

Education, training and communication: approaches to environmental public policies in Brazil.

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Abstract:

The 20th century and its extraordinary technological leap, which was also a multiplication of the pressure made on the space and the biomes by the human society, witnessed, during its second half, the appearance of policies and legislations aiming at restricting the impacts and avoid tragedies that would take place in case nothing was done.

And one of the critical points for changes to cultural and civilization paradigms to take place is awareness of the society over risks and actions to be carried out, where communication means and education for sustainability are fundamental.

Key words: Brazil- environment- sustainability- education- communication

1 Introduction

Since the 1970's, different segments of the societies, especially the most informed and sensitive ones, increased their attention towards the fact that “the World overcame limits”, as R. Goodland (1) says. Evidence of that was noticed in facts such as

increasing appropriation of existing biomass and biodiversity, symptoms of global warming, soil degradation, threats to the Ozone layer.

The final document of the 1972 Stockholm Conference, in its Principle 13, says: in order to achieve a more rational order regarding resources and to improve environmental conditions, States should adopt an integrated and coordinated focus on planning their development so as to insure compatibility together with the need to protect and improve human environment to the benefit of populations”.

That was a change to the development paradigm.

The integrated management of natural resources and territories has a new approach that is enriched and made more complex by inserting principles, methods and ecological knowledge, and containing environmental education and communication as instruments of civilization change.

This paper intends to introduce some of the challenges posed to environmental awareness and education from information on the progress of policies, initiatives, actions and environmental legislation in Brazil, especially during the three last decades.

And, from there, to extract lessons from what to do and what not to do.

2 From Stockholm to Rio; from Rio to the 21st century

With the creation of UNEP (United Nations Environment Program) in the Conference of Stockholm, the means of communication and the Brazilian Government itself started worrying, even if on a small scale, about the environmental situation; and other international bodies, such as the World Bank, added environmental care to their terms of reference for the approval of financing and support. In the United Nations, programs

such as UNESCO's MAB, FAO and UNDP started to include the subject and to bring an important contribution to disclose environmental issues in the Country.

The preparation and launch, between 1986 and 88, of PNMA - National Program for the Environment, to be funded by the World Bank, were essential to strengthen official environmental structures: it was the first external funding assumed by the Brazilian Government for the environment and, in their work plans, education and communication were an intrinsic requirement. The total amount of the funding was around US\$120,000,000.00.

Meanwhile, international NGOs connected to the environmental issue also brought contributions and recruited opinion makers in Brazil. The first of them was UICN that, supporting the creation of FBCN (The Brazilian Foundation for the Conservation of Nature) and its operation, produced an important impact on the academic community and on public agencies such as IBDF, IBGE and others.

Because there was no government agency in the federal structure and due to the demand produced by Stockholm, the Government created the Special Secretariat for the Environment – SEMA on November 30, 1973. It is an autarchy linked to the Ministry of Foreign Affairs and whose Secretary, the professor, lawyer and biologist from São Paulo, Paulo Nogueira Netto, was appointed by the Government and remained in office until 1986.

Item “i”, regarding SEMA's responsibilities, stated:

[...] to intensively promote, through national scale programs, the clarification and education of the Brazilian people in what concerns the appropriate use of natural resources bearing environmental conservation in mind.

Bringing the environmental issue to the agenda in the mid 70's took local movements in areas with a concentration of pollutant emitters to organize themselves and to have national visibility, everything covered by the mainstream media and – it is important to remember that the Country was under an authoritarian political regime – serving as an “exhaust valve” for political protests by the society. NGOs were created and newspapers such as “*O Estado de São Paulo*” and “*Jornal da Tarde*” produced their fighting and competent environment editorials.

3 Brazil: aspects of a case

With a surface of 8.5 million km² and a population of 210 million inhabitants, Brazil is a Federative Republic formed by 26 States in which there are 5.560 Municipalities and one Federal District.

A huge disparity takes place when the spaces of the great Brazilian biomes are analyzed: the Atlantic Forest occupied a long time ago and where over 70% of the population is located; the Savannah with quick and not always careful productive occupation; and the Amazon, large and recent expansion border with a potential for the future due to the progress of the agricultural frontier, mineral exploration or the construction of large hydropower plants.

With urban population getting to 86% of the total and the diversity described above, the great challenge of finding the right paths from the perspective of environmental awareness and education is evident.

Brazil, which had not yet systematized a policy to defend its nature and environment by the 70's, had, however and by the 18th century, precursors of those concerns such as José Bonifácio de Andrada e Silva who wrote in 1823:

“Our land is badly cultivated, ... our mines are badly used..., our precious forests are disappearing, our hills and slopes are being excavated and... as time goes by, there is going to be a lack of fertilizing rains that favor the vegetation and feed our sources and rivers”...

Graduated, as many other Brazilians, from the University of Coimbra and the Royal Academy of Sciences of Lisbon, with the support of the then Portuguese Minister of the Navy and Ultramarine Domains, Rodrigo de Sousa Coutinho, Bonifácio, the “patriarch of the Brazilian independence” (who, at the age of 20, traveled to Coimbra and stayed in Europe until 1819, at the age of 56), and many others linked that destruction of nature to the slavery, *latifundia* and monoculture system in force. They were active participants in the abolitionist movement and, although several of them had held high level positions in the Empire and then in the Republic (as of 1889), “they could do little to promote the fight against environmental destruction”.

Maybe Bonifácio’s greatest achievement was to “detect the need for an overall policy to protect natural resources in Brazil” (2).

After some alternate growth periods and, more recently, political and economic crisis, Brazil is now in a difficult situation reflected on the territory and space organization and environmental policies that wither and, consequently, environmental awareness.

The lack of faith and hope, skepticism in regards to new proposals towards the relations between society and nature within a political credibility and public management crisis make the transformation process regarding conceptual structures that support new postures and attitudes even more difficult. Mobilization for common causes such as the environmental crisis starts to be reduced to critical events or impacts that are very present in the communities, which tend to accommodate.

4 Legislation and public policies for sustainability

One of the great concerns that strikes those dealing with such a wide spectrum of subjects, is to detect the current situation and the paths towards that harmony and exchange of knowledge and perceptions. That would be the base for a new preventive and pro-active environmental policy grounded on new values, overcoming the obstacles that hinder the proposals and commitments made in so many meetings, conferences and works to be achieved. That is what we are seeing below through environmental, territorial order, education and many other laws with their impeccable texts that are rarely fulfilled.

Vieira (3) proposes a new variable for the construction of ways towards environmental education and environmental policies for sustainability: increasing dialogue and tolerance allied to a strict selection of projects and the creation of partnerships, with an ethical dimension that permeates the process.

4.1 1988 Constitution

The so-called “citizen Constitution”, enacted after a period of authoritarian governments and military command, is extremely liberalizing in what concerns concepts, and it is prodigal in the formulation of rights – among which is the chapter for the environment:

CHAPTER VI: THE ENVIRONMENT

Art. 225. All have the right to an ecologically balanced environment, a common use asset of the people and essential for the healthy quality of life, imposing to the Public Power and to the collectivity the duty to defend and preserve it for the present and future generations.

In what regards environmental education, the constitutional status is stated on item 6 as an obligation of the public power.

4.2 The Forest Code (LAW N. 12.651 DATED MAY 25, 2012)

The Forest Code, which contains correct concepts in its essence, is in its third version: the first one in 1934; the second one, in 1965; and this last one, in 2012.

It states limits for the property right related to common assets, which is highly important for the Country and for the future generations; but, at the same time, it requires a strong educational component if it does not wish to remain within the worn out limits of command and control that are insufficient most of the times.

4.3 The Law of the Environment: Law n. 6938/81

The most comprehensive law in what regards the environment and its different aspects is law n. 6938/ 1981. It was enacted during the Government of General Figueiredo and it is a surprise due to the skillful inclusion made by team members allocated at the Ministry of Interior of conceptions such as the national system for the environment that proposes guidelines for participation and planning, and which numbers:

OBJECTIVES OF THE NATIONAL POLICY FOR THE ENVIRONMENT:

Art. 4 – The National Policy for the Environment shall aim at:

...

V – the diffusion of environment handling technologies, the disclosure of environmental data and information and the creation of public awareness on the need to preserve environmental quality and ecologic balance;

4.4 The Law of the Waters: Law n. 9.433/1997

Concepts that take to participation in territorial management and the development of postures and attitudes in which the territory and water shall be preserved for the good of all, and management through watersheds based on the French model is a strong guideline also included in that legislation regarding water resources.

4.5 The SNUC (National System of Conservation Units) Law: Law n. 9.985/2000

That Law contains several guidelines that should unfold into education and environmental awareness projects and activities. However, that still takes place at a reduced scale and the bodies in charge of conservation units are resistant against innovative and sustainable education practices, making strict and excluding standards a distance factor between those units and the populations. The long standing compensation payments owed to the former proprietors of those areas are also problems once the people in charge of the units fail to hold the peaceful possession of the areas and they have trouble making the necessary investment on them.

4.6 The Law for Environmental Education: Law n. 9.795/1999

Some of the definitions, principles and management proposals listed below show positive aspects of the law in force regarding environmental education. Thus, the point of concern is its practice. That Law states:

“ENVIRONMENTAL EDUCATION

Art. 1 Environmental education is the processes by means of which the individual and the collectivity build social values, knowledge, abilities, attitudes and competences aimed at the conservation of the environment, a common use asset, essential for a healthy quality of life and its sustainability.

Art. 2 Environmental education is an essential and permanent component of the national education that should be present, in an articulated way, to all levels and modalities of the formal and non-formal education process.

Art. 3 As part of the broader education process, all have the right to environmental education, and it is a responsibility of:

I – the Public Power, pursuant to arts. 205 and 225 of the Federal Constitution, to define public policies that incorporate the environmental dimension, to promote environmental education at all teaching levels and to engage the society in the conservation, recovery and improvement of the environment;

II - education institutions to promote environmental education integrated to educational programs they develop;

III – the entities that integrate the National System for the Environment – Sisnama...;

IV – the mass communication means to actively and permanently collaborate to the dissemination of information and education practices on the environment ...;

V – the companies, trade associations, public and private institutions to promote programs aimed at the qualification of workers to improve and effectively control the environment as well as the impacts of the productive process on the environment;

VI – the society as a whole ...

The creation of a “system” with shared responsibilities” is an important innovation of the environmental legislation resulting from the constitutional definition. However, the practical execution of a three-level set of actions, maybe for not being followed by a

Careful qualification process for cooperation works, does not take place with no conflicts. Different interpretations and disputes over who does what, with mutual accusations, are common, especially between federal and state agencies, and between states and municipalities.

5 NGOs, Academy and scientific knowledge

Since 1916, foreign privately held legal entities are assigned the possibility to operate inside the national territory. Nowadays, the Brazilian legislation recognizes the legal personality of non-profit foreign organizations since they are regularly incorporated according to the law of their countries of origin about legal entities. Among environmental NGOs working in environmental education, some international ones stand out (4):

- a. International Union for Conservation of Nature – IUCN**
- b. World Wild Fund – WWF**
- c. Greenpeace**
- d. CI – Conservation International**
- e. Friends of the Earth**
- f. And national NGOs:**

There are hundreds of them, with different levels of importance, effectiveness and capacity of action, and even of formal existence.

The Ministry of Environment registered, in order to call to take part in CONAMA's segment of civil society representatives (whose participation in meetings usually held in Brasília is sponsored by public resources), 665 NGOs distributed as follows:

- Northern Region 45
- Northeastern Region 125
- Center Western Region 76
- Southeastern Region 291
- Southern Region 128

The state that registered the greatest number of NGOs into that national registry is São Paulo (122), followed by Minas Gerais (83) and Rio de Janeiro (67), all of them in the Southeastern Region.

Having an extensive network of universities as well as academic production and professional qualification centers, in addition to research support and promotion entities in the federal and state governments, it is natural that a lot of knowledge has been generated in centers of noteworthy competence. However, there is a historic difficulty regarding inter disciplinarity that is fundamental when addressing environmental issues and, particularly, environmental education for sustainable development. Sometimes the institutional rigidity of universities and other times the lack of willingness from environmental action executers to look for new knowledge that allow for the operation of the tripod consisting of knowledge, management and policy, which would provide for the transdisciplinarity for the solution of practical cases, are obstacles to environmental education with a transforming potential .

In the last decades, many companies assumed a strong environmental discourse, often to respond to social demands and as a factor to make their activities feasible. The creation

of CEBDS (Brazilian Business Council for Sustainable Development) itself, main office in Rio de Janeiro and associated to the World Business Council for Sustainable Development, promoted interesting initiatives that included sponsoring environmental education programs through public and private companies. PETROBRAS, having a great polluting and degrading potential, funded a voluminous and correct set of projects, inclusive through NGOs and groups of scientists of recognized capacity.

Among the several initiatives regarding good qualification and environmental research programs, many of which in environmental education, companies such as the cosmetic producers “Natura” and “O Boticário” established themselves as great sponsors.

However, a shadow was cast over those postures and over all the companies, especially over the mineral extraction sector, with the large size environmental disaster that took place on November, 2015 at SAMARCO’s iron ore mine in Mariana, Minas Gerais, when a tailings dam broke and carried to Doce river an estimated volume of 43.8 million m³ of tailings that destroyed a village (Bento Rodrigues), displaced 600 people, killed 19 and contaminated hundreds of kilometers from the river to the Atlantic ocean in the state of Espírito Santo.

6 Education and training

Expressly listed in the Federal Constitution, in the State Constitutions, in the Organic Laws of thousands of Municipalities and in the environmental legislations at their different levels, environmental education has modest concrete progresses, and academic discussions and theoretical writings, especially involving, in one hand, those we could call “conventional” or “conservationist”, and on the other hand, the “transformers”, “innovators” or “utopic”.

It is important to emphasize the great leap regarding environmental education discussion and practices as of 2003 with Marina Silva and her team's Ministry of Environment that proposed, in her words, "education for sustainable development, disseminating dialogue as the essence of the interchange of participation and social control, a guideline of the new integrated environmental policy."

Senator Marina was an icon of environmental fights, mainly concerning the Amazon and the defense of the people of the forest, and there was a moment of great hope with her appointment. Two facts are significant in what regards environmental education and awareness in that period: the first one, the great visibility and space for Marina in the national and international media; secondly, she brought to the Ministry several thinkers, formulators and militants for the environmental causes who produced events, and high quality publications; her period lasted until 2008, when she had a serious disagreement with the then Minister of the Civil House and future President of the Republic, Dilma Roussef, and left the Government.

There are few alternatives in which the participants are trained ("*on job training*") for future opportunities to develop works demanded by the society, such as the School of the "TERRA Institute" created by photographer Sebastião Salgado, training agriculture technicians on environmental practices in Aimorés. EMATERs (state companies for rural technical assistance) have interesting cases of success coupled to education processes.

In general, it is sad to see the lack, at the national level, of an educational policy that is coherent to the commitments embedded in the Constitution and in the environmental education law. We continue to live with the punctual and fragmented characteristics of the pedagogical intervention projects marked by the chronic incapacity of transforming generic speeches into effective strategies to change daily perceptions and practices. The

huge expansion of the number of post-graduation courses on the environment has not resulted in a qualitative technical scientific improvement.

Among the most recent environmental education/awareness initiatives at a national scale, it is possible to mention, with a strong mobilization potential this year due to the involvement of all parish churches in the Country, the launch by the Catholic Church of the theme for the “Fraternity Campaign”, an yearly initiative, that is: “Brazilian Biomes: in defense of life”, which certainly derives from Pope Francis’ Encyclical “*Laudato Si*”.

7 Communication and media: some cases

7.1 The large vehicles

André Trigueiro (5) firmly says that television commanded what he calls “technological and massifying dragnet of communications” and he lists interesting examples of pioneer programs in the Brazilian television with environmental themes. We can mention among them “Globo Reporter” and “Globo Ecologia”. The last one, under the command of Claudio Savaget who, between November 1990 and August 2014, showed on Saturdays at Rede Globo exceptional programs on nature, in a clear, scientifically correct and aesthetically exquisite way. The Xingu series was also important. It was created and produced by journalist Washington Novais to approach the indigenous cause in the Amazon. It is now possible to watch a great number of imported programs on paid TV channels that have a relevant role on the generation of environmental knowledge.

7.2 Regional and alternative local communication vehicles

Meanwhile, there is a huge diversity of networks and communication channels in the so-called social networks, but it is important to remember some alternative or local vehicles that have kept the lights of information circulation on for years.

Among them, we can mention:

- In Brasília, Silvestre Gorgulho and his “*Folha do Meio Ambiente*” that circulates monthly since June, 1989 with a high volume of quality information, especially for being in Brasília, with a lot of room for news regarding government actions;
- In São Paulo, Vilmar Berna, with “*Jornal do Meio Ambiente*” now “*Revista do Meio Ambiente*”, also has a great collection of good environmental articles with broad distribution. He created an association, the Brazilian Network for Environmental Information – REBIA.
- In Belo Horizonte, Hiram Firmino, in the 90’s, created “*Estado Ecológico*” as an insert of “*Estado de Minas*” newspaper, which later migrated to “*Jornal do Brasil*” and became national to then become the “*Ecológico*” magazine, which still circulates nowadays with issues at full moon and a wide array of environmental themes.
- For a certain period of time, understanding the need to communicate environmental issues, UNEP (the United Nations Environment Program), through its Regional Office for Latin America and the Caribbean, circulated, together with IPS – *Inter Press Service* News agency, a booklet in several newspapers in the area, the supplement “TIERRAMERICA”, in Brazil “Terramérica” (inserted into *Estado de Minas* and other smaller newspapers), and that circulated simultaneously in 8 newspapers in Latin America.

The Brazilian Association of Environmental Medias informs that those publications summed a monthly circulation of 1.5 million copies.

There are many other cases, but all of them point at a great difficulty to get sponsors at the medium and long terms that accept not to influence the editorial content. That difficulty is aggravated during periods of economic crisis.

When one examines the “hot spots” for which Brazil is demanded, the Amazon, its forest, its rivers and its indigenous populations have great appeal.

And that places a conceptual challenge because to one side there are changes, including global climate ones due to the currently ongoing deforestation, and to the other, scattered populations along rivers and meadows are victims more than actors in what regards the activities that cause great impacts. And local Governments usually fail to give priority in their educational policies to concerns on the biome – to which the rest of the world is attentive.

8 Some conclusions

Brazil’s great complexity, territorial extension, natural and cultural diversity, together with the current circumstances of great, mainly political instability make it impossible to visualize at the medium and long terms what may happen to environmental education and awareness in Brazil.

When assessing environment education possibilities and the huge wealth of knowledge in environmental studies, it is possible to notice a change to the perception and social-environmental practices in governments, companies and several segments of the society, and we can propose for this 21st century – that many say starts with the presentation of

the IPCC Report on climate changes – the essential question: is there hope without great qualitative reach quality education?

It is necessary to effectively look for instrumental and behavioral, inclusive and solidary excellence, learning from past lessons, proposing environmental education to preserve what has already advanced, and to improve in the future.

José Augusto Pádua says: “what surprises the analyst is to understand the existence of this double movement in Brazil: a rich tradition of cultural friendliness and laudatory praise to nature on the one hand, and on the other, a continuous history of aggression against its main manifestations”.

To conclude: it is possible to *turn environmental education into* an instrument for change, social inclusion and ecological prudence in Brazil today: that is the great challenge.

In Brazil and in the World.

9 Bibliography mentioned:

1. Goodland, R.- (1992) – The case that the world has reached limits, in “Environmentally sustainable economic development: building on Brundtland, UNESCO, Paris,.
2. Pádua, J.A. (2002) – Um sopro de destruição: pensamento político e crítica ambiental no Brasil Escravista, 1786- 1888. Jorge Zahar editores, Rio de Janeiro,
3. Vieira, P.F. (2011)– Pesquisa, ação, formação em regiões laboratório de desenvolvimento territorial sustentável: experiências brasileiras e canadenses. In: “O Papel da universidade no desenvolvimento local. APED, Florianópolis,
4. Franco, A.C. – Atuação de organizações não governamentais no Brasil. Belo Horizonte, (inédito).

5. Trigueiro, A. (coordenação)- (2003) - Meio Ambiente no Século XXI: 21 especialistas falam das questões ambientais nas suas áreas de conhecimento. Sextante, Rio de Janeiro,.