

Even hunting has no reason, because with the hydroelectric all animals are gone”: UHE historic, conflicts and socio-environmental impacts in Ferreira Gomes**A mesma caça não tem nenhuma razão, pois com a hidrelétrica todos os animais são utilizados ”: UHE histórico, conflitos e impactos socioambientais em Ferreira Gomes**

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ABSTRACT

This report aims to analyse, from a sociological perspective, the socioeconomic impact from the environmental damage (massive death of fish, floods caused by a raise in the river level) and the resulting social conflicts faced by the population in Ferreira Gomes, a county in Amapa State, in the far north of Brazil, concerning the consequences from the constructions and functioning of the hydroelectric plants Ferreira Gomes, Coaracy Nunes and Cachoeira Caldeirão. For that, the schedule here is going to pass through a characterization of the historical assumption that ground and legitimize the development pattern in force in Amazonia, and empirically shows, based on data gathered in Ferreira Gomes, pertinent to the processes of effectuation of the constructions of the above mentioned projects and the following impacts. It is understood that the theoretical scope here taken concerns the efforts to consolidate an “Amazonia Sociology”, which goal is to provide judgmental grounds and to dimension the socio-political sphere of the anthropogenic factors resulting from the environmental problems, considering the needed interdisciplinary dialogue which heuristic potencial is able to provide means of intervention and management of the environmental and social conflicts that arise from the big development projects for Amazonia.

Key words: Amazonia Sociology, Socio-environmental conflicts; Development.

RESUMO

Este relatório tem como objetivo analisar, a partir de uma perspectiva sociológica, o impacto socioeconômico dos danos ambientais (morte maciça de peixes, inundações causadas por um aumento no nível do rio) e os conflitos sociais resultantes enfrentados pela população em Ferreira Gomes, um município de Estado do Amapá, no extremo norte do Brasil, sobre as consequências da construção e funcionamento das usinas hidrelétricas Ferreira Gomes, Coaracy Nunes e Cachoeira Caldeirão. Para tanto, o cronograma aqui vai passar por uma caracterização do pressuposto histórico que fundamentou e legitimou o padrão de desenvolvimento vigente na Amazônia, e mostra empiricamente, com base em dados reunidos em Ferreira Gomes, pertinente aos processos de efetivação das construções dos projetos acima mencionados e os seguintes impactos. Entende-se que o âmbito teórico aqui abordado diz respeito aos esforços para consolidar uma “Sociologia Amazônica”, cujo objetivo é fornecer bases de julgamento e dimensionar a esfera sociopolítica dos fatores antropogênicos decorrentes dos problemas ambientais, considerando o necessário diálogo interdisciplinar. qual potencial heurístico é capaz de fornecer meios de intervenção e gestão dos conflitos ambientais e sociais que surgem dos grandes projetos de desenvolvimento para a Amazônia.

Palavras-chave: Sociologia da Amazônia, conflitos socioambientais; Desenvolvimento.

1 INTRODUÇÃO

Brazilian Amazonia, having the biggest superficial, atmospheric and underground hydric availability in Brazil, became from the 1980s target of big industrial investments in the energy production sector, that aim to build several hydroelectric plants in amazonian river basins. The demands of expansion and consolidation of the Brazilian energy system, the national development and, most of all, the regional, are the impellers and justifications for the effectuation of these major constructions.

However, these industrial-economic enterprises, seen from the perspective of a development model that historically showed itself pernicious, generate a number of damages (economic, social and environmental) to the local communities. Thus, the empirical locus of this report is in Ferreira Gomes, a county in Amapa State, in the far north of Brazil. Its population, constituted mainly by fishers and small merchants, which population was estimated in the last population census, in 2010, in 7,087 people (IBGE, 2010), and with an area of 5047 km², at 137 kilometers from the capital Macapa, and since 1975 it has been a target of big developments projects, which built the hydroelectric plants Ferreira Gomes, Coaracy Nunes Cachoeira Caldeirão, under Brazil's Growth Acceleration Program (PAC-2), which goal is the expansion of the energy matrix in the country.

The above mentioned hydroelectric plants were built between 1975 and 2016, by the river “Araguari”, a hydric asset of extreme importance for the biodiversity, the culture and the local economy, based on fishing.

In this sense, this report aims to analyse the sócio-economic impact (massive death of fishes, floods caused by a raise in the river level) and the resulting social conflicts faced by the population in Ferreira Gomes, as well as the action from key factors (social movements, fisher's associations, City Hall and State) concerning the consequences from the constructions and the real operation of the hydroelectric plants Ferreira Gomes, Coaracy Nunes and Cachoeira Caldeirão.

So, the schedule here is going to pass through a characterization of the historical assumption that ground and legitimize the development pattern in force in Amazonia and empirically show, based on data gathered in Ferreira Gomes, pertinent to the processes of effectuation of the constructions of the above mentioned projects and the following impacts.

2 MATERIAL AND METHODS

The adopted methodology is a combination of the techniques of social research, the active observation and the documental analysis (GOMES, 1994). The archives at Environment State Secretary (SEMA) in Ferreira Gomes were consulted to gather data about the hydroelectric plants, as well as journalistic content produced by regional and local news.

The active observation took place in Ferreira Gomes, specifically in the most affected areas, like the fishing neighbourhood called "Matadouro". The immersion in this field came from reportings from inhabitants about the contempt from public institutions concerning their "lives, rights and possessions". We also had an interview with Moroni Guimarães, a representative from Movement Hit by Dams (MAB), whose acting is intense and active to fight for compensations and payouts for the population hit, through the Terms for the Adjustment of Conduct (TAC), created and signed by the Public Prosecutor's Office, the companies responsible by the hydroelectric plants management and the local population.

It is understood that the theoretical scope here taken concerns the efforts to consolidate an "Amazonia Sociology", which goal is to provide judgmental grounds and to dimension the socio-political sphere of the anthropogenic factors resulting from the environmental problems, considering the needed interdisciplinary dialogue which heuristic potencial is able to provide means of intervention and management of the above mentioned environmental and social conflicts.

3 RESULTS AND DISCUSSION

3.1 HISTORICAL ASSUMPTIONS OF THE DEVELOPMENT MODEL IN AMAZONIA

Being a region in a peripheral position inside peripheral countries in the modern capitalist world, Amazonia even loses the ability to speak for itself. Thus, we have visions *about* Amazonia and not visions *from* Amazonia, from the population and its interests (GONÇALVES, 2018, p.25). In this sense, it is fundamental to analyse the assumptions of the development model imposed to Amazonia.

The notion of “progress” comes from the illuminism period and modernity, the apogee of rationality and birth of capitalism, when the above mentioned idea of “progress” had an expensive and base role for the thinking of that times, finding its most finished expression in the economy of industrial capitalism (LOUREIRO, 2012, p. 527)

Thus, the material progress, presupposing the raising consumption pattern of developed european countries started to be conceived as the model of economic development, seen as ideal to be reached by other societies. So, the identification between Material Progress and Development pervades modern life, that is more and more conditioned by the economic sphere (LOUREIRO, 2012, p.527).

A similar speech makes an ideology in which there is no other form to reach the state of social well-being but imitating the development pattern of the hegemonic countries, what is a vicious circle for Latin America, that has to adopt the dominant european paradigm of development and, in this way, deny the peculiarity of its economic-political formation in its relations with the pernicious marks left by the colonialism (LOUREIRO, 2012, p.528).

The total implications (political, social, economic, environmental) of this speech are known by Amazonia, mostly the immersion of the region in a process of “colonial mimicry”, according to Homi Bhabha (2001), in which projects and politics for the region are made from models from hegemonic european countries, what ends up reproducing the historical subalternation of Amazonia. In this aspect, the many development experiences proposed for Amazonia failed to develop the region; they are exclusionary, compromise or destroy its rich multiculturalism and lead to a rising homogenization of societies, dissolving in a whole the particularities and specificities of the social groups; are income concentrators, generate few jobs, spread poverty around where big investments take place and cause huge environmental damages. (LOUREIRO, 2012, p.529)

We can notice, thus, that the economic model of production organization prevailing in the region was formulated under the egis of the principles in the global market, in which

Amazonia has a disadvantage a priori, due to the own configuration of the international division of work that reduces Amazonia's economy to a mere source of commodities or natural resources, reproducing the secular colonial agro-exporting model. The current amazonian model of development is anchored in enterprises that make semi-finished goods (like iron, aluminum and palm oil) and raw material (like cattle and soy), to export. Despite generating few jobs, because the productive chains do not gather to produce final consumption goods; dislodging natural populations; consuming huge amounts of energy (including with production of coal from burning the native forest); exhausting the nature and putting it in permanent dangerous, this model of production, based in the two classes of products mentioned --semi-finished and raw material--, has been supported by public policies, that reproduce with few alterations the secular colonial agro-exporting model. Due to its bad aspects, it is a degenerative model, because the more it advances, the more it causes damages (LOUREIRO, 2012, p.530).

In this scenario, there are many images, representations and ideas behind these development policies proposed for the region showed in the media, in politics' speeches or in formal ways, that reflect the colonial view, we are interested in that wrong image of Amazonia as a homogeneous macrosystem of forests and rivers in a huge flatland with inexhaustible resources. This wrong idea is responsible for the fact that economic projects as diverse as livestock, logging, building of hydroelectric plants, that have different impacts on the environment, had been developed in areas of dense forests, river sources and river banks, mangroves, along the slopes of hills, in fragile soils or in the few well-structured soils of the region, ignoring the heterogeneity of amazonian flora (LOUREIRO, 2012, p. 530)

So, one can conclude that under this "magma of social imaginary significations", according to Cornelius Castoriadis, that establishes the modern capitalist society, it is up to Amazonia being at service of the purposes of capital accumulation and the development of the production forces with the function to supply "natural resources", like the geopolitics of the modern capitalist world imposes to continents, countries, regions, places, mainly to groups and social classes in situations of subalternation. (GONÇALVES, 2018, p.29).

3.2 THE CASE OF HYDROELECTRIC PLANTS IN FERREIRA GOMES: BETWEEN ENVIRONMENTAL AND SOCIAL CONFLICTS

The construction of hydroelectric plants in Amazonia is legitimized by the federal government, under the perspective of the economic growth of the country, that tends to make

the social and environmental damages associated to these big projects unviable, and so reproducing the pernicious development model, as previously mentioned.

Ferreira Gomes can be conditioned by the action of Hydroelectric Plants Coaracy Nunes, Ferreira Gomes and Cachoeira Caldeirão. They were installed next to river Araguari, according to figure (Figure 1). The environmental and social impacts are basically congenital to the beginning of the effectuation of these projects; however the aggravation of the environmental issue in the county started with the fish bloodshed in August 2014.

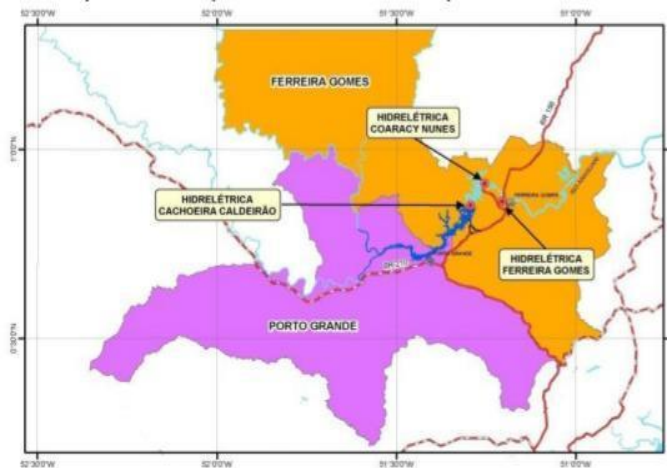


Fig.1 Location of hydroelectric plants in the map of Ferreira Gomes. Source: Tumucumaque 2016

From 2014 to 2019 the bloodshed has been constant, and local inhabitants, mostly fishers, are highly harmed by the fish death, what directly affects the county economy, located by the banks of river Araguari:

“There was a time when I sold 60 kilos a month. Nowadays I do not reach that and I can not make a living for my family from the river”, says the fisher Valdirene Ramos, in Ferreira Gomes. (G1, 2015). Her story synthesizes the dimension of the environmental impacts in the county, deprives traditional families from their means of subsistence. “It is complicated because we can not even fish to eat” (G1, 2016a), says another fisher. “Even hunting has no reason, because with the hydroelectric all animals are gone”, says a hunter (G1, 2016). Professor Carlos Afonso Ferreira, 35 years old, told he was surprised by the amount of dead fish in Araguari river in 2014:

“The amount of fish is very big. They occupied an area of about two meters from the water after the dry tide. Not counting what must have happened along the river in the riverside communities”, he said. (G1 2014).

During the first events, the hypotheses made by the fishers was about pollution produced by the hydroelectric plants, according to the president of Fishers Association in Ferreira

Gomes, Benedita Tavares: “We do not have fish to offer to the community because of the fear of consuming a polluted food” (G1, 2014).

In 2014, the Institute of Environment of Amapa (Imap) concluded that there was no indication of pollution in Araguari river. However, in 2018 there were technical studies made by the Institute of Environment, and Land Use Planning and the Attorney General's Office that proved the responsibility of Hydroelectric Cachoeira Caldeirão for a water supersaturation, what caused the bloodshed of the fishes (G1. 2019). Between 2016 and 2017, it was recorded the death of three tons of fishes in Araguari river. In 2018, 4 years after the first event, because of population and social movements pressure, Federal Justice decided to block R\$ 2 million in Hydroelectric Cachoeira Caldeirão, but there was no conviction. (see fig.2, 3 and 4)



Fig. 2 Fish bloodshed by river Araguari in Ferreira Gomes. Source: G1.com



Fig. 3 Fish bloodshed in Ferreira Gomes bathed by river Araguari. Source: G1.com

“The bloodshed happens in the period of fish reproduction, the fisher can not fish to sell” (G1,2018), says Morone, regional president of the Movement Hit by Dams (MAB). Besides

the socio-economic implications, there is a big ecological impact; the three hydroelectrics really changed the physiography of the county and the dynamic of the river, affecting the reproduction of several species.



Fig. 3 Dead fish in Ferreira Gomes. Source: G1.com

The big crisis happened in 2015, when there was a sudden increase of the level in Araguari river that caused a historical flood, hitting 445 houses in May, 7, 2015 (G1, 2015), forcing at least 300 families to leave their homes and go to shelters; stores and public buildings were also flooded. Not before three years, in 2018, Justice accepted a technical opinion that blamed Hydroelectric Cachoeira Caldeirão for the sudden increase in the level of Araguari river.

According to the experts, the disruption in a containment structure of water in the hydroelectric and lack of warning provoked the sudden increase.

"[...] there was a disruption of the cofferdam in Cachoeira Caldeirão due to inside erosion ("piping"), and not controlled opening, as told by EECC; [...] the disruption happened from 7:00 in the morning and only at 10:50 EECC made the first announcement about it; there was no query to managers of the other enterprises, nor a warning to public organs and the population" (G1, 2015).

Until now, there was no conviction of the company or the list of damages caused.



Fig. 4 Artificial flood of Araguari river damages local population. Source: G1.com



Fig. 5 Water invades house Ferreira Gomes. Source: G1.com

3.3 MOVEMENT OF HIT BY DAMS (MAB): STRUGGLE AND RESISTANCE IN AMAZONIA

The social movement of the people hit by dams (MAB) is one of the main means of organization and resistance of the population in Ferreira Gomes against the many neglects from the public power and constant attacks to individual fundamental rights. We interviewed Moroni Guimarães, regional leader of MAB. We dedicate a topic of this report to talk about his speech for the understanding of the importance of his voice in this context. As a native from Ferreira Gomes and harmed by the hydroelectric plants, his speech represents a cry for help, as well as delations. We can see in his words a summary of the harmful process of the installation of a hydroelectric. Dealing with the initial processes that precede the construction of the hydroelectric, in the moment of the viabilization of the place, Moroni says: “I am hit too, my land was after the bridge and the guy comes and says ‘look, we want you to leave, we want to buy your land.’ I told him that my land was not on sale, that I bought it to retire, build my house and live in peace, 1 kilometer of asphalt ahead and the Araguari river behind, surrounded by nature. Then they came and said ‘you have to leave, we are going to build a hydroelectric here’.

Showing all the coercion and indifference towards the local population by the transnationals and mainly the subordination of the government institutions to the capitalist private power, Moroni says: “we do not have an open channel with the company, they do not recognize; when we want, we have to go ahead, organize ourselves and go to get something, because through the competent organs, like IMAP, District Attorney’s Office, it is difficult... even the State... we have this fear.”

Talking about his visit to a radio programme and having made accusations to the companies that run the hydroelectric plants, Moroni said: “I was sued by Ferreira Gomes

Energia by libel and slander, I denigrated the company's name, in other words, I went to make an accusation to the official organs, press and District Attorney's Office, asking for compensations, rights, and I end up sued.”

The main point of the interview was around the fish bloodshed: “it is not only fishers that depend on fish... so it was a tradition here in Ferreira Gomes the community to go, in the evening, about 5:00, fishing, catch a fish to eat and today we do not have this, you can no longer fish there. So, today, with the bloodshed and lack of a job market, there are a lot of people in need, really hungry... hungry. You are going to see many people in need that do not have means to feed themselves.”

When we asked about the impact on the economy: “nobody wanted to buy because the fishes were dead and nobody knew why, so there were losses. The fish we have here come from outside, so we had some fishers drowned in front of the hydroelectric plant because they fished hidden far from here, because there is nothing here, they fished hidden at night and when the floodgate opened, the boat was flooded, one survived but the other one died in front of Araguari river”.

The following line represents the relation between the local culture with its environment: “water is for life, not death. And we believe in distribution of wealth for the population. So, as we said, water and energy are today the way to survive e you see the value of energy and, believe it or not, they want to privatize the water, the government is showing that it wants to privatize the water. So, the river is there, our, community river and there are investments gaining money from our river, sending money outside and the community does not get what it should, the compensations it should have”.



Fig. 6 MAB demonstration in the road towards Hydroelectric Cachoeira Caldeirão. Source: G1.com



Fig. 7 MAB demonstration in front of the District Attorney's Office. Source: G1.com

4 CONCLUSION

According to the empirical data above, we can conclude: first of all, the subordination of the state organs (City Hall, State government, District Attorney's Office) to the interests of the transnationals that manage the hydroelectric plants; the negligence of the State towards the population in Ferreira Gomes, leaving it institutionally unprotected faced with the many impacts and infringements of its rights. From the energy point of view, the base of the justification given to legitimate the construction of the hydroelectric plants --the generation of energy and development for the region, goes against the empirical data: the socio-economic disparity in Amazonia compared to other regions in Brazil, emphasizing the interregional contrast, results in a high number, 46,6% of the population of Amazonia (NOBRE, 2016), not having, for example, access to electricity in their homes, despite being the biggest river basin in the world and so having big hydroelectric potential, the amazonian region condemns its inhabitants to alternative strategies of access to energy energia and finds itself sunk as a isolated system, thus the false speech of development and universalisation of the access to energy dissolves faced with the contrast with the regional reality, according to figure 8 (NOBRE, 2016)

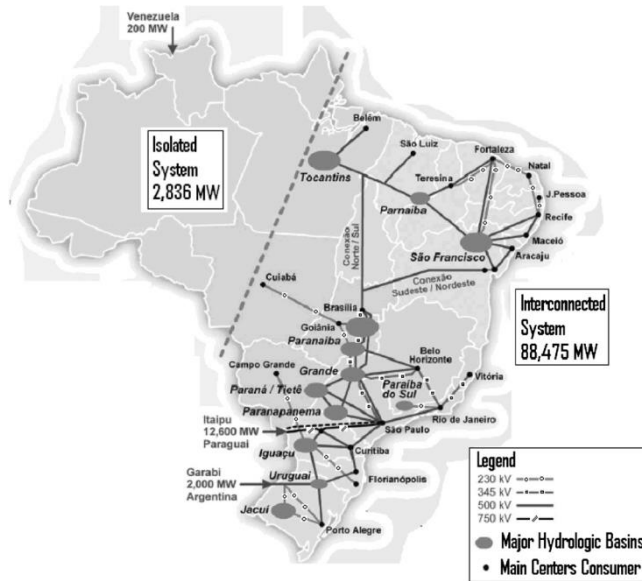


Fig. 8 Isolation of Amazonia and the emptying of its production to the south center of Brazil. Source: NOBRE, 2016.

Thus, from a sociological view about the environmental and social impacts resulting from the big projects for Amazonia, in the case of de Ferreira Gomes, comparing the discursive validity with the empirical reality, we see an emptying of the concept of “development”: one can not talk about development when there is no participation of society in the material and immaterial benefits resulting from the economic growth, when the model in force brings more damage than benefits, when profit is more important than the fundamental rights of the traditional population (LOUREIRO, 2012, p.529). In this sense, it is important to search alternatives for the development of Amazonia that are guided by more supportive and distributional paradigms and that are grounded in own and even innovative ways of production organization, that are socially more integrator and more harmonized with nature (LOUREIRO, 2012, p.529).

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