Regional Development in the Amazonian Border Area from the Installation of Areas of Free Trade

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Abstract— The concept of development goes back to the classical theory of economics and has many other aspects over the years. In Brazil, many public policies instituted by the Federal Government sought to promote the country's development, such as the creation of the Manaus Free Zone, which aimed to promote the development of the North region in a sustainable way. Likewise, Free Trade Areas were created - decentralized FTAs, as in the case of Guajará-Mirim, as territorial and developmental strategies. The objective of this article is to analyze the regional development of Guajará-Mirim and verify its relation with the institutionalization of the Free Trade Area, having as research variables the Municipal Human Development Indexes - MHDI, Education Index, Index of Income and Index of Work. The following question is answered: did the installation of the Free Trade Area in Guajará-Mirim contribute to regional development? To answer the research problem, the main theoretical approaches to regional development and related public policies are used, with emphasis on the studies provided by MYRDAL (1957), BALDWIN (1979), BARQUERO (1995), AMARAL FILHO (1999), SOUZA, (1999, 2005, 2009), CABUGUEIRA (2007), FREY (1997), among others.

Keywords— Regional development, public policy, free zone.

I. INTRODUCTION

When it seeks to understand public policies of frontier development, the main focus is given to the responsibility of the federal sphere in presenting solutions, even by its constitutional competence. The concept of development, according to classical theories, can be measured by the increase in economic indicators, improvement in infrastructure, better distribution of income and increase in the population's welfare indices.

It is a fact that in Brazil, certain regions have advanced more to the detriment of others, as is the case in the northern region. The theoretical analysis of unequal development provides a basis for understanding this phenomenon and analyzing its variables, even with the contribution of public policies that favor development. Often endogenous factors are taken as the essential elements for which a particular region evolves.

In the north of the country, one of the strategies to enhance sustainable development was the creation of the Manaus Free Zone and then its decentralization for some strategic regions. In this context, the Federal Government created the decentralized Free Trade Areas to promote the development of international frontiers in the Western Amazon, in order to seek integration with the rest of the country through fiscal incentives similar to those applied in the Free Zone of Manaus. One of the FTAs created was established in the municipality of Guajará-Mirim, state of Rondônia.

In this bias, this article aims to analyze the regional development of Guajará-Mirim and verify its relation with the institutionalization of the Free Trade Area, having as research variables the Municipal Human Development Indexes - MHDI, Education Index, Index of Income and Index of Work. The following question is answered: did the installation of the Free Trade Area in Guajará-Mirim contribute to regional development? In the quest to respond to the research problem, the main theoretical approaches to regional development and public policies related to the subject are used, mostly constituted by legislation, plans and government programs. In the theoretical field, the understanding provided by MYRDAL (1957), BALDWIN (1979), BARQUERO (1995), AMARAL FILHO (1999), SOUZA, (1999, 2005, 2009), CABUGUEIRA (2007), and others.
The study is characterized in a qualitative research with data analysis by means of a case study, seeking to establish relation with the data found in the variables with the development from the Free Zone installation. For this purpose, data collection was based on the consolidated database of the Human Development Atlas of Brazil, which uses data from the Brazilian Institute of Geography and Statistics (IBGE) for the years 1991, 2000 and 2010. For the presentation of the studies carried out, the article was divided into three stages: initial introduction, the second part discusses the theoretical reference on the theories involving the concept of regional development, the third stage discusses the concepts and typologies of public policy, in the fourth step is the presentation and discussion of the data found and finally the final considerations.

II. CONCEPTS OF REGIONAL DEVELOPMENT
The headings and subheadings, starting with “I. Introduction”, appear in upper and lower case letters and should be set in bold and aligned flush left. All headings from the Introduction to Acknowledgements are numbered sequentially using 1, 2, 3, etc. Subheadings are numbered 1.1, 1.2, etc. If the search for reducing existing inequalities in Brazil and promoting regional development permeates the country’s decentralization history promulgated in the 1988 constitution. As a provider of public policies, the State has undergone social and economic reformulations, but it has not been successful in process of reducing regional inequalities, a fact that leads the federal government to give more autonomy to the states in the conduct of these public development policies. Financial and political cooperation between federation and state becomes more and more constant. (SOUZA, 1999)

In this sense, it is the theoretical construction that Vladimir Lenin considers as unequal geographical development, reflecting on development, which can easily be applied to the process of decentralization and development of the Brazil. From an economic perspective, growth points to the conceptualization of development. In the book “The Wealth of Nations,” Adam Smith (1776) identifies the causes of growth with the high rate of positive profit, with market growth and worker productivity (SOUZA, 2005). Thus, development is characterized by the increase of economic indicators, improvement in infrastructure, better distribution of income and increase in the population's well-being indexes. Allied to the economic thought of Adam Smith (1776), Baldwin (1979) considers as economic development the process in which, over a period of time there is an increase in the real national income. Souza (2005) points out that although there is a certain consensus in most nations to perceive development from the economic bias, the existence of public policies related to the social objectives and well-being of the population, also favored economic development. According to the author, in Brazil economic thinking involves neoliberal, developmentalist, socialist currents and even eclectic thinking.

With regard to regional development, Isard apud Souza (2009) points out that the concept of the region cannot be thought only in the economic context, but must incorporate demographic, social and technological concepts, observing the multidisciplinary character and the peculiar features. Starting from the administrative political context, Cabugueira (2007) reiterates that regional demarcation is established by territorial boundaries. In this way, it is consistent with the studies on regional development aspects related to spatial economic theory, economic growth theory and legislations that establish and determine the paths of growth. The spatial economic theory is based on Johann Heinrich Von Thünen (1826), followed by Walter Christaller (1933), Francois Perroux (1955), among others, and seeks to explain concepts related to the geographic space of organizations, agglomerative and general spatial organization. Similarly, regional economic theory also based on Von Thünen (1826) relates the territorial location of production with its commercialization and consequent economic growth. That is, growth or development is intertwined with the strategies of location and territorial occupation of markets (SOUZA, 2009).

Such theories reflect the territorial reality of the nations, especially those more extensive, with distant internal territorial distances, that the access to new markets and new technologies occur late. The difficulties of access is presented as an inhibiting factor of development, triggering the expansion of regional inequalities. From the same point of view, Souza (2009) reports that regional development policy aims at the distribution of urban and industrial poles within the regions as a means of containing a demographic concentration at one particular location over another. The fact is that not always such policies are effective. In relation to the existing uneven development, Gunnar Myrdal (1957) presents one of the most important studies on the developments of development theory, called “Theory of Cumulative circular causality”. Myrdal (1957) preached that the social system was not capable of modifying itself in order to provide a balance of forces. The development would then depend on other forces institutions to move forward. Another important theoretical current on regional development is the conception of endogenous
local/regional development in the 1980, in which herein that the success of the growth of certain regions is due to internal performance. Paul Romer and Robert Lucas (1986) were the forerunners of this theory that considers factors such as “human capital, knowledge, information, research and development, which added to the creative and innovative capacity would function as competitive advantages Regional”, (AMARAL FILHO, 1996, p. 41). The theory of endogenous development arises from rupture with traditional theory of development. In the definition of Amaral Filho (1999, p. 2), endogenous development is:

(...) a process of economic growth implying in a continuous increase of the capacity of aggregation of value on the production as well as of the capacity of absorption of the region, whose unfolding is the retention of the economic surplus generated in the local economy and / or the attraction of surpluses from other regions. This process results in the expansion of employment, output and income of the local or more or less defined region within a specific model of regional development. Such a definition is incorporated into new organizational concepts and ways of organizing, enhancing the capacities of a region or community so that it can be sustainable over time. In addition to the studies, Amaral Filho (1996) affirms that the proposed development model extends the bases of autonomous decisions on the part of the social actors, who have the power to interact directly in the way of regional or local development. However, it is not a closed and static model, but a model capable of establishing and fomenting a society capable of providing for itself as models and means of production, in order to fulfill its basic needs and to widen the integration between the people (SERRA AND FERNANDEZ, 2004).

In this perspective, Barquero (1995) presents endogenous regional development in two dimensions, the first in an economic perspective, in which the local business society uses its capacity to organize the productive factors of the region and the second a socio-cultural dimension, where the values and local institutions serve as the basis for the development of the region. In this thought, the implementation of public policies becomes as a driving force of development, without being the main factor, but the necessary strategic variable.

Under this prism of economic development emerges in the 1970s studies on sustainable development as a response of the United Nations - UN climate change occurred. The concept combines economic development with social and environmental development, in a perspective called triple bottom line (Elkington, 1994).

Although there is no single definition, in an overview, Klink (2001) Apud Santos (2005), reiterates that the term sustainability encompasses economic growth and development with environmental conservation. Therefore, the concept encompasses three main objectives: economic efficiency, social equity and environmental integrity.

Sustainable development is a systemic concept under an understanding of global development. The term was used for the first time in the Brundtland report (1987) prepared by the World Commission on Environment and Development. In line with the Sustainable Development Report, "it seeks to meet the needs of the current generation without compromising the ability of future generations to meet their own needs" (OUR COMMON FUTURE, 1988)

As a sustainable development strategy in Brazil, there is Agenda 21 that encourages the country to develop and harmonize development policies for the various sectors, adding governmental, civil society and private sector capacities for a sustainable future vision. According to Arnt (2010) for the attainment of sustainable development it is necessary to overcome deadlocks and build consensus. The aggregation of forces regains the idea of endogenous development, with unbiased and consensual discussions.

Faced with the various theoretical currents and the scientific ambiguities in relation to the role of each instrument to promote regional development, Cavalcante (2008) infers the need to have development strategies in a way Individualised, there is a view that there is no single guideline applicable to all regions.

After this brief review of the concepts and reflections on regional development, there is a reflection on public policies focused on promoting regional development in Brazil.

III. PUBLIC POLICIES FOR DEVELOPMENT

Studies on public policy do not have a uniform theory, but part of the modern combination of methods and a new and peculiar focus, moving through economic, political, administrative, and other conceptions. According to Souza (2006) the public policy area considers the researchers H. Laswell, H. Simon, C. Lindblom and D. Easton as the founding fathers of the area.

In the 1930s, Laswell (1936) introduced the term policy analysis relating scientific knowledge to the empirical production of governments. Simon (1957) applied the concept of limited rationality of policymakers in view that this rationality could be minimized by rational knowledge. Lindblom (1959, 1979) considered the concepts of rationalism of Laswell and Simon proposing the integration of other variables as relations of power and joining of different phases of the decision process. In turn, Easton (1965) defined public policy as a system, that is, a relation between formulation, outcome, and environment. Public policy can be seen in a broad sense, under a holistic vision covering diverse disciplines, theories and...
methodologies. The design and formulations of public policies are deployed in plans, programs, projects and information and research systems. In Frey's (1997, 243) conception, the study of the material dimension of public policies presupposes "a general knowledge of problem solving processes", because a satisfactory knowledge is necessary both in relation to institutions and in order to create a frame of reference for the analysis of each policy field (FREY, 1997).

In a Brazilian context, public policy meets different forms of support and rejection, and the disputes over which it passes its decisions operate through differentiated arenas (FREY, 1997). Theodor Lowi (1972) presented the concept of policy arena that assumes that "people's reactions and expectations are affected by political measures" whose effect anticipates the political decision-making process and implementation, in this context, public policy makes policy. The discussions raised by Lowi (1972 apud FREY, 1997) distinguish four types of public policies according to their character, being: distributive, redistributive, regulatory or constitutive.

Distributive policies, as the name suggests, are government decisions that aim to distribute advantages by privileging certain social groups to the detriment of the whole. Redistributive policies are those universal calls because they cover more people and they are also a policy pervaded by conflicts. Regulatory policies involve bureaucracy (orders, prohibitions, decrees and ordinances), politicians, and interest groups. Public policies are more visible to the public because the costs and benefits are distributed in a balanced way to society, just as certain policies may serve particular interests. Finally, constitutive policies are those structurers that deal with procedures. Each type of policy signaled the types of programs, plans and projects that will be planned and/or implemented as public policies.

In Brazil, such policy typologies directly reflect how public policies are shaped in order to develop the country. Many government plans or programs are geared toward the promotion of regional development, mainly for the territories that were farther away from the central regions. The institutionalization of regions, governance and budgetary distribution, besides the articulation of social, political and economic actors also contributed. Governance occurs when regional and local actors, together, perform actions to assess problems relevant to their regions or locations, aiming to observe problems better compared to national or supra-national actors.

IV. SCENARIO OF THE FREE TRADE AREAS ON THE AMAZON BORDER

In order to build a model of sustainable regional development in the north of the country, in 1967 the Federal Government created the Superintendence of the Manaus Free Trade Zone (SMFTZ), an agency linked to the Ministry of Development, Industry and Foreign Trade. Based in the city of Manaus in the state of Amazonas, SMFTZ seeks economic alternatives to attract enterprises to the Amazon region, aiming at generating income, employment and sustainable development.

Following the strategy of promoting development, Free Trade Areas were created - FTA decentralized of the city of Manaus, with the objective of promoting the development of the cities of international borders located in the Western Amazon.

The institutionalization of these areas aimed to integrate them to the rest of the country, offering tax benefits similar to those of the Manaus Free Trade Zone, with incentives from the Industrialized Products Tax (IPT) and the Tax on Goods Circulation and Provision of Services (TCCPS).

The main objectives of the FTAs are to improve the supervision of entry and exit of goods, the strengthening of the commercial sector, the opening of new companies and the generation of jobs. In these areas, good business options are obtained from investments in local raw materials using fiscal incentives or even the establishment of wholesale trades of imported products to meet the needs of local and adjacent populations.

Currently, the Free Trade Areas included in the perimeter of the Free Zone of Manaus model are: Boa Vista and Bonfim in the State of Roraima; Tabatinga, in the State of Amazonas; Macapá and Santana, in the State of Amapá; Guajará-Mirim in the State of Rondônia; Brasiliéia with extension to Epitaciolândia and Cruzeiro do Sul in the State of Acre.

To ensure a high-quality product, diagrams and lettering MUST be either computer-drafted or drawn using India ink.
With the purpose of analyzing the regional development from the establishment of the free trade area, the FTA of Guajará-Mirim, located in the state of Rondônia, in the border area with the city of Guayaramirim in Bolivia, was delimited as a research locus.

Established by Law no. 8,210 of 07/19/1991 and regulated by Decree no. 843 of 06/23/1993, the creation provided for free trade of import and export under special tax regime with the purpose of promoting the development of the region of the extreme northwest of the State, besides increasing the bilateral relations with the neighboring countries according to the policy of Latin American integration.

Considering the mission of the Superintendence of the Manaus Free Trade Zone - SMFTZ to “promote regional economic development, through generation, attraction and consolidation of investments, supported by education, science, technology and innovation, aiming at national integration and competitive international insertion” the study intends to evaluate the development of the Guajará-Mirim region based on the variables income, employment, education and human development index from the establishment of the free zone.

ANALYSIS OF REGIONAL DEVELOPMENT: THE CASE OF GUAJARÁ-MIRIN

The history of Guajará-Mirim is inherent in the history of Rondônia, its settlement and the clearing of the north of the country. Its location was already known since the 18th century as a point of reference for the river route. At the beginning of the twentieth century was chosen as the end point of the railroad Madeira-Mamoré at the height of the exploitation of rubber. In 1928, the Legislative Power approves the request for installation of the municipality and district of Guajará-Mirim, which is approved by the then governor through the law 991 of 07/12/1928. Already on April 10, 1929 is actually installed the county and municipality of Guajará-Mirim. In 1943 the Federal Territory of Guaporé was constituted by Decree-Law 5812, maintaining the same denomination. According to data from the IBGE (2016), the municipality located in the II microrregion of the State of Rondônia occupies an area 24,855,724 km² and a population of 47,048 inhabitants.

The history of the municipality is marked by advances and setbacks. Although the Manaus Free Zone was installed in 1967, public development policies for the Amazon were still centralized. As a way to maximize development and expand it to other territories, it was promoted to the decentralized Unit of SMFTZ in 1991 through Law n. 8210.

The Human Development Atlas of Brazil is a platform for consulting the municipal human development index (MHDI) of 5,565 Brazilian municipalities of 27 units of the federation (UF). The data presented by the Atlas Brazil were extracted from the Demographic Censuses of 1991, 2000 and 2010 and gathers more than 200 indicators of demography. According to the analysis proposal, the following indices of the municipality of Guajará-Mirim were observed.

| Table 1: Indices of the Municipality in the years according to the Census of the years 1991, 2000, 2010 |
|-------------------------------------------------|
| Index   | Year 1991 | Year 2000 | Year 2010 |
| MHDI    | 0.468     | 0.573     | 0.657     |
| Education | 0.247     | 0.398     | 0.519     |
| Income  | 0.625     | 0.638     | 0.663     |
| Job     | -         | 67.24     | 62.55 %   |

The ideal index for each variable would be the equivalent of 1. In this sense, it is noticed that none of the variables is in the situation considered as optimal, or full development. Considering that the installation of the Free
Zone took place in 1991, it can be seen that there were no significant advances, as shown in figure 1. In 2010, the Guajará-Mirim Human Development Index (MHDI) was 0.657, which places the municipality in the Medium Human Development (MHDI range between 0.600 and 0.699). Contributing to this dimension is the growth of the Income Index with an average of 0.663, and Education, with an index of 0.519.

What is verified by means of the graph is that the proportion of growth of the municipality followed the growth of the country, the one can not attribute such factor to the installation of the Free Zone. The MHDI increased from 0.468 in 1991 to 0.573 in 2000, which is equivalent to a growth rate of 22.44%. Already in the period from 1991 to 2010 the growth of the MHDI of the municipality was 40.38% while the state of Rondônia grew by 47% in the same period.

The rates of education were the ones that grew the most, leaving from 0.247 in 1991 to 0.519 in 2010.

The gradual growth of education occurred in all age groups and in all years of evaluation. However, growth is still less than the average state and the national average. According to information from the Atlas Brazil, the average per capita income of Guajará-Mirim increased by 26.40% in the last two decades, from R $ 391.37 in 1991 to R$ 422.65 in 2000, and for R$ 494.69 in 2010.

To describe the evolution of income inequality in the periods of analysis the Atlas Brazil uses the Gini, which is an instrument used to measure the degree of concentration of income and points out the difference between the income of the richest and the poorest, being represented on a scale of 0 to 1. Using the Gini index, the evolution of income inequality rose from 0.60 in 1991 to 0.60 in 2000 and to 0.54 in 2010.
The income scenario of the municipality did not undergo major changes between the periods analyzed, which means that there was no factor that could influence the increase in per capita income.

The labor scenario presented by the Atlas Brazil, shows that the percentage of the population that was economically active (18 years or more) went from 67.24% in 2000 to 62.55% in 2010. The unemployment rate also decreased from 14.18% to 7.07% in 2010. The services sector is the one with the highest occupancy rate with 51.64%, followed by the commercial sector with 18.26% and by the agricultural sector with 11.33%.

V. CONCLUSION

The data raised in the research does not allow to relate the implantation of the area of free trade in Guajará-Mirin with the growth or development of the municipality, there is a view that in the same period the state of Rondônia grew higher than those presented in Research.

Some public policies such as implantation educational centres favor the development of the region, can be evaluated as a possibility for the increase of educational indexes.

Between 1991 to 2000 the municipality had an increase in population at an average annual rate of 1.74% while the state had a 2.22% increase. In the following decade the population increase of Guajará-Mirin was 0.91%, below the state average. What reveals a migration to the north of the country, not representing however relationship with free zone of Guajará-Mirin.

To better define the factors contributing to the development of the region, other studies are needed with the detailing of other variables and interviews. It is a fact that public policies favored the region or were the basis for the migration of people to the municipality, seeing that the territoriality of the state of Rondônia is related to the emergence and emancipation of the municipality of Guajará-Mirin.

It is not possible to report whether endogenous factors contributed to the increase in the index of Municipal Human development – IDHM, even in a not so significant way. Territorial factors such as the international border and proximity to the Bolivian city can be pointed to as conditions for growth. It is possible to relate the growth of the municipality with the theoretical construction of Vladimir Lenin on unequal geographical development, because despite being a territory already known since the 18th century, its evolution did not accompany the rest of the country or even the same State.
REFERENCES

[1] ALMEIDA, V. (org). A floresta é de todos. Um guia para a participação comunitária na gestão de Unidades de Conservação do Amapá. Macapá: GRET, 2016. http://dx.doi.org/10.22161/ijaers.4.7.1

[2] AMARAL FILHO, Jair do. Desenvolvimento Regional Endógeno em um Ambiente Federalista. Planejamento e Políticas Públicas, N.14- Dezembro de 1996.

[3] ATLAS DO DESENVOLVIMENTO HUMANO NO BRASIL. Rio de Janeiro, PNUD, IPEA, Fundação João Pinheiro, 2017. Disponível em <http://www.atlasbrasil.org.br/2013/pt/consulta/> Acesso em 10/05/2017 às 23:19:00.

[4] ARNT, Ricardo. O que os Economistas pensam sobre sustentabilidade. São Paulo – SP, Editora 34, 2010.Blue, L. (2008, March 12).Is our happiness preordained? [Online exclusive]. Time. Retrieved from http://www.time.com/time/health

[5] BALDWIN, R. E. Desenvolvimento e Crescimento Econômico. São Paulo, Pioneira, 1979.

[6] BARQUERO, A. V. Desenvolvimento local: novas dinâmicas na acumulação e regulação do capital. Tradução Ricardo Brinco. Ensaios FEE, Porto Alegre, Ano 16, v. 1, p. 221-241, 1995.

[7] BARQUERO, A. V. Desenvolvimento Endógeno em tempo de globalização. Tradução Ricardo Brinco. Fundação de Economia e Estatística, 2001.

[8] CABUGUEIRA, Artur Carlos C. M. Do Desenvolvimento Regional ao Desenvolvimento Local. Análise de alguns aspectos de política econômica regional. São Paulo: Revista Gestão e Desenvolvimento, 2000.

[9] CAVALCANTE, Luis R. M. T. Produção teórica em economia regional: uma proposta de sistematização. Revista Brasileira de estudos Regionais e Urbanos. São Paulo, vol. 02, n. 01, 2008. (p. 09-32).

[10] CRESWELL, John W. Projeto de pesquisa métodos qualitativo, quantitativo e misto. In: Projeto de pesquisa métodos qualitativo, quantitativo e misto. 3.ed. Artmed, 2010.

[11] ELKINGTON, J. Towards the sustainable corporation: Win-win-win business strategies for sustainable development. California Management Review, 1994. Disponível em< http://journals.sagepub.com/doi/abs/10.2307/41165746>. Acesso em 15/04/2017, 15:47:00.

[12] FREY, Klaus. Políticas públicas: um debate conceitual e reflexões referentes à prática da análise de políticas públicas no Brasil. Planejamento e políticas públicas, n. 21, 2009. Disponível em <http://www.ipea.gov.br/ppp/index.php/PPP/article/viewFile/89/158> Acesso em 26/04/2017

[13] MYRDAL, Gunnar. Teoria económica y regiones subdesarrolladas. Trad. Ernest Cuesta e Oscar Soberón. México: Fondo de Cultura Económica, 1957.

[14] NOSSO FUTURO COMUM (Relatório Brundtland). Comissão Mundial sobre o Meio Ambiente e Desenvolvimento. Rio de Janeiro: Editora Fundação Getúlio Vargas, 1988.

[15] SERRA, Mauricio A.; FERNANDEZ, Ramon G. Perspectivas da Amazônia: motivos para o otimismo e para o pessimismo. Campinas - SP, Revista de Economia e Sociedade, 2004.

[16] SANTOS, Thereza Carvalho. Ordenamento Territorial. Anais da Oficina sobre a Política Nacional de Ordenamento Territorial, Brasil- MIN, Brasília – DF, 2005.

[17] SOUZA, Nali de Jesus. Desenvolvimento Regional. São Paulo: Atlas, 2009.