

ENVIRONMENTAL-ECONOMIC ZONING: An Instrument for Regulating Territory in Brazil

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ABSTRACT

The present study aims to evaluate the importance of Environmental Zoning in Brazil, as an instrument of the National Environmental Policy. The study arises from the analysis of the constitutional aspects involved, from a reflection on the position of Brazil as a worldwide supplier of commodities and the difficulties in implementing this instrument. The study concludes that Public Administration has an undelgateable role in the use of its territory and its natural resources. The suggestion is that instead of “arrangement of the territory”, it would be more adequate to use the expression “regulation of the territory”, once the market forces, in their majority, are not subject to control by the National States. In this context, the implementation of the Environmental Zoning should occur within a new background, in order to assist Public Administration in the regulatory and control process of the use of the territory, to minimize the consequences “imposed” by the external demands of the present global economy on the use of the land and its natural resources.

Keywords: *Public Administration, Globalization, Territorial Arrangement, Natural Resources, Regulation, Environmental-Economic Zoning/ZEE*

1. INTRODUCTION

This article aims to demonstrate the importance of Environmental Zoning for the Brazilian Public Administration, as an instrument of environmental management and territorial planning, under the context of globalization. This instrument was established by Law 6938, of August 31, 1981, which deals with the National Environmental Policy, with 33 years of enforcement. After over three decades, it is possible to evaluate the performance of this instrument in the promotion of environmental management and regional development.

During this time various nomenclatures have been used in relation to the Environmental Zoning: Territorial Zoning, Environmental-Economic Zoning, Management Plan of Conservation Units, Coastal Zoning, among others. Ultimately, Environmental Zoning became better known as Environmental-Economic Zoning /ZEE, for which reason, in the present article, when referring to Environmental Zoning the initials ZEE shall be used.

The ZEE aspires to assist in the planning of certain geographical spaces, as of the identification of the potentialities and environmental, social and economic vulnerabilities of the territory and of its natural resources with the aim of maximizing these potentialities and minimizing the vulnerabilities.

The adoption of this planning instrument is justified in the measure in which the national territory is becoming a setting of increased global pressure for the use of its resources, such as minerals, water, soil, forests, among others, used to supply a great deal of commodities necessary for the productive process of the world economy.

It is not possible to grasp the complexity of implementing the ZEE in Brazil without understanding some aspects of the country's recent history. As an example of the latest occurrences it is possible to mention the trade opening, in 1990, during the government of President Fernando Collor de Mello (1990-1992), at which time the market was prioritized, with the consequent release of prices; establishment of the Plano Real/1994, in the Itamar Franco Government (1993-1994); Reform of the State, in 1994, by President Fernando Henrique Cardoso (1995-2002), giving continuity to the Plano Real, emphasizing the deregulation of the market and privatization

of state-owned companies, with the financial and commercial liberation, and, finally the social policy of the Lula Government and of his successor Dilma Russeff, from 2003 to date.

It should be observed, in first place, that Brazil is a Federate State, composed of a complex administrative structure formed by the Union, 26 states, one Federal District and 5,561 municipalities, all autonomous, from the political-administrative viewpoint.

It is also necessary to emphasize that over and above this political and administrative network there are other instances of territorial management, some of which are deliberative, such as the management through hydrographic basins, Units of Nature Conservation, Metropolitan Regions and urban agglomerations, where territorial boundaries do not coincide with the political-administrative limits of the federate entities.

The country has approximately 200 million inhabitants (the 5th country in the world population ranking), to which the Public Administration has to answer to, as well as giving answers to the demands of the globalized world, once it is the 6th world economy, strongly engaged in the new world economy processes.

Considering the speed in which the exportation of the natural resources occurs and the appropriation of the regional spaces, to attend to the globalized world, the ZEE was chosen as a planning instrument, capable of offering important technical, political and juridical support to the Brazilian Public Administration.

2. OBJECTIVES AND POSTULATES FOR THE ENVIRONMENTAL-ECONOMIC ZONING/ZEE

The ZEE helps to identify the best possibilities for the use of the land and natural resources, to guide the economic development, preserving and conserving social and environmental aspects of greatest importance. In other words, the ZEE proposes to induce economic development in a compatible and sustainable manner with the potentialities of its environmental and socio-cultural heritage, granting greater rationality to the use of environmental resources.

The ZEE has various facets: it is a technical, political and juridical instrument, which subsidizes the Public Authorities with technical bases for the spatialization of various public policies.

Another great importance of the ZEE refers to the fact that when it is integrated with other environmental tools, it facilitates the analysis of projects, to obtain the licenses and environmental permits.

From a technical point of view, the ZEE does not adopt the same methodologies for the various territorial dimensions. In this manner, the ZEE on a national and state level should establish guidelines and mechanisms for inducing the territorial planning. Another relevant aspect is that the ZEE does not end with the preparation of a map, as it is frequently imagined. Above all, it is a dynamic planning process.

Apart from the technical aspects involved in the ZEE, its importance as an instrument of negotiation among the various spheres of the public and private sector and the civil society must be emphasized, permitting the construction of partnerships. It is, therefore, an eminently political instrument that has been little used, in Brazil, leaving this important part of the negotiation process uncovered. Even though it is usually a time-consuming process, this phase should not be suppressed, once it gives the ZEE political support.

This is, therefore, a process under constant improvement where, many times, its construction is worth more than its result. This is why the social pacts are one of its most positive results, because these bind the interested parties, resulting in a greater efficiency in the implementation of the public policies.

Some principles should, necessarily, guide the construction process of the ZEE:

- a) Participation: from the conception of the ZEE until its implementation, accommodating public and private interests;
- b) Equity: equal opportunities for all the social groups and for the different regions;
- c) Sustainability: satisfying present requirements, without compromising resources for future generations;
- d) Interdisciplinary: in the approach of the environmental and socio-economic dynamics;
- e) Articulation: in the institutional integration between the government and civil society and, consequently, in relation to the various public policies.

3. IMPORTANCE OF THE ZEE IN THE CONTEXT OF THE GLOBALIZED ECONOMY

Presently the following situation is verified in Brazil: most of the primary goods are related to external demands to the country, where planning and consumption occur outside its territorial limits. Thus, the use of the national

territory, as a basis for planning, trails behind demands planned outside the country. In relation to this subject it is important to consult the study made by MARKOFF (1999).

In view of this reality, what are the margins of action of the Public Authorities to enable a minimum control and planning over these economic forces that operate over its territory and its natural resources?

It should be noted that the requirement for performing the arrangement of the territory does not occur only because it is so determined by the 1988 Federal Constitution in force but, mainly, because there is a strong internal social pressure by social groups that want to be a part of the economic growth generated by agribusiness; tourism and hotel complexes; extraction of mineral resources; occupation of estuaries and other coastal areas by shrimp farmers, and so forth. These have been the main businesses in which the country has been involved in within the past decades with the industry of transformation, in many of its segments, declining in production and generation of employment and income.

Due to this social pressure towards Public Administration and, also over private enterprises, much has been said in relation to “social licenses” to permit development and intervention in certain territories. This pressure has occurred more strongly by indigenous communities, and traditional communities, with emphasis to the *quilombola* communities, which enjoy specific legal protection.

Thus, the Public Authority, apart from the internal social demands, is faced with external requests, whose processes it does not participate, but it is obliged to offer technical, political and social solutions to issues deriving from these demands. In other words, it is responsible for improving the Human Development Indicators (HDI), through mechanisms of income distribution, insertion of small entrepreneurs in the economy, valuation of family agriculture, generating jobs, among other answers.

The Public Authority is urged to solve the difficulties of integrating, within its territorial limits, two worlds that are apparently not compatible: **the formal**, technological and global world, with the **real world**, where social issues emerge and increase.

It seems almost impossible that the State can execute this and, in fact, it cannot do it very well! For this reason it is said that the State is under crisis. Almost certainly its role has not been the same as it was attributed throughout time. There is the need for the State to react and take control of its territory and its national and regional development, even under such adverse conditions.

4. THE STRENGTH OF THE STATE IN THE GLOBAL WORLD

Sovereignty, territoriality and the existence of an organized nation are the premises for the existence of the State. It so occurs that these requirements have been undergoing some transformations to adequate to the new global economy. Many studies have demonstrated that the States work towards the implementation of the global economy, nevertheless, little is known about the real transformations occurred within, in this new historical moment. In this sense, as an example, the studies of OGATA (2013 a and b) aim towards demonstrating how external forces operate over legal and institutional aspects of the management of water resources in Brazil, as a response of the country to the worldwide water crisis.

Everything points out, therefore, that the State should be capable of acting as a factor of modernization of the economy. Thus, the great reform that is foreseen is the one that aims to qualify the State for the functions imposed by a world economy in accelerated modernization.

In this manner, despite the fact that the demands are apparently from an external origin, the solutions end up being processed internally within the National States, as mentioned in the study of SASSEN (1997, 1999 and s.d.). In this context, the National States are extremely necessary to the global world, because everything must be resolved within its frontiers.

Should the limitations of the National States be thus understood in a globalized world, the requirement that these must solve issues that were not created by themselves seems perverse, but the answers must come necessarily through them, once everything can be configured as “internal issues” under the terms dealt with by SASSEN (1997, 1999 and s.d) and MARKOFF (1999).

Although this indicates the tendency of nullifying the National State, many defend that the National State is stronger than ever, in total compatibility with the requirements of the global world being at its service, in accordance with the findings of BORON (1994) and OGATA (2013 a).

Thus, everything indicates that the National State continues to be important in the present world, where it must adequate itself to the new reality, with the awareness that, more than ever, the capitalist world does not survive without the National State. Whichever the aspect adopted to explain the functions of the contemporary National State there is no doubt that the State is necessary, despite not performing its role satisfactorily.

5. LEGAL, POLITICAL AND INSTITUTIONAL ASPECTS OF THE ZEE IN BRAZIL

5.1. Constitutional Aspects

In the three governmental levels – Union, States and Municipalities – there is a legal obligation for preparing and implementing the arrangement of the territory. According to the item IX of article 21 of the prevailing 1988 Federal Constitution, the Union is responsible for develop and implement national and regional plans for territorial arrangement and social and economic development. In this manner, with the purpose of development and reduction of regional inequalities, the Federal Constitution foresees that the Union must provide the conditions for integration of regions under development (art. 43 of Federal Constitution).

In the name of reduction of regional inequalities, incentives may be established for financing priority activities; exemptions, temporary reductions or deferment of federal taxes; priority for economic and social use of rivers and water masses dammed in areas subject to periodical droughts (§ 2 of art. 43 of Federal Constitution of 1988).

Further, in the name of regional inequalities, the Union must stimulate the recovery of arid land and cooperate with small and medium rural farmers for the establishment, in their land, of sources of water and small irrigation.

Thus, it cannot be denied that this role belongs to the Public Administration, responsible for giving answers as to equity, aiming towards reducing regional inequalities.

5.2 The ZEE at National Level

In response to the constitutional requirement, in which the Union is responsible for preparing and executing national and regional plans and for the economic and social development, studies were began in the scope of the Environmental-Economic Zoning Program, in 1990.

This Program has the objective of assisting in the strategic planning of the use of land and guidelines for social and economic development in the country, from the rational use of environmental resources. On this opportunity, studies also began for the Environmental-Economic Zoning Program for Legal Amazon (PZEEAL), under the coordination of the Secretariat for Strategic Matters (SAE), linked to the Presidency of the Republic.

With the extinction of the SAE in 1999, the coordination of the National ZEE was passed on to the Ministry of Environment (MMA). Before this, the Coastal Environmental-Economic Zoning Program had its methodology consolidated in 1992, and was also under the coordination of this same Ministry.

In 2001 the Coordinating Commission of the Environmental-Economic Zoning Program of the National Territory was created, formed by representatives of the ministries and, also, the Permanent Work Group for the Execution of the Environmental-Economic Zoning Program, denominated ZEE-Brazil Consortium, formed by various technical institutions in the scope of the federal public mechanism.

The head of the Coordinating Commission of the ZEE of the National Territory belonged to the representative of the Ministry of the Environment and the activities of the Environmental-Economic Zoning Program were exercised by the mentioned Ministry with the Ministries of Agriculture, Livestock and Food Supply, Development, Industry and Foreign Trade and National Integration.

The Decree of December 28, 2001 which determined the institutional arrangement of the ZEE, established the following guiding principles of the National ZEE:

- I – an interdisciplinary approach with the aim of integrating factors and processes to permit the preparation of the zoning process considering the structure and environmental and economic dynamics, as well as historical-evolutional values of the biological and cultural assets of the country;
- II- systemic view propitiating analysis of cause and effect, permitting the establishment of interdependent relations between physical-biological and socio-economical subsystems (§ 2, art. 3).

In this same year 2001, the Pilot Project called “ZEE do Baixo Rio Parnaíba” was the first technical work performed under the scope of the ZEE Brazil Consortium.

The objectives, principles and criteria of the ZEE were better explained through Decree 4297, of July 10, 2002, where the ZEE is defined as an instrument of organization of the territory to be **mandatorily followed** in the implementation of public and private plans, works and activities, establishing measures and standards for environmental protection with the intention of assuring environmental quality, water and soil resources and conservation of biodiversity, guaranteeing the sustainable development and improvement of the living conditions of the population (as per its art. 2).

It should be noted that the ZEE has as its general objective to **organize the decisions of the public and private agents** with reference to plans, programs, projects and activities which, directly or indirectly, use natural resources, assuring the full maintenance of the capital and environmental services of the ecosystems. The Decree of 2002 stipulates, furthermore, that in the spatial distribution of the economic activities, the ZEE should consider the ecological importance, limitations and fragilities of the ecosystems, establishing closures, restrictions and alternatives for the exploration of the territory and determining, should it be the case, the location of activities incompatible with its general guidelines which were prepared and implemented in a democratic manner (as per art. 3 of Decree 4297, 2002).

Some studies of the Federal Government could be mentioned to illustrate the advances and concerns, at the level of the Union, in relation to the performance of the ZEE and of the arrangement of the territory, as a planning instrument, according to the studies mentioned on the bibliography: Ministério do Meio Ambiente (1997 and 2000) and Ministério da Integração Nacional (2005).

It should be observed that the ZEE has been considered a relevant instrument by international development banks, which financed studies in several Brazilian states, especially those related to the Brazilian Amazon.

5.3. Instruments necessary for the implementation of the ZEE

It must be recognized that the ZEE alone is not sufficient to permit adequate arrangement and control of the territory. It is necessary to integrate it to many other environmental management instruments and sectoral policies. It should be mentioned that the ZEE should necessarily be integrated to the environmental **planning instruments**, water resource management, coast management and biodiversity, such as Water Resources Plans, Coast Management Plans, Conservation Unit Management Plans, Framing of water bodies into classes in accordance with the preponderant uses of water. Further, the **Sectoral Plans** should not be ignored (agriculture, transport, tourism, industry, etc.), as well as the **Municipal Master Plans**.

It is also emphasized that the arrangement of the territory is not feasible, even when all the previously mentioned plans are integrated, if the **environmental control and inspection instruments** are not implemented, such as the Evaluation of Environmental Impacts, Environmental Licensing, Environmental Compensation, and the assignment of the Right of Use of Water Resources, Authorization for Suppression of Vegetation, among others.

It occurs that, even with the integration of the planning instruments and the implementation of environmental control and inspection instruments, it is not possible to provide the necessary means for the ZEE without the establishment of the **economic, fiscal and taxing mechanisms**, among others, which aim to grant the governmental direction desired for the type of development intended to be instituted.

Moreover, with the administrative discontinuities and model of conception understood as being national development, it is quickly possible to discover the reason for the low performance of the ZEE as an instrument for spatial planning, during these last 33 years of enforcement.

6. DIFFICULTIES ENCOUNTERED IN THE PREPARATION AND IMPLEMENTATION OF THE ZEE

From the institutional point of view, great difficulties have been encountered to implement the ZEE as an instrument of the National Environmental Policy. One of the reasons is that its studies have been prepared and coordinated by the environmental area, which is very limiting, because the thematic “Socioeconomic and Regional Development” is not only restricted to this area. So, discussions end up being confined to the scope of the environmental limitations and potentialities, not adequately involving socioeconomic development issues, which interest the various ministries of the Executive Power.

At the level of the Union, the transfer of the National ZEE from the Presidency of the Republic to the Ministry of Environment, in 1999, was a great mistake, because it extremely weakened the possibility of construction and implementation, being reduced to a mere technical instrument, when, in truth, its greatest role is essentially political.

The environmental area is not capable of being an adequate “interlocutory” of the Public Authorities to assure that the proposals of the social and economical actors of interest in the territorial planning may be guaranteed and incorporated to the planning process. In reality the various representations of civil society, business sector and various spheres of the Public Power, need interlocutors of the Government with the capacity for engaging and deliberating on the pacts to be made along the process for the construction and implementation of the ZEE. This lack of **legitimated interlocution and with capacity for decision making** of the Public Power with the civil society has been causing great obstacles towards making the ZEE feasible.

It should also be noted that the fact that ZEE adopted systematically the identification of prohibited, permitted, tolerated uses for certain geographical spaces, as its work methodology, has permitted the emergence of a considerable amount of conflicts of responsibilities among the various federate entities (Union, States and Municipalities). The lack of awareness as to the limits of the ZEE at the level of each federate entity, from a technical point of view and mainly, political and juridical, has caused conflicts among the various levels of the Public Administration, regarding the interferences in the responsibilities of one over the others, affecting the autonomy of these entities.

At a municipal level it can be admitted that certain uses and occupation of the soil may be forbidden. Nevertheless, at the level of the Union, it is practically impossible to use this means, once the territory of the Union superposes those of other administrative spheres – of the States, Federal District, and Municipalities, which are autonomous to legislate on how they wish to discipline the use of the soil in their respective territories requiring great political integration among the federate entities, where the political representations are, in general, from different political parties.

At all events, based on the ZEE, mechanisms of induction, integrated directives and guidelines may be used in the context of various public policies, with the purpose of optimizing the use of the soil and of the environmental resources, in order to attain the intended development for a certain region. In this regard, the legal characteristic of the ZEE should be emphasized, once these mechanisms with incentives and discouragements, must be legally established in order for this important instrument to be efficient.

Thereby, ZEE will not survive should it only have a technical connotation (the most adopted attitude in the country, ever since the ZEE was established), or only the adoption of its political scope, or even only in its legal scope. All three scopes must be considered, simultaneously, in order to reach the intended territorial planning.

7. FINAL CONSIDERATIONS

Considering that it is the responsibility of the modern National State to solve its “internal issues”, and with the knowledge that this State is necessary in the present phase of the worldwide capitalism, the National State must regulate its territory, even when it does not hold the control of a good part of the decision making process that impacts it.

This means to say that it is the responsibility of the National State to express, as clearly as possible, its guidelines in relation to its economical model to be implemented and as the territory is planned to receive the growing external demands, especially when it is inserted in an open market economy, as is the case of Brazil.

There is no other entity better than the National State to study, plan, integrate policies and define *what it wants and how it wants it* in relation to the use and features intended to give to its territory. After this, it is necessary to monitor the compliance of the territorial regulations established, using all the instruments of control and inspection (which are many) and those yet to be established.

It is commonly considered that the conclusion of the technical studies also means the conclusion of the ZEE. This is only a preliminary phase, which needs to be complemented with political negotiation processes with the society and with other federate entities involved. This phase is also time-consuming, because the participative processes of negotiation, in general, take a long time, but these offer political support to the ZEE. Often the social pacts are more efficient than the legal instruments.

To approximate the **real world** to the **idealized world** is the role of the Public Authorities, which should act as a facilitator of the processes in an attempt to reach an equity among the various social groups and the various regions of the national territory. With this purpose, the Public Authorities should evaluate the actual conditions of each region to understand how they can respond to this process. The regions that are outside of the global development process need to be examined under various different approaches to have some kind of compensation so that their social indicators may be, at least, acceptable.

It is worth remembering that it is of great relevance for the implementation of the ZEE the awareness of how investments enter the country, how investors access the Public Authorities (which are the areas of greatest demand), what financing mechanisms exist, identifying the administrative flow of investments and of interventions to the territory.

The scope of the actions already undertaken by the Public Authorities must be evaluated, such as tax, credit, fiscal mechanisms, etc. These measures help to identify whether the prevailing procedures are perverse to the ZEE intended for implementation, as well as permitting to evaluate whether these are guaranteeing the planned encouragement and discouragement for the identified Zone.

This means that the Public Authorities must perform a great chore, under a totally different focus to what has been done throughout time where small things must be reviewed. It is a thorough enterprise, exhaustive, implying in great knowledge of the political, environmental, economical and social reality of each region of the country. This implies taking advantage of all opportunities, big and small, to perform a cross-section of the complete public apparatus and all its sectoral policies to discover *where and how* to obtain the desired possibilities of intervention.

Despite the fact that the “Territorial Arrangement” is expressly included in the 1988 Federal Constitution, one must consider that, due to the powerful forces of the market, it is very difficult, and even pretentious, to continue adopting this expression, since there is no centralized planning regimen of the economy. Maybe it would be better to adopt the expression “Territorial Regulation”.

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