

Territorial Planning in the Amazonian Mining Towns of the State of Para (Brazil)

João Marcio Palheta da Silva, Christian Nunes da Silva, Clay Anderson Nunes Chagas, Gláucia Rodrigues Nascimento Medeiros

Federal University of Pará (UFPA), Belém, Brazil

Email: jmpalheta@ufpa.br, cnunes@ufpa.br, claychagas@ufpa.br, glaur@uol.com.br

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Abstract

The territories exploited by major mining projects of the Amazonian of Pará, Northern region of Brazil, have caused socioeconomic impacts of different complexities and set to debate the role of mining as a tool for territorial planning in the host cities that house Major Mining Projects, for failing to create economic and social dynamics, making the multiplier effect of the Major Mining Projects an indicator of local development of the mineral economy in the municipalities of Pará. The main objective of this paper is to present the main impacts caused by mining activities in Pará municipalities. A documentary and bibliographical analysis was necessary for the textual elaboration, in addition to field research in the study area. We can observe that mining is an important productive activity, but has caused significant changes in Pará territory, as well as in economy and in the environment, and the way of life of local populations.

Keywords

Mining, Territory, Carajás, Amazon

1. Introduction

The process of wealth and poverty of the municipalities in the state of Pará was boosted by the pressure exerted by the Brazilian government for industrial development and, consequently, by the lack of integration policies that contemplated in fact the societies of these territories producing unequal socioeconomic effects on the state of Pará, Northern Region of Brazil. The wealth arising from mining, for example, what would be the cost effective solution for the National State, arose in different regions and municipalities in the territory of Pará with urban facilities “capable” to meet the needs of societies that lived there. This has raised its surroundings poverty as a result of this adversarial process and combined the economic development of these regions within the territory,

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such as the Southeast region with the urban nucleus of Carajás and the municipality of Parauapebas, center of the Amazon rainforest, and others that already existed even before the arrival of mining and had more functionalities and potentialities altered by the mineral dynamics in its territory, as in the case of the lower Amazon region with Juruti and Oriximiná.

The installation of large spatial objects related to mining attracted to the municipalities directly or indirectly has a significant population increase and the growth process and the appearance of cities as in the case of mining towns (in population and urban facilities), could not accompany this growth nor estimated the outcome of this process in the territory. The lack of integrated planning nowadays are the nodes of territories in the state of Pará; the population is increasingly concentrated in cities growing every single day, with people from all corners of the region and the rest of Brazil in search of employment and better living conditions in the projects in regions that concentrate spatial objects with dynamics linked to an international scale.

The questions: are the socioeconomic relations of spatial planning in territory of Pará in the towns, home to large mining projects capable to create economic and social dynamics to make the multiplier effect of Major Projects an indicator of local development from the mineral economy? Is the land management considering the different producing economic dynamics of new territorialities in promoting socioeconomic development in mining areas of Pará through public policies, intended resources provided by CFEM, IPI, and FPM, capable to benefit the areas of municipal capitals avoiding social conflicts in mining regions?

The existing resources in the territory, being elements of intentionality through the practical socio-political-economic materialize according to Milton Santos and Maria Laura Silveira [1], to the territorial configurations. Thus, both the natural resources as political and economic resources are targets of social questioning that seek their socialization for general use in society, in the face of economic dynamics tied to geography mining, as in the case of Pará.

The territoriality becomes, therefore, a condition for achieving resistance in places and the organization in civil society sectors to develop their goals and achieve their actions and wishes with respect to socioeconomic and political development. The significance of the territory is directly related to the different territorialities of the social players materialized by virtues of their power relationships and also by the intentions of international groups connecting the local to the international economy, pressing more and more the territories under the aegis of the market and changing the geographical space. Territoriality also search to develop strategies for socioeconomic and political development where these become the goal of the actors, who need to ensure their territorialities.

This essay aims to analyze land use and the impacts of mining for towns in Pará in the period 2010 to 2014, which have in their territories, mineral ventures with the ability to connect the local to the international economy, reorganizing the geographical space of Pará and causing the territory differentiated complexities with distinct characteristics related to mining, and spatial forms with different dynamics in a new geography of mining in the Brazilian Amazon, especially of Pará, starting with the installation of major mining projects.

2. Mining in the State of Pará

The social relationships in the host cities of mining activities in the state of Pará have been developed throughout the history of the places and their relationships in different scale and natural resources. These relationships need to be understood within the context of coordination between different social actors, identified at various scales. This is essential to the understanding of connections, established between the place and actors located in state, national and international scales.

2.1. Use of Land and Mining in the Amazon Region of Pará

The relations of the material and economic bases of economic power groups that control mining on an international scale, with those related to social power invested in local elites and the diverse social movements are relationships that define territorial practices and, consequently, in land management in a peculiar manner, which in turn expresses that at certain times, although these relationships define the territorial configuration meeting the interests pertaining to both companies, as to the state and the elites or social movements to advance their interests in the state of Pará.

The role played by business groups in control of certain economic activities in the territory, as in the case of mining has just ended, on the other hand, causing conflicts occurring by the disputes of projects to be effected in

the territories, and the funds generated by its exploitation providing the disputes of the places for economic activities and tax favors that each place offers to attract certain economic enterprises. Although the local scale deserves emphasis in this essay, one cannot forget that it is part of a larger set that modifies the socioeconomic relations in the whole process of the mineral economy in the state of Pará. According to Milton Santos and Maria Laura Silveira [1], “generally speaking”, and as a result of economic globalization, the National space is organized to serve the hegemonic large companies and pay a price for it becoming fragmented, incoherent, anarchic for all other actors”.

The economic organization of the mining territory performed by the major economic groups ultimately designing, also problems in the social order where migration for finding jobs in these projects and for better living conditions eventually cause serious problems to the place, just to mention one of the elements that attract large enterprises when selecting certain territories as a point for its implementation. Generally, these economic points are potential areas for development of the company, on the other hand, ends up creating serious problems for local governments that mostly only see the positive side of projects through taxes and job creation, without worrying about the problems that could be generated from by these facilities [2].

The exogenous relations remain reordering the political-economic relations of the mining territory, modifying the function of places and overlapping authorities and interests between the public and the private. One can see the force of economic globalization modifying the territorial relations and the pressure of the large economic groups by modifying the local economy, connecting the territory to the different scales in conflict with different interests and forms of land management.

The territorialisation of actions that mark the presence in the territory “conducted” by social actors is characterized by the differentiation of various interests that forced placements causing conflicts on the territory. The social actors possess, starting from their interests, positions which define their respective powers in the territory, defining and redefining their territorialities. The struggle expressed through real conflicts and latent among social actors of diverse interests redefining a territory more or less subject to interference, both internal and external, where other actors situated at different scales attempt to redirect the location starting from their own interests.

There is a fluctuation between global, national and local levels. The location assumes a much more heterogeneous way than the other or possesses a much more noticeable difference in municipal scale. It is at the local scale, showing these differences. The political practices, disciplinary or not, territorial organization and relationships define both the management and the virtualized conflicts differentiated by new actions or otherwise of social actors.

The strategies of territorialities that social actors materialize in the territory give rise to a network of social relations making their power relationships more solidified. Depending on the historical moment and the force field in which they are involved, creating strategies to mark their presence in the territory. And this form of economic territoriality produced by groups linked to mining giving different results in the territory even when the performance of the same economic group exploring mineral resources in regions of the state of Pará, connected to mineral economies at various scales.

2.1.1. The Geography of Mining in Pará Territory

According to data from IBGE [3], the state of Pará has one hundred forty-four municipalities; its population is 7,443,904 in an area of 1,247,950,003 km. The population distribution in the State, mostly in the municipalities is less than 50,000 inhabitants. Most of these municipalities depend on transfers from the state and Union, as is the case of the Municipality Participation Fund (FPM), and others who have on their territories by Major mining-metallurgical projects can attract and receive resources from activities directly and indirectly related to the mineral economy. According to FIPE [4], the state of Pará possesses, according to data from 2007, 18% of Brazilian reserves of iron ore and 84% of the reserves of copper, corresponding to 33.23 Bt to 14.28 Mt, respectively. With respect to bauxite, whose production is more vertical in the state, the participation of reserves is even more significant. Of the total Brazilian reserves 3.6 Bt, the state of Pará participates with 95%.

According to data from the National Department of Mineral Production [5] Parauapebas, city in southeastern Pará is the first city in collection of the Financial Contribution by the Exploitation of Mineral Resources (CFEM), popularly called *royalties* of mining, the creation of the city was due for major mining projects, as the Carajás Iron ore Project (PFC), and the processes produced by great design, giving rise in 1988 in the municipality of Parauapebas (dismembered of Marabá) the most important in mining in their territory by having the main projects of the largest company in the mining activities in the state, Vale [6], which has in its territory the

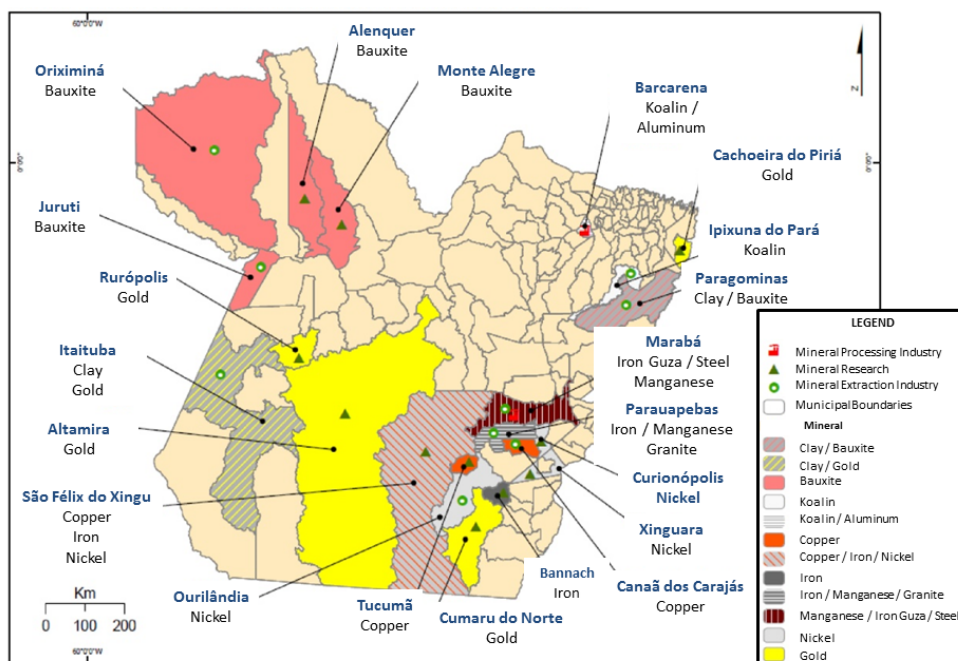
largest mine in the iron content of the world (the iron ore mine, the Carajás railroad and the Port in the neighboring state of Maranhão) and an extensive territory of mineral resources under their direct and indirect action, besides the Carajás National Forest one of its environmental marketing.

On the other hand, the Lower Amazon has mainly with bauxite its greatest economic importance when considering the location-scale international connection, and also produces its own dynamics from the ALCOA Group a large project that directly and indirectly alters local geographic space. Juruti has its distinctive history, emerges as a neighborhood, and later, as the village in the nineteenth century, an important point for the navigation of that time to become definitely a municipality in 1938 [3], and only recently, in 2009, has housed the bauxite project of ALCOA. Two cities with different history in time and space, which today (in year 2012), possess in their territories large mineral projects with different logics of spatial planning.

2.1.2. The Mining Towns in the State of Pará

In Pará, according to data from DNPM [5], 21 municipalities have in their territories, mining activities related to manufacturing industry, the mineral exploration and mining industry, spatially located in different regions of the State, with different economic groups exploring them (as in **Map 1**), its higher concentration is in regions where in recent years one has been seeking the creation of two new states: Carajás and Tapajós, and that in the decree of December 11 2011, was rejected by the Pará's Society. According to IBRAM [7], an example of the current race for mineral inputs, mainly from China, is the surge in the price of iron ore. In 2010, the price of the product exceeded the case of 100% and is expected to further price increases this year, one of the factors that helped the Brazilian mineral production to register \$ 40 billion in 2010.

The trend of the world market for iron economy is the increased exploitation of these resources in the Amazon, having in the state of Pará its greatest expression in the iron mineral economics (**Map 1**). Another fundamental finding is that China became the largest buyer of iron ore in the world IBRAM [7], and consequently increased its participation in the Brazilian export market, which in turn aims according to IBRAM [7], “create secure product sources and reduce the power of major mining companies in the definition of International commodity prices” [7]. Also according to IBRAM, the growth of the mineral sector in Brazil 2011-2015, will be of the order of US\$ 64.8 billion, iron ore, for example, will receive funds of US\$ 40 billion, and will be the principal ore in the export portfolio of the country, and the state of Pará will become the main state receiving these investments and lead the Brazilian ranking.



Data Source: DNPM(2010); Basic Mapping: IBGE(2007) - Conception: Prof. Dr. João Márcio Palheta - Preparation: GAPTA(UFPA), 2011.

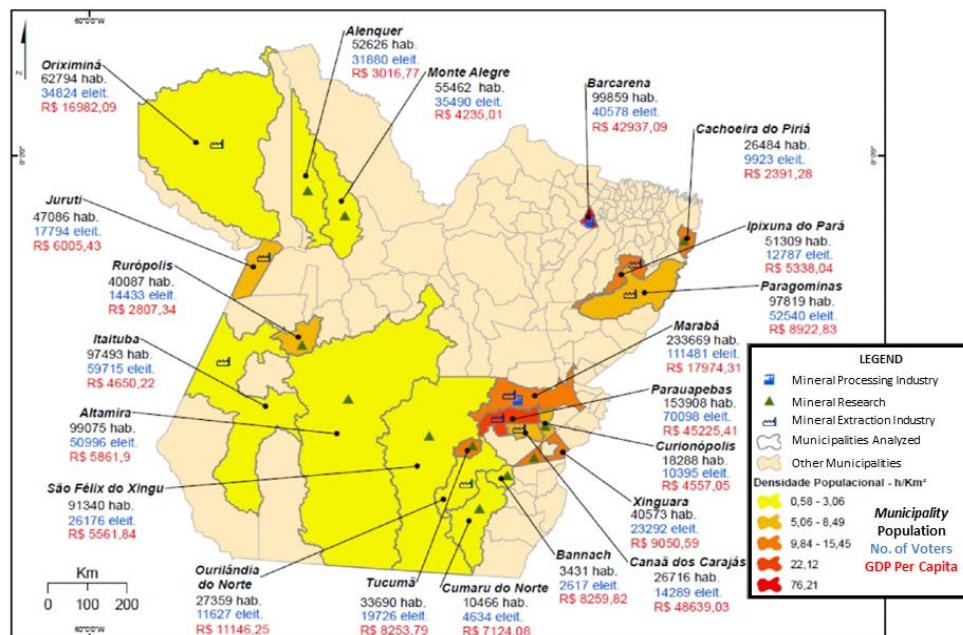
Map 1. Municipalities with mining activities in the state of Pará.

The state of Pará, an increasingly mining state (Map 1), verticalizes its production modestly and consequently the society for these areas moving in search of better conditions of life and work, is not adding value to labor and mineral product at the same speed of the problems that arise due, mainly migration, and that is not accompanied by public policies for these locations, usually on the periphery of mining towns, poverty pockets are subject to all kinds of social conflict as the only alternative form of the population, fails to provide enter in the process of the working world in process mining.

The relationship between population, number of electors and GDP per capita in the 21 municipalities in the state of Pará (Map 2), demonstrate how the mining process has also become a political factor for power groups demanding new forms of organization of Pará's geographical space. These municipalities have strategic mineral resources to the local economy with national and international reflections. The dynamic coupling of these features comes to the international economy over the more than 30 years of mineral exploration in the state causing impacts of different natures. When comparing the last ten years of population and financial growth of these municipalities from the presence of Major Projects, one realizes that the economic dynamics produced has not always been accompanied by the services and instruments of public policies for local society. In time and space these ventures were created for different and connections and the geographical scale and altered in different ways territory under their direct action, i.e. the territories under their areas of influence.

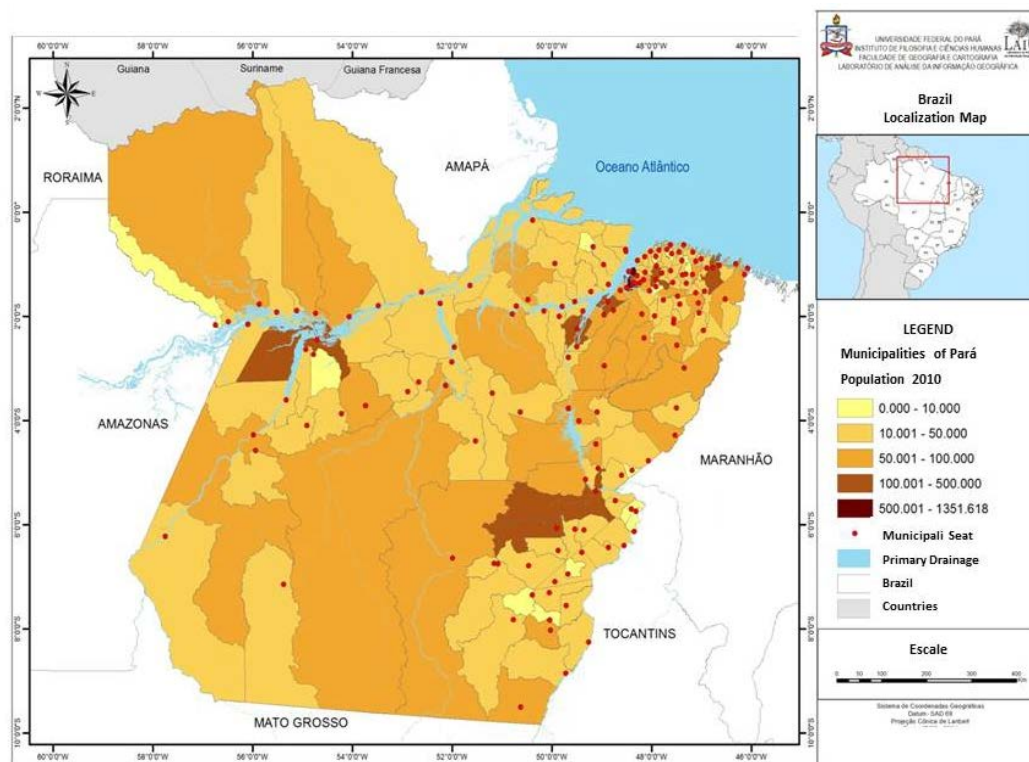
The population data are important in Amazon of the state of Pará, because they bring another resource being the Municipality Participation Fund (FPM), which together with the CFEM are fundamental in cities that host large projects. In case of the state of Pará's 144 existing municipalities a majority of 103 of them have less than 50 thousand inhabitants, 30 of them have 50 to 100,000 inhabitants, 10 between 100 and 500 thousand, only the capital city Belém has more than 500 thousand inhabitants (Map 3), exactly 1,351,618 inhabitants, and this majority of the municipalities with less than 50,000 inhabitants end up configuring with almost total dependence on transfers from the state and the Union for the socio-economic development of their territories or dependence on possible projects, especially mining in their territories.

Of the 21 cities that host mining activity with respect to CFEM are highlighted the cities of Parauapebas, Canaã dos Carajás, Oriximiná and Juruti. In Brazil, Minas Gerais and Pará are the two major contributor states of CFEM, according to DNPM, Pará is the second largest contributor of CFEM, in the 2010, its total revenue was 314,845,129,95 (more than three hundred million Reais) an increase of 29.80% compared to the year 2009, also according to DNPM [5].



Data Source: DNPM(2010); Basic Mapping: IBGE(2007) - Conception: Prof. Dr. João Márcio Palheta - Preparation: GAPTA(UFPA), 2011.

Map 2. Population, electorate and GDP per capita in the municipalities with mining activities in the state of Pará.



Data Source: Basic Mapping: IBGE(2007) - Conception: Prof. Dr. João Márcio Palheta - Preparation: GAPTA(UFPA), 2011.

Map 3. Demographic density in the state of Pará—2010.

According to MME [8] the mining economy have an excessive concentration of iron ore in the export of mineral assets, with the aggravation of the majority of sales are direct to a single market, to China which raises concern because any economic or political changes occurring in that country will have an immediate impact on national foreign accounts. In 1990, for example, China imported 2% of the Brazilian iron ore and this substance represented 5% in total Brazilian exports. Two decades later, in 2009, these percentages changed to 59% and 9%, respectively [8].

The economics of iron is also featured in Pará, what has made Parauapabas the largest of contributor of CFEM in Brasil, for having its territory as the largest iron ore mine in the world. On the other hand, as iron ore was in these years to change the process of partnership in Pará, China going to be the biggest buyer of the state making the commercial balance of Pará and Brazilian and currently growing, followed by copper ore and aluminum. According to the Brazilian Mineral Yearbook [5], as iron ore, accounted for 58%, copper 6% and aluminum 4% as the main substances in the contribution of CFEM in Brazil.

The mineral economy had in iron ore its greatest expression in export, which in turn provided a significant increase in the revenues of the municipalities of Minas Gerais and Pará, the largest exporters of iron ore, this favors the timeline increase in the first half of the XXI century caused by the acceleration of the exploitation of mineral resources in these two states.

This Brazilian mining scenario in which Minas Gerais and Pará are highlighted, shows that with the exception of 2009 growth occurred in the collection of CFEM, and in 2010 reached its peak in the first decade of this century, configuring the mining with matrices of Brazilian trade balance more important, as one can check the graph from 2003 to 2010 the CFEM (Figure 1). The importance of this example is the National Mining Plan 2030 of MME [8], according to which “the importance of the mineral sector in Brazilian exports also reveals the economic importance of this activity. The participation of mineral products, primary and processed goods, excluding petroleum and natural gas exports fluctuated between 15% and 30% from 1978 to 1991, increasing the average of 20%, in the period 1994-2008. During the same period, the trade balance in the sector increased from US\$ 1 billion to US\$ 17 billion”.

Pará is the second state that collects more CFEM, has the Carajas iron, in the municipality of Parauapebas its

greatest expression in collection. Also according to DNPM [5], Iron ore was first put into collection in 2010, followed by copper and aluminum, three mineral substances (Table 1) that the state of Pará has and which places it as the second state to collect more CFEM.

Although in general computation the state of Pará stays second, the municipality that collected more CFEM was the southeastern Pará, Parauapebas where are located the principal mines of the Iron of Vale in Pará, this municipality in the year 2010 collected 229,896,598,41 (two hundred twenty-nine million, eight hundred and ninety-six thousand, five hundred ninety-eight Reais and forty-one cents), followed by Nova Lima in Minas Gerais which collected 81,391,657,67 (eighty-one million three hundred and ninety one thousand six hundred and fifty-seven Reais and sixty-seven cents), after Pará Canaã dos Carajás (ninth collector), Oriximiná (twelfth) and Juruti (fifteenth) complete the list of municipalities that have collected more in 2010 to the CFEM, being the four municipalities of Pará who collected more CFEM in the state (Table 2).

In the state of Pará two new municipalities as Parauapebas (iron ore) and Canaã dos Carajás¹ (copper) lead the collection and the other two in the Lower Amazon Oriximiná and Juruti, the oldest municipalities lead to the exploitation of bauxite, two minerals that are responsible for the commercial balance of the state, connecting the state's economy to the world (Table 3).

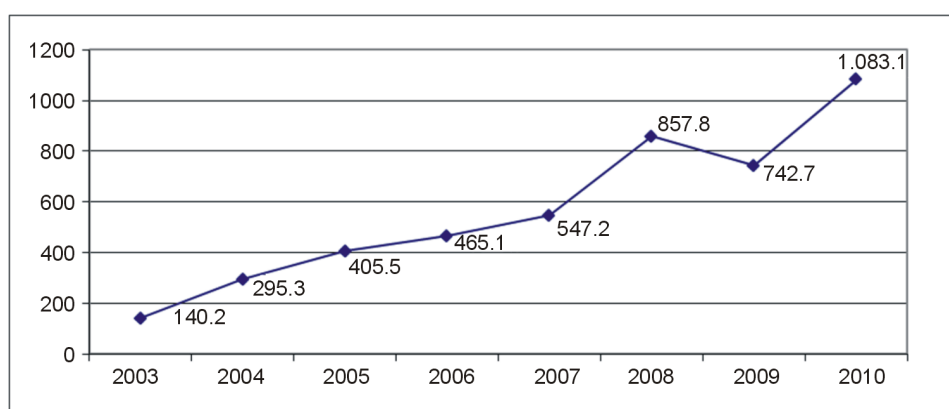


Figure 1. Historical evolution of the collection of CFEM 2003 to 2010 (R\$ Millions). (Source: DIPAR/DNPM [5]).

Table 1. Demonstration of the ranking collection of mineral substances 2010. (Source: [5]. Adapted by the authors).

Classification	Substance	Collection of CFEM (R\$)
1	Iron Ore	708,593,947,96
2	Copper Ore	53,807,644,48
3	Aluminum Ore	46,180,858,26
4	Gold Ore	32,514,419,62
5	Dolomitic Limestone	30,110,198,14
6	Granite	25,332,624,70
7	Manganese Ore	21,478,825,71
8	Phosphate	19,256,426,21
9	Sand	18,091,236,98
10	Potassium Salts	13,276,038,94
11	Kaolin	11,250,469,48
12	Nickel Ore	10,826,957,28
13	Gneiss	10,805,796,59
14	Basalt	9,669,183,65
15	Mineral Water	8,870,658,17

¹Canaã dos Carajás is a city of second generation “dismembered” from Parauapebas in the early years of 1990, and since 2004 started to host the exploitation of copper in the Sossego mine, by the Vale group.

Table 2. Ranking of the 10 municipalities that have collected more CFEM in Brazil. (Source: https://sistemas.dnpm.gov.br/arrecadacao/extra/relatorio/cfem/maiores_arrecadadores.aspx. Adapted by the authors).

Municipality	CFEM (R\$)—2010	Municipality	CFEM (R\$)—2011
Parauapebas (PA)	229,896,598,41	Parauapebas (PA)	371,088,416,69
Nova Lima (MG)	81,391,657,67	Nova Lima (MG)	119,419,514,10
Itabira (MG)	74,636,553,27	Itabira (MG)	118,150,100,79
Mariana (MG)	65,446,556,18	Mariana (MG)	98,812,313,42
São Gonçalo do Rio Abaixo (MG)	56,139,407,63	São Gonçalo do Rio Abaixo (MG)	90,828,126,72
Congonhas (MG)	37,058,587,75	Itabirito (MG)	59,489,357,32
Brumadinho (MG)	33,849,120,38	Brumadinho (MG)	53,806,448,15
Itabirito (MG)	32,792,586,03	Congonhas (MG)	52,644,913,17
Canaã dos Carajás (PA)	26,389,306,77	Canaã dos Carajás	31,953,067,54
Ouro Preto (MG)	23,231,427,78	Alto Horizonte (GO)	25,595,310,66
Total Brazil	1,083,142,391,67		1,544,749,140,35

Table 3. The main collecting municipalities of CFEM in the state of Pará. (Source: https://sistemas.dnpm.gov.br/arrecadacao/extra/Relatorio/cfem/maiores_arrecadadores.aspx. Adapted by the authors).

Municipality	2010	Municipality	2011
Parauapebas	229,896,598,41	Parauapebas	371,088,416,69
Canaã dos Carajás	26,389,306,77	Canaã dos Carajás	31,953,067,54
Oriximiná	18,598,141,94	Oriximiná	21,220,281,78
Paragominas	10,916,670,65	Paragominas	12,336,831,69
Juruti	12,297,592,13	Juruti	10,717,061,23
Ipixuna do Pará	8,140,172,26	Ipixuna do Pará	7,114,356,53
Marabá	6,083,211,67	São Félix do Xingu	2,709,765,44
Floresta do Araguaia	1,081,809,74	Floresta do Araguaia	1,970,968,68
Itaituba	318,755,37	Marabá	1,874,832,81
Jacareacanga	32,293,979,65	Itaituba	306,528,09
Total dos Dez Municípios	314,845,129,95	461,292,110,48	
Total of the State	346,016,238,59	462,408,808,04	

The ten cities that collect CFEM also stand out in the collection of FPM, in case of Parauapebas over 280 million dollars when aggregating the two taxes together, followed by Canaã dos Carajás, municipalities emancipated because of mining, followed by Oriximiná, Paragominas and Juruti, the oldest municipalities and not emerged due to the mining activity (Table 4). Mining is the main activity in the first two municipalities, but all connected to the international economy by operating in their territories of mining groups that exploit activities on a large scale.

According (Table 5), one can check the population of these municipalities.

In the state of Pará, municipalities like Barcarena, Canaã dos Carajás, Ipixuna do Pará, Marabá, Parauapebas and São Félix do Xingu, had a considerable population growth. Parauapebas, Canaã dos Carajás, Marabá and São Félix do Xingu were highlights in these ten years, compared to 2000 to 2010. This reflecting principally on mineral projects in their municipalities, which accelerated population growth within these municipalities, creating urban and rural conflicts of different nature related directly and indirectly by attracting population due to mineral ventures. These twenty-one municipalities concentrate most of Pará's population, more than one million people, which is also a political factor for municipal elections and that somehow alter the FPM and CFEM as fundamental variables both politically and economically in their territories, to be used by local elites and developmentalists discourses based on mineral economics. Parauapebas and Juruti preparing themselves to enter the era of mining of the XXI century, connecting the Amazon to various world markets: the Chinese and Canadian partners as a “*niche economy*”.

Table 4. The main collecting municipalities of FPM in the state of Pará. (Source: http://www.stn.fazenda.gov.br/estados_municipios/municipios.asp. Adapted by the authors).

Municipality	2010	2011
Parauapebas	38,549,611,58	46,222,186,36
Canaã dos Carajás	7,502,033,00	9,035,598,00
Oriximiná	11,788,908,81	15,489,596,24
Paragominas	16,075,784,62	19,361,995,25
Juruti	8,573,751,99	12,907,996,96
Ipixuna do Pará	10,717,189,79	14,198,796,58
Marabá	39,621,330,59	47,512,985,93
São Félix do Xingu	18,071,195,56	12,860,627,72
Floresta do Araguaia	5,358,595,13	7,744,798,31
Jacareacanga	9,645,470,84	6,453,998,61
Total dos Dez Municipalities	165,903,871,91	191,788,579,96
Total of the State	1,567,396,025,92	1,931,531,190,06

Table 5. The population of municipalities with mining activity in the state of Pará. (Source: [3]. Adapted by the authors).

	Municipality	Population in 2000	Population in 2010
1	Alenquer	41,784	51,326
2	Altamira	77,439	94,624
3	Bannach	3780	3409
4	Barcarena	63,268	94,641
5	Cachoeira do Piriá	15,437	26,333
6	Canaã dos Carajás	10,922	26,188
7	Cumaru do Norte	5978	10,391
8	Curionópolis	19,486	18,212
9	Ipixuna do Pará	25,138	51,453
10	Itaituba	94,750	95,210
11	Juruti	31,198	46,560
12	Marabá	168,020	224,014
13	Monte Alegre	61,334	54,238
14	Oriximiná	48,332	61,125
15	Ourilândia do Norte	19,471	27,511
16	Paragominas	76,450	97,459
17	Parauapebas	71,568	149,411
18	Rurópolis	24,660	40,014
19	São Félix do Xingu	34,621	90,908
20	Tucumã	25,309	33,084
21	Xinguara	35,220	40,558
	Total of Municipalities	954,165	1,336,669
	Total of the State	6,192,307	7,443,904
	Total of the Northern Region	12,900,704	15,484,929

3. Conclusions

The implementation of major projects in the Amazon intensified the demographic boom of many urban centers in the region of its coverage, when it was not responsible for its creations. A demographic boom, intensified over the years following the installation of Major Projects, helped cause the cities to increase their populations, although with all urban problems: lack of infrastructure, health problems, prostitution, violence and others, which do not occur in the part where mining companies have their total control.

Thus, the Brazilian Amazon remains related to one of the borders expansion of the international capital in Latin America. The whole manner was also associated with the possibility on the Amazonian “development”. Therefore, the government has succeeded in developing its strategy for involving the national and international private capital to state capital.

The beginning of a new era for the municipalities of Pará, in mining and consequently for Pará: the era of ores, becomes the region’s largest economy. The Vale Group, for example, which was already one of the largest mining groups in Brazil, earned more elements to become one of the largest mining groups in the world. Operate in two systems: namely, the north and south system, both indicating the growth that the Group was gaining with the installation of its projects in Brazil and the Amazon.

It is in this perspective that one can understand the integration of mining activities present in municipalities of Pará and a possible virtuality of other projects. From this viewpoint not only the State, but also companies and different economic actors were used in the financial resources, making it the element through which the discourses of local government mobilize the local community to try to ensure its municipal area. However, organized civil society in municipalities which are under mining areas has its undefined role with regard to the search for available resources in the territories.

Another highlight is related to dependence that municipalities have around the mining activities in Pará. In some cases, a single Group monopolizes the exploitation of minerals in regions of the state, as in the case of the Vale Group and Alcoa Group. The important thing is to rethink the role of mining in Pará and companies that operate within the state, and the multiplier effect that has been generated by these projects in the Amazon. The issue of increasing the tax rate needs to be accompanied by a new way of thinking about development in the region, which takes into account the local society, and the impacts of these projects. One must not repeat the mistakes of the past, not only in the quantification, but in qualifying the application of these resources, and not allowing companies to assemble their infrastructure outside the State, which makes them a raw material supplier. The ore goes out almost *in natura*, with aggregating an insignificant value to the product. With this, the State fails to collect, and the local society ends up not being benefited from investments by mining groups as it should do.

All investments made by the mining groups are important, and one cannot deny his contribution, although this contribution is only now called into question, namely, only now those who run the political life of the state realized that these are not sufficient only for palliative social projects, there has to be more to generate the multiplier effect in the State of Pará and thereby benefit the local society.

Nothing guarantees that Pará, an increasingly Miner State, owns and has been based only on this type of economy to its socioeconomic development. It becomes necessary to create development strategies in other scales, such as, the agricultural potential of the state. The mining industry that remains in Pará, has not made significant progress in setting up development centers, nor collected benefits for the local society. On the contrary, in the case of activities related to mining, for example with the pig iron, the forest in the region is at risk of total disappearance, since there is no reforestation to obtain charcoal.

In this way, the industrialization in the capitalist economy ended up making a real change in values, because the industrialization has become synonymous of development, as said by Altvater [9]. In this sense, according to Altvater [9], development is contrary to the environment, and it transformed into disorder what nature took millions of years to leave the state in which it is today. The time of nature and capital in this case is inconsistent. Thus, appropriating the various mines exploited jeopardizes the development of Pará, unless changing the model of natural resource exploitation, which currently commands the relations of production in the Amazon, and posture of the Brazilian state in front of strategic natural resources for the development of the region and the nation.

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References

- [1] Santos, M. and Silveira, M.L. (2001) *O Brasil: Território e sociedade no início do século XXI*. Record, São Paulo.
- [2] Palheta da Silva, J.M. (2004) *Poder, governo e território em Carajás*. Ph.D. Thesis, FCT/UNESP, Presidente Prudente-São Paulo.
- [3] IBGE: Instituto Brasileiro de Geografia e Estatística (2010) *Sinopse do censo demográfico*. IBGE, Rio de Janeiro.
- [4] FIPE, FUNDAÇÃO Instituto de Pesquisas Econômicas (2009) *Plano de logística e transportes do estado do Pará: Análise espacial da mineração no Pará*. FIPE/SETRAN, São Paulo.
- [5] Departamento, Nacional de Produção Mineral (2011) *Sumário Mineral/MME*. DNPM/DIPLAM, Brasília.
- [6] Coelho, M.C.N. (2011) *Sócio-Economic Impacts of the Carajás Railroad in Maranhão—Brasil*. Ph.D. Thesis, Syracuse University, Syracuse (USA).
- [7] IBRAM—Instituto Brasileiro de mineração (2011) *Indústria da mineração*. Ano VI, n° 41, FIPE/SETRAN. MME, Brasília.
- [8] MME: Ministério das Minas e Energia (2010) *Plano nacional de mineração 2030 (PNM—2030)*. MME, Brasília.
- [9] Altvater, E. (1995) *O preço da riqueza*. UNESP, São Paulo.

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