

Review - Security and Environmental Change

Written by Marc Van Impe

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MARC VAN IMPE, APR 25 2012

Security and Environmental Change
by Simon Dalby
Polity, 2009



Environmental change and its possible consequences on human society have become an increasingly contentious issue in scholarly work and in the media. The large publicity that scandals such as 'Climategate'[1] received, but also the increasing attention that renewable energy and pollution-mitigating initiatives receive in various countries, attests to this fact. However, what is problematic about such initiatives is that many details on the specific consequences and effects of climate change are still uncertain. While it is clear that humans are changing the climate at an increasing rate, one of the biggest uncertainties in this regard involves the timeframe within which humanity would start being subjected to the more extreme consequences of these changes, which could, in theory, pose an existential threat as the global biosphere increasingly transforms.[2] This continuing unpredictability, largely caused by the complexity of the phenomenon of climate change, has led some authors to convert the issue into a principle, namely the 'Uncertainty Principle', which would become an inseparable aspect of climate change research.[3]

These uncertainties about the exact impacts of climate change helped initiate scholarly debate about the possible threat that climate change, and in a similar fashion environmental degradation, could pose on human lives and states around the world. It was steadily realised that the new technological circumstances of humanity could bring about ecological vulnerabilities, and thus required new modes of thinking about security.[4] However, it was exactly this trend that led Deudney in 1990 to caution against the necessity of linking environmental change to national security. It implied, according to Deudney, the activation of measures and institutions of similar nature to those that would be used for military security threats. These initiatives could prove counterproductive to combat the impacts of climate

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change in the first place, as it was becoming increasingly clear that long-term strategies and policies were required to achieve a certain degree of success. Furthermore, he argued that should security come to be labelled as being everything that disrupts a human's well-being, it would lose any analytical purpose and usefulness.[5]

Simon Dalby's book, *Security and Environmental Change*, was written two decades after Deudney's article in a context wherein authors have been trying to redefine the concept of security so that it would become more suitable to incorporate new core issues in international society, including environmental change and degradation. As such, the book seeks to reframe international security in terms of environmental change so that it incorporates the notions of earth system science and 'human security', where humans are intrinsically linked to their environment.[6] His work can thus be categorised as being part of the relatively recent 'critical movement' in the environmental security literature as it seeks to expand beyond traditional notions of national security to encompass a broader perspective of human security, in order to introduce notions such as environmental justice.[7] The authors within this movement reject the view that states are the appropriate referent for the study of environmental security.

One of the major virtues of Dalby's recent work is that it succeeds in bringing together notions and concepts from various fields of study. By profession he is a geographer, but he does not limit himself within this field as he uses concepts from Earth System Sciences, geology and post-modern social sciences.[8] His ultimate aim is to break with traditional notions of security and environment as separate domains of human engagement. He attempts this by arguing that both concepts are socially constructed and that existing perceptions of these concepts are untenable for the safety of humanity.

This review essay wishes to analyse this claim by analysing Dalby's conceptual framework in light of other recent publications in the field of environmental security. In the process, I aim to highlight certain issues within his arguments, which in turn could prove problematic for the practical application of his framework.

Dalby's framework of environmental security

"Securing Precisely What?"

Dalby argues that security in the contemporary age is about both technical matters[9] and the construction of the fear of certain threats by social actors in society. He is guided here by Hartmann's statement, *Fears are the product of particular historical intersections and political, cultural and technological conjunctures.* [10], concluding that "[...] security in these terms isn't about states and their rivalries, it's about people facing numerous insecurities, from many of which states either can't or won't protect populations. It's about what has come to be called human security." [11] Human security, as a concept, is based on the 1994 *United Nations Development Report* which tried to encapsulate a broader security agenda following the end of the Cold War, in an effort to move beyond traditional notions of security. It provided two main objectives of human security: *first, safety from such chronic threats as hunger, disease and repression. And second, it means protection from sudden and hurtful disruptions in the patterns of daily life [...]. Such threats can exist at all levels of national income or development.* [12] According to Dalby, this implies that human security is of universal concern, its components are interdependent, it necessitates early prevention and it shifts the referent object of security from states to people.[13] This last characteristic is essential to Dalby, as he uses an extensive number of historical case studies in his third and fourth chapter to bring home the point that environmental threats are of a diffuse nature, subsequently security frameworks on the national level are inadequate to encompass appropriate policy responses to environmental impacts that affect multiple states, regions or the world.[14]

However, this is a consideration that has steadily become more present in the environmental security literature debate. A large number of case-study publications still use state boundaries as the level of analysis, as is for example the case in Busby's 2008 work in the case of the U.S. and Bocchi et al's study of Kenya.[15] However, this seems rather out of a consideration of the fact that states are still the most authoritative units of policymaking in international society and are a less complex unit of study.[16] Consequently, some authors have argued that the processes by which global environmental threats are likely to be mitigated are still of an interstate or intergovernmental nature rather than supranational or nongovernmental.[17] These arguments reemphasise the need for the use of human

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security considerations rather than those of national security, as the human security concept incorporates safety concerns of all human individuals or humanity as a whole, regardless of their nationality.[18] Deudney's 1990 article was a key catalyst behind this reevaluation of environmental security in this regard, as he highlighted the problems that could occur when environmental issues are understood within a national security framework.[19]

Dalby's underlining of the value of human security for the study of environmental threats was already apparent in his 2002 publication, titled *Environmental Security*, which was largely a preparatory work for the framework he further developed in *Security and Environmental Change*.^[20] In *Environmental Security*, he argued that "*Understanding military forces as the principal security problem for many populations links to larger critiques of militarism and to contemporary analyses of the causes of violent conflict, [...]. These extensions of security thinking lead away from a focus on interstate warfare and toward an understanding of security in the context of global processes that extend beyond narrow concerns of interstate military power and completion. [The most prominent of these is] the theme of environment.*"^[21] This statement echoes other prominent scholars of human security and environmental change, such as Barnett, Matthew, McDonald and O'Brien: "*A very important and distinctive contribution of human security is that it securitizes (makes a priority of) what individuals themselves see as their paramount concerns, and so pluralizes the meaning of security and opens up space for alternative security practices.*"^[22] Human security as a concept is essential to Dalby because it recognizes the interconnectedness of humanity and the vulnerabilities of individuals within human society due to the increasingly artificial circumstances in which people live, which opens up possibilities for less violent and more constructive responses to environmental threats.^[23]

Anthropocene

The introduction of human security in Dalby's framework allowed him to use an extensive amount of historical discourses in his third and fourth chapter to introduce the concept of the 'Anthropocene' and subsequently, 'Anthropocene Security'. These historical discourses make it clear that human security has complex and varied implications on environmental change. He sees examples of these links in the introduction of alien species affecting local ecology, the (un)intended spread of disease, the creation of artificial agricultural systems to support the expansion of markets elsewhere, the increased dependence on fossil fuels; and further in the future the melting of Greenland and Antarctic Ice. The Anthropocene is a concept borrowed from Paul Crutzen, an atmospheric chemist, and refers to the contention that we have entered a new geological era wherein humanity is increasingly artificially changing its environment and is introducing "*forcing mechanisms that are driving change in the biosphere*"^[24], while still being intrinsically linked to it.^[25] A key characteristic of this era is the drive of "*carboniferous capitalism*", a term developed by Lewis Mumford and more extensively reformulated in Dalby's 2002 book. Herein he states that global Anthropogenic atmospheric change is majorly driven by the large-scale use of fossil fuels, the combustion of which is largely responsible for the disruption of the stability of the global climate.^[26] The expansion and globalization of industrial capitalism thus also implies an ever increasing amount of carbon dioxide exhausts.

This process, according to Dalby, complements a process of 'Glurbanization', or the globalised process of urbanization. While this is a process that has been in progress for the last two centuries in Europe, only since the start of the twenty-first century have we become a truly 'urban species'.^[27] Dalby draws here on earth-system science to argue that glurbanization in "*the biosphere has dramatically changed many of the basic parameters of human existence*" so that humanity's relation to the environment has become increasingly artificial^[28], and thus has made humanity especially vulnerable to environmental change. Here he agrees with Brklacich and Bohle that environmental change, when linked with security in this new context of humanity, is the essential starting point of analysis, considering humanity's mutual constitution with nature.^[29]

As such, Dalby aims to introduce the notion of Anthropocene security into the academic debate. He views human security in the Anthropocene as a possible tool to entice cooperation amongst different states in order to combat the effects of climate change. What is of crucial essence here is that cooperation depends on the articulation of security and what exactly is considered to be the threat by individuals, communities, states and the international society.^[30] As such, individuals and states can be the cause of insecurity themselves. He uses the U.S. government's perception of the threat posed by the poor, black people in New Orleans post-Katrina to emphasise this point:

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“[A New Orleans conference participant:] *“Well, the evacuation plan says that the middle class get in their cars and drive away. The poor go to the Superdome and hope!”* The fact that nearly a quarter of a million mostly black residents of the city, [...], *didn't have the option of leaving is a crucial part of the explanation*, [of the casualty number] *The failure of the emergency planners then degenerated further into confusion when military units, and mercenaries from Blackwater corporation, were deployed apparently to protect the remaining property of the affluent from those dispossessed and in many cases in desperate need of assistance. This once again raises the question: security for whom?”*[31]

Anthropocene security presupposes cooperation and peace building as the only reliable means by which the harmful consequences of climate change can be structurally prevented. It implies shifts in the mentalities of politics and their administrations, from adaption and regulation to environmentally conscious decision making which would result in a minimization of the ecological throughput of humanity on the biosphere.[32] “[These considerations] *suggest that political assumptions of autonomy at the scale of either the individual or state or no longer tenable.*”[33] A rethinking of environmental change and human security in the Anthropocene, therefore according to Dalby, also implies the development of a new perception of environmental and societal (post-modern) ethics, aptly termed ‘Anthropocene ethics’.[34] The terms within which such an ethics might be written, however, remain unclear to him.

Dalby also seeks to redefine the timeframe security action should address. He supposes here that while urgency is essential to prevent further environmental damage in some cases, rash action might result in a disruption of the ecology on a larger scale. Consequently, security action should evolve from the radical introduction of short-term policies, to a more long-term, knowledge-based and reflective way of policymaking, also suggested by authors such as Latour and Auerswald.[35] How to initiate this change in policymaking, however, remains unclear.

Points of Critique

Dalby's approach brings with it some complications and uncertainties regarding his propositions. First, we should be cautious of Dalby's emphasis on the appearance of international cooperation to mitigate conflict within environmental security issues in the Anthropocene. While a growing body of research has brought home his point that environmental scarcity and problems do not necessarily imply interstate conflict, this does not imply conflict is completely absent within states or in the international sphere. Homer-Dixon's 1994 article, which Dalby often cites, presented the case that while interstate conflict seems unlikely, economic deprivation and population movements, as well as group-identity conflicts can result in cross-border conflicts or conflicts that occur *within* states, depending on the situational context.[36] While Homer-Dixon's framework has come under increasing critique by critical authors, his conclusions regarding interstate conflict largely remain the same today.[37] We should thus be wary of presupposing that a lack of conflict on the international scale would necessarily imply the establishment of cooperation in international society, even if this could be beneficial.

The problematic nature of the *United Nations Framework Conventions on Climate Change* attests to this fact, as some states are less willing than others to make sacrifices in order to combat issues that are strongly supported by evidence such as climate change.[38] Scheffran and Battaglini write in this regard: *“Whether climate change favours conflict or cooperation critically depends on the perceptions and responses of the actors involved and on societal structures and institutions. The connections are complex and a function of political and economic circumstances.”*[39] While international cooperation is thus desirable and even beneficial within the framework of Anthropocene security, it is not necessarily a given. Dalby acknowledges this matter but argues that confidence- and trust-building measures such as ‘peace parks’ will lead to large-scale peace building and conflict mitigation.[40]

I am skeptical of this argument, as it isolates environmental conflict mitigation from other drivers of conflict, which are not necessarily related to environmental issues. While studying peaceful responses to environmental change might help mitigate future conflicts[41], it is crucial to keep in mind that not all states have stable governmental structures, and are thus not always able to contribute to peace-building and environmental initiatives. Additionally, regime-changes could prove detrimental to any confidence-building initiatives that exist within or between these states.

Second, Dalby is relatively vague on what exactly he implies by the term human security. While he points to the

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characteristics established by the UNDP in 1994, there is no clear articulation of where exactly the boundaries of human security lie. This raises several issues as it, for example, leaves open how the process of major economic, political and cultural change to an environmentally sustainable world is actually to come about. While Dalby's use of human security with regard to the Anthropocene is intriguing because it opens up the concept of security to various subjects, it lacks greatly in providing guidelines by which policy should be made.[42] The following questions thus remain open: Who exactly is to initiate societal change? Who or what actor should be responsible for the creation of sustainable, long-term policies to mitigate the negative effects of the Anthropocene? Subsequently, why should this actor be responsible or more successful than existing structures such as states?

The lack of clarity behind Dalby's use of human security might be at issue here, as he frequently switches the referent object between individuals, when discussing local issues, and humanity as a whole, when he discusses global issues.

As such, his argument leaves little guidance on the possible metrics that could be used for empirical research.[43] For example, Dalby argues repeatedly that security should also be a matter of infrastructure planning, building codes, and fuel-efficiency standards.[44] It is unclear what the added benefit is of securitizing these issues over other societal practices. However, this issue might be symptomatic of the broad interpretation of human security the UNDP presents, as a critical approach to security. Krause notes in this regard that a broad perspective of human security is *"ultimately nothing more than a shopping list; it involves labeling a wide range of issues presenting no necessary link to each other as threats to human security, [...]. It falls to into the trap that Daniel H. Deudney aptly describes"*. [45] This seems to be the case here as it remains unclear who or what is exactly secured. Furthermore, Dalby does not go into depth regarding what exactly the securitization process of certain issues should imply, whether or not this should come by a process of securitization proposed by the Copenhagen School, or how these processes of securitization are to be initiated.[46] The question remains what exactly is gained should environmental threats be securitized under the label of human security. Krause asks himself whether *"describing illiteracy as a threat to human security change our understanding of the right to basic education – does it facilitate more effective action, does it help us to solve problems?"*[47] Similar considerations are necessary when we consider environmental security. Not all environmental issues are of the same nature, and thus do not always warrant similar policy responses.

Conclusion

This review essay has assessed Dalby's framework and has highlighted the weaknesses regarding his confidence in interstate peace building and his unclarity regarding human security. The real value of Dalby's work, however, is that he provides a framework that can relatively easily be adapted to incorporate new concepts in order to reach suggestions as to how environmental security is to be dealt with. While his emphasis on cooperation is inspiring, it is built on a restricted perception of reality.

However, his combination of the concepts of human security, the Anthropocene and Glurbanization allow us to review empirical evidence in a new light. For example, Nilsson and Persson might have provided a solution to the empirical weaknesses of Dalby's framework. By assessing the possibilities for governing Earth system interactions at different levels, they concluded that environmental security matters cannot be controlled top-down, nor left to local market or social dynamics. Furthermore, they assess that regional integration provides a strong agency by which strong governance instruments can implement and restructure environmental policies so that a more biosphere-friendly approach of human society might be implemented.[48] This in itself brings issues with it, as regional integration is not a straightforward process nor is it necessarily occurring in many parts of the world. What this example does make clear is that Dalby's framework has provided a basis for future research to build upon. Various authors have picked up on the considerations put forward by Dalby and, in extension, critical environmental security thought and have inspired a new school of 'Critical' researchers to think beyond the traditional notions of environmental security, beyond the scope of the state. This evolution might be required to come to solutions to the threats posed by environmental change, which will hopefully convince policymakers that immediate change is required if we wish to safeguard our future.

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[8] Also see BROBERG (L.). "Review: Security and Environmental Change", in: *International Dialogue*. 1, 2011, p. 56

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[9] I.e. The screening of people at airports, inoculating populations against influenza, etc.

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[31] DALBY (S.). *Op. Cit.*, 2009, p. 115-116

[32] This point has also been made by Hans Brauch at ISA's 52nd Annual Convention on the 16th of March, 2011. A powerpoint summary of his points is available at http://www.afes-press-books.de/html/PDFs/Brauch_ISA,%20Montreal_PoliticalGeoecology%20_110316.pdf and a full text at http://www.afes-press.de/html/download_hgb.html

[33] DALBY (S.). *Op. Cit.*, 2009, p. 159-160

[34] DALBY (S.). *Op. Cit.*, 2009, p. 164

[35] DALBY (S.). *Op. Cit.*, 2009, p. 170-171; See also LATOUR (B.). *Politics of Nature: How to Bring the Sciences into Democracy*. Harvard University Press, Cambridge, 2004; AUERSWALD (P.), BRANSCOMB (L.), LA PORTE (T.) & MICHEL-KERJAN (E.) (Eds.). *Seed of Disaster, Roots of Response: How Private Action Can Reduce Public Vulnerability*. Cambridge University Press, Cambridge, 2006

[36] HOMER-DIXON (T.). "Environmental Scarcities and Violent Conflict", in: *International Security*. Vol. 19, No. 1, 1994, pp. 5-40

[37] See: DELIGIANNIS (T.). "The Evolution of Environment-Conflict Research", in: SCHNURR (M.) & SWATUK (L.) (Eds.). *Critical Environmental Security: Rethinking the Links Between Natural Resources and Political Violence*. Online Publication, 2010, pp. 1-28, available at: <http://centreforforeignpolicystudies.dal.ca/pubs/newissuesinsecurity5.php?toc=yes#list> ; also see: LONERGAN (S.). "Water and Conflict: Rhetoric and Reality", in: DIEHL (P.), GLEDITSCH (N.P.) (Eds.). *Environmental Conflict*. Boulder CO, Westview, 2001, pp. 109-124, GLEDITSCH (N.P.), FURLONG (K.), HEGRE (H.), LACINA (B.) & OWEN (T.). "Conflicts over Shared Rivers: Resource Scarcity or Fuzzy Boundaries?", in: *Political Geography*. 25, 2006, pp. 361-382 & GIORDANO (M.), MEREDITH (F.), GIORDANO (A.) & WOLF (A.). "International Resource Conflict and Mitigation", in: *Journal of Peace Research*. 42(1), 2005, pp. 47-65, etc.

[38] <http://unfccc.int/2860.php>

[39] SCHEFFFRAN (J.) & BATTAGLINI (A.). "Climate and Conflicts: The security risks of global warming", in: *Regional Environmental Change*. Vol. 11, March 2011, p. S32

[40] DALBY (S.). *Op. Cit.*, 2009, p. 152

[41] See CONKA (K.) & DABELKO (G.) (Eds.). *Environmental Peacemaking*. John Hopkins University Press, Baltimore, 2002

[42] This critique was also noted by: MCDONALD (M.). "Review: Security and environmental change. By Simon Dalby", in: *International Affairs*. 85:6, 2009, p. 1262-1263

[43] SALEHYAN (I.). "Review: Security and Environmental Change & Global Environmental Change and Human Security", in: *Perspectives on Politics*. 9(1), 2011, p. 125-127

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[44] DALBY (S.). *Op. Cit.*, 2009, p. 155

[45] KRAUSE (K.). "Towards a Practical Human Security Agenda", in: *Policy Paper*. (26), Geneva Centre for Democratic Control of Armed Forces, Geneva, 2007, p. 4-5

[46] While Dalby does extensively discuss the theoretical framework of the Copenhagen School, and acknowledges the issues of its appliance to human security, he does not seem to provide any solutions to this dilemma. Dalby thus states that securitization in this manner is only successful insofar that these issues threaten the function of modern societies. DALBY (S.). *Op. Cit.*, 2009, p. 46-9

[47] KRAUSE (K.). *Op. Cit.*, p. 5

[48] NILSSON (M.) & PERSSON (A.). "Can Earth system interactions be governed? Governance functions for linking climate change mitigation with land use, freshwater and biodiversity protection", in: *Ecological Economics*. 75, 2012, pp. 61-71

[49] Paragraph based on <http://http-server.carleton.ca/~sdalby/biography/biography.htm>

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