

## **Environmental Degradation And Conflict**

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The industrial revolution of the seventeenth century paved the way for economic development of the countries by indiscriminate exploitation of the natural resources without considering its effect on the environment. It took place first in the present developed countries and later on it was imitated by the developing and under-developed countries during the mid twentieth century soon after majority of them got independence. It was contemplated that the only way for the path of development was through exploitation of the natural resources at their disposal.

The occurrence of natural hazard in the late seventies and the accentuation of it in late eighties made the global community to review the path of development. During this period, clearer links between environmental degradation (resulting in scarcity of renewable resources) and conflicts, both within and among countries, started emerging. As a result, the factor of environmental degradation started entering the discourses on national security and its capacity for inducing inter and intra states conflicts was acknowledged more openly.

Acknowledging the threat emanating from environmental degradation, the UNGA on 20<sup>th</sup> December 1987, passed the Resolution 44/228. The resolution recognised that the members of the international community must act together to address global environmental challenges and to prevent the occurrence and escalation of international environmental conflicts.

After the end of the cold war, the issue received even greater the global attention. The obsession of scholars with conventional security threats slowly gave way to realistic concerns for security and thus one found the discourses on security widening the scope of security and embracing various factors that were hitherto held unimportant. The conflicts emanating from due to the degradation of environment at the global level thus received closer scholarly attention worldwide. The following environmental factors that could have impact on conflicts were isolated and discussed— the rise in sea level, drop in land productivity, economic decline, scarcity of the non-renewable resources, displacement of people etc. In the post cold war period, scores of international conferences and summits started taking place for the protection of environment, which underlined the importance of the issue and the impact of environment on conflict has popularized concern for environment and it has emerged as an important theme in security discourses.

The objective of this paper is to show how environmental degradation has emerged as a threat to peace with its potential for generating intra and inter state conflicts. To substantiate the arguments, examples have been used that in past had led to conflict between states due to the degradation of environment.

### **Environmental Degradation**

To gauge the impact of environmental degradation on conflict it is necessary first to reveal its impact on socio-economic conditions of people in the underdeveloped corners of the world. It is found that there is a constant increase in the number (especially in underdeveloped and developing countries) of people affected by the degradation of environment. During 1990s, the lives of two billion people were affected[1]. In 1990s, natural disasters killed a total of 790,000 people and affected an average of 200 million people every year. Over 90 percent of these totals are due to weather related disasters.[2] Due to the degradation of the environment, each year, some six million hectares of land are severely degraded and they lose their productive capability and become wasteland.[3] Most of these losses had have been taking place in developing and underdeveloped countries.

It is important to remember here that such environmental degradation influence population movement across countries, competition for natural resources like water and oil and complicate inter-state relationships, which often lead to conflicts. If the above stated trend continues in this century there is even probability of higher incidence of violent conflicts between the states due to the degradation of environment.

### **Environmental Conflict**

Various scholars have interpreted environmental conflict in various ways. Many theories have come out in the meanwhile on the theme. Environmental conflicts are characterized by the principal importance of degradation in one or more of the following fields: overuse of renewable resources; overstrain of the environment's sink capacity (pollution); impoverishment of the space of living.[4]

The Environmental conflict model is best expressed by Thomas Homer-Dixon and he was one of the first amongst scholars to bring this issue to the forefront and in the ambit of international relations. His extensive studies on the relationship between acute environmental change and conflict have generated curiosity and enthusiasm in political and intellectual arena. According to him, "Environmental change may contribute to conflicts as diverse as war, terrorism, or diplomatic and trade disputes"[5]. After that many scholars came out with their own interpretations.

Ted Gurr, a social scientist, is of view that environmental change could ultimately cause the gradual impoverishment of societies in both the North and South, which could aggravate class and ethnic cleavages, undermine liberal and popular regimes, and spawn insurgencies[6]. For instance, in Philippines during 1995, due to unsustainable development practices, the price of

rice rose by 32 percent in a seven-month period. The result was widespread street demonstrations and riots against a government, which had, previously, been fairly popular[7] .

Nazli Choucri, is of the view that “environmental degradation forces people to move, sometimes across borders and most assuredly to impinge on and ultimately challenge those (host) population,” thus becoming a key element of conflict[8] . It becomes very grave when the peoples of different race, religion, culture and ethnicity come in contact with entirely different ethno-socio and cultural composition of the population. It leads to various types of conflict. The ethnic strife in Assam over the last decade is an example of how migration from Bangladesh led to violent conflicts in India.

Stephan Libiszewski is of the view that an environmental conflict is a conflict caused by the environmental scarcity of a resource caused by man-made disturbance of its normal regeneration rate. Environmental scarcity can result from the overuse of a renewable resource or from the over-strain on the ecosystem’s sink capacity, that is pollution. Both can reach the stage of destruction of the living space[9]. The desire to expand the natural resource base has led some nations to wage war of annexation or colonial conquest. During World War II, one of the reasons for attack on China and Southeast Asia by Japan was to secure oil, minerals and other resources[10] .

Many studies suggest that possession of scarce resources like oil, gas and water will become one of the principal causes of future wars. Therefore, in coming days, the Middle East could be most vulnerable to crisis because of its huge oil potential and scarcity of water. For oil, outside power may try to use force to sustain or secure their hold— like in the First Gulf war and in the recent attack on Iraq War. On the other hand, water scarcity would ignite warfare among states within the region. It is believed that environmental stress and scarcity will weaken the state system from within, as states will become more unstable and more vulnerable, which in turn would make international conflict more probable.[11]

Environmental conflict could also crop up due to unintentional practices of the neighbours that lead to the degradation of the environment and put adverse impact on a neighbouring state/society. For example, the emission of sulphur dioxide from industries and vehicles are one of the primary reasons for the acid rain and this has fuelled conflicts in relations between Canada and the United States, England and Norway, and Finland and Russia[12] . In the same way, massive deforestation in Himalayan region has increased the frequency of floods in Bangladesh and caused heavy damage to its society and economy.

One could say that Environmental Conflicts manifest themselves as political, social, economic, ethnic, religious or territorial conflicts, or conflicts over resources or national interests, or any other type of conflict. They are traditional conflicts induced by environmental degradation. It is also true that the conflicts due to the degradation of environment are likely to exacerbate if proper mechanisms are not put in place for judicious exploitation of the environment. Conflicts incurring from the degradation of the environment will be different in magnitude and dimensions.

## Dimensions of Environmental Conflict:

*Homer Dixon has isolated three dimensions of environmental degradation:*

(a) *Simple scarcity conflicts*: conflicts over scarce renewable resources between states. They are particularly likely to break out over resources that are essential for human survival and can be physically seized or controlled like river water, fisheries and agriculturally productive land. Conflicts for non-renewable resources are likely to accentuate in future because of fast depletion due to their overexploitation. As a result more and more countries will try to get the possession of these scarce resources by using their military powers.

(b) *“Group-identity conflicts”*: hostilities between ethnic or cultural groups provoked by circumstances of deprivation and stress. They are likely to occur within multi-ethnic or multi-cultural societies or between states as a result of environmentally caused migrations. In order to secure their ethnic and cultural ethos it would generate ethnicism and secessionism among the indigenous peoples. Example could be cited of North East hoard of migration from Bangladesh is one of the primary reasons for the ethnic problem.

(c) *“Relative-deprivation conflicts”*: the deepening of class cleavages or of general social discontent within a society resulting from the economic impacts of environmental degradation. They are likely to occur in polarised societies with weak political institutions. It generally takes place in areas where the peoples are more vulnerable, e.g., coastal areas. Due to their vulnerable situation they migrate to urban areas in anticipation of better livelihood and opportunities. As a result, the host area becomes centre of social unrest when the migrants fail to fulfill their aspiration.

It is also pertinent to mention here that due to the corrosive impact of environment on economy, there is feeling of frustration and relative deprivation among the peoples of Bangladesh. According to “Narottam Gaan”, “one of the primary reasons of democratic regimes not being successful in Bangladesh can be traced to the deepening poverty and internal calamities like floods, cyclones and surges.”[13] All this have encouraged outmigrations and such migration is not confined to the territory of Bangladesh. Over the last four decades, millions have migrated and continued to migrate to the neighbouring Indian states of Assam, Tripura, West Bengal and Orissa. Many of the refugees were involved in the rioting and carnage after 6 December 1992. And thus out-migrations such conditions have provoked have led to conflicts between India and Bangladesh.

## **The issue of Global Warming**

It encompasses various aspect of the environmental degradation like rise in sea level, desertification, increase in precipitation and frequency of the natural hazards, acid rainfall etc. Rise in sea level has threatened the survival of numerous populations and infringed on nation sovereignty. As many as 16 of the world’s 19 mega-cities are on coastlines.[14] Bangladesh presents a good example, “One-meter rise in sea level due to global warming will inundate “17

percent of the land”[15] . By the year 2100, the really worst scenario shows that 35 % of the nation’s population, 38 million would be forced to relocate”[16] . Sea level rise is likely to intensify the erosion and scarcity of Bangladesh’s resource base resulting in large number of displacement of people. It is expected that the problem of migration will accelerate with sea level rise. This will compound the problems for India and will further downgrade Indo-Bangladesh relations.

The other important aspect of global warming is the expansion of desertification and increase in the frequency of drought. This is likely to perpetuate the misery of the affected peoples due to decline in agricultural output and could lead to conflict with the peoples where they migrate for their livelihood. The drought in Afghanistan during 1998-2001, led around 80,000 Afghans to flee over the border to Pakistan. Settlement of Afghan refugees in Baluchistan has caused massive deforestation and land degradation[17] . It has led to skirmishes between the outsider and the indigenous peoples of the area.

Apart from the above stated issues, global climate change could lead to an increase in the number of people at risk of Malaria of the order of tens of millions annually. Moreover warmer temperature could lead to contention over new ice-free sea-lanes in the Arctic or more accessible resources in the Antarctic[18] . It could lead to military conflict between the countries to claim their rights over the new habitable land and to grab the possession of the resources. In past such incidents have taken place when India and Bangladesh “staked their claim to “New Moore Island” formed out of the Himalayan silt on the estuary of the Haribhanga River on the border between India and Bangladesh[19] .

The above stated illustration shows that if global warming continue unabated many Island countries would submerged and in coming years there would be a large exodus of migrants popularly known as ‘*Environmental Refugees*’.

## **Deforestation**

Deforestation that has been taking place since time immemorial has emerged as an acute problem for the degradation of environment in the recent past and at some places it has flared into conflict. Though the conflict due to it has been limited within the country, it has led to erosion of the livelihood of the indigenous peoples resulting in large-scale displacement of peoples and disruption of social and economic base. Deforestation plays vital role in increasing the frequency of floods, soil erosion and balancing the ground water table level. The disastrous floods that hit China in late 1998 for instance, have been directly linked to the loss of forest cover the Yangtze River basin[20] . The massive deforestation in Himalayan region has increased the frequency of flood in Bangladesh leading to loss of lives at large scale and hoards of migrants. Moreover it is believed that due to deforestation and changes in land-use pattern, the carbon dioxide from forest sector are likely to increase that could exacerbate global warming.

Soil erosion that is one of the consequences of deforestation and unsustainable development has severely affected the people’s livelihood; increase the flow of river resulting into floods in

downstream countries. Declining soil fertility leads to lower crop yields while rangeland depletion reduces off take, and any deterioration in water quality adversely affects the fish catch. Scarcities of fishes on the Kanchchivu water led to killing of Tamils by the Sri Lankan forces exacerbating the relations between India and Sri Lanka.[21] Degradation of common property resources pulls labour away from directly productive activities towards gathering- simply collecting non-wood and minor forest products- and probably diminishes opportunities for deriving income from this source.

Soil erosion also stimulates the process of desertification. Desertification can lead to the spread of toxins through blowing winds and affect the adjoining areas in terms of decline of agricultural lands and creating social unrest. It is found that desertification have impoverished large tracts of land in the former Soviet Union. Globally some 24 billion tons of soil are lost annually in excess of the natural rate of soil regeneration. As estimated the remaining topsoil on earth's cropland is being eroded at an average rate of 7 percent per decade.[22] If the stated scenario continue it is believed that there would be million of migrants in very short period looking for better livelihood and opportunity in the scarce land.

### **Scarcity of Natural Resources**

Possession of the natural resources particularly the non-renewable one has led many countries to wage a war on the pretext of one or the other reasons. The control over the oil resources was one of the important reasons of the Iraq war. Iraq hosts 1,500 oil wells, more than any other nation except Saudi Arabia, which has the highest reserves. Hans Blix, the chief UN inspector expressing the apprehension of environmental damage stated, "to me the question of the environment is more ominous than that of peace and war"[23] .

Many environmental groups and experts have also expressed their concern, Gar Smith, former editor of *Earth Island Journal* and a spokesman for Environmentalists Against the War said, a new Gulf War has the potential to be worse than the first Gulf War which was the biggest environmental disaster in recent history.[24] It basically shows that countries face high resource demands and limited resource availability within their territories would seek the needed resource through trade or conquest beyond their boundaries ignoring the consequences on the environment. But what they tend to forget is their inevitable impact on society, politics and economy in territories they conquer. They forget that the irreparable environmental degradation that they induce may lead to further unrest in Iraq and complicate the process of peace building after the war.

### **Conclusion**

Unfortunately, little thought has been given to impact of environmental degradation on conflict at the policy levels around the world and this has resulted in proliferation of cases where environmental issues have provoked serious conflicts especially in underdeveloped and developed societies. Until and unless such issues are judged in right context and factored into public policy, they will continue to undermine national and international security environment in

future. It is time to recognize the links between environment and conflict and give due consideration to the issue while framing public policy both at internal and external levels.

To begin with a global consensus on the theme could be immensely helpful in guiding state policies in this regard. But global parleys on environment reveal that the developed countries, where most of the researches on the theme are ironically conducted, are largely impervious to the idea of forging them into a consensual global agenda on environment. As principal polluters of environment these countries owe it their conscience to comprehend the long-term implications of environmental degradation and its consequences. By so doing they can possibly avoid the future wars for natural resources and contain the adverse effects of environmental degradation on socio-economic conditions of large number of people in the vast tracts of the underdeveloped world.

The fact that the developed world has been non-committal about the evolution of a global environmental agenda has decelerated the movement for environmental protection. And one hopes that the emerging links between security and environment will gradually force them to adopt a progressive agenda that will stand the entire humanity in good stead in future.

#### Endnotes

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24. Dr. R.K. Pachauri, Chairman of Intergovernmental Panel on Climate Change and Director General of the Tata Energy Research Institute commenting on the Iraq war said that the "unburnt or partially burnt hydrocarbons that hang in the air in the form of particles that act as

most harmful pollutants and the chemicals released from the bombs pollute the atmosphere”. It will lead to an obvious increase of patients suffering from carcinoma, diseases in cardiovascular and neurological systems in the polluted area and also possible to cause cancer, cataract handicapped in hematopoietic system, decrease in fertility and even death etc. Former Soviet President, Mikhail Gorbachev during the Conference in Kyoto, Japan (March 16-23), on ‘Third World Forum’ stated that “wars can endanger water resources and thereby the lives of countless peoples. Safeguarding the water resources of Iraq was a cause of great concern today”. Gorbachev view is of immense importance for Iraq as it reels under water scarcity and the suffering is likely to get aggravated by contamination of water.