

## Environmental Security and Global Violence

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**ABSTRACT:** For many years, the prevailing notion of security has been associated with the 'realist' military side of conflict management, understood as 'national security'. For us the term does not just mean the interplay of deterring, compelling, defensive and offensive force in the pursuit of a self-defined national interest. Above all, and at a fundamental level it includes the safety and quality of life of all human beings and their ecosystems. Conceptually, we could define such security as the reciprocal value of insecurity. It refers to all those trends and factors - environmental, economic, social, political and cultural - that increase the risk, exposure and vulnerability for a given population. In earlier works it is contended that within highly complex and interconnected systems, the security of the whole, including that of its seemingly most protected components, paradoxically depends upon the system's weakest links. There is the urgency for exploring broader and longer-term mechanisms to devise and strengthen global governance so that world stability, security, social justice, sustainability and well-being for all are guaranteed.

**Key words:** Environmental change, Environmental security, Environmental conflict, Climate change, Securitization, Global violence

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### INTRODUCTION

The so-called 'mutual vulnerability' stood intentionally in clear opposition to the abovementioned notion of national security. In many cases around the world, and contrary to the prevailing discourse, national security and its prescriptions have been and remain a major cause of human insecurity (Martinez-Paz and Pemi, 2011; Segarra-Ona *et al.*, 2011; Perez-Calderon *et al.*, 2012; Mondejar-Jimenez *et al.*, 2012; Escobar *et al.*, 2012; Kim *et al.*, 2012; Junquera, 2012; Moghimi and Alambeigi, 2012; Mossalanejad, 2012). Dalby (2002) explains this contradiction by arguing that security is not solely about protecting a stable status quo from an external threat. Rather, it is about reducing fears of the future. In addition, it is about control, certainty and predictability in an uncertain world. As Dalby says, "it is about maintaining certain collective identities, certain senses of who we are, of who we intend to remain, and more than who we intend to become" (Dalby, 2002).

In a number of previous studies the close connection between the explicit and implicit institutional setting, policies, actions and outcomes in the realm of environmental and human security have been emphasized. Such political economy connection has been discussed by other authors too; these authors

have centered their main critique on the lack of political analysis in the literature and its inability to link consumption patterns in the North with resource conflicts in the South (Dwivedi, 2007; Mossalanejad, 2011; Alipour *et al.*, 2011; Bruni *et al.*, 2011; Spanou *et al.* 2012; Arslan *et al.*, 2012; Lahijanian, 2012).

Environmental insecurity and unsustainability have a crucial and often devastating impact upon economic, social, cultural and political security. This interconnectivity creates a chain of multiple and often self-sustained dysfunctions, affects collective wellbeing and what moral philosophers define as the 'common good' (Thynne, 2008).

By focusing on people and highlighting non-traditional threats, the United Nations Development Program made an important contribution to post-Cold War thinking about security (UNDP, 1994). That definition broadened the focus of this term from being narrowly seen as protection of territory from external aggression or from the threat of nuclear holocaust; instead the new term was related more to people and their quality of life, including human dignity, more than the interests of nation states. A cursory view of the current global predicament gives copious empirical information about the aforementioned reciprocating

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dysfunctions: dramatic climate change, the loss of forests, soil erosion and depletion, growing water scarcity, epidemics, growing pauperization, combined with concentration of wealth and power; and unsustainable and ever more monopolistic exploitation of resources (Jolly *et al.*, 2009).

All these traits point at scenarios in which policies are subservient to narrow interests intent in maintaining a catastrophic status quo, where a few benefit in the short run from the exploitation of the many. Violence, lack of democracy and instability are the political corollaries of the combination and multiplication of such multifaceted and deepening insecurities. In this context, the prince and the merchant, not the citizen, are the iconic figures, while stalemated, repressive and also insurrectional forms of conflict management tend to prevail over consensual modalities. In one word, the politics of violence prevails over the domains of reason and popular rule.

This brief interpretative essay intends to present and articulate a number of research tracks during the last two decades around the unified concept of human security in its multiple dimensions. It also intends to relate security and insecurity to the modes of conflict management that underpin the various aspects of security, namely consensus, rebellion, repression and stalemate. It is proposed that there are significant relationships among the various levels of governance-local, national, regional and global-and prevailing ideologies and forms of organizational and institutional design. These, in turn, affect the policy process and its outcomes.

## **MATERIALS & METHODS**

In order to evaluate the relationship between the environmental security and global violence different signs of global violence, Resource Scarcity, Environmental effects, threats, challenges and global change have been surveyed through an international scope. Different results achieved by various researches in relevant fields have been reviewed and the focal points have been gathered.

## **RESULTS & DISCUSSION**

### *The Signs of Resource Scarcity on Human Security*

The central argument is that institutions and politics matter when it comes to producing effective (as well as ineffectual) strategies to cope with environmental challenges. As said at the onset, such challenges go beyond a conventional characterization of defense and military security. Rather, they relate to a much broader framework that explicitly connects the micro with the macro, the synchronic or structural with the diachronic, or historical. A multi-dimensional and multi-layered view of human security is proposed that

focuses on environmental security as a major concern. This way of looking at the problem of security/insecurity allows for policy analysis, design and implementation, including alternative, more democratic, comprehensive and more universalistic forms of institutionalization and management.

This integrative paradigm goes beyond traditional views of development management and offers an integrated understanding of the interface among social forces, ideologies and cultures, power, institutions, policies and outcomes. In this context, scarcity-driven violence can be seen as dialectically related to the role that resource-abundance plays in driving conflict and violence. (Nef, 1998).

As previously stated environmental insecurity is often but not exclusively caused by resource scarcity. Homer-Dixon (1994) identifies three ways through which humans cause a scarcity of renewable resources. The combination of these three comprises environmental scarcity. The first is decreased quality and quantity of renewable resources at higher rates than they are naturally renewed. The second is sharp population growth or per capita consumption and the third is unequal resource access. For Homer-Dixon, in order to avoid the downward spiral to poverty and violence, contemporary societies adapt to rapid modernization and the accompanying environmental degradation that goes with it, by generating new economic structures and making necessary technological and social innovations (Homer-Dixon, 1994). However, this adjustment is by no means smooth or automatic and often generates further dysfunctions. The impact of resource scarcity can be felt as a result of climatic changes, declining agricultural production, decreased economic productivity, population displacement, disrupted institutions and social tensions. It can also be the result of policies and interventions.

Given the relationship between conflict and resource scarcity, it is clear that environmental security is an important feature of current and future social, economic and political trends. Far from advocating for a sort of environmental determinism, related to Malthusian population biases, looking simultaneously at the interface between relative scarcity and abundance of resources in the context of global monopolization is suggested (Homer-Dixon, 1999).

Not too long ago it was argued that environment is becoming the national and global security issue of the early 21st century. There will be political and strategic impacts of surging populations, over exploitation of resources, spreading disease, deforestation and soil erosion, water depletion, air pollution, and, possibly rising sea levels which may

lead to mass migrations and increasing social conflicts. Water scarcity, particularly will be a growing conflictual arena in areas such as the Middle East, Central Asia and the southwestern United States (Nef, 2008).

*The Signs of Environmental effects*

A reduction of water supply could drive states to conflict, not only around issues of access to fresh water, but also over the damming of rivers (as evidenced by continuing conflicts between India and Pakistan, Bangladesh and India). Researchers like Barnaby (2009) refute the assertion that water wars might take place. Instead, as she explains, other shortages such as oil have immeasurably higher and more serious strategic significance than water (Barnaby, 2009).

Nevertheless, it is also true that due to the melting of Antarctica and northern glaciers, populations living in low-lying areas will be likely forced to move when sea levels rise. Both the scarcity of natural resources and a rise of sea water levels could be considered as one of the underlying causes of future violent conflict, as resource-scarce states will be impelled to look for ways to deal with calamities such as tsunamis, earthquakes, avalanches, floods, droughts and a myriad of man-made disasters.

Conflict-oriented disruptions include problems pertaining to destroyed food crops as a war tactic and the presence of landmines in fields and forests which people depend on for their livelihoods. In a similar line of reasoning, Kaplan (2000) foresees an apocalyptic view of impending environmental security threats. He asserts that the environment is one of a terrifying array of problems creating new threats in the 21st century for human security, by inflaming existing hatreds among nations and neighbors and by affecting power relationship for dominant powers (Kaplan, 2000).

Most importantly, it means that civil society is involved in the decision-making process about how resources are distributed, protected, regenerated and controlled. This inclusion versus exclusion issue is basically the crux of the 'democratic challenge' as indicated before (Nef and Reiter, 2009).

*The signs of Threats to Human Security*

As mentioned earlier, a significant policy shift towards environmental security has occurred in recent decades largely as a result of several factors. These include: the end of the Cold War which opened new conceptual vistas; and highly publicized disasters, such as the spill of the Exxon Valdez off the coast of Alaska, Bhopal, Three Mile Island and Chernobyl. There was a realization in the collective consciousness that resource scarcity and the uncontrollable use of resources would damage even advanced, industrial economies.

These events have coincided with a rise in concern about the global nature of ecological issues, moving beyond 'local' through trans-border pollution and resource-sharing questions and into the even more complex realm of ozone layer depletion and global warming. However, this growing public awareness failed to materialize effectively and resulted in a weak and 'toothless' environmental regime. A number of Western industrial interests, led by the United States and Canada, managed to derail a common agreement in 2009 in Copenhagen, which would have replaced and advanced the 1997 Kyoto Protocol on climate change.

On the other hand, the importance of non-state actors, both profit-oriented and issue-related, has become increasingly obvious, providing yet another significant departure from traditional security based on the territorial integrity of a state. For example, multinational corporations (MNCs) fearing from the threat of expropriation of their property, or 'unfair' taxation policies, pushed for a largely unsuccessful Multilateral Agreement on Investment (MAI).

*The Signs of Challenges To The Humanity Environments*

Resource acquisitions are strategic goals in themselves, often constituting a component of military strategies. Resources can be utilized as military tools, and, finally, various disruptions to environmental services, such as water supply, are obvious threats to the well-being of citizens. From this perspective, it is necessary to view environmental threats within their proper context, as challenges to national interests, but, more importantly, they can be seen as threats to a broader conception as well: the interests and well-being of humankind itself (Gelick, 1991). The prescriptive statements outlined below entail a significant idealistic - but possible - alteration of ways of thinking and acting: a new consciousness in Freire's terms.

This new global consciousness provides the foundation for new forms of political mobilization by transnational social movements. This change in the way of viewing and acting upon the world is within the possibilities of cultural adaptation, along the lines of human evolution discussed by Gordon Child in the 1930s.

*The Signs of Climate Change and humanity Crisis*

The effects of global warming on agriculture are likely to constitute greater threats to humanity than the submerging of coastal areas due to melting of ice sheets in the Arctic, as well as Antarctica. Although the heat wave may extend the growing season in Canada and other northern countries such as Russia, crop production would not balance the deficit in the rest of the world. As such, it could evolve into a massive explosion of global food insecurity. In addition to have

an impact on cereals, other natural resources such as forests and grazing areas may also be affected.

One way to address a global food crisis would be the traditional one relying on technological fixes, for instance Green Revolution-type of interventions by breeding high heat-resistant varieties. Yet, by far the best and most effective strategy would be the immediate control of gaseous emissions, both ozone-related carbon emissions, and methane - something that the current institutionalized regime failed to accomplish in Copenhagen.

#### *Limiting the Ecological Footprint*

Sustainability requires human actions to limit ecological footprints rather than belated technical solutions that might simply reduce some specific harm or symptom to the environment. While technology has been and should prove to be helpful, the main culprit is the culture of possessive individualism: greed and the unquenchable appetite for material goods and demand for related services (MacPherson, 1962).

Without proposing a quixotic concept, as global citizens, we have a shared responsibility for the common good because we share a common destiny by living on the same planet, and therefore, we must pay attention to the ethics of ecological sustainability. As Europe has demonstrated, we may not need to charge against elusive windmills, but build them. Ever-increasing demands for material goods and the wasteful ways of consumption in the West are being replicated in the rest of the world.

#### *Sustainable Security and Balancing of Environmental Quality*

Whatever its limitations, progress in human security and development has been accomplished during the past 50 years. On average people even in developing states are healthier, wealthier, better fed and more literate. Furthermore, life expectancy has risen, great advances have been made in primary education and food security has been achieved in several countries. These changes have also given rise to a demand for better human security and appropriate environmental quality. Nevertheless, wide disparities have become dramatically evident. For example, the amount spent by Europeans on mineral water in one year is enough to provide primary education in developing countries for the next 10 years. There are still one billion people who cannot read and write, and among them two-thirds are women. And when we talk about wealth, we should note that the income gap has risen between the top 20% and the bottom 20% poorer nations from a ratio of 30:1 in 1960 to 78:1 in 1994 (Dwivedi and Khator, 2006).

Thus, human security has not kept an even pace because millions still face substantive deprivations

such as starvation, undernourishment, or premature mortality. Building better human security means also creating conditions to mutually reinforce necessary changes in the quality of life so that people all over the world are able to receive the basic services (such as education, primary health care, adequate supply of food, clean water and sanitation). It also means participation in governance and distribution of resources to benefit the most needy (especially women and other marginalized persons). It also involves mobilizing and energizing citizens - not subjects - to be proactive in environmental conservation, and participate in the global economy.

#### *Planetary Survival through Ecological Diversity*

In March 2006, the United Nations released its report, *Global Biodiversity Outlook 2*, which painted a somber picture of life on Earth, given the current extinction rate of biodiversity at 1,000 times faster than in the known historical record (UNEP, 2006).

That spiraling extinction rate of biodiversity is mainly the outcome of the juxtaposition of several factors. One is increasing global demand for bio-resources exceeding the planet's capacity to renew them by about 20%. Another is the introduction of invasive alien species. And yet another is the overuse of nutrient loading. Last, but not least, all this is accelerated by climate change. There is an urgent need to take unprecedented worldwide efforts. On the other hand, uniformity creates dependency, inflexibility and inadaptability to new and challenging situations, leading to entropy. Human ingenuity is based on such challenges. In the absence of such challenges, creativity, genius and ability to survive inexorably fade away. The strongest societies are those that are the most diverse, as is the case with ecosystems.

#### *A Future Model of Sustainable Development*

Sustainable development cannot be equated with perpetual growth when one considers the fact that world resources are limited and can be exhaustible; and yet it cannot be 'zero growth'. And so, we should have to ask ourselves what kind of purposeful growth we can plan for the 21st century, and whether such a growth could be accommodated within the existing Earth resources and the space required for managing waste created in the wake of such a growth.

Writing a 30 year update of the book *Limits to Growth* which forced the world to consider its wasteful ways of consumerism and materialism and highlighted a very dystonic scenario of impending ecological catastrophe, the three original authors- Meadows, Randers and Meadows - revised their assessment and suggested in 2004 a model of a sustainable society. It included the following features:

A sustainable society would not lock the poor

permanently in their poverty. A sustainable state would not be a society of despondency and stagnancy, unemployment and bankruptcy that current economic systems experience when their growth is interrupted. A sustainable world would not and could not be a rigid one, with population or production or anything else held pathologically constant. The sustainable world would need rules, laws, standards, boundaries, social agreements, and social constraints. Those roles for sustainability, like every workable social rule, would be put into place not to destroy freedoms, but to create freedoms or to protect them. Finally, there is no reason for a sustainable society to be uniform. As in nature, diversity in a human society would be both a cause of and a result of sustainability. Cultural variety, autonomy, freedom, and self-determination could be greater, not less, in such a world (Meadows, 2004).

But these authors have also argued that in order for such a model to function, people would have to control their 'unquenchable' appetite for material things by finding non-material ways to satisfy them. This will entail a profound cultural challenge for the generations living in the 21st century "not only to bring their ecological footprint below the earth's limits, but to do so while restructuring their inner and outer worlds". *The Impact of Structural Contradiction for environmental security*

A profound structural contradiction has emerged lately in various geo-political regions of the world where elected governments face relentless opposition and sabotage from domestic and international elites regarding democratic governance, equity, majority rule and the relevance of civil society. Using the corporate sector values in the garb of New Public Management (NPM) movement, the public sector is being slowly dismantled, and the efforts of civil society are also being ignored in the name of result-based management.

The emphasis of this allegedly new movement has been to reform the public sector management structures and processes, and its rise was closely related to the election of right-of-center politicians like Margaret Thatcher in Britain, Ronald Reagan in the United States, Jacques Chirac in France, Brian Mulroney in Canada, and John Malcolm Fraser in Australia. These leaders wanted to restrain or cut back public service spending and employment, and to roll back the boundaries of the welfare state (Dwivedi and Gow, 1999). These ideas imported from business sector values started dominating the governmental reform policy agenda, not only affecting the Organization of Economic Cooperation and Development (OECD) countries but also developing states as a part of structural adjustment conditionality attached to debt-

management schemes.

## CONCLUSIONS

In this context, if we are to arrest or reverse the serious threats to human security, what urgently required is the profound changes in the perception, behavior and institutional structures of both the South and the North. This means not only a structural and behavioral change, but a profound cultural one. This transformation means a renewed and truly inclusive form of conflict management: not just a world safe for democracy, but a real and just democracy for a safe world. Alternative forms of institutionalization and management will require a redefinition of the social contract and democracy itself, away from meaningless plutocracy and low-intensity democracy to a new definition of citizenship and 'the civic'.

The continuing global warming and overall climate chaos has raised a threat of planetary proportions for us all, towards which each state must act. At a minimum, some forms of action are required in the years ahead.

Everybody should avoid the existing international institutional complexities by being at 'ahead of the curve' in order to rise above the narrow national interests so that a wide-ranging international framework is ready for adaptation with support from all. The need for a high level of leadership along with unparalleled international cooperation is observed. Last, but not least, there is the urgency for exploring broader and longer-term mechanisms to devise and strengthen global governance so that world stability, security, social justice, sustainability and well-being for all are guaranteed. If these minimal steps are not taken now, continuing and expanding environmental insecurity will force us to face serious deterioration in water security, food production and human health, as well as an exponential growth of social conflict. This state of conflagration has the potential to cause irreparable damage to the Earth's biosphere and to our well-being as a species. If dysfunctions accumulate, it may well bring not just a clash, but for all intents and purposes, a crisis of civilization.

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