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What do you Consider to be the Most Significant Security Threat Facing Human Society Over the Next Half Century and how Should it be Dealt with?

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From a simple positivist position, it is relatively straightforward to claim that – in a not so distant future – the most significant threats to the human society will be environmentally related.It is difficult to conceive another set of problematics that could rival the global scale and potential magnitude of the consequences provoked – for instance – by a constant rise in the sea levels or by a substantial reduction in the global availability of water. To a large extent, these threats represent clear and present danger and they are becoming increasingly potential. Contemporary estimations claim that between a quarter and a third of all deaths in the world by disease have environmental causes, such as air and water pollution[1]. Based on scientific predictions, this scenario is likely to worsen in the future: extensive and substantial scientific research supports these estimates. In the case of global warming – for instance – the scale of probable consequences provoked by the gradual increase in the earth's surface temperature include threats such as the massive spread of tropical diseases, caused by a substantial enlargement of favourable zones for vectors conveying infectious diseases, like malaria.

The impact on the morbidity rate of these diseases would be global: the World Health Organization has forecasted approximately 150,000 deaths per annum as a result of climate change[2]. Increasing global temperatures are an existential threat also for the survival of entire nations: some Pacific Ocean islands, such as Tuvalu, but also European countries like Holland are literally 'sinking', as a result of the rising sea levels.

This empirical evidence contributes only partially to understand environmental threats as the most significant for the human society. On the one hand, these scientific claims legitimate the introduction of environmental issues within the security studies agenda, as they clearly represent an existential threat. On the other hand, mere empirical evidence does not allow us to delve into some of the most problematic issues regarding the link between security and environment. In other words, to explain the security implications of these threats. As this essay will attempt to

demonstrate, thinking of environmental threats in security terms is highly problematic. Properly because of the far-reaching potential of these threats, existential claims can be made by a number of referent actors, each of them with a structured theoretical perception of security. This essay intends *to understand and to explain* the existential dimension of environmental threats considering two referent objects in particular: the State and the Individual. The benefit of this dualistic approach is two-fold. Firstly, it allows us to answer more accurately the first part of the central research question, by demonstrating that environmental threats are universally significant, regardless of the referent object.

Secondly, addressing the link between security and environment from such divergent theoretical perspectives, consent *to explain* some of the conceptual implications of considering the environment as security threats. As it will be argued, most attempts to frame environmental threats take place within a *traditional* security logic, which implies a significant change in the perception of the environment. On the other hand, efforts to alter this perspective, opting for a *critical* security logic of environmental threats implies a controversial rethinking of the concept of security.

Despite departing from disparate ontological and methodological considerations, both security logics argue for the securitization of environmental threats. As a final argument, the essay will try to demonstrate why environmental threats are best dealt within the realm of politics, therefore opposing this securitizing approach.

National' – Environmental Security

As an initial step, it is useful to trace a genealogy of the relation between the concept of environment and that of security, in order to understand how environmental threats first came to be considered and are still treated as existential threats within a national security framework.

It is possible to claim that initial attention to environmental issues rose from epistemic communities and civil society of Western countries during the 1960s. Publications such as 'Silent Spring' by Rachel Carson helped developing an 'environmental conscience' that soon lead to the establishment of international environmental non-governmental organizations like Greenpeace in 1971. International conferences on environmental issues were held in the early 1970s by the United Nations, fostering the international legitimacy of environmental claims. First attempts to frame the environment within a security logic also originated from the international level: the World Commission on Environment and Development (1987) introduced the term 'environmental security', as well as popularizing the concept of 'sustainable development'. This global security logic – however – was very different from the state-centric conception that dominated during the Cold War. The perception was one of a 'common issue' that concerned the

whole humanity and that could not be effectively addressed by military means or by single nations. Instead, " threats to environmental security [could] only be dealt with by joint management and multilateral procedures and mechanisms.[3]"

From an epistemic perspective – therefore – it is possible to notice that environmental awareness has been in the beginning a matter of international public concern, not of national security. As Barnett points out: " These early arguments for the connections between the environment and security were very much of peripheral concern to Western security institutions occupied with the 'hard' business of winning the Cold War. For the United States and its allies – however – security meant national security from the military and ideological threat of the Soviet Union and its allies, and the principal strategy to achieve this was to build and maintain military superiority"[4]. In sum: there was no space for environmental issues within the national security agenda of most countries till the end of the Cold War. On the contrary, they were increasingly becoming a matter of interest and consternation for the international community and for the civil society.

The disappearance of the 'Red Scare', the failure of the Communist ideology and the collapse of the Soviet Union removed all the major sources of insecurity. Almost overnight, the military threat of nuclear confrontation and the ideological threat of Marxism-Leninism disappeared. As O'Tuahail points out, the end of the bipolar world order created something of a 'vertigo' for security policy and security studies[5]. This 'vertigo' combined with the already existing international concern for environmental issues created room for environmental security to be included within the new security portfolio, together with other non-traditional threats, such as energy security.

Including environmental issues within a national security logic had two major implications: on a political level, this was an official and open legitimation by State authorities of the importance of the environment, not only for the common security of the international community but for the specific interest of the Nation state. By including the environment within the National Security Strategy of 1991, the United States expressed *de facto* a particular concern for the environment.

On an epistemic and pragmatic level, however, this meant the nationalization of most environmental discourses and practices. The original international non-governmental agenda – which comprised numerous non-security and non-national elements such as the idea of sustainable development as well as a strong non-violent approach – had to be deconstructed and re-assembled into a national security fashion. By embracing the environment within the national security agenda, the Nation State was in fact claiming its central role within the policies of environmental security, becoming both the referent object and the unique provider of security. The 'nationalization' of environmental issues

imposed a rigid realistic and traditional framework on the very meaning and perception of the environment: thinking the environment as a national security issue implied a 'rethinking' of the environment. This conceptual rethinking is particularly evident in the academic discourses developed by the majority of the scholars who had carried out research on environmental security. Even before this topic was officially embraced within the national security framework, the general tendency among the academia revolved around a narrow and orthodox conception of environmental security.

Specifically, how environmental change might trigger substantial reduction of strategic resources – such as food and water – leading to increasing and potentially violent competition for these scarce resources. The *leitmotif* of environmental security literature for most of the 1980s and 1990s revolved around this link between environmental degradation and violence. Ullman[6], Myers[7], Gleick[8] all developed this argument – with slightly different perspectives – considering issues such as food shortages, water scarcity and population growth as catalytic elements of potential intra and inter-state violence. As Myers points out: " If a nation's environmental foundations are depleted, its economy will steadily decline, its social fabric deteriorate, and its political structure become destabilized. The outcome is all too likely to be conflict, whether conflict in the form of disorder and insurrections within the nation, or tensions and hostilities with other nations[9]". From a methodological standpoint, it is interesting to notice how this line of investigation has evolved and progressed from more general and broad claims about the link between environmental degradation and conflict, to more idiographic and reasoned analysis of specific case studies[10]. These have demonstrated that environmental degradation and phenomena such as water scarcity are not a sufficient cause of intra-state conflict, but they can be an exacerbating factor that might trigger violence.

What is relevant to point out is how the traditional security logic has shaped the perception of environmental threats, adapting them to a national-strategic dimension, entangling them into a'threat-defence' argument. The environment is here primarily perceived and described either as the mere physical base of the Nation State, from where increasingly scarcer strategic resources are extracted, or as the source of potential violence. In the first case, the environment is conceived as the natural capital of the national economy:if this natural capital erodes, " then so does the long-term ability [of the State] to defend against external aggression.[11]" It is therefore fundamental for the Nation State to preserve control over these strategic resources, which as they become scarcer, represent a potential source of competition and possibly conflict. Linking environmental scarcity to violent confrontation implicitly triggers a military response, where the State – as the only legitimate provider of force and security – has explicitly a supremacy role – both in terms of authority and military capabilities. Militarization of environmental security is therefore the main pragmatic consequence of a traditional state-centric approach. An excellent example of the nexus between environment, violence and national security is represented by water wars, which are one of the main case studies in

the area of (national) environmental security[12]. Scarcity of freshwater is already a national security issue for numerous countries, less developed as well as developing, as it represents not only a vital human resource, but it is also extensively involved in many industries, including forestry, agriculture and mining, as well as a significant source of energy (nuclear and hydroelectric).

Scarcity of freshwater – for instance – is possibly the biggest threat to the development of China, as water shortages in much of northern and western regions are already jeopardizing agricultural and industrial activities[13]. Many security analysts consider water as the key-strategic resource in the globe, predicted to become the "next oil", making countries like Canada, Chile, Norway, Colombia and Peru, with this resource in abundance, possibly the new water-rich countries in the World.[14] Neo-liberal theorists suggest that scarcity of water might be catalytic of peace and not necessarily conflict; critics respond that there is a long history of water wars and that in the coming decades, it is possible to identify at least one major source of potential conflict over water in every continent, except – hopefully – Europe[15]. On the one hand it is correct not to generalize the issue of water scarcity, as there are certainly great differences in water availability among regions; on the other hand it is also true that because of the general rising demand – caused mainly by population increase – as well as because of a substantive reduction of the global supply – induced by water depletion, pollution and global warming – it is not difficult to realise the enormous significance and national security implications that a substantive reduction of fresh water supply could have in the future on a global scale. Some negative spillover effects might affect even those countries that do not directly experience water scarcity, which might be 'invaded' by the millions of environmental refugees provoked by water scarcity. Experts are predicting that 50 million people worldwide will be displaced by 2010, also because of dried up aquifers[16].

Based on these elements of analysis, it is possible to derive two conclusions. Firstly, the overall validity of the arguments made by those environmental security scholars that have embraced this national-theoretical perspective arguing that the environment – using Kaplan's words – " is *the* national security issue of the twenty-first century[17]" are legitimated by these examples. It is evident – even though sometimes contested – how State security can be significantly and increasingly affected by environmental threats. Water scarcity might undermine the economic and productive base of the Nation – as in the case of China; increase military tension among different States sharing scarce resources – as in the case of India and Pakistan; or triggers social unrest and discontent in rich states, because of the influx of environmental refugees which will "degrade the quality of life, and diminish the range of options available to governments.[18]"However, it also demonstrates how environmental issues – in order to be included within a national security agenda – have to be altered in their intrinsic nature: most environmental threats- such as ozone depletion or resource scarcity- have in fact a transboundary dimension that cannot be addressed by the narrow state-centric approach.

First of all because- quoting Jervis – most environmental issues are threats without an enemy[19] and therefore technically disentangled from the national security dialectic of 'threat-defence'. Secondly, because on a pragmatic level, it is unconceivable to tackle threats such as climate change using traditional military instruments. In order to reframe these threats into this logic, national policy makers have to operate in the realm of the paradox, deconstructing the nature of environmental issues so that they can fit into the simple binary national security logic of 'threat-defence'. The greatest majority of the scientific community has recognized the evidence that most environmental changes – such as the rising global temperature – are anthropogenic, generated by human activity. Therefore, if there is an enemy within the environmental security discourse, it is *us*: pollution of water resources is mainly caused by human activities and the same can be said about the CFC gases or the CO2 emissions that represent the main causes of the greenhouse effect and of the depletion of the ozone layer. It is the reluctance of most States to pursue patterns of sustainable development that triggers situations of excessive depletion of natural resources, therefore inducing scarcity. In this undeniable reality lies the evidence of a true environmental security dilemma, where the only way to secure societies from environmental threats is to change them[20].

The paradox of the national environmental security is that it depicts the environment as the threatening actor and the State as the 'victim': this is evident for instance in Kaplan's influential book " The Coming Anarchy", where the environment is depicted as ' an hostile power'[21].Campbell's analysis in this case describes perfectly the logic behind this way of articulating threat and referent object: " Western response to the current era of World politics is characterized by the representation of novel challenges in terms of traditional analytics, and the varied attempts to replace an enemy with (an)other"[22].This is precisely what happens with the environment when is depicted in the 1998 US National Security Strategy as a transnational threat "to US interests, citizens and US homeland itself"[23]. Therefore, it is possible to treat environment issues as threats and to address their significance in the traditional security logic, but not without incurring in the limited and distorting logic of national security where – regardless of what typology of threat one considers – the referent object is always the State.

Human – Environmental Security

Realization and understanding of the limitations of dealing with environmental threats from national security perspectives has stimulated academic research to find alternative security approaches to environmental issues. As Barnett argues, "what is noticeable about this late-modern era is the relative impotence of the state to control the terms of security. The state is increasingly unable to act as regulator between global dynamics and local places. …Further, even the traditional concern for national security from external aggression is harder to control given the proliferation of weapons of mass destruction and the sophisticated nature of terrorism.[24]" This argument holds

particularly well when one considers the global/local nature of most environmental threats. In the case of the rise of sea levels – for instance – causes are clearly global, as all countries – to different degrees – contribute to the production and release of CFC and CO2. However, the effects provoked by these emissions are felt with particular and threatening incidence only in certain localized circumstances. It is unreasonable to argue that a rise of the sea levels threatens with the same significance Bangladesh and Nepal, for instance. Most environmental issues are therefore highly contextual and intrinsically *glocal,* which means either too above or too below for the competence and the limited instruments of a single national security policy.

What is being questioned therefore by these critical approaches is both the role of the State as a referent object – environmental threats are significant for the State, but not exclusively for the State – and its incapacity to act as a 'insecurity reducer' when challenged by threats that do not have a military component.

The *human security* approach developed as part of the UN Development Program report in 1994 represents one of the most significant and substantial attempts to criticize the traditional conception of security, by promoting an alternative and innovative framework of analysis.Within this framework, the referent object is the individual and seven different security sectors are considered; the environment is one of them. The very first words of the original 1994 UNDP Report are extremely helpful to outline the basic analytical premises of this anthropocentric approach to security:

" The World can never be at peace unless *people* have security in their daily lives. … The search for security lies in *development* not in arms.[25]"

This incipit allows us to understand the deepness of the theoretical fracture between the human security approach and the national security one. In the former, the referent object are the people, not the state and not even their citizens, but more simply each and every individual. It is a *cosmopolitan* conception of security, where the welfare of the most disadvantaged is placed above all else[26].

Secondly, human security is achieved through the improvement of human condition, not thanks to military capabilities. The objective is a positive peace *à la* Galtung, not the mere absence of conflict. Human security has therefore a strong moral imprinting and therefore elements of justice, peace and welfare are pivotal, whereas military issues are marginal. These elements are evident also in Barnett's definition of (*human)* environmental security, which is describes as:

"The process of peacefully reducing human vulnerability to human-induced environmental degradation by

*addressing the roots causes of environmental degradation and human insecurity**[27]**".*

As in the case of the traditional state-centric approach, framing environmental issues as a matter of *human security* has important implications. On an argumentative level, it fosters significantly the central claim of this essay: that environmental issues are the most crucial threat to human society. If the ways in which these threats endanger the States is considered to be somewhat ambiguous by certain scholars[28], the ways in which it affects the lives of individuals is obvious. As Barnett points out, " people are environmentally insecure in all sorts of ways and for all sorts of reasons.[29]"Taking again the issue of water as an example, the human security implications related to this resource are even more significant than those of the national security approach. In fact, in the case of the latter framework, water becomes a matter of national securityonly when it is scarce: either because it undermines the national economy, or because it triggers violence (inter or intra-state). In the case of the human security, water becomes a problem even when it is not scarce. According to the most recent UNESCO and WHO's reports, water pollution is the leading worldwide cause of deaths and diseases, and that it accounts for the deaths of more than 14,000 people daily[30]. In terms of water scarcity, more than a billion people lack access to safe water supplies and almost three billion do not have access to adequate sanitation; twenty percent of the world's irrigated lands are salt-laden to the point of affecting food production[31]. All these figures are likely to worsen in the future as freshwater supply is likely to decrease, due to population growth, increased agricultural consumption and pollution.[32] Understanding issues such as water scarcity from a human security perspective implies not being concerned with the possibility that environmental scarcity might lead to conflict. Instead, what one has to consider are the additional social components that influence the vulnerability of the individuals and that undermine human security, such as poverty, the degree of support (or discrimination) communities receive from the state and the extent of social cohesion within the surrounding vulnerable groups. As Barnett extensively argues, "these factors determine people and communities' capacity to adapt to environmental change so that the things they value are not adversely affected.[33]" This complexity and deepness of analysis of the human security approach represent a major improvement for the assessment of both causes and consequences of environmental threats compared to the narrow state-centric approach. Considering environmental issues as parts of larger social dynamics consent a more profound understanding of how contextual and interconnected they are. As it has been argued, one of the major methodological issues with the national security approach is the over-simplification of environmental threats. Instead, the human security approach tends to delve into the complexity of these issues, investigating how they are not 'provoked' by the environment, but how they are socially constructed by human behaviors and activities. By including non-empirical elements – such as risk, vulnerability and resilience – in the analysis of how different human communities are affected by the same environmental threat, the human security approach represents a powerful analytical framework to understand the nexus between the environment and development/justice issues. Looking at

the problem of water scarcity from human security approach – for instance – implies not a simple assessment of what effects are provoked by the scarcity of freshwater on individuals: it implies also considering environmental degradation from a normative point-of-view, taking into account the problem of inequality, asking how past and present processes create water surplus in some places and droughts in others[34].

This holistic understanding of environmental threats represents both the strongest and the weakest point of the human security approach. On the one hand, re-arranging security discourses around the individual allows a better diagnosis of the significance and complexity of environmental threats. On the other hand, the theoretical implications behind it are too far-reaching and provoke a collapse of the framework in terms of security practices.

This is particularly evident in Jon Barnett's book *" The Meaning of Environmental Security",* in which the concept and theory of human environmental security is introduced. In this publication, Barnett criticizes the majority of the theoretical premises that underlie the traditional state-centric approach to environmental security, embracing a critical perspective and contesting the role of the State – both as referent object and as provider of security – as well as the very concept of (national) security. According to the author:

*" A human centered (as opposed to state-centered) concept of environmental security is consistent with the general direction of critical approaches to security. The consistency arises from the shared understanding that security is intuitively about the stable provision of basic needs – which states and the system of states have hitherto failed to provide. A strong, human-centered concept of environmental security can better contest the meaning of security in a way that…stands to gain much by highlighting the inherent contradictions of national security.**[35]**"*

The theoretical masterplan is indeed very ambitious: what Barnett proposes is a radical rethinking of the concept of security, using the humanistic approach to unhinge traditional discourses and practices. This typology of approach works particularly well in deconstructing the idea of national environmental security, highlighting its contradictions. Where it fails is in re-constructing a solid human security approach that is able not only to re-theorize security discourses, but also the practices. The praxis of this critical approach represents a Gordian node that Barnett is able to unlace only with a paradox, falling back into national security to address problems of human security. On a theoretical level, national and human security could not be more different and Barnett is very keen in demonstrating so[36]. Nevertheless, when the issue of providing security for the individual arises, Barnett compromises his analytical position, arguing that "national and human security are not necessarily mutually exclusive[37]". Does this mean that national and human security are opposed only in (the) theories and not in (the) practices? How is it possible to combine the profound ontological cleavages between these two positions? Barnett's solution is a bit of a

reductio ad absurdum, as he claims that “the State is obliged to provide human security[38]” and that “environmental security *demands* that nation-statesact domestically and in concern to curb global, regional and local processes that generate environmental degradation and human insecurity[39]”. In other words, according to Barnett, the Nation-State – under the moral diktat of the environmental security agenda – should abandon his integral logic of threat-defense, embracing a security approach where the needs of the weakest individuals come first. This passage illustrates even more clearly to what extreme extent Barnett’s project is ambitious and how evidently some implications of his human security approach need to be reconsidered, in order to avoid structural inconsistencies that jeopardize the validity of some of his arguments.

(De)Securitizing Environmental Threats

Up to this point, the analysis has been conducted mainly with a contrastive approach. Differences between national and human security in interpreting and explaining environmental threats have been thoroughly discussed. In order to answer the second part of the central research question, it is necessary to bring together those elements that both security approaches have in common. The first one is the core argument of this essay, that environmental threats can be considered as the most significant ones, regardless of the referent object. The second one is that – in spite of the profound analytical and theoretical differences of the two security approaches – both tend to opt for a securitizing approach to environmental threats.

In the national security approach, the environment is securitized by including it within the national security agenda, as in the case of the United States.[40]This securitizing move implies not only a legitimation of the importance of the role of the environment, but also the possibility of relying on extra-ordinary means to tackle environmental threats. This cannot be considered as a mere politicization, because framing these issues within a national security framework gives them explicitly a distinctive statusthat other political issues do not have. The possibility of the intervention of military forces to preserve the environmental stability of the State – for instance, by militarily reaffirming the control over a strategic resource – represents the pragmatic element of national securitization.

From this perspective, one could consider the proclamation of the Carter doctrine as a speech-act for the securitization of the environment, as it openly considered the possibility for the United States to employ military force in the Persian Gulf region in order to preserve its national interest[41]. It depends on whether one wants to consider ‘oil’ as a strategic-energy resource or as a strategic-natural resource, therefore as a matter of energy security or of environmental security, even though in this case they seem to overlap.

Also human security “seeks to securitize the environmental problems by making them more important than other politicized issues.[42]” The risk of the securitizing the environment is that it potentially leads to militarization, therefore reinstating a state-centric perspective. In an optimistic perspective, successful ‘human’ securitization might mean that “ national governments will take environmental problems more seriously, reduce defense budgets, and generally implement policies for a more peaceful and environmentally secure world.[43]”

Therefore, both theoretical positions agree not only about the significance of environmental threats but also about the fact that they should be securitized. On the contrary, it is possible to argue that securitization of these issues is highly unlikely as well as problematic. Instead, dealing with these issues through the instruments of normal politics is actually – and potentially – the most suitable approach.

Difficulties for the securitization of environmental issues in are mainly caused by socio-political skepticism and lack of perceived urgency about these threats. As it has already been mentioned, there is almost unanimous agreement within the scientific community about the nature, causes and possible effects of environmental disruption. The field is far from perfect knowledge, as scenarios change constantly and – one should not forget – environmental awareness of the impact of human activities is a very recent discover. Consequently, despite continuous claims by scientists about apocalyptic scenarios that humanity will have to face in a not so distant future because of its own negligence, there is still a lack of social sedimentation about these issues among the majority of people. Present generations do not seem to care, as they feel that doomsday has yet to arrive. Consequently, unless there is a situation of clear and present danger – an imminent ecological disaster such as the hurricane ‘Katrina’, for instance – it is hard to convince the ‘audience’ about the necessity to undertake extreme measure to tackle latent environmental issues. In addition to this, one should also take into account the evidence that sometimes the unwillingness to securitize environmental threats lie within the political establishments: governments are inclined to think in terms of ‘mandate’ and because environmental counter-measures tend to be particularly drastic and expensive, they might be reluctant to securitize an environmental issues for the fear of losing public support. Paradoxically, an increase in the recurrence of human-induced ecological disasters might be the trigger for a more continuous securitization of the environment: in this case, all efforts would be perceived as necessary in order to prevent the next catastrophe.

Here, the question of what should be securitized emerges: as it is clearly problematic to securitize all the possible causes of an environmental threat such as a massive flood, the risk lies in the potential securitization of the effects provoked by the disaster (for instance, environmental refugees).

Results achieved within the realm of politics and diplomatic negotiation should encourage us to think that

environmental threats are best addressed when they are not securitized, but when instead they become integrant part of political discourses and practices. Once again, if one considers the fact that ecological awareness is a relatively new phenomenon, it is particularly remarkable to notice how environmental agreements represent one of the diplomatic sectors where international cooperation has increased most significantly. Between 1946 and 2001, more than 20 international treaties on environmentally-related issues have been signed,[44] a clear demonstration of the fact that State authorities are increasingly concerned and committed to tackle environmental issues.Among the most significant, one can mention the 1997 Kyoto Protocol, which introduced the UN Framework Convention on Climate Change, aimed at the reduction of greenhouse gasses, ratified by more than 170 countries. It is also important to underline the fact that in most European Countries, the influence of Green parties has risen significantly in the past 20/30 years, contributing to the promotion of environmental policies, from local municipalities to the European Parliament.

State entities seems therefore to be increasingly more receptive of the scientific concerns, as well as more proactive in tackling environmental issues, relying on national and international regulatory framework to find common solutions for problem such as ozone depletion. It is reasonable to believe that further scientific research and international regulatory bodies will work even more closely in the future, enhancing the possibility of creating pro-active international protocols to prevent environmental crisis. A fundamental role – however- is still played by activists and lobbyists of non-governmental organizations (NGOs), such as Greenpeace and the WWF. Most securitizing moves come from these actors and despite the fact that they are not able to accomplish them, their continuous attempts to promote global awareness and more drastic interventions by the Governments avoids the risk of removing the environment from the political agenda. In other words, securitizing moves helps maintaining public and political concern on environment problems always within an attentive level.

As a final argument, it is possible to claim that a securitizing approach to environmental issues is far too problematic and dangerous: most global threats are perceived either as too latent or too distant to justify extra-ordinary measures. Even if this is the case, the highly interconnected and contextual nature of most environmental threats make even more difficult to establish whether the causes or the effects have to be securitized. On the contrary, a ‘thick’ political approach seems to represent the best option to deal with environmental threats. By thick, it is implied that the politicization should include different actors from all level of the structure: international epistemic communities can contribute with further research, providing legislating and governing bodies with more accurate scientific information, so that environmental policies can be more targeted and effective. At the same time, non-governmental and civic groups have the responsibility of increasing global and local awareness, by ‘keeping alive’ the threatening element of environmental issues, therefore avoiding de-politicization. Only with this multi-level approach it is possible to work

around the complex glocal nature of most environmental threats.

Conclusion

By looking at environmental threats through the lens of security and securitization, this essay has attempted to address in an exhaustive manner the potential impact that some of these issues are likely to have on the human society in a very near future. With the support of scientific estimations, it has been demonstrated the enormous significance that changes provoked by environmental phenomena hold for two referent objects in particular, the State and the Individual. States are likely to be threatened in their 'physical base', some more directly than others: some countries might experience a direct existential threat from the rising sea levels. Other might experience a substantive reduction of strategic resources, due to the degradation of the environment, which could in turn provoke social unrest, substantial decrease in the rate of development and – in some cases – trigger violent conflict for the control of scarce resources. Human individuals are likely to experience more evident, direct and heterogeneous threats to their lives: vulnerability might change significantly because of socio-economic conditions, but potentially it is no exaggeration to say that everybody is at risk.

Reversing the initial argument, it is also possible to claim that environmental threats represent an optimal lens through which it is possible to observe and investigate some of the most challanging and controverial aspect of the two analytical approaches of national and human security. Focusing on such complex and unorthodox threats has allowed us to reflect on some of the ontological and analytical inconsistecies of both approaches, realizing how narrow and distorting the traditional perspective can be, in the attempt to preserve at all costs the position of the Nation State as referent object, by altering the perception of the environment itself. On the other hand, the human security apporach offers a much more holisitc and profound undestanding of roots causes and social consequences of environmental threats. It fails – however – in promoting alternative and original security practices that might enhance the security of the individual, without relying on the State.

Both apporaches seem to favor a securitizing approach, even if for different reasons. The final part of this essay has instead advocated the advantages and benefits of a political approach to environmental threats, arguing that only a comprehensive set of different actors from different levels can define the appropriate regulatory and legislative instruments to tackle effectively environmental threats, without relying on dangerous and often inappropriate extra-ordinary measures.

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[1] P. Hough; " Understanding Global Security"; Routledge; 2004; p.134

[2] http://news.bbc.co.uk/2/hi/science/nature/372219.stm

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[4] J.Barnett; " Environmental Security" in A.Collins, ed. " Contemporary Security Studies"; Oxford Press; 2007;p. 187

[5] G.O' Tuathail; " Critical Geopolitics"; Routledge; 1996; p.45

[6] R.Ullman; " Redefining Security"; International Security; 1983; Vol.8; N.1; pp.129-53

[7] N.Myers; "The Environmental Dimension to Security Issues"; The Environmentalist; 1986; Vol.VI; N.4.

[8] P.Gleick; "Environment and Security: The Clear Connections"; The Bullettin of Atomic Scientists; 1991;Vol.47; N.3;pp.79-112

[9] Myers; op.cit; p..251

[10] The most eminent book in this respect is certainly Homer-Dixon's " Environment, Scarcity and Violence", published in 1999.

[11] J. Barnett; " The Meaning of Environmental Security"; Zed Books; 2001; p.43

[12] See for instance, P.Gleick; " Water and Conflict: Fresh Water Resources and International Security"; Vol.18; N.1; p.79-112; 1993.

[13] T.Homer-Dixon; "Environment; Scarcity and Violence"; Princeton University Press; 1999;p. 22

[14] Rohini Nilekani; "Is Water the Next Oil?";YaleGlobal; May 31, 2007; accessed from: http://www.globalpolicy.org/socecon/gpg/2007/0531wateroil.htm

[15] In Southerhn Asia, the biggest problem is the India-Pakistan dispute over the Indus, while in central Asia there are high risks of conflict between Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan over the Amu Daria and Syr Daria rivers and the already depleted Aral Sea.[Iyer, R. (2002), "Water-Related Conflicts: Factors, Aspects, Issues," in M. Mekenkamp, *Searching for Peace in Central and South Asia*. Boulder, CO: Lynne Rienner Publishers.

In Africa, the Chobe, a tributary of the Zambesi, has become a cause of tension between Botswana, Mozambique, Zambia and Zimbabwe, while there been border incidents between Mauritania and Senegal over control of the Senegal River. In South America, conflict is likely to arise between Bolivia and Peru over the Titikaka Lake and the Chonta River. [www.globalpolicy.org/security/natres/water/2004/1105diminishing.htm]

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[17] R.Kaplan; " The Coming Anarchy"; Atlantic Monthly; 1994; Vol.273; N.2; p.54-60

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[26] Barnett; 2001; p. 127

[27] Barnett; 2001; p. 127

[28] See for instance Levy's extensive criticism of national – environmental security in " Is the Environment a National Security Issue?"; International Security; 1995; Vol.20; N.2; pp.35-62

[29] Barnett; ibid.

[30] http:www.unesco.org/water/wwap/wwdr2/

[31] http://hdr.undp.org/en/reports/global/hdr1998/

[32] Homer-Dixon; 1991;p.67

[33] Barnett in Collins,ed.; 2007; p. 198

[34] Barnett in Collins,ed.; 2001;p. 198

[35] Barnett; 2001; p.129

[36] Barnett; 2001; pp.121-129

[37] Barnett;op.cit.; p.130

[38] Barnett; ibid.

[39] Barnett; ibid.

[40] W.Clinton ; " A National Security Strategy for a New Century"; The White House; Washington; 1998; p.10

[41] http://www.jimmycarterlibrary.org/documents/speeches/su80jec.phtml

[42] Barnett; 2001; p.136

[43] Barnett;ibid.

[44] For a comprehensive list, see: Barnett in Collins,ed.; 2007; p.185

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