the National Assembly creates law n°2016-554 of 26 July 2016, relating to fishing and aquaculture with a view to promoting the sustainable use of fishery resources in harmony with the environment and which do not damage ecosystems, resources and their quality through the application of good fishing and aquaculture practices. This law promulgated by the President of the Republic emphasizes respectively through its articles 101, 105, 108 on offences and sanctions relating to fishing and aquaculture. As for article 114, it deals with financial and fiscal provisions adopted by decree in the Council of Ministers. In the village of Azuretti, the different communities claim the right of ownership of the aquatic and terrestrial space, in particular the fanti community. The latter develops actions of competence in the field of fishing, following the example of the so-called indigenous community (N'zima) which carries out this activity only on the ouladine lagoon. As a result, Fantis fishermen over-exploit the maritime space through a multiplicity of landing points, refusal to obtain administrative documents, non-respect of food hygiene, use of unregistered fishing gear, catches of juveniles and spawners and the use of gill nets that do not conform to the authorised dimensions. When fishing at sea is interrupted by the scarcity of fish resources and drowning, the fishermen massively turn to the lagoon to carry out this same type of activity, most often causing tensions and conflicts between fishing communities. To this end, it is important to carry out this research in order to define these abnormal practices, which constitute obstacles to the process of modernising fishing activity; given the persistence of several risky and anarchic fishing practices, in particular the practice of fishing without a licence and the use of gillnets that do not comply with the authorised dimensions. A questioning arises from these observations: Why are the actors of the fishing industry turning away from innovative actions in the practice of their activities in the Azuretti maritime area? In other words, doesn't the preservation of the socio-economic achievements justify the non-application of the new standards on the part of the fishermen who are fans of the Azuretti maritime area?

Doesn't the strategy of implementation of the control mechanism by the state authorities favour the use of fishing

piracy by Fantis fishermen in the Azuretti maritime area? In a provisional answer, let us mention that: The use of fishing piracy on the Azuretti maritime space is explained by a logic of control of the fishing activity by Fantis fishermen. Consequently, the present study aims to understand the social logics of the recourse to the illegal practice of fishing activity by Fantis fishermen on the Azuretti maritime space. Specifically, it is a question of: (i) Determine the rationality in the practices that influence the recourse to fishing piracy by Fantis fishermen; (ii) Show the preservation of socio-economic assets as being at the origin of the recourse to this form of piracy by Fantis fishermen on the Azuretti maritime space; (iii) Describe the fishing control mechanism by the State authorities that favours the recourse to fishing piracy by Fantis fishermen on the Azuretti maritime space.

Theoretical and methodological approach

Michel Crozier and Erhard Freiberg's (1977) theory of the 'strategic actor' is used in the context of this study. A central theory in the sociology of organisations developed within strategic analysis, it is based on the observation that since we cannot consider that the interplay of actors is determined by the coherence of the 'system' in which they are involved, or by environmental constraints, we must first and foremost seek to find out how 'collective actions' are constructed on the basis of contradictory individual behaviour and interests. Thus, instead of linking the organisational structure to a set of external factors, this theory tries to apprehend it as a human elaboration, "a concrete system of action", and therefore joins the approaches which analyse the causes starting from the individual and ending up with the structure (methodological individualism).

Thus, the behaviour of Fantis fishermen who resort to fishing piracy in the Azuretti maritime area must be understood from the contradictions in interests between the administration and them. When the state structure in charge of fishing activities implements actions to enforce the norms, the Fantis fishermen use strategies to circumvent them in order to preserve their interests and maintain their influence over the natives through their competence in the field of fishing.

Methodologically, the study was confined to the department of Grand-Bassam, precisely in the village of Azuretti. The choice of this locality is explained by its proximity to the Atlantic Ocean and the Ouladine lagoon, where traditional fishing practices are observed. Indeed, Fantis fishermen of Ghanaian origin carry out fishing in an anarchic way through a multiplicity of landing points, and in a clandestine way, the capture of juveniles and broodstock, the use of unregistered gear and the use of gillnets that do not conform to the dimensions authorised by Fantis fishermen. These fishing activities remain legitimate in the eyes of these fishermen. They claim the right of ownership of the aquatic terrestrial space like other foreign fishermen (Bozos, Awrans, Nigerians and Togolese) who carry out the same type of activities in neighbouring villages.

For the collection of data, the panel of informants is composed of three types of categories of actors: the expert population (administrative and customary authorities); the control population (actors working in the field of fishing) and the target population (local actors directly involved in the phenomenon, in particular: Fantis fishermen). With these different categories of actors we held semi-directed interviews, which enabled us to gather information on

fishing piracy and the modernisation of fishing as experienced by the different categories of actors.

Thus, we used phenomenological analysis to understand and describe the human experience as lived by Fantis fishermen who resort to fish piracy and their perceptions of their daily life experience with the phenomenon of fish piracy. This has led to the results below.

Results

The use of fisheries piracy generally constitutes a set of illegal fishing activities despite the modernisation of small-scale fishing, which is reflected in the rules and standards relating to this sector. Indeed, the experience of this practice is socially constructed, the relationship that the actor has with his social environment, the values and the symbolic meaning with which his social environment perceives this type of practice contribute to the formation of his experience on his activity. Understanding the social logics of resorting to fishing piracy through the experience of Fantis fishermen means knowing their social universe.

Rationality influencing the recourse to fishing piracy by Fantis fishermen in the Azuretti maritime space

Means of subsistence

In order to meet family obligations, many marine fishermen see the norms established to structure their activities as obstacles to obtaining basic income. This ideology guides the way they practice fishing illegally. This is done in order to provide for their families. These words of the Fantis fishermen are illustrations:

We fish illegally in order to put our children in school and to feed our families. Without this way of practising this activity, our living conditions would deteriorate more because there is a scarcity of fish (Extract from an interview with K.B., a Fantis fisherman).

This statement reflects the ideology of "the will to always have benefits". According to Michel Crozier and Erhard friedberg's theory of the "strategic actor", the actors are endowed with rationality, even if it is limited, they are autonomous and interact in a system that helps to structure their game. This being the case, Fantis fishermen perceive their recourse to fishing piracy in the Azuretti maritime space as a means of meeting their basic needs. Therefore, the awareness of the control of sea fishing is a major asset for the exercise of illegal fishing. The words of a fanti fisherman indicate this so well.

It is in this vein that another fisherman testifies in these terms: Illegal fishing allows us to feed our families and make some money. We have learnt to fish in this way since we were children (Extract from an interview with A.C., a Fantis fisherman).

This statement reflects the ideology of awareness of their expertise in the field of sea fishing and the respect of norms as well as cultural values. According to the theory of the "strategic actor", given that we cannot consider that the interplay of actors is endowed with coherence in the system in which they are inserted, or by environmental constraints, we must seek first and foremost to understand how collective actions are constructed from the sometimes contradictory individual interests. Moreover, the scarcity of fish species and illegal fishing by trawlers push Fantis fishermen to engage in this type of activity. This is a good illustration:

In the past, our parents had their own way of fishing, there were a lot of fish. Today, fishing has to change. There is a scarcity of fish and the trawlers that come and take our nets from the water, which is why we fish without a licence (Excerpt from an interview with K. J, a Fantis fisherman).

This argument is in line with the ideology of the will to always have benefits. According to the theory of the "strategic actor", the actor, depending on the room for manoeuvre conferred by his expertise, or his strategic situation, can exert more or less pressure on the organisation through the creation of an offensive strategy to achieve its objectives. In this context, the Fantis fishermen apprehend their recourse to fishing piracy on the Azuretti maritime space as a strategy exercised in order to meet their family obligations.

Preservation of the socio-economic assets at the origin of the recourse to fishing piracy by Fantis fishermen on the Azuretti maritime area

Quest for profit through expertise and the shortcomings of the fisheries regulation system

Although these fishermen are aware of their competence in the exercise of fishing, many of them prefer to multiply their fishing efforts in order to protect their gains despite the regulations relating to their sector of activity. The words of the chief of the Fantis fishermen confirm this:

The agents and the traditional chiefs ask the fishermen to make their papers but at night, many boats come to see where the fish are, and when they detect fish in the area, they pick up our nets which we leave to catch the next day. A net costs 120 to 130,000 Francs, our fishing equipment is expensive. This is why many fishermen don't want to get a licence (Extract from the interview with K.M., the head of the Fantis fishermen).

The assertion of the chief fisherman of the Fantis fishermen reflects a normative dimension, notably the non-respect of fishing licence conditions. Moreover, it is in this sense that the theory of the "strategic actor" believes that one can discover, from the experience of the members of the organisation, the issues that condition their behaviour. Thus, Fantis fishermen resort to fishing piracy on the Azuretti maritime space because of illegal fishing carried out by trawlers in order to preserve their assets. Expertise in the field of sea fishing is a real genetic and hereditary asset for the Fantis fishermen. They are conscious of their skills, which is why they practise fishing piracy as it is perceived as a tradition to be perpetuated. The words of this Fantis fisherman are a good indication of this:

In my family, everyone is a fisherman, my grandfather was a great fisherman. He taught my uncle and he also showed us how our grandparents used to make a living from fishing. There were no laws, that's why we mastered fishing and practise it in this way (Excerpt from an interview with N.H., a fanti fisherman).

According to the theory of the "strategic actor", strategy is not the fruit of chance, but rather the result of strategic reasoning that allows us to better understand its play. These Fantis fishermen, through their opinions, highlight the fact that they do not change their practices because they perceive habits as a value, a practice and a skill to be perpetuated within their respective families. Thus, according to them, this knowledge is a means of meeting family needs and a means of fulfilment. The Fantis fishermen, being aware of the flaws in the system of regulating fishing, take advantage

of the opportunity to practise fishing piracy in the Azuretti maritime area. This excerpt from the words of the customary chief N'zima of Azuretti is a perfect illustration of this:

In order to regulate, you need to know the fishing period, the type of fishing, the type of fish, the type of mesh of the nets, nothing is really defined on the meshes of the nets - everything is written down. Anyone uses what he wants and fishes as he wants. We, the customary chiefs and the Fishing Bureau, work together but we lack authority. We raise awareness and after nothing, there is no follow-up and the fishermen know it. They take advantage of this situation to protect what they get from the sea (Extract from an interview with N.B., the customary chief N'zima of Azuretti).

This statement by the customary chief can be understood from an institutional point of view in relation to his status and the actions that lead to a lack of authority on the part of the Fantis Fishermen's Committee, the customary chiefs and the lack of agents and equipment for monitoring activities on the part of the fishing and aquaculture office. From the perspective of the "strategic actor" theory, the strategy is guided by the stakes and areas of uncertainty controlled by the social actor. This being the case, following these remarks by the traditional chief, Fantis fishermen, aware of the existence of a grey area in terms of regulations, mobilise other means to circumvent the new fishing standards in order to achieve their objective.

Mechanism for the control of fishing by the State authorities favouring the use of fishing piracy in the Azuretti maritime area

Absence of indigenous fishermen in the maritime space and the lack of monitoring to force actors to comply with fishing standards

Having no maritime culture, the N'zima fishermen abandon the sea to focus on the Ouladine lagoon. This being the case, experienced non-native fishermen are taking over the maritime space, causing dependence in this sector on the part of the natives. The words of the chief of the Fantis fishermen confirm this:

The Apollonians do not do sea fishing, they are the Fantis, a few alladians and awolans. The chief of the village N'zima always makes us aware of our way of fishing when there are meetings, but the Fantis fish alone on the sea, which is why everyone does what they want (Extract from the interview with KM, the chief of the Fantis fishermen).

This argument of the chief of the Fantis fishermen, perceived through the relational dimension, highlights the relations of distrust between the allogenic and indigenous communities. Crozier and Friedberg, in the theory of the "strategic actor", state that the actor's room for manoeuvre is no longer imposed on him. On the contrary, he tries to control the sources of uncertainty while imposing his way of defining and solving his problems on others. In the light of the above terms, it can be seen that the vacancy left by the indigenous fishermen grants Fantis fishermen the freedom to carry out their fishing activities freely and anarchically, particularly fish piracy.

The establishment of standards in the field of artisanal fishing aims to structure this sector. They grant the customary right of access to fishing through the obtaining of administrative documents. However, the lack of monitoring and repression favours total freedom for Fantis fishermen.

The assertion of the customary chief N'zima illustrates this perfectly:

The waters are porous. There is no monitoring, so everyone fishes without authorisation. In fishing you cannot target a fish, nobody respects the mesh size of the nets. It is the Direction of Fishing which is supposed to make them aware of this. Lately, they have come here to meet the fishermen after nothing more. There is no monitoring so everyone does what they want. The margin of freedom is total. For them, the law doesn't exist... We try with their chief to make them aware, but it's not enough (Excerpt from the interview with N. B., the traditional chief N'zima of Azuretti).

These remarks reflect the normative dimension through the absence of a precise definition of the mesh size of the authorised nets. According to the theory of the 'strategic actor', the actor has a margin of freedom that can be exploited in the areas of uncertainty provided by the gaps or blanks in the social system. The verbatim of the customary chief N'zima mentions that the absence of constraint and the grey area in terms of compliance with fishing standards encourage Fantis fishermen to resort to fishing piracy.

In addition, administrative shortcomings are a key factor in fish piracy. The verbatim report of the Head of the Fisheries and Aquaculture Department attests to this:

To be truthful, there is a flaw in the administration, our field of action extends as far as Assinia, the equipment is insufficient, there are no landing stages, we can't have our eyes on everything, we can't have all the statistics, the number of species per day (Extract from the interview with G. R, the Head of the Fishing and Aquaculture Department). These remarks are part of the institutional dimension, more specifically the lack of agents and equipment for monitoring activities on the part of the Fisheries and Aquaculture Office. In a social organisation, the actor is never totally constrained, i.e. whatever the degree of coercion a society may be under, in all situations, not all problems can be strictly regulated in such a way as to be imposed on it in each case. Thus, the use of fisheries piracy is explained by the limited scope of action of the Fisheries and Aquaculture Bureau due to the lack of control agents and equipment.

Discussion of the results

This study focused on the issue of innovation in fishing techniques in the Azuretti maritime area. The objective was to understand the social logics of the non-adoption of the new norms of the fishing activity by Fantis fishermen; that is to say, why do Fantis fishermen resort to a form of deviation from these norms in the Azuretti maritime space? On this question, the hypothesis adopted considers that this attitude of non-recourse to new techniques can be explained by a logic of control of fishing by Fantis fishermen. With regard to this hypothesis, the results show that the Fantis see their traditional practices as a means of subsistence. Therefore, they preserve their socio-economic interests, notably the quest for surplus through their expertise and knowledge of the flaws in the regulation system. And a mechanism for the control of fishing by the authorities favouring the use of fishing piracy through the absence of indigenous fishermen in the maritime space and monitoring to force the actors to respect the norms relating to fishing.

Thus, the results thus demonstrated are in line with the work of JM Haakonsen and MC. Diaw (1991). In their work, it emerges that the ideology associated with fish piracy is "the desire to accumulate capital", and in line with their work on

this type of fishing practice, J-R. Couliou (1998) asserts that this is due to the share-based payment system which, by transferring the financial risks associated with poor sales to the entire crew and by stimulating the producers' lure of profit, further encourages the race for fish. The analysis has shown us that the rationality of fishermen's recourse to fish piracy is to protect their assets. For J. Catanzano *et al* (1993), marine fishermen apprehend fish piracy as an appropriate means of repaying the credit institutions that helped them acquire extremely expensive equipment.

However, for T. Debril, (2012) ^[6], this risk-taking is explained by the poor sale. The study shows that fish piracy is certainly perceived as a means of subsistence, but also as a desire to accumulate capital and the willingness to make a profit for the repayment of loans and poor sales. The knowledge of expertise in the field of sea fishing on the part of Fantis fishermen, as well as that of native fishermen, leads them to engage in fishing piracy. According to G-S. Bignouma (2006), some fishermen voluntarily maintain this isolation, which cuts them off from all contact with the authorities for fear of being identified. This is all the more so as several of them live in an irregular situation. In many cases, they do not hold any documents necessary for fishing and do not register their boats.

Generally, migrant fishermen have a great capacity to adapt to new situations, both physically and in terms of the human environment. They usually find solutions even in the worst conditions and continue their fishing operations even when problems such as access to equipment may arise, as well as being able to survive the worst political crises. Migrant fishermen are generally better equipped than fishermen from host communities at least for long-distance migrants, who usually have large pirogues and equipment better suited to fishing on the high seas; they also tend to be great fishing specialists using mainly only one or two techniques (JM. Haakonsen and MC. Diaw, op.cit).

Also, for K. Delaunay (1995), to easily resort to fisheries piracy, fishermen form "networks that are difficult to penetrate through a workforce recruited in Ghana, and commercial links established between them and their wives for the sale of their production. The system of regulation of the right of access to fishing set up by the administration in collaboration with the local authorities has huge flaws. Fantis fishermen use this to resort to fish piracy. GS. In Bignouma (2006), the difficulties of access to the fishermen's villages mean that many fishermen have very poor relations with the administration. The result is a situation of institutional periphery, where these villages are not under the partial or total control of the administration. Moreover, the crisis situation in Côte d'Ivoire has led to a concentration of fishing activities to the detriment of the sea, leaving the field open to illegal, unreported and unregulated fishing. (CY. Koffi-Bipko, op.cit) Reason why, (K. Delaunay, 1989) uses the term "fisheries colonisation". Moreover, the vacancy left on the coast attracted professional foreign fishermen; it was they who introduced and developed active artisanal maritime fishing (Besançon, 1965).

In the light of the above, in order to considerably limit these risky fishing practices to avoid tensions and conflicts between communities, it is necessary to address the issue of fisheries modernisation. To this end, the regulations structuring the fishing activity must take into account the interests of the various stakeholders.

Conclusion

This study, which falls within the field of knowledge of the sociology of rural development, is intended to be a scientific contribution to the study of the conservation of endogenous practices in a context of modernisation of fishing through a regulation attributing the different rights for the exercise of this activity. The present study aimed to understand the social logics of the recourse to fishing piracy by Fantis fishermen in the Azuretti maritime area. The study was essentially qualitative, using investigative tools such as documentary analysis, semi-structured interviews and direct observation. The following results were obtained: Fantis fishermen perceive fish piracy as "a means of subsistence and preservation of interests". Therefore, they use "their expertise and the grey area of the system's regulation system" as strategies for resorting to fish piracy. Finally, the margin of freedom that favours recourse to fish piracy is "the absence of indigenous fishermen and the absence of constraint from administrative and customary authorities".

This study shows that the Fantis fishermen make their behaviour uncertain because of the autonomy they have over the Azuretti maritime space. They hold organisational power as long as they are competent in the exercise of sea fishing. They take advantage of this space of freedom (zone of uncertainty) which they organise themselves in order to perpetuate their illicit activities. In this space there are enormous stakes that they cover with game strategies.

In view of the above, the traditional practice of fishermen should be taken into consideration for better regulation of this sector of activity, a formal monitoring mechanism, etc. All of our results allow us to conclude that there is an urgent need for a programme to fight against fishing piracy, a national programme to fight against it by massively training the indigenous populations in the profession of artisanal fisherman. To this end, studies can be carried out on the appropriation of aquatic spaces by migrant fishermen.

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