

Legislação e política ambiental no Brasil: as possibilidades do desenvolvimento sustentável e os riscos do retrocesso ambiental

Legislation and environmental policy in Brazil: the possibilities of sustainable development and the risks of environmental retrogression

Legislacion y environmental policy en Brazil: las Recursos del desarrollo sostenible y los riesgos sanitarios del Environmental retroceso

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Resumo

O presente artigo tem por objetivo analisar a apropriação do ideal de desenvolvimento sustentável pelas principais leis ambientais federais brasileiras. Criticado por ser amplo e vago, o conceito de desenvolvimento sustentável, reforçado durante a Rio+20, encerra um compromisso de equilíbrio intrageracional e equidade intergeracional, também firmado pela Constituição Federal. Assim sendo, importa reconhecer os rumos dados pela legislação para definir a compatibilidade entre aspectos sociais, ambientais e econômicos. Optou-se pela pesquisa qualitativa, bibliográfica e normativa para circunscrever o alcance conceitual da expressão e de sua delimitação constitucional, com o respectivo desdobramento na legislação e na política federal. Recomendações gerais e específicas são propostas a título de contribuir para a adequação das normas em vigor e das políticas públicas como forma de assegurar os direitos das futuras gerações.

Palavras-chave: Desenvolvimento Sustentável. Legislação Ambiental. Políticas Públicas. Futuras Gerações.

Abstract

The objective of this study is to analyse the appropriation of the sustainable development ideal by major Brazilian federal environmental regulations. Criticised for being broad and vague, the concept of sustainable development strengthened during the Rio+20 conference contains a commitment to intragenerational balance and intergenerational equity also upheld by the Federal Constitution. Therefore, it is important to recognise the directions given by legislation to define the compatibility of social, environmental and economic aspects. We opted for qualitative, bibliographic and normative research in order to circumscribe the conceptual aspects and constitutional limitations of the term, taking into account legislation and federal policy developments. We conclude with general and specific considerations in order to contribute to the adequacy of the current norms and public policies designed to ensure the rights of future generations.

Keywords: Sustainable Development. Environmental Legislation. Public Policies. Future Generations.

Resumen

Este artículo tiene como objetivo analizar la apropiación del ideal de desarrollo sostenible por las principales leyes ambientales federales brasileñas. Criticado por ser amplio y vago, el concepto de desarrollo sostenible, reforzado durante la cumbre Rio+20, contiene un compromiso de equilibrio intrageneracional y equidade intergeneracional, también firmado por la Constitución Federal. Por lo tanto, es importante reconocer la dirección dada por la legislación para definir la compatibilidad entre los aspectos sociales, ambientales y económicos. Se optó por la investigación cualitativa, bibliográfica y normativa para circunscribir el alcance conceptual de la expresión y su delimitación constitucional,

con su despliegue en la legislación y en la política federal. Se proponen recomendaciones generales y específicas para contribuir a la adecuación de las normas vigentes y de las políticas públicas con el fin de garantizar los derechos de las generaciones futuras.

Palabras clave: Desarrollo Sostenible. Derecho Ambiental. Políticas Públicas. Generaciones Futuras.

Introduction

In 1987, the Brundtland Report introduced the most widely accepted concept of sustainable development to date. Five years later, the planet was awaiting the results of the United Nations Conference on Environment and Development, Rio-92. Then, the Rio+20 conference had the challenge of confirming established principles. At a time when political efforts are geared towards defining alternatives for overcoming the current global economic crisis, the concern of the Legal Sciences has been marked to avoid environmental retrogression¹.

In relation to Brazil, the present work draws attention to two issues deemed fundamental. First, whether public policies are consistent with a model of development that proposes to be sustainable. Secondly, what the risk of environmental retrogression is as a result of these policies being driven by purely economic rationality.

We will examine these issues from the perspective of the contributions to be proposed by science, in a multidisciplinary perspective, specifically with regard to legislation and environmental policies in Brazil.

First, it is necessary to point to the origin of the term sustainable development. Veiga (2006, p. 190) indicates to it having been employed “for the first time in August 1979, at the United Nations Symposium on the Interrelationships between Resources, Environment and Development held in Stockholm, in which W. Burger presented a text entitled “The search for sustainable patterns of development”. But part of the literature (ROMEIRO, 2003; LEIS, 1999) suggests that

¹ The discussions initiated by French jurist Michel Prieur have guided the national debate, joined by the publication of the book “The environmental retrogression prohibition principle” (BRAZIL, 2012) by the Federal Senate Committee on the Environment, Consumer Protection and Supervision and Control, among other efforts to strengthen debates during the Rio+20 conference.

the term emerged from ecodevelopment, a term coined in the 1970s as an alternative to purely economic growth, and whose main theorist was Ignacy Sachs. There is also indication that it may have emerged in 1983 during the UN General Assembly that initiated the discussions that would eventually culminate, three years later, in the report *Our Common Future* (OSORIO; LOBATO; CASTILLO, 2005). Finally, the only consensus in relation to the emergence of the term “sustainable development” is that the concept now used worldwide was coined only in 1987, with the *Our Common Future Report* or *Brundtland Report*, thus named in tribute to the World Commission on Environment and Development chairman, Ms. Gro Harlem Brundtland. “Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (UNITED NATIONS, 2008).

Despite the growing literature on sustainable development, a consensual, doctrinal definition has not been reached; on the contrary, criticism is pointed at its merely theoretical, vague and very broad nature, i.e., with little practical guidance (FARZIN, 2002; LENZI, 2006), a gap that also applies to the Legal Sciences, as warned by Pepe (2002).

The broadness of the concept, which was classified by Jatoba, City and Vargas (2009) as polysemous, ends up allowing it to be appropriated by various actors and in advocacy of different interests, a characteristic that ended up trivialising sustainability and broadening the gap between discourse and the efficacy of environmental policies, as warned by Fonseca and Bursztyn (2009).

Far from any consensus on environmental issues – although we are almost four decades apart from that first global discussion and a little over two decades from the establishment of the sustainable development conceptual framework (*Our Common Future Report* or *Brundtland Report*, produced in 1987 by the United Nations World Commission on Environment and Development) – current efforts are still geared towards the construction of a multi-governmental, multi-sector and multi-disciplinary model to deal with the issue. Thus, the paper’s central problem is the political-legal possibility of taking the

sustainable development model to effect in contrast with interests that are short-term oriented, concentrative, predatory and historically rooted in the country's structure of power, especially as a way to avoid the environmental regression of national policies.

In view of the above, the paper's objective is to analyse the appropriation of the sustainable development ideal by major federal environmental laws in Brazil and its materialisation into national public policies, having as a basis the central ideas of the final document produced at Rio+20.

We opted for qualitative, bibliographic and documental research, structured with a review of theoretical approaches to the sustainable development ideal and of the legal perspective, according to the focus given by the 1988 Federal Constitution. Then, we will analyse the environmental legal framework and its implementation through federal public policies.

Three aspects need to be stressed in relation to the limitations of this study. First, its central idea. It is important to highlight that the multiple concepts of sustainable development are a challenge to any approach on the subject, because of the impossibility to conduct comprehensive sampling due to the stipulated scope and space. Secondly, an approach involving public policies is problematic due to the set of institutional, structural and circumstantial aspects of the current national scenario. Thus, one needs to keep in mind the view proposed for the approach to national policies related to the Rio+20 final document, analysed without a quantitative plunge. Finally, the third limitation of the study is the impossibility of generalising the analysis proposed for public policies in general, although it is possible to extrapolate their implications to the country's development model as a whole.

In addition to this introduction, the paper presents the conceptual aspects of sustainable development. Then, it makes an analysis of the Brazilian legal system based on the Federal Constitution and major federal regulations that deal with environmental issues. Once the legal model of sustainability is diagnosed, an analysis of public policies is

made, specifically with regard to the appropriation of the theoretical and legal ideal of sustainability. Finally, general and specific proposals are made in contribution to the academic debate on scientific contributions to the improvement of public policies regarding intragenerational and intergenerational equity.

Conceptual Aspects of sustainable development

We will base this study on the findings of Veiga (2006, p. 165) regarding the scientific concept of sustainability. The author says that “sustainability is not, and will never be, a notion of a precise, discrete, analytical or arithmetic nature as any positivist would like it to be”. In the words of Mutton (2005, p. 27), the term is a perfect expression of “the general dominant wave of ‘lack of concepts’ of the 1990s”.

It is thus necessary to clarify that the perspective adopted does not ignore any criticism to the possibility of existence of a sustainability model under the mantle of “capitalist relations”, which effectively “are not consistent with a model of sustainable development” (FOLADORI, 2001, p. 210). This notion is especially accentuated with regard to exhaustible resources. Capitalism’s intrinsic destruction of its own natural conditions is known as the second contradiction of capitalism (MINGIONE, 1993; CARNEIRO, 2005; MONTIBELLER FILHO, 2004; FOLADORI, 2001). However, this characteristic does not prevent us from admitting that the production and consumption system can be restructured (MINGIONE, 1993), which in turn does not imply recognising that the transition from a short-term to a long-term vision is easy.

Thus, even if there are obvious “tensions and ambiguities” (LEIS, 1999, p. 156) in the concept of sustainable development, we extrapolate, within the scope of this work, any criticism about the impossibility of capitalist sustainable development to contribute with the construction of a model, though theoretical, capable of providing the “conceptual silence” (CARNEIRO, 2005, p. 32) that may exist between capitalist production and its material base of energy resources. This assertion applies, for example, to the understanding of sustainable development

by Goldstein (2002) as “a systematic approach to achieving human development in order to sustain the planet’s resources, based on the recognition that human consumption goes beyond the planet’s capability of enduring it”.

That is because the concept formulated presupposes the existence of equanimous human development, without clarifying how long the resources are to be sustained and even what form of consumption it refers to. In recent writings, Sachs (2002, p. 35) points to Brazil as one of the countries able to undertake the “three pillars of sustainable development”, which are: “social relevance, ecological prudence and economic viability.” The triad signals to the multiplicity of actors involved and the complexity of the discussion – elements that lead to a diversity of appropriations of the term sustainability. In the words of Montibeller Filho (2004, p. 58), this variation is due to the “existence of specific appropriations... by social groups of interest”. This aligns us with the ideas of Limonad (2004, p. 5) that sustainability is “socially created and is part of the body of hegemonic representations of space in contemporary times”.

One cannot ignore the social discussion, even if only superficially, since complexity alludes to the observation by Acselrad (2001) of the birthplace of both problems, which in the words of the author, implies recognising that the “root of environment degradation” is “the same as social inequality” (ACSELRAD, 2001, p. 34) and in spite of being “ecologically interconnected, the world is socially fragmented,” due to the preponderance of “unequal access to and use of the material basis of existence” (RIBEIRO, 2003, p. 405). Therefore,

[...] to the many worlds into which the planet is divided due to social inequality between classes and regions, the themes of distribution inequality, financial dependence, unequal control of trade mechanisms and technology flows pervade the issue of added pressure on environmental resources. Such mechanisms originate in the unequal correlation of economic and political forces that govern the access of classes and countries to the material basis of development. They are born from this inequality and, circumferentially and at the same time, feed it (ACSELRAD, 2001 p. 34).

The notion of multiple “environments (the *environment* of large projects, the *environment* of polluting or non-polluting companies, the urban *environment* of large cities, the *environment* of conservation units etc.)” (MACHADO, 2000, p. 17, author’s italics) is concurrent with the idea of many worlds noted by Acsehrad (2001). This diversity of appropriations prevents the formation of a single model of sustainability capable of percolating through different governmental spheres and satisfactorily reaching numerous interests and actors involved.

Having briefly pointed out the constituting elements of the sustainable development model, let us check a few concepts applied to this expression. First, we introduce a definition in the Dictionary of the Environment and Sustainable Development, according to which the meaning of the expression (sustainable development) is that which provides long-term economic, social and environmental benefits to care for the needs of present and future generations (GILPIN, 1996).

In the Dictionary of Brazilian Environmental Sciences (LIMA-E-SILVA et al., 1999, p. 76) it is identified as the “form of economic development whose paradigm is not growth, but the improvement of the quality of life; that which does not lead to the depletion of natural resources”. We found a similar definition in the 21st Century Dictionary of Economy (SANDRONI, 2007, p. 243) in which sustainable development “refers to the development of a company, industrial branch, region or country, a process that does not exhaust the natural resources consumed by them or damage the environment in such a way as to compromise the development of activity in the future”.

Can we therefore, by means of sustainable development, anticipate the needs or what could be accepted as quality of life for future generations?

We do not think we can, because just as explained by Montibeller Filho (2004), the concept here is in fact still in preparation. Furthermore, it does not contain the notion of purpose, but in fact, of means or process for obtaining quality of life or dignified existence – concepts that, therefore, require review in accordance with the historical moment and social

context. This is the direction to which we are concentrating our efforts: scientific contribution to strengthen the premises of sustainability in the context of national politics, in order to ensure the rights of present and future generations.

On the basis of the sustainability criteria suggested by Sachs (2002), we will get to the same idea of constant, historical construction, in so far as it accompanies a social and cultural movement, and the unthinkable alternations of the marketplace, transfiguring the economic order, such as the global economic crisis in the second half of 2008. The multiplicity of actors and interests unveils an abyss between public and private discourses and the Brazilian reality – and even the global reality in current time – a fact that leads us to agree with the following assertion by Sachs (2002, p. 55): “History has played a cruel prank on us. Sustainable development is, of course, incompatible with the game without restrictions of market forces.”

That is because natural resources exploitation based on their supposed inexhaustibility “indicates the market’s limitation as a mechanism that regulates the management” of these resources. In the same way, “State intervention has not been an effective alternative in protection of the environment and natural resources” (GÓMEZ, 2001, p. 101-102).

For these reasons, we agree that

To think of sustainability in a society as diverse and unequal as Brazilian society requires that it be forcibly equated to cultural diversity, democratised access to natural resources and distribution of industrial production risks, in addition to a revolution in efficiency and sufficiency (ZHOURI; LASCHEFSKI; PEREIRA, 2005, p. 18).

The country’s reality heightens the importance of deploying a development model that proposes to be sustainable, to the extent that it “argues that the environment is a system not separated from social and economic systems, and that economic growth, social justice and long-term sustainability are goals that strengthen each other in a cooperation relationship” (WENCESLAU; ANTEZANA; CALMON, 2012, p. 592).

In this scenario, taking the current moment in which Brazil has reaffirmed unmet environmental commitments, in which investments are being made in ventures of significant, permanent and long-term social-environmental impacts, such as large hydroelectric power plants and fossil fuels, the global economic crisis can be the argument required for stagnation with the environmental theme, considering that the historical process which is the genesis of this problem is based on the “expansion of the capitalist mode of production” (LEFF, 2002, p. 62). As a way of ordaining the eminently expansionary economic model, and based on the theoretical framework analysed, we attempted to address the development model defined by the Federal Constitution as a way of finding the guidelines for the definition of a sustainable development proposal that reconciles economic interests, the needs of the – present and future – population and the environment’s ability to endure it.

What future do we want?

“The future we want” is the final document of the United Nations Conference on Sustainable Development held in June 2012 in Rio de Janeiro (Rio+20). Far from consolidating into an objective commitment to change the world’s capitalist production paradigm, the exhortations found throughout the text are, in their majority, reassurances of principles established during the 40 years of environmental discussion, which started at the Stockholm Conference in 1972.

As highlighted by Goldemberg (2012), the text basically reaffirms, recognises, encourages, among other words, without establishing any specific plan of action to make sustainable development a reality.

Wenceslau, Antezana and Calmon (2012, p. 597) corroborate this understanding as they affirm that the “document does not dispute the structure of capitalist economy, but it declares in its opening words that eradicating poverty is the greatest challenge faced by the world and a pre-condition for sustainable development.”

The authors recognise the merits of a “holistic and integrated approach to sustainable development, in which economic growth, environmental

protection and distributive justice can occur simultaneously” (Ibidem). However, they criticise the fact that, “in the course of the document, the economic aspects (gain) force that is comparatively superior to environmental aspects in strict sense and to social aspects, as if anything environmental was subordinated to anything economic” (Ibidem).

The construction of a specific institutional framework for sustainable development is widely discussed in the paper. The translation of sustainable development policies into concrete actions at the national level is particularly emphasised in paragraph 97 of “The future we want”: We recognise the importance of the regional dimension of sustainable development. Regional structures can complement and facilitate the translation of effective sustainable development policies into concrete action at the national level (UNITED NATIONS, 2012).

Therefore, there is no clarity in relation to responsibilities, actions, targets or objectives to achieve the harmonious, ecologically balanced, socially just, egalitarian, distributive and affordable future idealised in one more multilateral debate devoid of individuals to be held accountable and obligations that are payable.

The same line of presentation is found in paragraph 101, which generically highlights the need for coherent planning and decision-making processes, integrated at the national, subnational and local levels (UNITED NATIONS, 2012).

Even so, given that public policies, laws and regulations are highlighted throughout the document, it is essential to analyse the national legal framework in order to examine how adequate the environmental regulatory framework in force is with the proposal of a future that aims to be sustainable.

And with this focus of analysis, we agree that:

The United Nations Conference on Sustainable Development known as Rio+20 is an opportunity to identify and negotiate solutions to address the challenges of recent years: the economy, due to the financial crisis faced

by developed countries that threatens the growth of developing countries; society, since the guarantee of jobs and access to basic needs are still not reaching a large part of the world's population; and environment protection, because of the pressure placed on natural resources and of the consequences of climate change (BRAZIL, 2012, p. 177).

However, merely waiting for universal agreement on actions to be taken will lead us to new unproductive conferences. Actions for sustainable development should be implemented nationally, so that when added up, they will contribute to planetary longevity, with all national and regional conditions and aptitudes respected.

Sustainable Development and the Brazilian legal system

Despite the conceptual difficulties discussed, it is possible to design a model of sustainability based on national and regional specificities and skills, and perhaps this is the best path for a perennial and egalitarian planetary project built by the sum of all sustainabilities. Hence, we will start with Environmental Law contributions, defined here as the “complex of principles and standards that regulate human activities and may directly or indirectly affect the health of the environment in its global dimension, aiming at its sustainability for present and future generations” (MILARÉ, 2000, p. 93).

Before we continue, we consider it essential to emphasise the bias of this branch of the Legal Sciences, shrouded by the multidisciplinary requirements of the environmental issue, classified by Machado (1999, p. 127) as a skilful instrument to interconnect various environmental themes such as water, air, soil, fauna, flora, biodiversity, “with the cement of the identity of legal instruments of prevention and repair, information, monitoring and participation”.

We thus seek to build a systematising legal vision of the environmental issue in agreement with the author's perspective, to contribute with existing efforts to adjust the imbalance between current use and the guarantee of sufficient environmental conditions to meet the needs of

future generations. This contribution is compatible with sustainability dimensions and is supported by the Constitution.

The right of future generations is based on the intergenerational equity principle. It has been conceived in International Law, a legal branch in which the Intergenerational Equity Theory has also been conceived, with the objective of ensuring that each generation receives the planet in trust for future generations, as explained by Carvalho (2005). It was implemented in the context of the Brazilian Environmental Law through Article 225 (*in fine*) of the Federal Constitution, and the premise adopted was the concept of fair distribution of natural resources, both from the perspective of environmental quality and from the inventory of resources passed from present to future generations.

We are therefore faced with a relationship based on a temporal dimension (KISS; SHELTON, 2007): past, present and future. From the reflection of Carneiro (2003) on the theme, we have gone beyond the author's proposal by understanding that a "special obligation is imposed upon present generations as planet guardians or trustees" (KISS; SHELTON, 2007, p. 106) to preserve and improve the environmental conditions inherited from previous generations, in order to ensure the right to an ecologically balanced environment for future generations.

With its line of interpretation and background defined, we will proceed to outline the central aspect – according to the purpose of this paper – intrinsic to the concept of sustainable development: intergenerational equity. First, we present a brief clarification of the ethical aspects involved in the intergenerational issue (TRINDADE, 1993, p. 218, Author's emphasis): "long-term temporal dimension, unmasked by the very term *humanity*, covering both present and future generations, and revealing the bond with human rights (the quest for survival)".

This ethical premise between generations is a basic requirement for the posterity of a habitable planet for all forms of life, or even, according to the analysis by Milaré (2000, p. 106) of the right to sustainable development principle:

The principle recommended here is inferred from the need for a double ordainment - and, therefore, for double rights – deeply rooted in Natural Law and Positive Law: the right of human beings to develop and achieve their full potential, both individually and socially, and the right to ensure the same favourable conditions to coming generations. The reciprocity between rights and duties appear so obvious in this principle, perhaps more than in others, because developing and enjoying a fully habitable planet is not only a right, it is an essential duty of people and society. Rights and duties as unquestionable quid pro quo.

With respect to the development precept, within the contours given to the theme by Environmental Law and adopting a merely chronological criterion, it is first necessary to highlight the contribution by the National Policy for the Environment (PNMA) established by Law no. 6,938 of 31st August 1981, enumerating among its goals, in Article 4, sections I and VI, the "compatibility between social-economic development and the preservation of environmental quality and ecological balance" (BRAZIL, 1981), as well as the rational use and permanent availability of environmental resources (Ibidem). Although it is not possible to discern a clear sustainable development concept, two assumptions can be easily made: a) balance between the economic and the environmental aspects; and b) the temporality contained in the idea of a permanent stock of natural resources. In a second moment, the promulgation of the Federal Constitution filled the gaps left by PNMA by delimiting the central lines of sustainable development to be practiced and promoted by national policies. In this respect, based on a systemic analysis of the Federal Constitution, i.e., by interpreting the normative constitutional text in its entirety (GRAU, 2003), we understand that the national development model adopted is the one qualified as sustainable in the doctrine. Development in Brazil is, therefore, based on the following pillars: a) national development (art. 3, II, FC/ 88); (b) reduction of regional and social inequalities (art. 3, III, FC/ 88); c) economic order with a view to ensuring dignified existence for all, in line with environmental preservation (art. 170, head paragraph c/w VI, FC/88); d) an ecologically balanced environment (art. 225, head paragraph, FC/ 88); and e) intergenerational responsibility (art. 225, head paragraph).

Among the subconstitutional laws expressly incorporating the constitutional model, we first emphasise Article 2, clause I of the City Statute (Law 10,257 / 2001), which lays down the “guarantee of the right to sustainable cities, understood as the right to land, urban housing, environmental sanitation, urban infrastructure, transport and public services, to work and leisure, for present and future generations” (BRAZIL, 2001). Various provisions of the National System of Conservation Units (Law 9,985 / 2000) reveal the concern with the sustainable use of natural resources and the management of these protected areas. “The concept of environment in its totality, considering the interdependence of the natural, the socioeconomic and the cultural environment under the focus of sustainability” is the basic principle of the National Policy on Environmental Education - Law 9,795 / 1999 (BRAZIL, 1999). The rational use of water resources for sustainable development also has legal protection (Law 9,433 / 1997). Development and sustainable production patterns are provided for in the National Policy of Solid Waste (Law 12,305 / 2010). Sustainable development is among the general guidelines of the National Policy on Basic Sanitation (Law 11,445 / 2010) under actions for rural and urban salubrity.

In our view from this summarised legal landscape, the legal system in full force in Brazil is based on the double ethical imperative of environmental sustainability based by Veiga (2006, p. 171) on one kind of “solidarity synchronous with the current generation and [another] diachronous with future generations”, although it still lacks details on the determination and specification of actions, goals and objectives to achieve the vaguely proposed sustainability in its many, dispersed laws.

For this reason, as we bind the concept of sustainable development adopted in this work to the Federal Constitution, we wish to give the theme its maximum application, since its enforcement is established in it. That is because by force of the “constitutional norms supremacy principle, it is true that the interpretation of these norms has indisputable repercussions in the entire legal system” (FERREIRA, 2008, p. 37).

Sustainability in the use of natural resources should be seen in this perspective as a model of development capable of ensuring decent

conditions for the survival of future human generations and all other life forms. Under this perspective, Derani (2001, p. 242) emphasises the preponderance of quality over quantity: "economic development in Brazil is understood as accelerated economic activity under a policy of sustainable use of natural resources, aiming at an improvement in quality of life that cannot come down to an increase in consumption power."

Therefore, the routine scenario of the exclusively economic exploitation of natural resources, widespread poverty and social inequality that stand out as part of the current environmental injustice scenario, is at odds with the constitutional objectives of the Federative Republic of Brazil.

To illustrate this scenario, the next item will examine a few examples of public policies implemented by the federal government in addition to laws under the cross-cutting perspective of environmental issues and the application of sustainable development as a model to overcome the iniquities persisting in Brazilian society.

Public Policies: the implementation of sustainable development by the State

We will adopt the concept of public policies found in Vieira and Bredariol (1998, p. 98), i.e. "the political-institutional mediation of the inter-relations between the different actors present in social history in its multiple dimensions".

With respect to environmental policies, the many actors are involved in a "chain of social agents, whose links go from the State and public agents, academia and scientists, economic sectors and the media through to organised civil society and the population in general" (SIQUEIRA, 2008, p. 425-426).

The political-administrative decentralisation promoted by the Federal Constitution strengthened the environmental autonomy process of states and municipalities, consolidating the structure of the National

Environment System (Sisnama) provided for in PNMA. However, the proposed view for federal policies has the purpose of contributing to overcoming a structural difficulty related to the “cultural, economic and environmental diversity of States and municipalities, [which implies the need to maintain a] degree of centrality in the federal government [...] in order to maintain and articulate Sisnama” (SCARDUA; BURSZTYN, 2003, p. 205).

From the sustainability perspective, environmental policies must face the issue of ecologically unequal exchange, which, according to Montibeller Filho (2004, p. 129), is a concept that embodies “the problem that market prices do not take into account the environmental wear (environment degradation; resource depletion) that occurred where goods were produced”.

This structural deficiency of the market becomes more acute when dealing with future generations, in other words, a vulnerable group with no possibility of participating in the present decision-making process in defence of their potential rights. One of the alternatives for the delimitation of economic interests is the principle of intergenerational equity, which proposes the adoption of the intertemporal assumption of distributivity contained within the concept of sustainability (GOMES, 1999, p. 44) is proposed:

The idea of sustainable development is also related to constant wealth, in the sense that each generation must leave to the next at least the same level of wealth, considered as the availability of natural resources, environment and production assets.

Despite the clarity inherent in the “incidence of the temporal factor in the environmental protection domain”, Trinity (1993, p. 55) highlights the deep political and legal gaps when dealing with the matter. When defending temporal concern, the author affirms that the “study of the protection of potential or prospective victims” is “a real need and not a theoretical-academic speculation” (Ibidem).

Faced with this concern, we will point to policies established by the federal government, chosen at random in an attempt to encompass the

broad spectrum of human needs, in accordance with the structure of the Rio+20 final document, such as energy, housing and sanitation. It is possible, within the limited scope of this work, to discuss some of the issues and priority areas defined by “The future we want”, such as water and sanitation (paragraph 119 and thereafter); energy (paragraph 125 and thereafter); sustainable cities and human settlements (paragraph 134 and thereafter); and health and population (paragraph 138 and thereafter).

The Growth Acceleration Programme (PAC) is presented on its official website as “a new concept in infrastructure investments (that add up to R\$ 503.9 billion)” (BRAZIL, 2008). The PAC comprises a set of economic policies geared to increment productive sectors, with investment estimates in sanitation, housing, transportation, energy and water resources. PAC objectives – launched on 28th January 2007 – for investment in Generation and Transmission of Electrical Energy are “to ensure safe supply and low energy tariffs” (BRAZIL, 2008).

The PAC forecast consolidated investment in oil, natural gas and renewable fuels for energy infrastructure (R\$ 196.4 billion) in the period 2007-2010 distorts any prospects that the programme may propose to be sustainable. That is because specific actions regarding petroleum (R\$ 93.4 billion), refining, transportation, petrochemicals (R\$ 45.2 billion) and natural gas (R\$ 40.4 billion) correspond to approximately 91% of total investments, while renewable fuels (R\$ 17.4 billion) make up the rest of the sector.² The diversification of the energy mix escapes the official agenda; therefore, it is not possible to speak of long-term vision within the adopted line of planning, which is based primarily on exhaustible resources.

The PAC 2, in its turn, was designed to prevent the occurrence of new blackouts and therefore its priority are sustainable alternatives for power generation, citing measures such as the adoption of a hydroelectric plant model inspired on oil platforms, which reduces the impact on the environment during construction and operation” (BRAZIL, 2010b, p. 8) and “measures to promote energy efficiency, whose objective is energy saving, and the reduction of greenhouse gas emissions” (Ibidem, p. 9).

² On October 2010, on a value criterion, according to official data from the federal government (BRASIL, 2010a), 49% of PAC actions expected for the period 2007-2010 were completed and 50% were under construction. “On a quantity criterion, 61% of actions in the Energy hub followed up since 2007 have been completed, 28% are under construction, 6% are undergoing bidding and 5% are in the design or licensing phase.” (Ibidem, p. 98).

Paradoxically, the PAC 2 has set the goal of consolidating Brazil as “one of the countries with the cleanest energy mix” by investing in agrienergy with an emphasis on biofuels and ethanol, while at the same time accelerating the process of exploiting pre-salt layer reserves, with investments in exploratory research, well drilling and construction of platforms (Ibidem).

However, of the total of R\$ 1,088.5 billion planned for the energy area, adding up the periods 2011-2014 and post-2014 (designation adopted by the PAC2), R\$ 875.1 billion are for petroleum and natural gas, while the renewable fuels hub is to receive R\$ 1 billion.

Thus, the energy segment line drawn by the PAC 2 keeps investments concentrated on fossil energy adding up to 80.3% for the petroleum and natural gas area against 0.1% for renewable fuels, postponing the vaunted and necessary diversification of Brazil’s energy mix for an indefinite period.

The lack of an integrative perspective and long-term public policies is also reflected by Programme My House My Life (PMCMV), structured by and for the real estate market in dissonance with local urban planning, and therefore, having no relationship with the objective of building sustainable cities. We do not ignore the importance of housing, particularly for low-income populations:

However, although it addresses the need to insert the house to be built in the urban environment, the programme does not guarantee it due to the agents involved in its formulation and operation. The federal government has formulated the proposal in partnership with the 11 largest housing promoters – construction and real estate companies. Conceptual advances in social housing, both with regard to urban planning legislation and architectural projects, have not been incorporated into this operation. If we analyse the PMCMV proposal based on the housing policy experience of the Military Regime – a period of major housing construction in the country – it is possible to predict what recent experience already shows: the negative impact on cities due to the inadequate location of large housing complexes and an increase in the price of land and buildings (MARICATO, 2011, p. 68).

The disorderly growth of cities still implies an anthropic expansion process commonly disarticulated from the capacity to support its surroundings, leading to human afflictions commonly seen in large Brazilian cities, and translated by Maricato (2001, p. 22) as Brazil's urban tragedy, marked by “floods, landslides, pollution of water resources, air pollution, impervious surfaces, deforestation, housing congestion, recurrent epidemics, violence etc.”

In this scenario, a few aspects related to sanitation deserve to be illustrated. The Pan American Health Organisation (PAHO, 2000) relates the accelerated process of urbanisation – marked by the growth of informal housing in the outskirts of cities – among complicating factors for the improvement of sanitation services (Ibidem). As a consequence, we have the contamination of lakes and rivers by untreated wastewater (Ibidem). The cycle is closed with the identification of water as one of the main routes for health risks (Ibidem), both by direct use, recreation or by contamination of food during cultivation and preparation, for example (Ibidem).

Another issue inherent in the urban-industrial development model is the “recrudescence of ancient infections and the emergence of new ones – the emergence, re-emergence and ‘permanence’ of infectious diseases” (IANNI, 2005, p. 78; likewise, MACHADO et al., 2009; MACHADO; MIAGOSTOVICH; VILANI, 2012).

Despite socioenvironmental consequences,

between R\$ 7 billion and R\$ 8 billion are currently being invested in sanitation in Brazil every year, an amount inferior to what is required to achieve government targets by 2030 – an investment of R\$ 420 million for the next 18 years, which corresponds to approximately R\$ 20 billion per year, according to estimates by the Ministry of Cities. Even with the increase in basic sanitation funds in recent years, mainly because of the PAC, most projects do not leave the drawing board. A survey published by *Trata Brasil* at the beginning of April this year about the 114 main sewerage works of the first phase of the programme shows that only 7% of them are ready. Among the remaining works, 32% were stalled and 23% were delayed (ABDALA, 2012).

In order to analyse this mismatch between the legislative level and concrete reality in environmental matters, it is necessary, despite the limits of this work, to highlight the fragmentation and isolation of environmental policy in national decision-making. Under this perspective, four aspects are fundamental to harmonise political practice and the legal-environment system:

- Institutional strengthening and effective integration of Sisnama;
- Cross-cutting nature of the environmental issue when formulating sector policies;
- Adoption of a long-term perspective in public planning; and
- Social Participation.

Despite the advances in environmental protection structure, we admit that the fragility of Brazilian democratic institutions as discussed by Frey (2000) is also reflected in environmental policies, as highlighted in the proposed interpretation.

Prioritising certain sectors of the economy to the detriment of primary attention to the principles of environmental protection is, according to O'Donnell (1991 apud FREY, 2000), a reflection of the decision-making process in favour of ruling elites, which together with institutional weakness, characterises delegative democracies.

With the purpose of gaining political-institutional strength and guaranteeing fundamental human rights, the principle of ecological non-regression has been in discussion, especially after Rio+20. This principle – also called the environmental retrogression prohibition principle – has “imperative content [that] makes it possible to brake political plans that weaken fundamental rights” (ALMEIDA, 2007, p. 123).

Based on the right to an ecologically balanced environment guaranteed to all by the Federal Constitution in its article 225, head paragraph, one can affirm that:

Said another way, the Constitution does not only have the task of pointing to the future. It also has the relevant function of protecting rights that have already beengained. Therefore, by using (explicit or

implicit) constitutional princiology, it is possible to fight changes made by occasional political majorities who legislate contrary to the constitution, withdrawing (or attempting to withdraw) society's achievements (STRECK, 2003, p. 53).

Thus, as a fundamental human right, the right to an ecologically balanced environment is safeguarded against possible policy interventions that can drain its protective content. Hence, the environmental protection legal framework is strengthened and should reach the different themes that comprise the environmental spectrum (soil, atmosphere, fauna, flora, biodiversity, water resources, etc.).

Almeida (2007, p. 119) exempts the lack of widespread application of the principle and defines it as being characterised “by the impossibility of reducing social rights supported by the Constitution, guaranteeing to citizens the accumulation of legal heritage”.

With regard to sustainability, in Article 225 the Constitution legislator requires public power and society to preserve the environment from the point of view of intergenerational justice. This being so, it is incumbent upon the generation to bequeath to future generations “*environmental conditions identical to or better than those received from past generations, the living generation being therefore forbidden from introducing negative changes to ecological conditions, even by virtue of the socioenvironmental retrogression prohibition principle and of the duty (of the government and private individuals) to introduce progressive improvement to environmental quality*” (SARLET; FENSTERSEIFER, 2012, p. 159, italics by the authors).

Thus, the public policies discussed in this work under the proposed perspective are a set back in the sphere of environmental protection and a violation of intergenerational justice. It is therefore necessary to recognise the enforcement of the ecological non-regression principle faced with the realisation that the development model implemented disregards the environmental dimension, prioritising immediacy from an anachronistic economic rationality and therefore being in flagrant imbalance with the constitutional principles and objectives and the environmental legislation in force.

Final Comments

After analysing the theoretical and legal aspects of sustainable development, it is our view that there is no compatibility between doctrinal definition and conceptual construction based on the Federal Constitution to qualify the country's development proposal as sustainable. This is because structurally both visions are based on economic, social, environmental and intergenerational aspects, taking temporal dimension to be fundamental to the long-term perspective inherent in the idea of sustainable development.

Therefore, the elementary assumptions of the sustainable national development model are ecological sensitivity, intergenerational ethics, social justice and citizen participation (in a sense of belonging and of protection of the Federative Republic of Brazil).

Even if these elements can be considered incompatible with the prevailing economic order, as the examples illustrate, we believe that the mere acceptance or criticism of capitalism's short-term oriented posture by itself does not contribute to the required inversion of paradigms in favour of sustainability. For this reason, we start from the feasibility of incorporating the constitutional guideline presented via the specification of the sustainable national development model as a harmonising element between environmental legislation and public policies.

Thus, we turned our analysis to subconstitutional legislation and some federal public policies taken as an illustration of the model of governmental actions in progress and their compatibility with the constitutional ideal of sustainability.

By doing this, it was possible to identify that, although the Brazilian legal framework points to the future, discoursing on sustainable development in several laws, the public planning model adopted at the federal level is unsustainable, since it is based on the preponderance of economic aspects and of very short terms.

The need for institutional maturity and the increase in participation and in the time horizon of the decision-making process are some of the

issues that can and must be faced by researchers from different areas of knowledge, in an integrating and democratic process.

The concern about making sustainable development explicit in national laws cannot claim to be sufficient for the adequacy of actions, programmes and practices in the country, be they public or private, due to the very conceptual questions pointed out. The delimitation of the concept should take place based on specific regulations with limits, standards and norms that bind activities causing environmental impacts.

World economic crises cannot obscure the political efforts and circumvent the constitutional designs of protecting the right to an ecologically balanced environment for present and future generations in favour of specific actions and without proper planning for a structural and structuring review of national institutions.

By doing this, we can think about the political-legal possibility of national sustainable development as a democratic, participatory and integrating model as an alternative to short-term oriented, private interests in favour of a fair society, a balanced environment and a distributive economic order.

In view of these observations, the paper intended to contribute to and encourage new discussions to strengthen the effectiveness of environmental legislation in the fight against present and future forms of environmental exclusion, seen as the “impossibility of enjoying environmental benefits, having access to power and decision-making processes” (CAVEDON; VIEIRA, 2008, p. 183).

Finally, we believe it to be essential to gear academic research towards bridging the legal and political-institutional gaps in translating sustainable development into concrete governmental actions, as a measure of a Democratic State based on planetary sustainability and the dignified existence of present and future generations.

Received on 25 November 2012

Approved on 01 August 2013

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