

BRAZILIAN ENVIRONMENTAL SOCIOLOGY: A PROVISIONAL REVIEW*

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Scientific research concerning the interrelationship between society and environment is rapidly evolving all over the world. The growing proliferation of contributions from the most diverse areas of specialization seems to confirm this impression. What is usually called “environmental problems” became important concerns, although restricted to certain groups.

The social sciences, for example, attribute to society the dominant paradigm of faith in progress and human rationality. Marx (1980) as well as Durkheim (1995) see the modern era as turbulent, but both believe that the possible benefits provided by the modern era overcome its negative aspects. Weber (1982) was the most pessimistic of the three, seeing the modern world as a paradox where material progress was obtained only at the cost of bureaucratic expansion that crushed creativity and individual autonomy. However, not even he completely anticipated how extensive the dark side of modernity would become.

Both natural and social scientists built their theories on two basic premises: the Newtonian model and Cartesian dualism (GULBENKIAN COMISSION, 1996). The intellectual history of the XIXth. century is, above all, characterized by the process of diversification and professionalization of knowledge, that is, the creation of permanent institutional structures destined both to produce a new knowledge and to reproduce the producers of this knowledge.

According to the Gulbenkian Commission (1996), the creation of multiple disciplines in the social sciences was part of a global effort undertaken in the XIXth. century to guarantee and advance “objective” knowledge about “reality” based on empirical discoveries (understood as in opposition to the work of “speculation”). The idea was to apprehend the truth instead of inventing or intuiting it. The process of institutionalizing this type of intellectual activity was neither simple nor linear. However, we can affirm that this whole process was, to a large extent, a “success” story. The establishment of disciplinary structures generated investigation structures of analysis and training that were not only productive and viable, but also generated a significant bibliography today regarded as the legacy of contemporary social sciences.

Yet, at the precise moment in which, for the first time, the institutional structures of social sciences seemed finally in place and clearly defined, the practice of social scientists began to change after the Second World War. Sociologists paved the way for others transforming “political sociology” and “economic sociology”, as early as in the 1950’s, in important sub-groups within the discipline.

Political scientists followed and everyone broadened their concerns beyond the more traditional themes.

The post war years saw a redefinition of the objective in a manner that integrated all the social processes with political implication or intentions: pressure groups, protest movements, community organizations, among others.

It was in this context that research emerged - studies that today we call environmental sociology. This initiative to introduce environmental debate and the environmental dimension within sociology may have happened not only as a consequence of this process, but also as a response to the intensification of negative socio-environmental impacts due to economic expansion or to the explosive social reaction against the evidence of degradation. However, it is noteworthy that this environmental approach was developed late in sociology, well after the pioneering treatment in biology, ecology, economics, demography and geography, among others.

At the same time, it is also surprising that in a short time during the last decade, the concept of risk –intrinsically linked to environmental concerns – came to occupy a central place in social theory (GUIVANT, 1998). According to the author, two important contemporary social theorists, Ulrich Beck (1992 and 1999) and Anthony Giddens (1991), contributed to this by considering risks, especially environmental and technological risks of serious consequences, as the key to understanding the characteristics, limits and transformations of the historical project of modernity.

Nevertheless, environmental sociology already is in some places , particularly in the United States, a reasonably productive area that certainly influenced the questions posed by contemporary sociology, which, in turn, influenced the area.

Given this, some serious questions arise: Why did sociology delay in taking a position in relation to the environmental problem? Why had this theme gained such strength at the end of the XXth. century? Finally, other dilemmas arise along with this new area of the Social Sciences: From what viewpoint must we consider it? What are the paradigms that influence it? What are its theoretical and methodological limits?

Keeping these dilemmas in mind, the present work intends to be a preliminary review of the international literature and a specific commentary on Brazilian environmental sociology.

ENVIRONMENTAL SOCIOLOGY: RISE AND INSTITUTIONALIZATION

Environmental sociology, as scientific and academic production, emerged along with the social protest movements that arose in the early 1960's and the evidence of the emergency situation caused by the degradation of natural resources and industrial development.

The birth of the environmental movement in the 1960's surprised sociologists, who, at that time, did not have a theoretical model or tradition of empirical research to guide their understanding of the relation between society and nature (VIOLA & LEIS, 1992).

The pioneers of classical sociology, Durkheim, Marx and Weber had tangentially touched upon the question; beyond this, only isolated works appeared occasionally in the area of rural sociology, without promoting a substantial accumulation of knowledge that would have permitted the creation of a theoretical field.

Hannigan (1997) believes there are two explanations for the fact that sociologists marginalized the environmental question in their theoretical work. One of these refers to the weaknesses inherent in geographical and biological determinism and its conservative vision in understanding change and social conflict; the other alludes to the prevalent thinking that, in the middle of the XXth. century, emphasized the literature of the sociology of modernization. The belief in progress and in human ability to discover the causes and solutions for all problems would be responsible for the entrance of countries to modernity.

What is now identified as “environmental concern” was seen as backward and an obstacle to development, to progress. Certainly, there were critics of the development paradigm, the Marxist sociologists; but, even so, they tended to see the environmental problem as a detour from the more crucial questions of humanism.

Giuliani (1998) points out that sociology was born marked by the thinking that makes society independent from nature, a concept seen as a conquest of modernity. Buttel (1992) points out the ambiguous relationship of sociology, in its developmental stage, with the natural sciences. If, on one side, sociological thinking was influenced by concepts coming from the natural sciences, on the other, the real need to legitimate the social sciences demanded a reaction against the simplicity of explanations surrounding biological and geographic determinism, as was seen earlier.

In this context, although in a differentiated form and principally since the 1960's, groups of sociologists began to give importance to the environmental problem and perceive its relevance and range, which contributed to its inclusion in the agenda of governments, international organizations, social movements and business sectors around the world. It became evident that the environmental question was not just one more passing fad, nor a dramatization by militants or radical scientists, such as the so-called radical ecologists or political ecologists who initiated work in the area in the 1960's (FERREIRA, 1992).

Environmental sociology assumes a significant position in studying the divergence and conflict about nature (understood here, in its broadest sense, as both the natural and constructed) and the causes and extent of environmental problems among the diverse actors involved (BUTTEL, 1987; REDCLIFT & WOODGATE, 1996; HANNINGAN, 1997; CATTON & DUNLAP, 1998).

This type of orientation developed especially in the mid 1980's contributing to theoretical revitalization and to a greater projection within the discipline process motivated, in part, by the growth of environmental movements and the increasing concern for the global effects of environmental risks (MOL, 1993; VIOLA, 1997). The previous period, between the 1970's and the beginning of the 1980's, was characterized by scattered works, but of no less importance.

According to Buttel (2000), the American environmental sociology, for example, that dominated the international field until the end of the 1980's and the beginning of the 1990's, has various deficiencies. The American environmental sociological theory originally developed as a reaction to the lack of attention sociology paid to biophysical phenomena; thus, it emphasized the strong, if not intrinsic, tendencies of modern societies to degrade the environment and tended to minimize the theorization of the processes to improve the environment. But, in a somewhat incoherent manner, the dominant environmental sociology was also inclined to see that these tendencies of environmental degradation could be reversed if the environmental movement joined forces adequately. The environmental movement is also seen as essentially the only significant mechanism to achieve solutions for environmental problems, being, moreover, a progressive force *sui generis*.

The culture of American environmental sociology tended, therefore, to simplify the processes of environmental mobilization and to exaggerate the coherence of environmentalism. Finally, the author points out, the principal works of American sociology tended to a reductive vision of environmental policies, whether seeing the formation of state environmental policies in relatively benign terms or emphasizing the inexorable forces that compel state policy to exacerbate environmental degradation.

On the other hand Buttel (2000) comments on some recent tendencies in the environmental sociological culture – particularly pointing to theories on post-modernity in the center of general sociology and the application of a particular post-modernity (“reflexive modernization”) to the problems of the relationship between society and environment. For the author, the theory of Beck (1992) about a “risk society” and the works of Spaargaren (1996) and Mol (1995) are the most visible contributions to environmental sociology anchored in the notion of reflexive modernization. Also, social constructivists and discourse analysts, such as Hannigan (1997) and Yearley (1996), have presented interpretative sociologies of environmental risks and of environmental policy that are largely consistent with the frame of reference of reflexive modernization.

The notion of reflexivity – that citizen-actors are not just passive recipients of the overarching forces of modernity and that modernization can “turn backward”, as a way of facing the problems it created – has contributed to sociology in general and to environmental sociology in particular.

THE INTELLECTUAL CLIMATE AND THE POLITICAL-INSTITUTIONAL TRAJECTORY

It is clear that the process of institutionalizing environmental sociology, within sociology, was not homogeneous. It can be subdivided in terms of the political and cultural happenings of the time, as well as of the actual intellectual development of the “state of the art”. In this way, on one hand, we can distinguish “schools”, or dynamic centers of teaching, research and debate in different parts of the world. Occasionally, the dynamic center consists of a few professors, or only one sociologist,

who deal with the environmental question; other times, it is a complex that includes departments, national and international professors, scientific debate, the teaching of theories, techniques and research.

It is worth noting that the period spanning from the 1960's to the mid 1980's, in which intellectual production was more systematic and institutionalized, was profoundly influenced by the cultural climate of the 1960's New social movements, a counter culture and a radical criticism of industrialism and the military industrial complex by the new social movements marked a drastic change in the cultural and university climate in various parts of the planet, including the United States, accentuating the need to investigate the environmental problem.

The political-institutional trajectory of the discipline in the United States, a pioneer in institutionalizing environmental sociology, began in the 1970's. It is worth noting again that there was, already in the 1960's in the United States and Europe, a non-systematic but interesting production that approached the problems from a more radical perspective. The so-called "radical ecologists" or "political ecologists" certainly influenced future work.

The initial concern focused on more preservationist aspects of the environmental question, that gradually gained new profiles with the energy crisis that began in 1973 and the accompanying increase in oil prices. This energy crisis coincided with the release, by the Club of Rome, of the report "Limits to Growth" that alerted in an alarming tone to the possibility of the depletion of natural resources and of planetary environmental catastrophe, if the expectations of economic growth remained constant (FERREIRA, 1992). The publication of the report generated intense debates about the question of scarcity and the prevalent model of growth. In spite of the innumerable criticisms it received during this period, there was a proliferation of research initiatives concerning environmental movements, energy and natural resources, analyses of environmental policies, alternate proposals to growth and a heated and polemical debate about the population question (HOGAN, 2000).

On the other hand, the section of environmental sociology of the American Sociological Association grew from 290 members in 1976 to 321 in 1979, attracting researchers with different interests. According to Dunlap (1997), in the mid 1970's, the three national sociological associations in the United States (the Rural Sociological Association, the Society for the Study of Social Problems, and the American Sociological Association) started groups and sessions of environmental sociology, as well as treating the theme in a number of other sessions.

According to the author, the question of the scarcity of natural resources, in spite of being widely divulged and debated, was not duly assimilated by the American political culture oriented by the myth of unlimited growth. In this sense, the Reagan era represented an explicit rejection of the idea of limits, and the climate of the American dream of growth and prosperity interrupted the nightmare of scarcity (VIG & KRAFT, 1998). Obviously this process interfered in the work done in this field that, according to Dunlap (1997), suffered a decline in the decade of 1980. According to the author, the section of environmental sociology was reduced to less than 300

members in 1980; few new articles were written and none were published in the principal sociological journals.

However, accidents involving nuclear power plants and toxic contamination of great proportions, as the cases of Three Mile Island (1979), Love Canal, Bhopal (1984) and Chernobyl (1986), ignited public and scientific debate about the question of risks in contemporary societies. Consequently, the question of citizenship and quality of life gained new impulse at that moment (DUNLAP, 1997; HOGAN, 1992). A change in the scale of environmental problems, which shifted from a local to a global level, began during this period, transforming the frequency of environmental problems and accidents. The actual nature of the problems made them more difficult to predict and understand (DUNLAP, 1993; FERREIRA & VIOLA, 1996).

In fact, the end of the 1980's saw a favorable climate in the process of consolidation of the area at an international level. Various data confirm this; once again there was an increase in the members of the ASA section at the turn of the decade, reaching 400 members in 1993. The volume of published texts and increased student interest in courses addressing this problem also confirms this. Another significant sign was the growing international attention dedicated to the area, and the formation of a work group on environment and society in 1990 in the International Association of Sociology, ISA, not to mention the impact of Rio-92 (DUNLAP, 1997).

In respect to theoretical-methodological aspects, Buttel (1996) writes that the trajectory of environmental sociology could be synthesized in three distinct periods: its formation from the combination and contributions of other specific sociologies; the phase of constituting its own theoretical nucleus with a more consensual profile, and the diversification and greater incorporation in the theoretical body of general sociology.

In relation to the formation period, the author notes that Rural Sociology was the pioneer in contributing to the area. He points out, however, that other specific sociologies also participated in this process, such as the sociology of communities, development sociology, urban sociology and the theory of social movements. In a certain degree, environmental sociology did not emerge as a new discipline, but within already existing disciplines, trying, on one hand, to fill the theoretical lacuna of the classical tradition in relation to environmental questions, and, on the other, to create an institutional locus for the development of a new theme.

With respect to the theoretical lacuna, Buttel (1996) considers that the tendency of classical sociology created theories that implicitly assume societies and human groups as being independent or isolated from the biophysical processes. For him, sociology, seeking to liberate itself from the social thinking of reductionism, prejudices and conservative vision of the beginnings of human ecology, exaggerated in promoting the separation between the social process and the natural world. Catton & Dunlap (1998) are more emphatic in criticizing the resistance of sociology to environmental questions, highlighting the socio-cultural context of the formation of sociology, as well as its analytical paradigms. They argue that sociology was profoundly influenced by a Western anthropocentric culture. This vision of the world, in turn,

was historically accentuated by convergent processes of technical-scientific development and accumulation of wealth, favored by colonial expansion that resulted in the industrial revolution, the strengthening of the idea of progress and the process of westernizing the rest of the world.

The following phase, that of the constitution of a theoretical core, was unified around the works of environmental sociologists, such as Catton, Dunlap, Schnaiberg, Buttel, Redclift, Harteley, Chapman, Yearley, Hannigan, among others, who stood out in theoretical work after the 1970's. These authors, despite the differences of their analytical perspectives, emphasized the materialist and realist character of the environmental crisis, offering explicit criticisms of the tendencies of modern industrial societies, without disregarding the importance of the cultural dimension of this process. They strongly criticized the unsustainability of modern societies which depended on a model of producing, consuming, and discarding that depleted natural resources more rapidly than the capacity for regeneration. They believed, therefore, that the present crisis should favor a change in the paradigm, as much in society as in sociology.

The third phase in the intellectual trajectory of environmental sociology, which is clearly explicit at the turn of the 1980's, is characterized by greater theoretical diversity and by a certain incorporation of classical sociological theory.

Particularly important are the influences from contemporary sociology, in the sense of a shift that occurs from explanations based on materialism and structuralism to cultural and subjective perspectives as well as to a strong influence of daily life sociology. This theoretical shift strongly contributed to the increased receptivity of the question as a socially relevant phenomenon. It is possible to see, from this moment, the contributions of outstanding sociologists who emphasize the importance of the question within the context of societies with high modernity, as is the case of Beck (1992), Giddens (1991), Touraine (1989) Castells (1999), among others.

For Hannigan (1997), the new analytical perspective began to emphasize social, political and cultural processes in which environmental conditions are defined as being acceptable or not. In this sense, an "environmental problem" is a socially constructed aspect seen as more relevant than the actual work of evaluating whether the complaints are valid or not. Environmental problems would be similar to other social problems and the action of the different actors would be the object of the principal analysis.

ENVIRONMENTAL SOCIOLOGY IN BRAZIL

In Brazil, the process of institutionalizing environmental sociology finds itself at an intermediate phase compared to international experiences. The best example of organization in the area can be analyzed through the Work Group "Ecology, Politics and Society" (Grupo de Trabalho "Ecologia, Política e Sociedade") of the National Association of Graduate Work and Research in Social Sciences (ANPOCS) (VIEIRA, 1992; FERREIRA & VIOLA, 1996; DRUMMOND & SCHROEDER, 1998).

This group met for the first time at ANPOCS in 1986, when the environmental question was still treated in an incipient way in Brazilian social sciences and brought together a small group of intellectuals. Since then, the environmental question acquired relevance in the international scientific community, as we saw earlier, and this was reflected in the local scientific community, as we will see in this paper.

In 1992, with the United Nations Conference on Environment and Development in Rio de Janeiro, the working group opted to give priority to the discussion so as to deepen a critical vision in relation to the Brazilian context. This discussion culminated in the publication of the book *Dilemas Socioambientais e Desenvolvimento Sustentável*, organized by Daniel Hogan & Paulo Vieira, which certainly reflected the “moment” experienced by the group that already represented a certain regional diversity.

Since then, various intellectuals connected with the group completed doctoral and post-doctoral studies overseas, preferentially, but not exclusively, in the United States, France and England. These international contacts are reflected in the production in the area.

In the mid 1990's, the thematic concern of the ANPOCS Work Group was the question of globalization, obviously influenced by the “climate of the social sciences” in the new century (FERREIRA, 1997), once again with an emphasis on the Brazilian context. That same year the book *Incerteza de Sustentabilidade na Globalização*, organized by Leila Ferreira & Eduardo Viola was published.

Today, environmental sociology, political science of environment, anthropological and demographic studies about the theme have been consolidated in various Brazilian universities, as we will see. The number of dissertations, theses, books and works published reflects the degree of interest that this question has acquired. Along with this, there are other indicators of the degree of institutionalization of the theme within Brazilian social sciences, such as the publication of the journal *Revista Ambiente e Sociedade*, financed by FAPESP and CNPq; as well as the fact that the environmental question was a predominant theme in various national congresses, such as the Brazilian Anthropological Association (ABA) in the year 2000 and the International Congress of Rural Sociology that was held in Rio de Janeiro in the same year.

However, similar to what happened to the ASA group in the United States, after 1998, the National Association of Post Graduation did not accept the new proposal of the environmental group that has not participated in ANPOCS since then. Yet some members continue their connection with the association through forums and round table discussions. This does not imply a decline of interest in the area since intellectuals and students connected with the Work Group have met in other academic forums, such as the Brazilian Sociological Society (SBS), the Latin American Studies Association (LASA), and the International Sociological Association (ISA). Moreover, it is worth mentioning that a National Association of Graduate Study and Research in Environment and Society (ANPPAS) was formed in September 2000.

A work that tries to reflect on the “state of the art” of Brazilian environmental sociology faces a series of dilemmas. They are not questions of the type “how did Brazilian environmental sociology institutionalize itself purely and simply”. They are rather situated on two levels: in the first place, the concern for the world of ideas - how has this area developed in the last decades?, what are the main concerns?, what are the principal themes treated and how are they included in the debate of contemporary Brazilian social science? That is, there is an explicit theoretical concern: if the recent changes led to the affirmation of the existence of a global and complex society, for instance: what stance has environmental sociology taken in regard to this theme?

The discussion here is only exploratory. The themes are complex and controversial. For these reasons, it should not be considered more than a provisional exploration.

In the second place, it is worth making a final observation to explain a basic aspect of the sociology of sociological production on the environmental theme. It is undeniable that there exists a certain correspondence between a given theory and the empirical question which better fits its concepts. That is, the “world vision” inherent in a sociological theory favors the selection of certain configurations of reality. Thus, on one hand, it is certain that an area finds itself strongly influenced by American empirical sociology, precursor in the process of institutionalizing the theme. On the other hand, it is necessary to take into consideration the specificities of the process in the case of Latin America, more specifically, those of Brazil and, consequently, we believe that the detailed analysis of the Brazilian case is relevant to understand the relationship between the scientific field, the environmental policy-making and the social movements.

THE INTERNALIZATION OF THE ENVIRONMENTAL QUESTION IN GRADUATE PROGRAMS IN BRAZIL

The following analysis of the principal graduate programs in the areas of sociology, social sciences and new interdisciplinary programs tries to map the production of dissertations and theses in the area of environmental sociology in Brazil.

Four master’s dissertations and eight doctoral theses have been completed under the Sociology Program of the University of São Paulo (USP) related to the themes of environment and society. The program has a total of 284 master’s theses and 316 doctoral theses defended. These data correspond to the period 1958 - 2000.

Concerning work on the master’s level, it can be noted that the years vary from 1972 (DIEGUES), 1980 (TEIXEIRA), 1996 (SILVA) to 1997 (SEKIGUCHI). When we compare the theses from the Graduate Program of the Philosophy and Human Science Institute of the State University of Campinas (UNICAMP), we find a greater incidence of works in the area beginning in the 1980’s (1983 and 1986), but especially in the 1990’s (most of the dissertations were presented between 1991 and 1998).

Considering these data, we can risk a first conclusion: the consolidation of this area as an academic career opportunity, at least in the above-mentioned universities - USP and UNICAMP- occurred mainly in the 90's. The theses produced prior to these years can be considered as "the vanguard". Actually, it is these avant-garde intellectuals who inaugurated this research area in the mentioned universities.

In the case of Unicamp, the Master's Program in Sociology has a research field called "Environment, technology and development". Of the 160 dissertations defended in the program, 20 are in the area of environment and technology, and we may say that other 23 treated the theme in a crosscutting manner focusing in the areas of rural sociology, urban sociology and theoretical sociology.

In the master's program in Sociology at USP, we must point out that there is no research field that is strictly linked to the environmental question, as is the case at Unicamp. However, accompanying the trajectory of some of these intellectuals, here called the vanguard, who received their degrees at USP, we see that they are, in spite of not being now members of the Philosophy, Literature and Human Sciences Department, responsible for the creation of research centers and even an Interdisciplinary Graduate Program in the area of environment and society.

Although USP, in its Graduate Program in Sociology, has a relatively low production in respect to the environmental theme (1.4% for master's and 2.5% for doctoral), it has an Interdisciplinary Graduate Program in Environmental Science (Procam) in rapid development and whose work in environmental sociology is wide-ranging.

In relation to the doctorate, we find a fundamental difference between the two universities: Unicamp's program is integrated, that is, concerned with the three social science disciplines – anthropology, political science and sociology; while the doctoral program at USP is exclusively sociology.

In the case of the program at Unicamp, an area dedicated to the theme entitled "Social Change: Questions in Environment and Technology" has existed since 1985. Of the 123 theses defended in the program, 16 are directly connected to the area.

Interestingly, the themes treated at Unicamp, at both the master's and the doctoral level, are considered "classical" in sociological theory, such as the question of modernity, the State, democracy, social conflict, development, social movements, and risk, as well as knowledge, perception and social representation concerning the environment and globalization. Worthy of note is that the dissertations and doctoral theses cover a diversity of theoretical approaches, from the more classical perspectives, the Marxist, the Durkeimian or the Weberian, as well as more contemporary social theories. More recently, we have seen theses approaching the questions of complexity and inter-disciplinary studies .

Regarding the sociology program at USP, the themes treated were the following: environmental policy, public policy, conservation of natural resources, development, mining, cooperatives and environmental awareness. The theoretical-methodological approach is also, like Unicamp's, diversified.

In the case of Procam (interdisciplinary program), 70 master's theses have been defended, of which 53 are directly related to the question of environment and society. The themes are also quite diversified, dealing with questions of conservation, risk, quality of life, sustainable development, management, environmental education, environmental law, public policy and social movements. We consider important to mention here that the theoretical-methodological approaches have sought a more interdisciplinary perspective that has, in some cases, prejudiced the theoretical treatment itself; yet these are no less interesting for their thematic diversity, as well as for their innovative perspective.

The program of the Federal University of Santa Catarina in Florianopolis has, like that of UNICAMP, "more tradition" in the area, as much due to the years of dissertation and theses developments as to the number of professors and researchers who are dedicated to the theme.

Of the 54 doctoral theses defended in the program, 24 are directly linked to the theme. The thematic diversity is also very broad, ranging from the question of agriculture, the urban question, the question of work, of decentralization, of globalization, risk, sustainability, public policy and social theory. It should be noted here the theoretical-methodological differentiation of the dissertations and theses, some of which present an approach more related to systems theory.

In the case of the University of Brasilia, since 1970, 174 dissertations have been defended in sociology, 11 of these directly linked to the theme and, of 81 doctoral theses only 4 connected to the area. It is notable that these theses are very recent. The themes treated on the master's level were social movements, State action, conservation of natural resources, development, as well as analyses concerning the Cerrado and Amazonia.

On the doctoral level, the themes included non-governmental organizations, Agenda 21, Amazonia and environmental policy. In respect to the theoretical approach, these also are of a more classical and contemporary perspective of social science.

There also exists in Brasilia a Graduate Program in Sustainable Development, where 24 dissertations have been defended, all related to the perspective of environment and society. The themes included environmental management, perception, administration, family agriculture, environmental impact, environmental policy, residues and sustainability. Here, too, the perspective strives to be interdisciplinary in the dissertations and theses.

At the Federal University of Para, we visited both the Sociology Department and the Graduate Program in Sustainable Development in the Humid Tropics, connected to the Center of Amazonian Studies (NAEA). Of a total of 130 dissertations defended, 32 were directly related to the theme as well as the 8 doctoral theses. The themes are particularly related to the question of regional development (Amazonia), discussing social movements, migration, gender, poverty, the State, national frontiers and urbanization. The approach of the dissertations and theses to the environmental question was based on an interdisciplinary perspective.

The theme was best treated at the Federal University of Rio de Janeiro (UFRJ), in their Program of Social Ecology, where there are 24 master's theses defended, of which 8 approach the question from the environmental social sciences. The research topics were business, environmental education, consumption, residues, sustainable development and culture and environment.

In the case of the Sociology Program at the Federal University of Rio Grande do Sul, we found 5 dissertations connected with the theme, treating agrarian colonization, social movements and the agrarian question.

The Joaquim Nabuco Foundation in Recife and the National Institute on Amazonian Research (INPA) are important centers in this area. At the Joaquim Nabuco Foundation the research projects are linked principally to ecological economics. At INPA, the majority of studies are focused on socio-economics and the environment.

The Doctoral Program in Environment at the Federal University of Parana in Curitiba has a strong articulation between the theses and dissertations on the doctoral level and the research developed by the university professors. Once again the approach is interdisciplinary.

We can conclude, through the analysis of the data collected that there has been a real internalization of the environmental question from the point of view of sociology in the Graduate programs in Brazilian universities. Obviously, this internalization differed from university to university, and demonstrated that the State University of Campinas and the Federal University of Santa Catarina are the two that stand out with the greatest production in the area in both quantitative terms and thematic diversity.

Moreover, it is important to note that the question was internalized in different ways in Brazilian universities as regards methodology, and was included in sociology and social sciences programs, as well as in the so-called interdisciplinary programs.

INTELLECTUAL PRODUCTION

As mentioned previously, we opted to prioritize, in this paper, the production of the ANPOCS Work Group, through its principal collections, since we believe this group congregates the principal Brazilian intellectuals connected to the theme.

The book *Ecologia e Política no Brasil* (1987), organized by José Pádua, was one of the first in Brazil to discuss the relationship between ecology and politics. It compiles the texts that were presented during a seminar in Rio de Janeiro in 1985, at the time when the discussion of the Green party was beginning in the country. Since then, we can see that the environmental question penetrated Brazilian political debate and the local environmental movement began a phase of growth. Several of its representatives went beyond the frontier of the movement and entered the political arena, seeking new ways of action. Fernando Gabeira, Carlos Minc and Liszt Viera are some of the more expressive names in this wave and appear in the book not only as

militants, but also as intellectuals reflecting on their own work. Together with José Augusto Pádua, Eduardo Viola and Paulo Gonzaga de Carvalho, this reflection gives historical context to the debate proposed in the book. As academics, the authors trace the origins of political ecology in Brazil, analyze the trajectory from the beginning of the ecological movement until the eco-political option in 1986, according to Viola or, even examine the actions of public agencies related to the control of industrial pollution. The book, in fact, discusses the ecology question from multiple angles and emphasizes not only its environmental but also its political and social aspects.

Ecologia e Política Mundial (1991), organized by Héctor Leis, was a product of the Environmental Area of the International Relations Institute of the Pontifical University of Rio de Janeiro, together with the area of publications of the Federation of Social Assistance and Education Organs (FASE). It was part of an ambitious editorial program that intended to link and engage forces of academic institutions, non-governmental organizations and publishers, with the purpose of producing a critical reflection on the question that the authors called “the emerging transnational public space of ecology”. Contribution that consciously desired to serve as a bridge as much in the sense of “South-South” as “North-South”, according to the authors of the time, broadening and extending the network of cooperation among individuals, organizations and countries.

As participants in the book, Héctor Leis and Eduardo Viola reflect on global disorder of the biosphere and the new international order, emphasizing the organizing role of ecology. Héctor Leis also presents a second chapter in which he analyzes the role of the environmental question as a transforming agent of the international order. Clóvis Brigadão’s chapter about the Amazonia and the Antarctic - diagnostics of ecological security, Roberto Guimarães on Latin America and the global agenda on environment, and José Augusto Pádua on the birth of green politics in Brazil complete the collection.

As the United Nations Conference on Environment and Development was being held in Rio de Janeiro in June 1992, the old Work Group “Ecologia, Política e Sociedade” of ANPOCS decided to open priority space for the discussions, seeking to deepen the criticism of this theme, referent to the Brazilian context, as we saw earlier.

To the extent that the official agenda of discussions and resolutions of UNCED fundamentally contemplated environmental problems of a global nature – greenhouse effect, changes in the ozone layer, pollution of the oceans, loss of biodiversity – the concerns of the members were double. On one side, it was seen that such problems tend to be connected with public opinion as challenges that are beyond the specific socio-cultural, economic or political-institutional aspects of each nation. On the other side, in giving a privileged position to the Amazonian question, the promoters of the Meeting seem to underestimate the obvious fact that 90% of the Brazilian population is concentrated in other areas of the country, undergoing a devastating process of accelerated urbanization. The mobilization of public opinion in the months preceding the meeting ran the risk of camouflaging the seriousness of

those socio-environmental problems more directly related to guaranteeing the right to quality of life for Brazilians. In a contradictory way, the conference could turn into a political regression in the process of the struggles to create an environmental policy better fitted to Brazilian characteristics.

In this sense in 1990, the ANPOCS Work Group approved the publishing of a collection of works that reflected the academic profile of the community of Brazilian Environmental social sciences and ways to approach some of our socio-environmental challenges, recovering in the best possible way the ample regional and thematic diversity involved.

In spite of the plurality of the theoretical references and methodological focuses within the set of contributions to the book "*Dilemas Socioambientais e Desenvolvimento Sustentável*" (1992), we can observe a common concern in relating environment to the social setting and also to explain the specificity of the socio-environmental problems in developing countries.

In the field of State-society relations analysis, Leila Ferreira and Lúcia Ferreira start from the assumption that the process of public policy formation cannot be reduced to a merely structural or functional picture, and they analyze the universe of the construction of citizenship in a third-world country through the interactions of different social actors. Eduardo Viola and Héctor Leis offer a synthetic panorama of the dynamics of the Brazilian environmental movement, exploring the more interesting implications of its multi-sectorial expansion, as well as identifying new opportunities that arise with the progressive incorporation of a sustainable development focus.

Paulo Freire Vieira's text proffers a first look at the repercussions of the environmental problem in the field of social sciences in Brazil up to 1992. In the group of texts related to the treatment of empirical analysis, the work by Daniel Hogan contributed to the demystification of traditional stereotypes in demographic theory about the role of population pressure as the determinant factor in the process of environmental degradation.

Haroldo Torres and Donald Sawyer also focus on demographic analysis. The first isolates the environmental problems generated by accelerated and disordered urbanization with an emphasis on basic sanitation. Donald Sawyer proposes an evaluation of the present role and development chances of family-based agricultural, forestry and pastoral production and extraction – the ecological peasantry – in the Amazon region in light of socio-environmental pressures of conventional agricultural practices.

Ricardo Neder and Sônia Barbosa return to a discussion about urban-industrial transformation during the last decade. Based on an evaluation of the negative socio-environmental impacts in some experiments of industrial deconcentration in São Paulo State, Neder adopts a socio-political perspective. Barbosa, in turn, opts for an approach to the concept of quality of life in extremely degraded areas, based on epidemiological indicators and a discussion of citizenship.

The book *Incertezas de Sustentabilidade na Globalização*" (1996), organized by Leila Ferreira and Eduardo Viola, begins with the premise: the existence of global

processes that transcend the categories of State, social class and nation. It has as its hypothesis the emergence of a global society. According to the organizers, for the Work Group “Ecologia e Sociedade” of ANPOCS, whose research objective leans toward the biosphere, it necessarily goes beyond national frontiers; a concern with ecology has no country, its roots are planetary.

A reflection about globalization and environment is interesting, because of its breadth and seems at first sight to distance itself from particularities. In the case of this book, exactly the opposite happens. The reflection about globalization and environment is revealed exactly through the quotidian. This is one of the central threads of the book. We find in its pages, along with more general discussions about globalization, a set of problems with which we are very familiar – the question of democratic consolidation in the country, the question of local power, the problem of water and of different types of pollution, the question of the quality of life, the question of public space, a discussion about development and protected areas – the very areas that the ANPOCS Work Group has studied for more than a decade.

In 1996, the thematic concern with the process of globalization referred also to the Brazilian context. However, it went beyond the thematic context and reflected the consolidation of a national production problem.

In the book, Eduardo Viola analyzes the multi-dimensional aspect of globalization and its impact on Brazilian environmental policy from 1989 to 1995. Héctor Leis discusses Globalization and democracy post Rio-92 and Octavio Ianni offers a theoretical reflection about globalization and diversity.

Franz Brüseke discusses the question of development from a reflection about “destructuralization”. Leila Ferreira discusses alternatives of sustainability in local Brazilian power, while Daniel Hogan discusses sustainability in the river basin networks in São Paulo State.

Pedro Jacobi approaches the question of environmental perception in urban centers; Mario Fuks analyzes the legal protection of environment in Rio de Janeiro and Ricardo Neder the public regulations in Brazil.

In the field of discussions about the protection of natural resources, we have the text by Lúcia Ferreira about citizenship, social and environmental rights, and that of Antônio Carlos Diegues concerning protected natural areas in Brazil. And finally, Clovis Cavalcanti discusses ecological economics.

At the moment, it merits clarifying why these programs and these books were chosen for analysis. In respect to the graduate programs, we have mapped out the principal centers where environmental social sciences are focused. As for the books, we opted to analyze these collections as they reflect the work produced by the old ANPOCS Work Group, which brought together the largest number of social scientists concerned with the theme.

In spite of the plurality of theoretical-methodological references underlying the graduate programs, as well as the collections analyzed, we can confirm the importance that the environmental question has acquired for Brazilian social sciences.

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NOTES

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ELINOR OSTROM

Reformulating the Commons

The western hemisphere is richly endowed with a diversity of natural resource systems that are governed by complex local and national institutional arrangements that have not, until recently, been well understood. While many local communities that possess a high degree of autonomy to govern local resources have been highly successful over long periods of time, others fail to take action to prevent overuse and degradation of forests, inshore fisheries, and other natural resources. The conventional theory used to predict and explain how local users will relate to resources that they share makes a uniform prediction that users themselves will be unable to extricate themselves from the tragedy of the commons. Using this theoretical view of the world, there is no variance in the performance of self-organized groups. In theory, there are no self-organized groups. Empirical evidence tells us, however, that considerable variance in performance exists and many more local users self-organize and are more successful than it is consistent with the conventional theory. Parts of a new theory are presented here.

Keywords: commons, common-pool resources, self-organized groups.

Reformulando a teoria sobre o uso comum de recursos

O hemisfério ocidental herdou uma rica diversidade de sistemas de recursos naturais governados por acordos institucionais locais e nacionais que, até hoje, não foram bem compreendidos. Entretanto, muitas comunidades locais que possuem um alto grau de autonomia para administrar seus recursos vêm, com o passar dos anos, obtendo muito sucesso. Outras comunidade não agem para prevenir o uso excessivo e a degradação das florestas, dos locais de pesca costeira e de outros recursos naturais. A teoria convencional, empregada para prever e explicar de que modo os usuários locais vão se relacionar com os recursos que compartilham, faz uma única previsão, a de que eles não poderão se liberar da tragédia das comunidades. Segundo esta teoria, não existe uma variação no desempenho dos grupos auto-organizados. Teoricamente, nem existem grupos auto-organizados. Contudo, a evidência empírica mostra que o desempenho das comunidades varia de maneira considerável, e um número cada vez maior de usuários locais têm se auto-organizado e obtido mais sucesso do que a teoria convencional propõe. Apresentamos aqui partes de uma nova teoria.

Palavras-chave: áreas comunais, recursos de uso comum, grupos auto-organizados.

LEILA DA COSTA FERREIRA

Brazilian Environmental Sociology: a provisional review

The article aims firstly at the reconstitution and analysis of history within the scope of international environmental sociology situated in the context of contemporary sociology.

It also discusses — from the standpoint of literature (Buttel, Dunlap, Hanning, among others) — its theoretical-methodological and institutional aspects as well in order to understand the obstacles encountered to legitimate and consolidate a set of problems which, until recently, were not dealt with by social sciences.

Secondly, it analyses the Brazilian case. Environmental sociology in Brazil is strongly influenced by American empirical sociology, the precursor of the institutionalization process for the themes. On the other hand, further analysis of this case is relevant to understand the relationship between the scientific sphere, and the creation of environmental policies and social movements.

Key words: Environmental Sociology, intellectual production, Brazil

Sociologia ambiental brasileira: um levantamento provisório

Primeiramente o artigo busca a reconstrução e análise histórica inerente ao escopo da sociologia ambiental internacional no contexto da sociologia contemporânea. Ele também discute - a partir da literatura (Buttel, Dunlap, Hanning, entre outros) - seus aspectos teórico-metodológicos e institucionais de modo a compreender os obstáculos encontrados para se legitimar e consolidar um conjunto de problemas os quais, até recentemente, não eram trabalhados pelas Ciências Sociais.

No segundo momento o artigo analisa o caso brasileiro. A sociologia ambiental no Brasil é fortemente influenciada pela sociologia empírica americana, a precursora no processo de institucionalização desses temas. Por outro lado, uma análise posterior sobre esse caso é relevante para se compreender a relação entre a esfera científica, a implementação de políticas ambientais e os movimentos sociais.

Palavras-chave: Sociologia ambiental, produção intelectual, Brasil.

JOSÉ AUGUSTO DRUMMOND

Natureza rica, povos pobres? – questões conceituais e analíticas sobre o papel dos recursos naturais na prosperidade contemporânea

Este artigo questiona a tendência atual de se igualar a riqueza de recursos naturais de uma região à prosperidade e ao bem-estar dos seus habitantes. Discute formulações clássicas da “sociologia do desenvolvimento” de Prebisch e Hirschman e os seus desdobramentos nas obras mais recentes de Bunker e Freudenburg. Todos esses autores ressaltam que regiões e atividades intensivas em recursos naturais têm sérias desvantagens desenvolvimentistas quando comparadas a regiões e atividades transformadoras de recursos naturais ou intensivas em tecnologia e informação.

Palavras-chave: recursos naturais / desenvolvimento / extrativismo / indústrias de transformação / agregação de valor / produtos primários