

# The Ethnoecology Of Handicap Fisheries Under the Perspectivava Of the Solidarity Economy in The Semiárido Da Bahia

**Dajana Gabriella Nóbrega Santos da Silva**

Department of Technology and Social Sciences at the University of the State of Bahia - UNEB, Juazeiro-BA. Post-Graduate Student in Human Ecology and Socio-Environmental Management/PPGEcoH, BRAZIL

**Adriana Maria Cunha da Silva**

PhD in Geosciences, Federal University of Pernambuco - UFPE, Teacher of the Master's Degree in Human Ecology and Socio-Environmental Management /PPGEcoH / DTCS, UNEB, BRAZIL

## Abstract

*The objective of this study was to analyze the reality and actions of artisanal fishing, covering the historical, institutional and prospective aspects of the sector, highlighting management, regarding the importance of popular participation in more inclusive and democratic management models in the Municipality of Glória- BA. A bibliographic review was carried out using books, monographs, articles and the Internet, thus returning the optics to the fishermen living in the municipality of Glória, Bahia. For this bias, the intention is to return the focus to the artisanal fishing and to make the diagnosis of the ethnoecological profile of the artisanal fishermen of this area, with the purpose of studying possibilities of improvement for this activity. It was possible to conclude when studying the relations of popular knowledge and ecology results in the wellbeing of these riverside, and a better handling in the environment.*

**Keywords:** Strategies; Fishermen; Ethnoecology; Economy; Solidary.

## 1. Introduction

During this research, Platteau's (1989) statement that there is no clear consensus on the meaning of the term artisanal or small-scale fisheries came to light. Its definition is based on the fact that this is an activity opposed to large-scale fishing, which uses sophisticated technologies and involves heavy investments. Thus, it is understood that artisanal fishing can be considered as a subsistence activity, since it has low productivity, and in turn little profit.

According to Diegues (1983), Brazilian artisanal fishing has numerous and complex specificities and takes into account social, political, institutional, economic and environmental factors intrinsic to each location. Thus, its users use various means of production (equipment, vessels and strategies) to capture several resources that are generally not very abundant, in a constant change, and with conflicting social relations.

Thus, this work consists of research on artisanal fisheries, covering the historical, institutional and prospective aspects of the sector, highlighting management, regarding the importance of popular participation in more inclusive and democratic management models.

For this reason, it is worth pointing out that the focus of this work is on the fishermen living in five villages in the municipality of Glória, Bahia. Due to this bias, the focus of this study is to study artisanal fishing and to make a diagnosis of the ethnoecological profile of artisanal fishermen in this area, with the purpose of studying possibilities of improvement for this activity, among them the solidarity economy, in order to result in good of these riparians, from a holistic point of view.

Therefore, a bibliographic, exploratory and descriptive research was carried out along this route, with the participation of participants, interviews and pictures with the main actors. And so, to learn how artisanal fishing occurs, to analyze the region's scenario, with regard to the means of commercialization and to know the methods and techniques used.

It is important to highlight the concern to investigate the level of environmental awareness of these fishermen, as well as to find ways to articulate and contribute to the implementation of the solidarity economy, as a means to improve the ethnoecological profile, adding to this scenario the implementation of policies public initiatives aimed at generating income, support for fishermen, within a horizon rich in care that clearly avoid environmental impacts, through the prism of sustainability.

It is worth emphasizing that this research has the north focused on the ethnoecological knowledge of the current experience, without losing sight of the possibility of serving as a guiding axis for future decisions, anchored in initiatives aimed at valuing and organizing artisanal fishing, especially with regard to generation of income, with a view to the local development and the protagonism of the fishermen in the context in screen.

Socio-environmental management seeks means that bring in its essence the concern with human ecology, when considering human well-being as a whole, woven by diversified factors. In the same way, the relation between man and environment and vice versa, there is a view, the essentiality of man's actions to improve socio-environmental, and his contribution to the quality of human life.

As Lima (1979) states: "Man and the environment constitute the history of the environment and of its own species. From the earliest relationships with the environment, seeking their survival, men transform the world around them and thereby change aspects of evolutionary life as well. "

And thus, as a professional, we are actively allowed the opportunity to offer dedication and responsibility regarding human well-being, working hard in the socio-environmental context.

This study focuses on the ethnoecology of riverine populations in the city of Glória-BA, of continental aquatic environments of the São Francisco River in the locality, under dam impacts, with a view aimed at improving the economy. The general objective is to understand the connections of the riverside communities of the São Francisco River with the ecosystem, the transformations that occurred in the region and the way these social groups live in their environments from the point of view of Etna ecology.

## **2. Artisanal fishing in Brazil**

Artisanal fishing in Brazil plays an important role in the conservation of biodiversity. However, when we look at specific literatures, we are faced with a range of different characteristics, resulting from social, economic and environmental factors, given the specificity of each region.

It is of great importance to highlight the richness of the vast Brazilian coast, which results in a significant quantity and diversity of fish. However, this fishery, which at first occurred on a small scale and expanded with the industrial revolution, is currently undergoing a setback, which has led to a stagnation in production.

And so, the man who should contribute to the growth and progress of said activity is considered responsible for ecologically and economically harm the environment where artisanal fishing occurs. It is believed that this reality is due to the lack of information and valuation of these, not to include it in the table of planning and reality of the discussions and thus allowing them the protagonism and the usufruct of the economic value equivalent to the effort and dedication of the your job.

Small-scale fishing is taking short steps in relation to technological development, as well as policies that meet the needs of the people who carry out this activity. It is therefore necessary to seek to use efficient technologies and to remove artisanal fishermen from the place of mere passive agents, who offer their workforce, and confer on them the rights of participants, making them protagonists and active subjects in decision-making.

In view of the current situation, it is essential to reflect on the Brazilian artisanal fishing, from the production history, where one can see the poor planning, the lack of quality statistical information, the tradition inherited by generations of fishing peoples and the exploration of management models based on the sharing of powers. It is time to implement efficient public policies that value fishermen and make available to them professionals in the area, such as Fisheries Engineer, Master in Fishery Resources and Aquaculture, among other professionals, with a suitable technological apparatus.

Therefore, we realize that artisanal fishing needs adequate planning that allows the balance and maintenance of ecosystems and riverine communities. Artisanal fishing depends on the ecological maintenance of the environment, besides being fundamental the occurrence of models of shared management, which contribute in more fair and democratic mechanisms of management. In this way, the study environment becomes more efficient, since it guarantees the conservation of stocks, which preserves

the fishing economy. It is therefore necessary to make these systems more efficient to ensure the conservation of stocks and the perpetuation of the artisanal fishing economy.

According to Singer (2001), solidarity economy "comprises different types of 'companies', voluntary associations, whose purpose is to provide its members with economic benefits."

Cooperativa (2017) affirms that solidarity economy "is a different way of producing, selling, buying and exchanging what it takes to live. Without exploiting others, without wanting to take advantage, without destroying the environment. Cooperating, strengthening the group, each thinking for the good of all and for the good itself".

Therefore, when an analogy is made between the points of view of Singer (2001) and Cooperativa (2017), it is perceived that Singer defends that the economy is solidary with economic benefits, while Cooperativa transits the same way, but sees a little more in addition, and in a more ethnoecological way, when it refers to the environment and the relationship between people, especially when it emphasizes that each participant besides thinking about their improvement of life, is also concerned with the good of all.

The term ethnoecology refers to the interaction between people and the environment, focusing on different perspectives regarding the nature of the interactions that occur between human populations and the environment and the factors that affect these relationships, usually from an adaptive perspective or from a systemic perspective.

According to Toledo (1992), "Ethnoecology has its roots in anthropology, despite having influences from other areas" and to be conspicuously an area of confluence between the biological sciences and the humanities. And so, comes the understanding that the maturing of Ethnoecology brings important contributions to the issues involving local populations and natural resources.

It is also worth mentioning what Culti (2010) says:

Solidarity economy contrasts with the current capitalist system, because, according to the concepts seen, it does not have the objective of gaining from the competitive advantage, but rather seeks solidarity between a group with specific characteristics (generally unemployed, impoverished, informal market workers ) and aims to generate work and income (CULTI, 2010).

The approach to solidarity economy in Brazil began with the adoption of the concept and format of cooperativism, yet without observing the other principles of solidarity, self-management and economic dimension, as described by Singer (2001, 122). Thus, it is important to know that cooperativism arrived in Brazil at the beginning of the 20th century, brought by European emigrants, with a cooperative format, without self-managing purposes, which does not fit the desired vision.

According to Singer (2001), in 1980 Caritas, an entity linked to the Catholic Church, financed PACs (Alternative Community Projects) that later became units of solidarity economy. He also says that the solidarity economy has also been observed through the "takeover of companies that are bankrupt or are going bankrupt by their workers, who revive them as self-managed cooperatives". There was still the work of the MST that promoted family farming on expropriated lands of unproductive latifundia, in the form of self-managed cooperatives (pp. 122-123).

It is important to point out that in the last decade the organization of the solidarity economy has grown considerably as a movement, since it has surpassed the format of isolated initiatives in the productive chain, which only articulated the environment and took flight that directed it to the national articulation. the World Social Forum, which resulted in the creation of a National Secretariat for Solidarity Economy (SENAES).

According to Culti (2010), the Ministry of Labor and Employment in detecting the influences of this approach, together with the creation of the National Secretariat for Solidarity Economy, has carried out mapping of solidarity economy since 2006, which is very useful to visualize the behavior during periods of time, in addition to allowing for analysis and discussion.

By this aspect, a joint venture, gives the employee the participation as co-owner, since his remuneration is the result of his effort and the amount paid results from the negotiation between all the members of the cooperative. Bajoit (2004) warns that if a cooperative does not have this economic initiative, it is not a joint venture, but rather an institution maintained by political and nongovernmental organizations, with the aim of carrying out some kind of philanthropic work. (page 05)

Thus, it is considered a great value to establish solidarity economy in places where activities are carried out without organization and in isolation; in the search of the concretization of the protagonism of the professionals in the community, conferring to him power of decision.

Thus, with a focus on the artisanal fishing of the riverside inhabitants of the municipality of Glória, Bahia, with the focus on the possibility of establishing solidarity economy, believing that this is one of the elements capable of promoting initiatives of local, social, cultural and environmental aspects. In this section, solidarity economy allows the unicity of the productive process, where individuals, in an organized way, become owners of the means of production from which they make use of the work.

### **3. Applied Methodology**

#### **3.1 Study Area**

This study will be developed with artisanal / riverine fishermen from the Municipality of Glória, which is located in the homogeneous micro-region 147 (Sertão do São Francisco Zone) of the State of Bahia and occupies, according to the Statistical Yearbook of Bahia (1996) of 1282.0 km<sup>2</sup>, with altitude varying from

240 to 660 m. The municipal seat is located 481km from Salvador and 443km from Recife and has the following geographic coordinates: 9°18' south latitude and 38°41' west longitude from Greenwich, according to Figure 1.

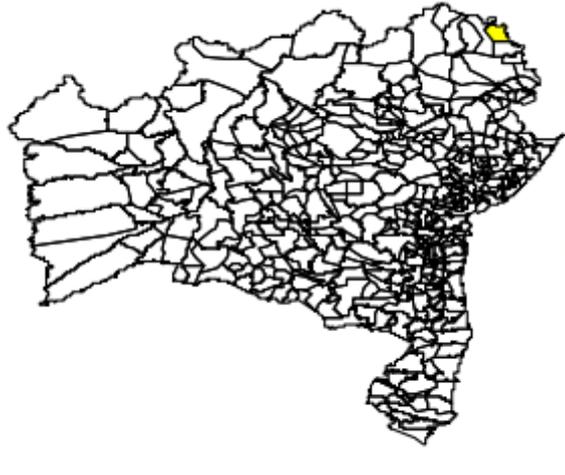


Figure 1: Location of the Municipality of Glória in the State of Bahia.

Source: Geological map of the State of Bahia. Salvador: Secretariat of Mines and Energy: Coordination of Mineral Production, 1978. 137 p.

Includes map. Scale 1: 1,000,000.

### **3.2 Methodological procedures**

When it is intended to diagnose the reality of a given situation or community, from an observed situation, a responsible study is fundamental, one is about a specific literature, demanding of the researcher much dedication and defined criteria. Therefore, the north of this research has a range of objectives, generated by the interest of knowing the reality of the situation experienced by fishermen living in the municipality of Glória, with the aim of identifying the ethnoecological character, which includes relevant factors such as social, economic and cultural.

The study evidenced in this research has as a problem the diagnosis of the quality of life and the valorization / participation of artisanal fishermen living in five villages in the city of Glória - Bahia, in the decisions made and plans that envisage future improvements in their lives.

This research was done through a bibliographical review, exploratory research, with the realization of participant observations, interviews and filming with the main actors. As a conclusive part, a descriptive research will be carried out, as they are considered adequate ways to achieve the desired results.

In this context, it is worth reflecting on what Barros (2001) states: "scientific knowledge is the improvement of common and ordinary knowledge and is obtained through a methodical procedure, which mobilizes rigorous and / or plausible explanations about what is affirmed about an object or reality".

The bibliographic research was developed from materials published in books, articles, dissertations and theses. According to Cervo, Bervian and da Silva (2007, p.61), the bibliographic research "constitutes the basic procedure for the monographic studies, by which one seeks the mastery of the state of the art on a certain theme".

Its purpose is to put the researcher in direct contact with everything that has already been written, said or filmed on a certain subject (...). In this way, bibliographic research is not merely a repetition of what has been said or written about a certain subject, but allows the examination of a theme under a new approach or approach, arriving at the innovative conclusions (MARCONI AND LAKATOS 2002: 71).

The exploratory research defines the objectives and seeks more information when there is little knowledge about the subject under study. Hence its importance as it is a significant step towards the research project.

The descriptive research, according to Cervo, Bervian and da Silva (2007, p.61), occurs when one registers, analyzes and correlates facts or phenomena, without manipulating them. According to Barros and Lehfeld (2000, p.71) through descriptive research, we try to find out how often a phenomenon occurs, its nature, its characteristics, causes, relationships and connections with other phenomena.

### ***3.3 Legal Ethnic Aspects***

When it comes to ethics, a topic that is very much discussed in discussions, professional action and respect for citizenship arises and is perceived as a matter of great importance and therefore must be experienced and respected in all its breadth. And so, in the present day, this discussion extends to scientific research and especially to those performed with human subjects. And through this route, it is essential that the researcher guarantees a well-planned research to his subjects.

In general, ethics defines the activities of those who seek scientific advance in certain areas, the researchers, so that they respect the integrity of the people who were willing to participate in the research, in all areas in which the research may come to influence.

Therefore, considering the essentiality of ethics in the research process, aware of the difficulties that will arise during the realization of the research process, it is fundamental to reiterate that it is up to the researcher to use strategies that safeguard the identity and well-being of the human subjects involved.

## **4. Risks**

According to CNS Resolution n°. 466 of 2012, item V, all human research involves risks in varied types and grades. In the same Resolution, item II.22, which defines "Risk of research - possibility of damage to the physical, psychic, moral, intellectual, social, cultural or spiritual dimension of the human being in any research arising from it".

It is impossible for a research to present no risk when it involves human beings, to the detriment of such reality, it becomes necessary that the researcher be attentive, if they occur, and to minimize them with brevity. It is therefore imperative that the researcher be attentive to the elaboration of a research question so that there is no doubt as to the adequacy of the method to obtain the answer, with due care to the ethical aspects.

It is worth noting that dealing with people is not a simple task. There are a number of aspects that should be considered and respected when entering into a relationship with one another. Doing research involving human beings requires establishing a relationship within certain parameters, which may facilitate or aggravate tensions in some aspects, which is not pleasant for its protagonists, be they the researcher or the researcher.

Thus, as Zanella (2003: 43) expresses, there is "a need for the commitment of researchers, regardless of the object, objectives and method outlined in their investigations, both what they investigate - with the uses that will be made of this knowledge - and with whom they investigate. " More directly, it is therefore necessary to take a series of precautions so that the participant does not suffer negative consequences for his participation in a research, suffering the least possible discomfort in the biopsychosocial scope.

In short, the researcher must keep a sharp eye on the care that should be directed to the people interviewed, avoiding to leave them embarrassment, discomfort and fatigue. In order to do so, it is necessary to observe some prerequisites, such as: the smallest possible number of interviewees, guarantee the identity of the participant, use of reduced time.

## **5. Final considerations**

At the end of this study, it was evidenced that artisanal fishing, even when perceived as subsistence activity, with low productivity and low profitability, when analyzed by the prism of the relevance of the ethnoecological profile of artisanal fishermen, makes explicit the importance of knowing the knowledge of these, as well as the occurrence of their relations with the environment, so that an economy can be realized that will make them protagonists of their history, when perceived in a holistic way.

It is worth mentioning that it was of substantive value to know the level of environmental awareness of these fishermen, since through a dialogue it was possible to articulate and recognize the importance of implementing a solidarity economy, which gives them an improved ethnoecological profile, given that aggregated to this scenario is the implementation of public policies aimed at generating income, support to fishermen, within a horizon that glimpses the possibilities of avoiding environmental impacts, through the prism of sustainability.

Thus, the essentiality and the certainty that this work has a great potential to serve as a guiding axis for future decisions, based on valuation initiatives, as well as guiding paradigms for the organization of

artisanal fishing, especially in the which refers to the generation of income, with the focus on local development and the role of fishermen in the context of the canvas.

In short, the target level led to the valorization of the knowledge of artisanal fishermen, conferring a right relation and the importance of community participation in the way fishing is carried out, the commercial destination given to the fish, with a focus on sustainability and conviviality social and solidarity.

It is noteworthy that it was noticeable that all social actors should be valued, with equal economic, social and cultural rights. This bias is of singular value to explore new paths and follow new directions that lead to studies and actions that clarify the complexity and importance of relations between populations and the environment through fishing focused on environmental preservation and the valuation of fishermen semi-arid region of Bahia ..

Finally, this work showed some nuances of the reality experienced by the artisanal fishermen of the semi-arid Bahia, with the aim of consolidating substantive actions that will lead to a holistic and sustainable coexistence with the Semi-Arid, seeking to achieve a solidarity economy that will lead such actors to the feeling of belonging and appreciation and personal and collective motivation.

## 6. References

- [1] BAJOIT, Guy. **A economia solidária: um modo de produção alternativo ao capitalismo.** In: CIENCIAS SOCIAIS UNISINOS/ Pós-graduação em ciências sociais aplicadas, Universidade do Vale do Rio dos Sinos. – V 40 n° 164. p.p.46 a 65 – São Leopoldo: UNISINOS, 2004.
- [2] COOPERATIVA de apoio ao sistema ecosol no DF, **Economia solidária.** Available in: <<http://www.ecosolbasebrasil.com.br/index.php/economia-solidaria/videos/>>. Access em 27 de agosto de 2017.
- [3] CULTI, Maria Nezilda; KOYAMA, MittiAyako H.; TRINDADE, Marcelo. **Economia solidária no Brasil: tipologia dos empreendimentos econômicos solidários.** São Paulo: Todos os Bichos, 2010.
- [4] DIEGUES, A.C.S. **Pescadores, camponeses e trabalhadores do mar.** São Paulo. Ed. Ática.1983.
- [5] LIMA, R. A. P. **A ação do Homem nos Ecossistemas.** Rio de Janeiro. Fundação Getúlio Vargas. 1979.
- [6] PLATTEAU, J.P. **The dynamics of fisheries development in developing countries: a general overview.**DevelopmentandChange. 1989.
- [7] SINGER, Paul. **Economia solidária versus economia capitalista.** Sociedade e Estado [on-line], Brasília, vol. 16, n° 1-2, jun/dez. 2001. Available in: <<http://www.scielo.br/pdf/se/v16n1-2/v16n1-2a05.pdf>>. Access em 27 de agosto de 2017.
- [8] \_\_\_\_\_ **Introdução à economia solidária.** São Paulo: Editora Fundação Perseu Abramo, 2001.
- [9] ZANELLA. Andrea Vieira. **Ética e paradigmas na psicologia social.** PortoAlegre: ABRAPSO Regional Sul. 2003.