Political Geography and International Management of Natural Resources

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Throughout the 20th century, a set of management tools aimed at safeguarding the environmental conditions on Earth was created. However, it was only in the last decades that this theme emerged as one of the most important concerns of governments of several countries around the world, which made the establishment of an international environmental order possible, to regulate human relations at a global level, involving themes concerning the environment by means of protocols and multilateral agreements among countries and blocs of countries.

Control over the emission of greenhouse gases and of gases that affect the ozone layer, access to genetic information and resources, and the use of the sea, among other issues, were part of the agenda of the international summits at which international conventions were created. In this context, new opportunities of commercial exchanges and interpretations on the control of natural resources have arisen and deserve to be studied.

There is, however, plenty of criticism of the international conventions on the environment. Critics usually state that they do not lead to any concrete results that may define public policies capable of minimizing the asymmetry in the use of natural resources between countries. In addition, it is commonplace to say that they only produce shallow consensuses that do not reach the core of the issues at stake.

Contrary to these arguments, this essay defends that international conventions have been well used as an expression of countries with minor roles in the international system. In some cases, these documents express significant victories of poor countries which are then able to safeguard part of their interests. This would certainly not be possible had the decisions been made by means of military action.

By exposing the ideas of geographers such as Friedrich Ratzel and Claude Raffestin, together with other ideas brought forward by authors such as Hans Morgenthau and Raymond Aron, this essay shall point out a theoretical framework capable of identifying environmental management and power alternatives for key areas. This set provides us with a methodology for the analysis of the international environmental order. In order to do that, it is

necessary to explore concepts such as sovereignty, and identify the supranational character of the current environmental problems. In addition to these matrices, sustainability - that is, the load capacity the world has to sustain the reproduction of life - and international environmental security also influence the decisions made at international conventions and, therefore, these concepts shall also be revisited in this essay.

Finally, this essay shall put forward a periodization for the study of international conventions on the environment through the analysis of three important summits: Stockholm (1972), Rio de Janeiro (1992) and Johannesburg (2002). These conferences have institutionalized interstate relations and have become emblematic moments of the regulatory process overseeing the access to natural resources and its consequences.

The international environmental order renews opportunities of cooperation and subjects the real interests of each participant in the international environmental scene to reflection. It exposes the frailty of scientific knowledge when used only to legitimize the incorporation of material resources. But it also provides us with an opportunity to focus efforts to parts of the planet that do not derive benefit from technological developments, mostly located in Latin America, Africa and Asia.

Sovereignty, Environmental Security and Sustainability

Recalling the sources of political thought and of political geography is essential for the understanding of the impasses of contemporary life, including international environmental order. From the former field of knowledge authors like Hans Morgenthau (1973), Raymond Aron (1986) and Manfred Wilhelmy (1991) are prominent and shall be presented. From the latter, Friedrich Ratzel (1990), Claude Raffestin (1991), Joan Font & Joan Rufí (2001), Francisco García-Tornel (2001), Wagner Ribeiro (2001b), and Valérie November (2002). Then, authors from other fields who have devoted themselves to studying sustainability – such as Ignacy Sachs (1993, 2002, 2007), Enrique Leff (2001a, 2001b), and Joan Martínez Alier (1992, 2007) – and environmental security such as Lorraine Elliott (1998) and Rafael Grasa & Andreu Ullied (2000) shall be brought up.

Morgenthau (1973) is one of the forerunners of political realism. A scholar of the international system, he stated that countries acted according to their own national interests, safeguarding their sovereignty. Moreover, he considered military power as the main factor defining a country's ability to influence the international scene.

Aron (1986) defined international relations in a systematic way, creating a hierarchy which starts with the superpowers. His ideas, forged in the midst of the Cold War period, enable the structuring of the international system based on themes and interests of the political units that constitute it. A lot of criticism of

his theoretical framework was brought forward, particularly of the strictness he attributed to a dynamic system. In spite of that, it is still possible to make use of part of his writings to interpret the contemporary world.

Wilhelmy (1991) defines the presence of several players in the international system and their interdependence as the focus of his research. He highlights the influence of non-governmental organizations (NGOs) on decision-makers such as heads of State, heads of government or negotiators, and on public opinion. The other premise this author has concerns the strict relationship between countries in the international system, which generates a symbiosis between them.

The originality of the international environmental order is indeed in the combination of elements coming from these authors. The safeguarding of sovereignty comes from Morgenthau (1973), as well as the diplomatic "battle" promoted by countries to defend their national interests. Some of them do not accept the final terms of the agreements and, therefore, do not sign them, or they do sign them but impose qualifications on the text. Aron (1986) allows us to study the international environmental order as a subsystem of the international system, which is organized by the United Nations (UN) by means of its organisms, such as the United Nations Environment Program (UNEP). From Wilhelmy (1991) we get the participation of environmental NGOs in multilateral forums, attempting to disseminate their standpoints and influence the final text of agreements, as well as the interdependence among the parties to international conventions on the environment.

From the authors of political geography, Ratzel (1990, p.102) emphasizes that

> human geography should study peoples *with regards to the natural conditions to which they are subjected*, that is, always consider them *solely on their territory*. It is also on the territory that human geography sees the laws that regulate these peoples' lives take shape and such laws must be expressed geographically. [...] One sees, therefore, how the extension, position, and configuration of the territories provide us with elements to assess the lives of the peoples to which they belong (translation ours).

In spite of the criticism of the German geographer's geographical determinism, the excerpt points out aspects that should be remembered in the current studies on political geography concerning natural resources and the consequences of their asymmetrical use between countries: considering peoples on their territory and assessing the availability of the natural basis that sustains the reproduction of life. In an announced time of water and energy scarcity, for instance, Ratzel's postulations deserve to be reconsidered.

Ratzel analyzed several thinkers who have dealt with the culture/nature relationship. In his 1882 book, *Antropogeography*, he critically analyzes the productions of Montesquieu, Voltaire, Hobbes, and Bacon, among others. About the former two, he makes severe considerations:

> they did not intend to accomplish scientific works at all [...]; they attempted to deal with their matter as artists and men of the world, and they have done so in a diversified, attractive and, above all, non-systematic way. [...] The importance of these writers is in the broadness and not in the deepness of their ideas (ibid., p.35., translation ours).

The German geographer also comments on the works of philosophers Spinoza, Leibniz and Kant. He states that, for Dutch philosopher Baruch Spinoza, "the history of men develops in the same way as that of nature, in accordance with laws of inescapable need; historic facts for him are nothing but natural facts and hence the attempt to explain history through nature" (ibid., translation ours).

Interpreting Gottfried Leibniz, Ratzel states that, for him,

> life is unique, it is omnipresent, each one of its forms is connected to all the other ones, and in the world, ordered according to a pre-established harmony, everything that is created constitutes a continuous gradation; as a result, therefore, the history of humanity cannot be considered but in relation to this world, and only in it can it find its explanation (ibid., translation ours).

With regards to Immanuel Kant, Ratzel affirms that he built his thought on geography based on the "bad material and hasty conclusions of Buffon" (ibid., p.36, translation ours); stating that he made use of reports of travelers in his writings as if they were true, not taking into account possible exaggerations on their part. Therefore, according to him, Kant does not progress towards identifying the actual role of geography. According to Ratzel, his fellow countryman "considers men as belonging to a single species that adapts to any climate but develops, in each of them, special adaptation principles which, in turn, produce race differentiations" (ibid., p.37, translation ours).

For Ratzel (1990, p.34), his predecessors pointed out the evidence of natural differences in the configuration of human societies, however, they "neglected the geography element", that is, they pointed out the importance of geography in the shaping of peoples but they did not conduct studies to prove it.

Morgenthau (1973, p.112) seems to have learned the lesson proposed by Ratzel. In his conception of geography, for instance, he mentions this as "the most stable factor on which the power of a nation depends" (translation ours).

Claude Raffestin (1993) highlights the importance of natural resources for a country to plead the status of a superpower. For him, the offer of resources is one of the main variables since it provides the country with the possibility of supplying its own material matrix of arms. But one still needs to have access to technology capable of producing military equipment. All that must be within a country's territory, a core attribute for it to exert its sovereignty hegemonically.

Geographers Font & Rufí (2001) analyze environmental security in light of the ideas of Canadian Thomas Homer-Dixon (1999). For the latter, scarcity

would be responsible for the emergence of conflicts, based on a combination of three variables: environmental change, population growth, and social inequality/ asymmetry of access to natural resources (Font & Rufi, 2001, p.201). In their analysis, the Spaniards indicate the imbalanced consumption of the United States as one of the possible causes of instability, stating that the country "accounts for 5% of the world population and consumes 50% of the world's oil" (ibid).

German sociologist Ulrich Beck (1986) is considered the first one to ever define the contemporary society as a "risk society". After him, several others have analyzed the risk, which is related to environmental security as a possible threat to all forms of life (Zanirato et al., 2008).

Another researcher who has discussed this risk is Spanish geographer García-Tornel (2001). He ponders over natural disasters and the risks generated by anthropic activity. He also highlights the relevance of international organisms to the prevention of disasters and assistance to their victims, which is a positive aspect for poor countries affected by disasters or, in the more recent case, for poor countries that insist on receiving resources to promote the necessary adaptation to climate change.

Swiss geographer November (2002, p.13) presented the relationship between risk and territory in an attempt to understand the "geographicity" of risk. She also commented on the precautionary principle, which she defines as follows: "This principle implies developing policies that incite more responsible behavior and actions that result in fewer risks" (ibid., p.2-3, translation ours).

The international conventions on the environment that adopted the precautionary principle, such as the Montreal and Kyoto protocols, may present different interpretations of this viewpoint. This is, perhaps, the reason why revising the latter is so difficult. . .

Rafael Grasa (1994, 1998), professor at the Autonomous University of Barcelona, emphasizes that international environmental security studies the prospects for possible conflicts over the scarcity of natural resources. In another study, Grasa & Ullied (2000) apply this concept to Mediterranean countries and combine it with sustainability.

According to Lorraine Elliott (1998) from the Australian National University, the issue of environmental security is seen with prejudice by scholars, since the word security has been very much linked to military thinking. For her,

> in face of ecological insecurity, countries and peoples cannot be secure if the ecosystem is not secure. Neither one will help identify the enemy that aims to violate the territorial integrity and sovereignty of the state. The "enemy" is not the environment but human and corporate daily activities (ibid, p.238, translation ours).

Ribeiro (2001b) argues that international environmental order is made up of several players. Each document has its own dynamic and should be studied in a particular way. In another study, Ribeiro (2001a, p.10) analyzes international

environmental security and sustainable development, taken as the basis of the formulations that guide international decisions on the environment, highlighting that international environmental security has faced much more resistance than the previous concept "but did not fail to fulfill its task of 'scientifically' justifying a country's foreign policy."

Both of these concepts were discussed by Ribeiro (2002) in his analysis of the journal *Ecología Política*, a publication from Barcelona created in 1990 in a partnership with the journals *Capitalism*, *Nature*, *Socialism*, published in California; *Capitalismo, Natura, Socialismo*, in Rome; *Ecologie Politique*, in Paris; and *Tierra Amiga*, in Montevideo. After analyzing various texts from the above-mentioned publication, he concluded that

> The debate on international environmental security still lacks depth. Among the positions described above, Grasa (1994) acknowledges that the negotiations at international forums on the environment have been guided by a policy of safeguarding national interests. For those interested in the subject, Sánchez (1998) presents an excellent overview of the various positions under discussion. By distinguishing different understandings of environmental security, a clarification of the theoretical matrices and sources of the political action of discourse, which transcend the issue of environmental security, becomes possible. Naredo (1994) and Gleick (1994) call attention to an issue that seems to me the most important cause of conflict in the medium term: the availability of fresh and drinking water for different uses. (Ribeiro, 2002, p.24-5.)

Sustainability is more often discussed than environmental security. It refers to the controversy surrounding the concept of sustainable development, a theme dealt with by Ignacy Sachs (1993, 2002, 2007), among many other authors, such as Mexican economist Enrique Leff (1994, 2000, 2001b), and the Spaniards Jose Naredo (1996, 1998) and Joan Martínez Alier (1992, 2007). The theme was also widely disseminated in the report *Our Common Future* (WCED, 1987), produced by the World Commission on Environment and Development. This concept is applied to the management of cities, hence the term healthy and sustainable cities; to industrial production, by means of laws that regulate its activity; to agricultural production, whose results become satisfactory when simple techniques are resumed; and to the assessment of environmental impacts caused by the intensive use of land and the use of pesticides. But its greatest significance lies in pointing out the necessity of keeping the planet in good living conditions for those that are still to come. Sustainable development allows us to identify new possibilities that lead to a rethinking of current practices, reformulating a complex system of social, economic, political and environmental values.

Critics of sustainable development state that this is a concept that aims to regulate the access to natural resources of those who are inserted in the consumer society, i.e. one third of the world population. They point out that sustainability would apply only if it comprised the rest of the world population, offering them

a more dignified life. They also indicate that this incorporation could not occur within the current economic system, since there are no natural resources to provide the material basis of the capitalist society on the scale of the entire human population on Earth.

Environmental security, in turn, faces greater resistance in academic circles. The existing tradition of associating the concept of security to military strategic thinking results in prejudice against it and its consequent abandonment. However, it is often brought up in discussions concerning the production of food in the world and, more recently, the consequences caused by global warming and the threat to the reproduction of human life on Earth. Criticized for disseminating alarmist theories that would not have any scientific basis, being mere projections of scenarios that would only be confirmed in the long term, the concept of international environmental security can be used to analyze the possibility of conflicts.

The above-mentioned authors suggest pathways to investigate the international environmental order. The web of relationships it engenders forces us to combine different theoretical matrices. The scientific and political complexity of each treaty requires a specific knowledge of the topic. As this takes place in international forums with political decisions, we must combine the tradition of classic authors from the fields of politics and political geography with contemporary authors in order to build a theoretical framework capable of reconciling these difficulties.

International conventions are one of the sources for the analysis of the environmental order. Therefore, one needs to know a bit more about them.

Conventions

To regulate human activity on an international scale; prevent the destruction of natural environments and allow access to genetic information; propose new ways of managing the environment, combining national and international interests. These are some of the challenges that have been faced by politicians as well as by researchers from the humanities who devote themselves to producing and analyzing international conventions on the environment.

Contemporary life has various international dimensions, which are not always easily perceived. It is common for a State to supply its people with energy, or source of energy, coming from another country, as is the case of oil in the United States or even of a few European countries that buy gas from Russia. In South America, for example, Bolivia supplies gas to Argentina and Brazil.

The web of activities concerning the environment is gradually being institutionalized through an international environmental order (Ribeiro, 2001b), a set of international agreements on the environment aimed at regulating human activity on Earth and which has begun to influence our daily practices.

In the 1980s and 1990s, a complex system of international tools dealing with environmental issues gained prominence. Their aim was to prevent the advance of environmental devastation, regulate the access to natural resources and ideally allow a better life for the poorest part of humanity, including those who are still to come. Simultaneously, new issues have emerged, indicating a need for greater reflection in the search for alternatives that increase the possibilities of using our environmental heritage, be it natural or not.

International conventions on the environment are the greatest expression of the movement for the regulation of human activity on Earth. Each of them makes use of assumptions that are set in the midst of difficult negotiations, given the various interpretations that these issues allow for.

In order to analyze these conventions, one needs a periodization. To periodize means to rearrange time. It also means to establish a time scale so as to put together significant historical facts that justify ruptures, reforms and even continuities disguised as novelties (ibid., p.47).

The first conventions emerged in the early 20th century. They attempted to regulate predatory actions in areas held as colonies by European metropolises.

The periodization is marked by the Second World War and the establishment of the UN in 1945. The superpowers of the Cold War exercised an established practice that also reached the conventions. The Antarctic Treaty was the result of diplomatic maneuvers held by the United States, with support from the then Union of Soviet Socialist Republics, which managed to install scientific bases in the Antarctic, a territory claimed by Argentina and Chile. This is a good example of what type of convention may arise outside the spectrum of the UN.

As of the establishment of the UN, the environmental issue gained visibility. We may distinguish two different periods, one up to the Stockholm Conference, held in 1972, and another one after it. Another noteworthy moment was the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992. And finally, one needs to highlight the Johannesburg Summit, held in 2002 to assess the progress of the UNCED.

Aspects related to air pollution were discussed and the decision to create the United Nations Environment Program (UNEP), which came to guide environmental discussions on a global scale, was made at this summit. But the main debate was held between the developmentalists and the proponents of a zero growth policy. The former group was represented by poor countries, which longed for development. The latter, based on the report *Limits to Growth* (Meadows et al., 1973), which indicated a scarcity of natural resources to provide the material basis of existence for the capitalist patterns of production and consumption, suggested that poor countries' economies had zero growth. Economic stagnation was not accepted, and developing countries started to receive investments, especially by means of installation of industries that degrade the environment, generating the so-called international division of labor's technical risks. We witnessed a clear victory for the countries of weaker military

power, which cannot be considered a failure, although as a consequence many environmental liabilities were generated in their territories.

At the Rio de Janeiro summit, sustainable development and environmental security emerged as premises of the negotiations, along with principles such as common but differentiated responsibility and the precautionary principle. These issues were analyzed on other occasions (Ribeiro, 2001a, 2001b, 2002).

Unlike the meeting in Stockholm, five separate documents were elaborated at Rio de Janeiro. The Declaration on Environment and Development and the forest conservation document were taken as statements of principle on the part of heads of States and governments. Agenda 21 was a plan of action to reduce environmental degradation to be implemented by the year 2000. Also, the Convention on Biological Diversity (CBD) and the Convention on Climate Change (UNFCCC) gained supporters and started to hold new international meetings which, in turn, generated other documents.

It would not be possible to present a detailed comment of the spinoffs of each of the documents resulting from the summit in Rio, but we can at least point out aspects that characterize the prevalence of the interests of poor and middle-income countries in the international system.

In the case of the CBD, there was a pledge to pass along the technology and products arising from the use of genetic information and the traditional knowledge of populations living in poor countries. In other words, the countries accepted to reverse the traditional colonialist flow, which took away natural resources such as gold and left behind environmental liabilities that were difficult to be dealt with. Regarding traditional knowledge, the theme became the focus of other multilateral forums as a sort of reaction to the important victory of the megadiverse countries, both with regards to genetic information and traditional knowledge. This fact has been analyzed by Zanirato & Ribeiro (2007).

The topic of climate change stimulated a rich debate that directly affects poor countries. Who will pay to mitigate the effects that climate change will produce in countries that, unlike those that became rich over time, emitted much less greenhouse gases? This aspect remains under discussion and is one of the most controversial ones, given the resistance of countries that have emitted more gas in the past to finance the damage in poorer countries. This was perhaps the most controversial topic of the recent conference in Copenhagen, held in 2009 within the scope of the WCC and of the Kyoto Protocol.

Johannesburg's main goal was to assess the implementation of Agenda 21. Held in an international context much talked about for the attack to the towers of the World Trade Center, the conference raised expectations for environmentalists from around the globe, especially due to the position adopted by the United States at the summit. The conjectural difficulties influenced the decisions made at Johannesburg, which ended up reaffirming the principles brought forward at the meeting in Rio, such as that of common but differentiated responsibilities, which gives rich countries that have contributed the most to environment degradation a

larger task of environmental renewal than that given to middle- and low-income countries. Yet there was progress in some areas, like setting targets such as:

- reduce biodiversity loss by 2010;
- poverty reduction: halve the percentage of the global population living on less than $ 1 a day and living in hunger by 2015. Establish a World Solidarity Fund for poverty eradication;
- access to safe water: halve, by 2015, the proportion of the global population that does not have access to water, and also that without access to basic sanitation;
- housing: reduce the percentage of the population living in substandard housing by 2020;
- fishing: maintain and restore fish stocks by 2015.

Even if these targets may seem illusory, they served at least as guidelines for actions of poor countries in the international system and encouraged interstate cooperation. Moreover, they reaffirmed the need for greater environmental justice in the world (Acselrad et al. 2009; Moreno Jimenez, 2010).

Final Remarks

Combining different theoretical frameworks to study a range of complex multilateral documents is a stimulating academic challenge gaining practical application. This is because international conventions on the environment represent a possibility of reconciling the various interests around a negotiation table. In times of a permanent threat of war, when the capacity to destroy human lives is enormously concentrated, we need to reinforce the role of collectively made decisions. Hence the importance to get to know the players who propose actions through the regulation of human activity on an international scale, identifying their interests so as to enable a reading that does not get lost in idealism.

There is, however, no need to stop dreaming just because the times are dim. After all, a more fraternal world is possible, and examples of this appear in the four corners of the world, such as the World Social Forum - whose first editions were held annually in Porto Alegre (Brazil) in the month of January, a spectacular opportunity for the discussion of alternative models for the reproduction of life on Earth. Other alternative manifestations to the hegemonic model emerge here and there. Many of them identify the need of making the access to the material basis of existence more democratic.

It is true that international conventions do not yet represent this possibility thoroughly, especially when they prescribe unequal relations between the member countries, but they certainly represent healthier alternatives to war, besides allowing countries with lower economic and military statuses to successfully express their views in multilateral forums.

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