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Towards a New Development Architecture: Brazil and Optimum Environmental Governance

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Environmental governance, understood as a framework of both formal and informal rules, institutions, processes, and behaviour that affect the way powers are exercised in the sphere of policies towards the ecosystem, has a number of comparatively advanced features in Brazil (Leis, 2000: 98). It also shows a progressive outlook, having evolved, on paper at least, in the last three decades or so, from the narrow approach of environmental protection, restricted to a few sectors of nature, to a broader sustainability-oriented perspective encompassing natural capital, ecosystem functions and the services of nature. However, from a more concrete standpoint, it must be said that Brazil still lacks certain other elements necessary for successful environmental governance. Public policies, in fact, tend to contemplate the promotion of growth before everything else, including the health of the natural environment, in spite of the commitments of official discourse to ecological sustainability especially after 1992. The outcome is a neat contrast between the progressive legislation, which presupposes active stakeholders' participation, on the one hand, and the actual situation of the prevalence of economic guidelines over the environment, taken up on an autocratic, top-down fashion, on the other.

The present paper starts from a presentation of the background situation of the environmental question in Brazil in *section two*. In *section three*, some references about the way formal environmental governance evolved in the country are provided. The participatory feature of environmental policy-making in Brazil is described in *section four*. In *section five*, the reality of environmental governance is set against the backdrop of the institutional and legal framework that has been built up in Brazil. On the basis of that picture, pertinent research questions towards optimum environmental governance as part of development are posed in *section six*. It is important to stress the need for a well-conceived framework of rules and institutions for a new development architecture centred round the tenets of socio-ecological sustainability. Nature has to be taken into account for any successful long-term development strategy. Some of nature's resources simply do not have substitutes. Thus society, through optimum environmental governance, must tackle actual biophysical limits to the economic process. To ignore them raises dire risks.

2. Basic traits of the environmental picture in Brazil

A characteristic of Brazil's history over the last 500 years is that it has produced a succession of actions with huge negative environmental implications (Viola, 1987; Cavalcanti, 1991). The present picture conveys a sense of the irresponsibility with which natural resources have systematically been exploited since the early stages of the country's settlement by Europeans. Moreover, it also exhibits instances of many of the same evils which afflict ecosystems throughout the world˜ slash-and-burn agriculture, soil degradation (recently accelerated by the expansion of the cultivation of soybeans in Amazonia, preceded by deforestation and logging), contaminated water, and so on. In the Brazilian case, the problem is aggravated by the "pollution of misery" and a very unequal income distribution. These problems, by the way, were presented in the Stockholm U.N. Conference (1972) as arguments justifying more pollution of the conventional type (Viola, 1987: 83-84). The military that ruled the country at that time, and had a nationalist project of development, justified the need for polluting industries to move to Brazil on grounds that although they polluted they also raised the prospects of rapid growth.

The international press and the literature on environmental issues do not exaggerate when they offer dramatic information about the relationship between Brazil and its ecology. This has been especially true in the last decades with problems such as those we have witnessed in the Amazon. Frontier expansion in that unique region stimulated by the opening of new roads has brought in the business-as-usual scenario of rapid deforestation, with the release of several billion tons of carbon to the atmosphere, more accidental forest fires, species loss, deforestation-driven rainfall inhibition, etc. (Nepstad *et al.*, 2002). Between 1992 and 2000, 157.000 km^2 of forest, equivalent to almost half the area of Italy, were deforested (Camargo, Capobianco & Oliveira, 2002). These problems are now exacerbated by the fact that today the pressure for the expansion of the soybean sector represents a serious threat to environmental governance. In short, the process of development in Brazil has provoked a series of grave ecological problems which can be summarized as follows: biodiversity loss with deforestation due to subsidised cattle-raising and large-scale agricultural projects; desertification processes mainly in the Northeast region, but even in Amazonia; ecosystem destruction such as in the case of mangroves; a lack of observance of existing environment protection laws and

rules; deterioration of urban living conditions; urban violence, and so on (Cavalcanti, 1991: 476). In other words, the process of development in Brazil has not taken into account its ecological or social costs. In the words of a biologist in the Ministry of the Environment, whose work is related to the Convention on Biological Diversity, "The traditional model of exploitation of natural resources in Brazil is extractivist, predatory and colonialist" (Dias, 2002: 140).

However, this phenomenon of environmental degradation in Brazil has been accompanied by meaningful efforts to create a legal framework to protect the integrity of ecosystems. At the same time, Brazilian society seems to be incorporating new attitudes concerning the importance of the environment. A national opinion poll conducted on three different ocassions – 1992, 1997 and 2002 – indicates, for example, some meaningful changes of perception in recent times. There has been a broader diffusion of environmental notions and policies in the public agenda, and people feel more and more committed to the solution of environmental problems (ISER, 2003). The problem is that, parallel to this, faith in the idea of unlimited economic growth appears to be particularly ingrained in the Brazilian collective mind, penetrating even the world of the "critical intellectual elite" (Viola, 1987: 85). A true faith in the indispensability of growth, as a matter of fact, is what can explain the waste of resources in Amazonia as if they had no limits (Allegretti, 2001: 41). It has also dominated the orientation of the government of president Luiz Inácio Lula da Silva (who was inaugurated in Jan. 2003) in its first three years. Short-term considerations determine what is undertaken, especially in connection with economic decisions and their environmental consequences (Mineiro, 2003: 23). This is particularly true in the conspicuous case of soybeans, whose expansion has been one of the factors responsible for the great increase in Brazil's export earnings in recent years. In the logic of the Ministry of Agriculture, which tends to be ruled by the agribusiness sector – to the chagrin of people in both the Ministry of the Environment and the Ministry of Agrarian Development, with a great presence of NGOs and environmentalists –, all efforts must be concentrated on increasing the area cultivated with soy. To that effect appropriately "favourable" conditions, no matter how detrimental they are to the natural environment, must be created. Pressure for paving roads and for building a system of modern waterways in the Amazon, besides other controversial initiatives (see Kohlhepp, 2001), follows.

Against public opinion and a system of rules that favour conservation, the tendency in Brazil has been to give in to powerful predatory lobbies. The above-mentioned 1992-2002 opinion poll shows that, in 1997, 49 percent of all Brazilians thought that the level of deforestation allowed to landowners in Amazonia (20 percent) should be reduced. This proportion rose to 58 percent in 2002 (Camargo, Capobianco & Oliveira, 2002: 37). Nonetheless, the core strategy of Amazonian (and Brazilian) development persists in its bias in favour of supplying massive subsidies to large domestic investors and favourable terms for foreign investors (Torras, 2003: 6). In the post-1992 period, the evolution of indicators of sustainable development in Brazil shows that the relevant problems continue characteristically unsolved and that, in many cases, they have become even more serious (Camargo, Capobianco & Oliveira, 2002: 24). If, as a result, poverty had been significantly reduced or the standards of living improved, one could argue in favour of the sacrifices made in terms of sustainability. However, as a recent study has shown (Torras, 2003: 129), "[t]ere is considerable evidence that Brazilian living standards worsened from 1965 to 1998, at least for the poorest members of society" and that, even more serious, "green income was invariably negative for the poorest quintile – and at times for the second- and third-poorest as well". This situation has not basically changed since 1998.

3. Early initiatives towards formal environmental governance in Brazil

Until recent times Brazil lacked a democratic land policy (Drummond, 1998-1999: 129). This led to the overexploitation and degradation of resources. The situation begins to change a little from 1934 onwards. In 1934 Brazilian legislation produced two important landmarks, the Forest Code, and the Water Code, the intention of which was not to promote the ecologically sound management of resources, but rather their "rational" control by planners in the federal bureaucracy (Drummond, 1998-1999: 132). The first of these two laws attempted (unsuccessfully) to dissociate the full right of use of the native flora from the ownership of the land in which the forest was located. In spite of the existence of this new law, landowners and settlers continued to fell trees at will, invoking the necessity of opening new tracts for agricultural purposes. However, some conservationist practices were introduced~ at least, landowners felt somehow restrained~ and the Forest Code

led to the creation of the first national parks. This law was modified, and strengthened, in 1965 under the name New Forest Code. The Water Code, more successfully, determined the dissociation of the ownership of a piece of land from the ownership of the water and mineral resources on or under that land. In Brazil, since 1934, the purchase of land excludes in principle the right of the landowner to exploit the water and minerals existing on or under that land (considered national patrimony). This, however, has not prevented those resources from being abusively exploited directly by, or under concession of, the national authority.

The early initiatives for the establishment of a framework of rules and institutions to manage environmental resources in Brazil were extended in 1964 by a constitutional amendment, which removed public lands from the domain of the states, and placed them under the control of the central government. The Land Act, issued at the same time, established that private land ownership would fulfil its full social function only if it combined fair distribution, adequate use and, as an innovation, the conservation of natural resources (Drummond, 1998-1999: 137). At the state level things had not been stagnating. In effect, various undertakings in favour of a more solidified form of environmental governance had been promoted since the early sixties. Councils, commissions, agencies, etc. concerned with the environment gradually sprang up in several states, introducing new approaches to the management of resources and pollution control. Their impact was never impressive, contributing though to the formation of technical bodies with a beneficial involvement in environmental issues.

It is the year 1972 that constitutes a reference point for the introduction of an integrated approach to environmental governance in Brazil, with some influence from the experience in the sixties of the U.S. Environmental Protection Agency (EPA) (Mattos de Lemos, 2002: 31; Egler, 2002: 117). It was felt then that the existing policies, institutions, and norms had been formulated in a segmented fashion, chiefly with respect to the use and conservation of natural resources. This led gradually to new attitudes. Despite the fact that Brazil officially assumed an anti-environmentalist position at the U.N. Stockholm Conference, the Brazilian delegate subscribed the pro-environment Stockholm Declaration and a growing conservationist consciousness formed within the federal government.

In October 1973 the Special Secretariat of the Environment (SEMA) is

created within the Ministry of the Interior. To head the new agency, a respected natural scientist from São Paulo, Paulo Nogueira Neto, was appointed. He was to remain in that position, against the odds, for twelve years, which made possible SEMA's safer evolution and consolidation. During Nogueira Neto's mandate, Brazil's environmental situation became ever more critical. Economic growth~ then, as today, the real sacred cow~ was proceeding at a rapid pace (with rates of GDP increase above 5 percent per year in 1973-1981), without any corresponding commitment to sustainable processes in ecological terms. The costs of growth~ in accordance with a long-standing tradition of the economics profession~ were simply ignored.

The great moment for the new paradigm of environmental governance in Brazil arrived in August 1981, with the approval of the National Environment Policy Act, which is considered the most important piece of environmental legislation issued in the country up to the present time (Drummond, 1998-1999: 141). It sets up both the legal basis and the institutional framework for policy-making concerning the environment at all levels of government. That law gave SEMA a central role in the newly-created National Environment System (SISNAMA), which is made up of Brazil's different levels of environmental governance and the powerful National Council of the Environment (CONAMA). What makes this law outstanding, however, is the nature of its objectives, which in essence require that socio-economic development be compatible with a high quality of life and ecological equilibrium. To that end the environment is considered to be a public patrimony, which must be guaranteed and protected with a view to its collective use on a sound basis and without imperilling its permanent availability. It constitutes, in sum, a move away from a narrow pollution-control model of environmental policy towards a more comprehensive, systemic approach, although it has not had the power~ nor is it its intent~ to assuage the widespread, even mystical, belief in the enhancing powers of economic growth.

The National Environment Policy Act establishes concepts, principles, objectives, mechanisms of application and formulation, instruments, and penalties in relation to policy-making in environmental questions and the management of natural resources in Brazil. It also sets up an articulated set of agencies, entities, rules and practices responsible for the protection and improvement of the quality of the environment. At the highest level of SISNAMA sits the Governing Council, formed by all federal ministers. CONAMA, the

National Council of the Environment, constitutes the advisory and deliberative instance of SISNAMA. It is its true heart and a kind of environmental parliament.

SISNAMA's central organ is the Ministry of the Environment (MMA), whose responsibility is to plan, coordinate, supervise and control all actions of environmental policy at the federal level. CONAMA deals instead with *national* policy issues, thus embodying all levels of government. The role of executing directly, and commanding the execution by other bodies, of the policies and guidelines related to the environment, belongs to IBAMA, the Brazilian Institute of the Environment and Renewable Natural Resources, an agency with a certain autonomy under the authority of the Ministry of the Environment. Sectoral bodies of an executive character in all federal ministries, national public enterprises and foundations, whose activities are associated with the protection of environmental quality or the enforcement of environmental norms and regulations, together with sectional (state) and local (municipal) agencies with the same profile, form the next level of SISNAMA.

4. Participatory characteristics of the environmental policy process

In Brazil the effective use of participatory practices in the environmental arena has been promoted by the creation of both SISNAMA and CONAMA (Mattos de Lemos, 2002: 71). This has occurred mostly at the national and state levels. At the local level, there has not been so much participation in the environmental sphere, as pressures from society have not been as common in this field as they are in fields such as health, rural development, rights of the child and the adolescent, municipal budgets, etc. Overall, however, participation in ecological issues has developed considerably during the last decade. The construction of Brazil's Agenda 21 (concluded in June 2002), for instance, followed the participatory model, and the resulting mobilisation of society in many parts of the country taught important lessons and produced meaningful results.

Participation of civil society in formulating policy is a crucial feature of the SISNAMA model (Camargo, Capobiano & Oliveira, 2002: 34-35). This is based on the premise that stakeholders want not only a say, but are also prepared to share the responsibility of decision-

making. The principle of social control in the definition of directives and priorities for environmental policy is fundamental in that conception. Civil society has been called to participate effectively through NGOs and social movements. Its response to, and presence in, the process of environmental policy formulation in Brazil has been impressive. Groups from civil society play a fundamental role in the discussion of problems, in devising alternative solutions, and in finding the measures that can lead towards their adoption by SISNAMA. CONAMA's assembly, by the way, is the oldest and largest body with such a profile in Brazil. The increasing role of participation in democratic spaces has given more openness to the formulation of environmental policy in Brazil. Participation was particularly intense during the preparation and final realisation, in November 2003, of the first National Conference of the Environment, convened by MMA. This was a truly democratic forum with all the tensions and drawbacks of a gathering of almost 2,000 delegates chosen during pre-conferences at the state level.

Greater participation on the part of the private sector has also been a feature of environmental politics in recent times. There has been an increasing tendency to involve the business sector in the arena of environmental issues, through calls for responsible behaviour. The year 1992 may be cited as a landmark with respect to these new attitudes, with Brazilian enterprises assuming the need for more co-operative government-private sector arrangements (Almeida, 2002). The great change in corporate behaviour may be ascribed to the approval in 1998 of the Environmental Crimes Law, which introduced the notion of corporate penal responsibility for damage caused to the natural environment. As a result, many programmes of environmental education, preservation of natural resources, recycling and recovery of degraded areas (with reforesting), have been undertaken by the corporate segment, within which the Brazilian Business Council for Sustainable Development (CEBDS) has represented a paradigm change (Almeida, 2002).

5. From theory to practice

Describing the framework of rules and institutions affecting the way powers are theoretically exercised in the environmental field in Brazil may offer an illuminating situation. The country's real problem of environmental governance lies in implementation. The core of Brazil's political system remains addicted to growth and

extremely vulnerable (or sympathetic, to say the least) to powerful economic lobbying. As a matter of fact, policy-making in general does not combine at all well with the commitments of SISNAMA and the MMA. There is a great abyss between the (dominant) perspective of the politically-strong Ministries of Planning and Finance, on the one hand, and the downgraded Ministry of the Environment, on the other (Kohlhepp, 2001: 28). This is a situation where decentralisation does not work, and where bottom-up strategies seldom have a chance of being adopted. Just to give an illustration of the problem: in 2001, the breakdown of authorised federal expenditure in the Amazon shows an allocation of 85% of the total to infrastructure (roads, ports, waterways, dams, etc.), 9% to military activities, and only 6% to environmental protection (Allegretti, 2001: 49). The crux of the matter is that the environment has a marginal presence in the bigger scenario, as if it were a subset of society and the economy (in the same category of transport, energy, communications, foreign trade, but with a minor role). In this model, priority treatment is simply reserved to the economy (Viola, 1998-1999).

Essentially, SISNAMA's actions are geared towards public initiatives for the maintenance of ecological equilibrium, and for making compatible socio-economic development with the preservation of nature. It is a different approach from that of the hard core of the government (the Ministries of Planning, Finance, Economic Development, Agriculture), since for SISNAMA the interpretation that ought to prevail, correctly, from a biophysical perspective, is to consider the environment as the larger envelope within which all human activity takes place. This view seems to orientate the MMA in its efforts to co-ordinate policy at the state and federal levels. The MMA has also tried to include environmental criteria in the formulation of all government policy (the so-called transversality principle), with the goal of minimising negative environmental impacts.

At the same time, the enforcement apparatus of environmental governance is, or is made to be, inefficient, because it is hostage to incongruous legislation and short-run sector policies. In sum, the predatory, traditional sectors end up prevailing over the environment. Environmental politics seemed to evolve favourably in 2003 with the appointment by president Lula of Marina Silva, an admirable militant of the Amazonian rubber-taper movement, as Brazil's minister of the environment. This choice appeared to

underline a commitment by the new administration to promote economic development while simultaneously respecting and preserving the environment, as assumed in the official discourse on sustainable development. Minister Marina Silva intended especially to preserve biodiversity in the Amazon as well as the traditional way of exploiting the rainforest represented by the successful extractivist-reserves model. In her new post, she tried in fact to introduce a new perspective for policy-making at the federal level.

At the closing of the 1st Conference of the Environment (November 2003 in Brasília), she said: "Implementation is the catchword. The guideline of our government [...] is to lead by example". This also reflected the conference's spirit, as indicated by the fact that four-fifths of the proposals submitted to the pre-conference assemblies in the states, and later forwarded to the national event, asked for compliance with the legislation and the norms of environmental control. In the aftermath of the Rio-92 summit, the economicist hegemony prevailed, with economic reforms dominating everything else according to the basic tenets of neo-liberal policy. Environmental considerations were not removed from the official discourse, but any emphasis on the environment had little more than a symbolic function, as a sort of pledge in favour of sustainable development, to assuage public opinion (Camargo, Capobianco & Oliveira, 2002: 23). Today, this situation continues to be a strong feature of Brazilian reality. Not that there is a complete paralysis of effective environmental governance in Brazil. Many of CONAMA's resolutions, for instance, are concretely applied. Public hearings are constantly being implemented. And, above all, public attorneys, with functions strengthened by the 1988 Constitution, have played an important role in assuring that the legislation is observed (Saint-Clair dos Santos, 2002).

The sad fact remains, however, that what is occurring in Brazil contradicts the principles and references of good environmental governance. Although it is not easy to build a framework of legislation, rules and institutions to that purpose, such as the one that Brazil now possesses, this is not enough, because what matters is compliance. One example of the inadequacy of effective governance in Brazil is the continuation of improper policies in Amazonia. The question is that the same narrow short-term perspective, which renders the economy more important than anything else, has infiltrated all relevant levels of government in Brazil. A general fear of contradicting the expectations of the

market leads to the triumph of the short-sighted, production-oriented view, against the feelings of the ecologically-minded community centred around the commitments of sustainable development.

6. Pertinent Research Questions

It is against the above-depicted dismal background that an effort must be made to dwell at length on the factors that have brought up the situation. And what should be done to arrive at what we could call optimum governance. In fact, it is necessary to understand what is precisely occurring. In this context, a central issue of analysis is the examination of prevailing assignments - that is, the *de jure* and the *de facto* exercise of powers (functions, fields, areas of responsibility) over the environment by the various governance levels and agencies in the country. The examination should build on its results to investigate the sort of assignments and institutional set-ups that would be best suited to deal with the environmental constraints faced by the socio-economic system, given the best available implementation instruments. This requires in turn that a number of issues be investigated.

The ultimate goal of the research effort is to explore how a systemic view of the environment – one that recognizes the need for policies aimed not only at controlling pollution and conserving resources but at protecting the integrity of ecological systems and functions at the local, regional, national, and global levels – would affect the assignment of powers and the design of environmental governance institutions. In particular, the study must focus on the following:

1) From an examination of the juridical basis on which the environmental regulation rests in Brazil, it is possible to determine how the ruling power is distributed among different levels of government and how legislation can be enforced. From this perspective, it is possible to dissect optimum governance: who should do what? And still: what role can be ascribed to informal arrangements? What empowerment could be considered as to institutions and segments of society with a view to compliance with the norms?

2) How, by whom, and at which governmental level is scientific expertise used in environmental policy? Is scientific knowledge

adequately employed by governmental bodies? How much are academia or independent agencies systematically called upon to provide expertise?

3) How do different levels of government deal with public opinion as a constraint on, and as a drive of environmental policies? For example, does any level of government have a comparative advantage in minimising the biases present in the working of public opinion?

4) Does the use of criminal law or other non-environmental powers in environmental policy affect its enforceability? Does the kind of regime under which environmental law goes have an effect on governance? How much power should be adequate for the Public Office of the Prosecution (which enjoys a very strong, independent position in Brazil's judiciary branch)?

5) How much does privatisation (in a decentralisation framework), not only of assets, but also of functions pertaining to the environment (such as monitoring and enforcement) have a role in the process? What is this role?

6) How does the use of contractual agreements in environmental policies work? How efficient is it? And to what extent does it replace the traditional assignment of powers?

7) How strong is the growth fetish *vis-à-vis* the sustainable use of ecosystem functions and services?

8) A relevant point in Brazil concerns the fact that actions of environmental protection bring about resistance under the allegation that the environment is a hindrance to national development. How is it possible to deal with this prejudice?

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