Climate Change as a Security Issue

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This paper reflects some of the discussions taken place at the *Climate Change and Energy as Security Issues* panel in the VIII Forte de Copacabana Conference hosted by Konrad Adenauer Foundation in partnership with the Brazilian Center for International Relations (CEBRI). The Forte de Copacabana Conference is one of the most important forums on Security Affairs in South America, drawing experts from around the world, especially those from South America and Europe. In this latest edition the main theme of the Conference was "New Issues on the International Security Agenda". Following this theme the Panel on Climate Change and Energy discussed how these two elements have appeared in the international security agenda and what has changed. In discussing this issue, we had top level discussants that provided both highlights and interesting opinions. The discussants were: Francine Jácome (Institute for Social and Political Studies); Jeffrey Mazo (International Institute for Strategic Studies); and Odilon Marcuzzo (Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials).

Traditionally, Security Studies are composed of the negative relations between States and old fashioned military threats. This may be easily explained and exemplified with context, the birth of International Relations (with capital letters – meaning the field of International Relations – similar to Pierre Bourdie s Field concept[2]). International Relations was born soon after World War I. The first centers/universities in UK were at that time in the US, and were mainly concerned with studying and understanding the phenomenon

of war. Avoiding scourge of the war was therefore the ultimate objective of the, so called, Field of International Relations (IR).

As time passed, International Relations has grown in two different ways, which both caused significant discussion in the Field. On one hand, the first expansion refers to the "progress" that transnational relations have undergone (here the use of transnational rather than international is significant to recognize that aside from States, other actors started to have a pivotal role in the "international" arena). The interdependence between states and a wide range of actors has benefited from the scientific revolution, with improved communication, transportation, logistics, informatics, etc. This new level of interconnectedness met its apogee with the historic phenomenon of Globalization, identified after the Cold War. At this time a variety of analysts were producing new concepts to address this new phenomenon, such as "global village"," international citizen", and others. Bottom line, this new context of international relations generated a wide range of issues that before did not exist or at least were relegated to a second plan.

On the other hand, a second form of expansion also contributed to this new generation of issues that had started to gain ground in the international agenda. This was an expansion in the Field of International Relations, not only in the subjects studied but in the actors that studied it. By that I mean, during the XX Century, international relations as an academic field grew in importance all over the world. Soon after the establishment of the first centers in the UK and US, many other countries started to develop their own centers, subsequently adding their perspective to the Field. Another characteristic of this moment is the incredible speed that most countries formed their IR Field. One notable example is the expansion of IR undergraduate courses in Brazil. The first course was established in the early 1970`s at University of Brasilia, by the 2000`s Brazil had already close to 150 courses.

Together these two developments have fueled an intense debate within the ever-expanding Field of the International Relations. If during most of the XX Century the discussions were divided into High Politics (security/military issues) and Low Politics (economic, social, environmental, etc.), now there are many analysts looking for ways to include a different range of subjects with an agenda that focuses on discussion. Most of those "new actors" (that vary both in gender and geography) advocate many other subjects as priorities in the international agenda.

With that said, it is interesting to stop and look at one of the main methods used by many analysts to support their perspectives, the changing definition of security. By changing the concept of security, it was possible to include other issues under the High Politics umbrella. Another similar way was establishing relations between any given issues to military or to a threat – from there the correlation with security would be much easier.

Many schools of thought have tried to develop theories and mechanisms to create a framework where issues formerly considered, 'Low Politics' issues, would instead be considered a security issue. One approach that I would find particular interesting is the "securitization theory" from the Copenhagen School – in which "security" is a discursive process that is

used to define priorities. By that they mean, at first a securitizing actor will outline a given issue that would pose a grave threat to community survival, if he succeeds to legitimize his discourse, he will then manage to move this issue from the realm of normal politics to the emergency level, where it will be possible to channel extra resources to approach the issue. In other words, according to this framework, security is a "self-referential practice"[3] and not necessarily a static phenomenon. Matters of security may vary in time and space, since the priorities of any community is its own.

Environmental issues are not that different. With the great debate on what subjects should be considered under the security realm, the environment found its way backed by a variety of actors (green political parties, foundations, NGOs, scholars, among others). Today it is hardly debated if the environment agenda (mainly that of the climate change "threat"), is a security matter. The biggest issue of focus is that it is hard to determine when and how gravely environmental consequences will impact on our society. Another challenge is how to explain, as Richard Ullman[4] would say, to society that environment issues indeed should be regarded as a security threat and therefore it should become a priority in the international agenda.

Climate change has been a problem to human security (causing famine and even death due to the climate reaching extremes) since the beginning of time, the so called Little Ice Age between 1300 and 1850 caused major problems to the population throughout the word (climate related detriments during this period were best documented in Europe).Even though there is a long history of our natural environment intervening in human survival, the association between environment and security is not that old. Some of the first connections can be traced back to the 1960 s. These traces can be found in the Vietnam War, when the US engaged in environmental warfare. Herbicides, chemical agents, salinization of arable lands and water poisoning were part of the overall military strategy to break the spirit of the Vietnamese army and population. The "misconducts" of the American army during the Cold War have generated criticism that led to the US department of Energy and Department of Defense adopting a different stance. The "military environmental security complex"[5] was developed. It not only has an interesting significance in the role that the US military has played in coping with environment problems, but also in the understanding that this institution has unique capabilities of influence and could act where no other could.

In the early 1980 s, several authors who were trying to expand the Field of Security Studies, began to include the Environment agenda in global debate. This happened in a variety of ways. One of the most interesting approaches of this movement was made by Richard Ullman[6]. Ullman was critical of the "traditional" way of addressing security and he argued that this approach was, in part, a result of lack of consensus on security definitions – which, in turn, resulted in many politicians pushing forward only "traditional" solutions regarding security and their avoidance in addressing new definitions. To Ullman, energy and natural disasters were given less importance than they deserved. To exemplify the lack of due attention, he provided an interesting study on public attention regarding security issues. He compared the threat of a nuclear war, which in his opinion was becoming less probable

each day, with the expected earthquake on the San Andreas Fault (US West Coast), which undoubtedly would cause far more destruction and deaths than the nuclear event. In his opinion it is impressive that the US Government directs huge resources to an improbable (which may never occur) nuclear event, and far fewer resources to a natural phenomenon that would definitely happen (yet not at a distinguishable time).

Ullman also stated that most of the conflicts that have been fought until today were related to territories and resources. Even today, since the vast majority of the world has defined borders, future wars would probably be fought over scarcity of natural resources, which will and have been deeply affected by climate change. As a result of these "new" conflicts a wide range of problems will gain importance such as migration/refugees. Ullman concludes by emphasizing the need for a "changing of consensus" when referring to security. He calls for a movement of redefining security that could readdress foreseeable threats (or at least those that will really happen, even if we do not know when).

These ideas have generated a whole new set of discussions that have become the most visible part of the relation between environment and security – that is, the idea that environmental issues can lead to conflict. This point has received a lot of attention, and still is the eventual basis for much of the literature on the subject. The idea that scarcity of natural resources is enough to fuel both inter and intrastate violent conflict has already been proven. The Toronto Group which was formed in the 1980's and led by Professor Thomas Homer-Dixon, has since become a prominent hub for discussion on the matter.

The Toronto Group developed a series of case studies on how environment issues, most notably scarcity of natural resources, could have a direct causal relationship with society, with disturbance that could lead to violent conflict. They conducted research throughout the world (Americas, Asia, Africa and Middle East). Understanding the impacts that the depletion of a given resource would cause in given communities, they could trace the roots of the conflict. To that matter, they developed a key concept, of "resource capture"[7] which stated that certain groups could capture vital resources, resulting in its scarcity, causing social instability- by prompting famine, forced migration, etc.

The Toronto Group s Scarcity Theory had received a lot of attention by the time of the studies. But as any other thesis, critics started to challenge their basic assumptions. An interesting approach was the "honey pot" hypothesis, which stated exactly the opposite idea of the scarcity one. The "honey pot" suggests that it is not the scarcity that is the cause of social instability (and conflict), but the abundance is also a great source of strife, since local abundance of resources often generates struggles for it ownership

Until the 1990 s, in parallel, it is worth noting that most of the approaches to relate environment with security used the perspective of the state. That means, when raising awareness to environmental issues, it was common to address them as national security matters. That tendency walks hand in hand with the development of the Security Studies as a field of study. Since international security was traditionally only conceived at state level, it would be understandable that for the idea of environmental security issues would have to be related to national security. This causal relation started to fade or diminish at the same time that some theorists started to move the *locus* of security from the state to the individual. The concept of human security flourishes in the mid 90 s, mainly, with the UN Report on Human Development. From this moment, a variety of authors started to develop theories that would relate international security to the human (in)security.

The main aspect of relating environment issues with international security is the understanding that environmental issues know no boundaries and therefore, it impacts not the state itself, but the communities within the region are affected. More importantly, the consequences of environmental threats (such as global warming, pollution and deprivation of water, desertification, etc.) directly affect people and increases human vulnerability. For the proposers of this idea, the approach towards dealing with environmental issues (most notably climate change) should not be at the state level, but at the international level. To them, only international coordinated action will be able to tackle and diminish its impacts.

Since the early 1990 s the "beginning" of the globalization process, has spurred unprecedented economic and technological development. The global chains of production have increasingly integrated the world just as the revolution of communication technology has metaphorically shortened distances across the world. But that did not come without a cost. The internationalization process, aided by multinational companies, was not only led by cheap labor. The companies not only chose countries with circumventive labor and environmental regulations, but they did so at a time when the central (different word then central) countries were redrafting their environmental laws in face of the rapid degradation, a degradation accelerated by the industrial process.

During this period the biggest villain was the greenhouse effect. The general idea was that the careless emissions of CO2 gas in the atmosphere was considered to cause great harm to the ozone layer and its depletion would leave human kind exposed to gamma rays from the sun, which would be one of the main sources of skin cancer. The protection of the ozone layer gained a lot of public attention, reaching homes worldwide. There was also a lot of criticism of countries that outsourced its production processes abroad, looking for

looser regulations in order to continue its emissions. Some critics claimed that the damage to the ozone layer would be done anyway, inevitably, and since the ozone layer knows no national borders, the harm would be the same. In contrast, public pressure got so strong that, in 1997, after several international events on the subject the Kyoto Protocol was negotiated in Japan, aiming at reducing global emissions and diminishing the greenhouse effect. This was the first international action to tackle global warming, and it was starting to become the new international target.

Currently, the most visible face of environmental threat is the climate change. In fact it is interesting to note that during the transition to the XXI century, the idea of global warming was incorporated in the climate change framework. On these first two decades of the XXI century, the impacts of the global warming (eg. climate change) have split the attention (along with the sustainable development, which will be mentioned later) at international forums of environmental issues. The negotiation and the "failure" of the COP15 in Copenhagen gained a large coverage of the media and therefore a lot of public attention.

The impact of climate change is being propagated, by many actors, as the main threat to human security in our time. Unlike the case of the Ozone Layer deterioration, mostly causing skin cancer (although worst case scenarios illustrate the Earth unfit to survive due to the strength of the direct incision of the sun), climate change offers a wide range of impacts that are already causing disturbances in our lives. The first and most famous signs were the El Niño and La Niña meteorological phenomenon that altered the rain season in a significant part of the Americas. But, along with these events, many other impacts have been alerted by the environmental epistemological community, such as:

- rising of sea levels, which pose a considerable danger to some coastal and low altitude countries like the Netherlands. Some islands like, Tuvalu, is at risk of disappearing under water (which brings a whole new set of discussions regarding whether a nation exists without territory/boundaries?). The issue of rising sea levels has a direct relation with the global warming issue, since the increase of global temperatures is starting to melt the ice cap of the extreme north and south.

- changing of the rain season has changed the agricultures of many countries. These changes have not only impacted the economies of various countries, but also World's food security, since the change in weather can make some regions unfit for growing traditional crops. Anyhow, the period of adaptation, will be a difficult one, as a result of the challenges imposed by the necessity of adapting the traditions to a new reality.

- desertification has a lot to do with the exploitation of the soil – mainly caused by its misuse, the process seems to have been intensified by the climate changes.

- extreme weather conditions are becoming more frequent each year and it is the main responsible for the deaths of hundreds of people. By extreme weather conditions we understand record temperatures in summer (heat) and in winter (cold/snow) and abnormal precipitation of rain in the wet season.

To summarize, it is possible to say that all these phenomena, which are related to the climate change, impact severely on societies and lead to forced migration; cause famine, poverty and social instability, just to name a few. Such a reality not only threatens human security, but also could unleash violent conflicts throughout the world.

To exemplify some of the aforementioned impacts from climate change and their relation with security we may refer to the recent Arab Spring. Soon after the domino effect of civil unrest in several North-African and Middle-Eastern countries, many experts began to look for the roots of those events. Certainly, chance is not to be blamed since most of the traditional causes of civil discontent were present in that scenario for quite some time. The strongest arguments pointed not to one or two causes but a myriad of issues that, together, enabled the protests to gain enough strength to topple their leaders (in the case of Tunisia and Egypt and, in a certain extent, Libya) or at least organize massive and protracted strife in their countries (such as Yemen, Bahrain, Syria and others).

Some commentators, such as Jeffrey Mazo and Sarah Johnstone[8], suggest that one of the issues that contributed to the explosion of protests was the spike in food prices. In their opinion the extreme weather conditions in 2010 (heavy rains, drought, bushfire and even sand storms) has caused significant worldwide losses, mainly in grain production. What is interesting is that those events were completely unexpected, since, for example, the World Agricultural Supply and Demand Estimates (WASDE) anticipated that 2010 would count higher production levels and lower prices, in the case of wheat[9].

This situation worsens when we take into account the "energy security" concern. In the last decade we have seen a huge movement in developing renewable sources of energy.

Biofuel is one of the most emblematic, above all for the developing countries. The movement towards the biofuel was twofold. In one hand, it had an economical side – which is concerned with the exhaustion of the traditional sources of energy and with political/social instability of some oil-rich regions and has been pushing on renewable alternatives (eg biofuel). On the other hand, the environmental side also fostered the development of renewable sources, since the non-renewable sources have a high degree of emissions. The net result is that a consensus on the development on alternative sources of energy and the biofuel have an important role in this framework. But what we should bear in mind is that the main raw materials for the biofuel has grains and other cultures such as wheat, corn, soybean, sugarcane and beets[10]. Therefore, in a scenario in which extreme weather conditions have been punishing the crops, the increase on consumption for the biofuel industry pushes the prices even higher.

Despite the fact that the links between environmental issues and international security have made their way to the top of the international agenda, there are those who have a more apocalyptical discourse (urging the environmental problems to be threatening as our very survival) and those who believe that there is certain degree of exaggeration. Those skeptics, such as Julian Simon, argue that most of the discussions rest on false premises. In his opinion, humanity has already faced both exhaustion of important resources and periods of harsh weather. However, none of those events managed to overcome the human ingenuity. He pointed that whenever an essential resource presented risk of exhaustion the economy forced humanity to find an alternative and, whenever confronted with life-threatening weather conditions, we have always managed to survive the adversities. Therefore, there will not be the time when we will face unsolvable environmental threats. Most probably, for Simon, we will find alternatives, viably economically, for energy and technologies that will diminish the impact of the environmental changes.

As a conclusion, the first challenge is the conclusion itself. The subject of treating environmental issues as a security problem is complex, since there are only few consensus points. Probably all of us understand that some environmental issues, especially climate change, are becoming a pressing matter (at an impressive speed), but we do not agree on a number of things, such as: what are really the environmental issues that should be treated as priority; how to cope with those (identified) issues; who are the proper actors and what is the forum to deal with it.

Perhaps, the problem is that we do realize that all should be considered one of the priorities of the international agenda, but the actions towards it does not reflect the same importance of the rhetoric. The consciousness of the importance of environmental issues is being built, however slowly. The question is if we will have the time to deal with the future challenges. Perhaps, we should work fast in "securitizing" this subject, (as Buzan *et all* would say) by turning it a priority and therefore allocating more resources (of every kind) to hold this process, since it is not enough to acknowledge its importance but it is imperative to prioritize the subject. Perhaps, there will be a time when the economical process (as the skeptics would say) will not manage to answer in time the challenges that we face.

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Notes

1 It is imperative to thank Larissa Martha and William Brooke, interns at CEBRI who helped in the development of this paper.

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9 *Idem.*

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