ENVIRONMENTAL DEGRADATION AND CONFLICT: AN EXPLICIT LINK

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Abstract

Environmental degradation has taken an important place in conflict and peace studies around the globe. Environmental degradation can be the result of conflict or may itself lead to conflict directly in a society. The conflict may be both violent and non-violent. Developing countries are bound to suffer more than developed nations due to weak institutional, financial, intellectual resources and vast population levels in case of environment induced conflict.

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Introduction

Recently, a substantial amount of research has been devoted to establishing that environmental degradation itself may be the cause of conflict. Conflicts may arise directly due to scarcity of resources caused by environmental destruction, and can also be the potential consequence of environmentally forced population migration. The relationship between environment and conflict can be investigated in two divergent dimensions. One is where environmental destruction takes place as a result of conflict. The other is where environmental destruction may itself bring conflict within a society**.** According to the traditional analysis, destruction of the environment can be seen as the product of conflict or conflict-induced migration. Most research carried out in the post war period on the relationship between conflict and environment has focused on the environmental consequences of warfare.[1] This article deals with the established relation between environmental degradation and resulting conflict. The author will examine the dimensions surrounding the conflict triggered as a result of environmental destruction with several illustrations and its relationship with the international security.

1. Environmental Change and Resulting Conflict:

War is often at the centre of environmental destruction. There are two reasons for this: Environmental destruction can be used as a weapon of war & the origin of conflict is often a dispute over the possession of land and natural resources. The first point can be illustrated using the example of war in Vietnam and the deliberate destruction of the environment as a military tactic employed by the United States.[2]The operation sought to empty the countryside and force the population to migrate towards cities. Furthermore, there was a massive campaign of deforestation resulting in the use of millions of tons of herbicides and the bombardment of agricultural zones.[3] There are other examples of this tactic. In El Salvador, in the early 1980s, the govt used the same method of ecosystem destruction in order to eradicate guerrilla bases in the forests. At the end of the civil war, thousands of displaced persons could not return home because the reserves of water in some regions had disappeared due to the erosion of soil caused

[1] Ashok Swain, Displacing the Conflict: Environmental Destruction in Bangladesh and Ethnic Conflict in India, Journal of Peace Research, Vol. 33, No. 2, 1996, pp. 189-204.

[2] Richard H. Wagner, Indochina: The War against an Environment, in Environment and Man 360-74(1971).

[3] Id. at p. 364.

by the policy of deforestation.[4] Environmental destruction can also result from conflicts arising over the control of important natural resources. For example, NATO finances studies that evaluate the link between environmental problems and potential wars. In this regard, it is certain that the lack of water has contributed to the violence in Gaza. According to the World Bank, 90 percent of the water in the region is used for Israel's profit, while the Palestinians use only 10 percent. Given that today, worldwide, one person in three suffers from shortages of water; this problem is likely to become more and more frequent.[5]

Homer-Dixon claims that we 'are on the threshold' of an era in which traditional security concerns such as armed conflicts will come frequently, if not primarily, as a result of environmental change. Such claims are an important issue in the growing sub-disciplines of 'conflict studies' and 'political demography'.[6] A more comprehensive study of conflicts between 1980 and 1992 by Hauge and Ellingsen found a positive correlation between land degradation, deforestation and water scarcity and civil war. However, the magnitude of the effect was very small, raising the probability of conflict by only around 1 percent. The causal effects of other risk factors such as poverty, regime type and current and prior political instability was far greater.[7] A number of other major studies summarised by Goldstone come to the same results: long-term environmental change factors are not of themselves major causes of violence.[8] This does not mean that environmental factors do not cause conflict, but rather that it is usually not violent conflict, especially civil or international war. This is because disputes on such matters as water rights on a river that crosses international boundaries cannot be resolved through military force. The costs, as well as the environmental and human damage caused by war will almost always exceed any potential

[4] James K. Glassman, Counter-Insurgency, Ecocide and the Production of Refugees, REFUGE, June 1992, at 28.

[5] Joseph Yacoub, LES MINORITES DANS LE MONsDE, FAITS ET ANALYSES (Minorities in the World, Facts and Analyses) 94 (1998) as Cited in David Keane, The Environmental Causes and Consequences of Migration: A Search for the meaning of Environmental Refugees, Georgetown International Environmental Law Review, Vol. 16, 2004, p. 214.

[6] Homer-Dixen, T.(1991), On the Threshold: Environmental Change as Causes of Acute Conflict, International Security 16:76-116

[7] Hauge, W. And T. Ellingsen (1998). ''Beyond Environmental Scarcity: Casual Pathways to Conflict'', Journal of Peace Research 35:299-317.

[8] Goldstone, J.A. (2001). ''Demography, Environment and Security: An Overview.'' In Demography and National Security 41-42. Eds. M.Weiner and S.S. Russell. New York and Oxford: Berghahns: 38-61.

gains. Such disputes are, according to Goldstone, a new type of non-violent environmental and demographic security issue that has to be resolved through negotiation or arbitration. He gives examples of negotiations on water rights between India and Bangladesh, Israel and Jordan, and Hungary and Slovakia.[9] On the other hand, short-term disasters such as hurricanes, droughts, floods, earthquakes and industrial accidents may well have major political repercussions. This is not due to the event itself but to responses by the government concerned. In Nicaragua for instance, the Somoza regime used international aid after the 1972 earthquake as a source of self-enrichment. The resulting protests led to the Sandinista uprising. The response of the Pakistan Government – dominated by West Pakistani elites – to the 1970 cyclone in the then East Pakistan was one of indifference. This helped precipitate the conflict which led to the birth of Bangladesh. In China, by contrast, the Government responded to the 1998 floods (which were partly a result of Government-supported logging), with a massive relief effort led by the army. This helped gain support for the regime. Thus natural disasters do not in themselves lead to rebellion or civil war, but only where inadequate responses show the failure or corruption of the regime.[10]

Environmental change may contribute to conflicts as diverse as war, terrorism, or diplomatic and trade disputes. Furthermore, it may have different causal roles: in some cases, it may be a proximate and powerful cause; in others, it may only be a minor and distant player in a tangled story that involves many political, economic, and physical factors.[11] Some experts propose that environmental change may shift the balance of power between states either regionally or globally, producing instabilities that could lead to war. Or, as global environmental damage increases the disparity between the North and the South, poor nations may militarily confront the rich for a greater share of the world's wealth. Warmer temperatures could lead to contention over new ice-free sea-lanes in the Arctic or more accessible resources in the Antarctic. Bulging populations and land stress may produce waves of environmental refugees that spill across borders with destabilizing effects on the recipient's domestic order and on international stability. Countries may fight over dwindling supplies of water and the effects of upstream pollution. In developing countries, a sharp drop in food crop production could lead to internal strife across

[9] Id. at p. 43.
[10] Id. at p. 45-46.

[11] Thomas F. Homer-Dixon, On the Threshold: Environmental Changes as Causes of Acute Conflict, International Security, Vol. 16, No. 2, 1991, pp. 76-116.

urban-rural and nomadic-sedentary cleavages. If environmental degradation makes food supplies increasingly tight, exporters may be tempted to use food as a weapon.[12] Environmental change could ultimately cause the gradual impoverishment of societies in both the North and South, which could aggravate class and ethnic cleavages, under- mine liberal regimes, and spawn insurgencies.[13]

Addressing a modern conflict, William Durham has analyzed the demographic and environmental pressures behind the 1969 "Soccer War" between El Salvador and Honduras.[14] Because of the prominence in this conflict of previous migration from El Salvador to Honduras, and because of the striking evidence of population growth and land stress in the two countries (most notably in El Salvador), a number of analysts have asserted that the Soccer War is a first-class example of an ecologically driven conflict.[15] Durham shows that changes in agricultural practice and land distribution to the detriment of poor farmers were more powerful inducements to migration than sheer population growth. Land scarcity developed not because there was too little to go around, but because of "a process of competitive exclusion by which the small farmers were increasingly squeezed off the land" by large land owners.[16] Durham thus contends that ecologists cannot directly apply to human societies the simple, density- dependent models of resource competition they commonly use to study asocial animals: a distributional component must be added, because human behaviour is powerfully constrained by social structure and the resource access it entails.[17]

Others have analyzed environment-conflict linkages in the Philippines. Although the country has suffered from serious internal strife for many decades, its underlying causes may be changing: population displacement, deforestation, and land degradation appear to be increasingly powerful forces driving the current communist-led insurgency. Here, too, the linkages between

[12] As Cited in Above (Homer-Dixon).

[13] Ted Gurr, ‘’On the Political Consequences of Scarcity and Economic Decline’’, International Studies Quarterly, Vol. 29, No. 1, 1985, pp. 51-75.

[14] William Durham, Scarcity and Survival in Central America: The Ecological Origins of the Soccer War (Stanford, Calif.: Stanford University Press, 1979).

[15] See Paul Ehrlich, Anne Ehrlich, and John Holdren, Ecoscience: Population, Resources, Environment (San Francisco: Freeman, 1977), p. 908.

[16] Durham, supra note 14, at p. 54.

[17] Id.

environmental change and conflict are complex, involving numerous intervening variables, both physical and social. The Filipino population growth rate of 2.5 percent is among the highest in Southeast Asia. To help pay the massive foreign debt, the government has encouraged the expansion of large-scale lowland agriculture. Both factors have swelled the number of landless agricultural labourers. Many have migrated to the Philippines steep and ecologically vulnerable uplands where they have cleared land or established plots on previously logged land. This has set in motion a cycle of erosion, falling food production, and further clearing of land. Even marginally fertile land is becoming hard to find in many places, and economic conditions are often dire for the peasants. Civil dissent is rampant in these peripheral areas, which are largely beyond the effective control of the central government.[18] Developing countries are likely to be affected sooner and more severely by environmental change than rich countries. By definition, they do not have the financial, material, or intellectual resources of the developed world; furthermore, their social and political institutions tend to be fragile and riven with discord. It is probable, therefore, that developing societies will be less able to apprehend or respond to environmental disruption.[19]

Besides the direct adverse effects of conflict over the environment, it is also being observed that in some cases environmental change is made the deliberate objective in conflict rather than being an unwanted by-product.[20] Conflicts can arise as the direct manifestation of environmental destruction, and are a potential consequence of environmentally forced population migration. The loss of living space and sources of livelihood due to environmental change might lead to migration of the affected people. These migrations may induce scarcity in the receiving areas, with the potential for mobilizing political actors and exacerbating existing incompatibilities. The perceived conflictual behaviour of these organized actors towards each other may eventually turn into acute conflicts. Environmentally forced migration not only has the potential to induce conflicts among states, it may also initiate conflicts among various groups within states.[21] The Ganges water dispute over Farakka is an outstanding example of an interstate conflict - two state actors, i.e. India and Bangladesh striving to acquire a scarce water resource.[22] The Farakka-led

[18] As Cited in Homer-Dixon, supra note 11, at p. 83.
[19] Gurr, supra note 13, at p. 70-71.
[20] Gleick, Peter H., 1993. 'Water and Conflict', International Security, Vol. 18, No. 1, Summer, pp. 79-112.
[21] Swain, supra note 1, at p. 3
[22] Id. at p. 6.

environmental destruction in the south-west region of Bangladesh has led to the loss of agriculture, closure of industries and navigation facilities, a drop in fish yields, the death of valuable forest resources, the disappearance of land due to river-bank erosion, and devastating floods.[23]

2. Homer-Dixon Hypothesis:

Reporting on a major project sponsored by the American Academy of Arts and Sciences and the Peace and Conflict Studies Program of the University of Toronto, Thomas Homer-Dixon (1994) presented three hypotheses on the relationship between environment and conflict: (a) that environmental scarcity leads to simple scarcity conflicts between states; (b) that environmental scarcity causes large population movement, which in turn causes group-identity conflict; and (c) that environmental scarcity causes economic deprivation and disrupts social institutions, leading to 'deprivation' conflicts. Although Homer-Dixon rejected the first hypothesis, the latter two were upheld, focusing for example on the Bangladesh and Northeast India (Assam) case, in which millions of environmentally-displaced people are said have contributed to communal conflict.[24] Homer-Dixon (1991) further notes that environmental degradation is likely to Produce "waves of environmental refugees that spill across borders with destabilizing effects" on domestic order and international relations. Homer-Dixon hypothesizes that severe environmental degradation will produce three principal types of conflict. These should be considered ideal types: they will rarely, if ever, be found in pure form in the real world.[25]

Conclusion

Environmental change has various roles to play in case of conflict. In some cases, it is an immediate and strong reason while in others; it can be a small and far related factor in a multi-dimensional story involving political, economic and physical factors. Environmental degradation could lead to a gradual unbalancing divide between the rich North and the poor South. Developing countries are bound to suffer more due to weak institutional, financial and intellectual resources compared to the developed world. This will result into a more volatile South where it could spawn insurgencies. Environmental degradation could trigger displacement within the national boundaries and across international borders with destabilising effects on the

[23] Id. at p. 7.
[24] Homer- Dixen, Thomas (1994). '' Environmental Scarcities and Violent Conflict: evidence from cases'', International Security 19(1): 5-40.
[25] Homer-Dixen, supra note 11.

overall domestic and global security scenario. Environmental destruction has many a times been a deliberate onslaught by the military to eradicate guerrillas as was done in the Vietnam by the US Army or it can happen over an illegitimate control of natural resources in order to suppress the disadvantaged and the weak ones.

References

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