

# Environmental Security

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The paper attempts to summarise and discuss the matter under study contained in the papers<sup>1</sup> and discussions that constituted the dialogue on “Environmental Dimensions of Security” facilitated by the Delhi Policy Group as a part of their larger study on “Comprehensive Security”.

In the papers under review, the term “Environmental Security” has been understood and used in at least three different ways:

1. Referring to the impact that conflict over natural resources has on traditional security concerns: internal (law and order) and external (military) security. Here, also, there is scope for further demarcation between conflicts over the access (absolute or equitable) to natural resources, like water, land, forests, or grazing lands, and conflicts regarding the pollution and degradation of nature.
2. Referring to the security of “nature” and “natural resources” themselves, thereby extending the meaning of “security” from its traditional restricted use, and applying it to the sustainable use and management of nature and natural resources.
3. The third, somewhat innovative dimension is that of “securitisation” of the environment, which really

means applying to the area of environment the characteristics that are usually associated with areas of traditional security concerns, like secrecy and restriction of access.

### **Conflicts Over Access to Natural Resources**

Historically, conflicts within and between nation states have mostly been over access and control of natural resources, primarily land and water, and all the resources contained within, under and above them. Of course, history is subject to interpretation and sometimes these conflicts have been postulated to have other causes, but at least one set of credible interpretations traces access to natural resources as underlying a large proportion of the conflicts. These are again of at least two types, those that are motivated by an outrage on the inequitable distribution of resources, and those that are a manifestation of greed; grabbing more from those who have even less than you. There are also, unfortunately more and more frequently, desperate battles between two communities fighting over resources sufficient only for one.

Much of colonisation stemmed from the urge to access the "riches" of other lands. However, with the progressive monetisation and industrialisation of human society, the search for markets added was to the search for "raw materials".

Neo-colonial regimes continued to extract "raw materials" and add value in their own countries, till the environmental costs of industrial production (and high domestic wages) made them shift environmentally "dirty" and labour intensive industries to the erstwhile colonics, yet retaining the economic advantages through the mechanism of multinationals.

As cleaner and less labour-intensive industrial technologies developed, there was a temptation to expand production capacities within the “industrialised” nations, but increasingly stringent environment standards and rapidly rising wage rates at home again made it cheaper to operate in the “developing” world where labour was cheap and environmental standards non-existent or non-enforced.

Meanwhile, domestic industries within the erstwhile colonies, most notably China and India, began to offer competition to the multinationals, both domestically and abroad using the same advantages of cheap labour and indifferent environmental regulation. This, of course, has resulted in the strident demand from the industrialised nations for introducing social and environmental conditionalities into the international trade regimes.

The paper on Water Resources (Vandana Asthana) illustrates very vividly the long and arduous history of conflicts over water.

Legend has it that the two communities of ancient India, the *Sakiyas* and *Koliyas* went to war over the sharing of the river Rohini. In modern times too there are instances of problems between Israel and the neighboring countries; issues of the Jordan basin, problems over common rivers between USA and Canada, and the USA and Mexico, Parana-la Plata basin between Brazil and Paraguay, water being used as a military tool in the Gulf war and conflicts in Bosnia, Herzegovina, Yugoslavia and Kosovo. The waters of Euphrates and Tigris have been a point of conflict between Iraq, Syria and Turkey, and the Nile remains an issue of contention between Egypt, Ethiopia and Sudan. The Mekong river basin is a sensitive issue with the involvement of China and the Southeast Asian states of Vietnam, Campuchea and Laos. If countries were to divert water for their populations, unheeded to the needs and rights of its co-riparian, conflicts are imminently inevitable.

Similarly, the paper on Land and Security (P.K. Gautam) articulates the many internal conflicts that are based on land resources.

We are living with insurgencies in our northern border states. Most insurgencies are due to resource scarcities based on land and forests leading to ethnic problems. A wide swathe of interior areas are also afflicted with Naxal problems, including caste based resource scarcity conflict over land and water in Bihar. However, populations would continue to outgrow development for some time to come, leading to more security challenges to be solved on many fronts, including the need to feed our population. Population growth and insufficient food, with the need to import it on adverse political terms in the foreseeable future is therefore, a prime security concern.

The paper on Urbanisation and Heritage (Shyam Chainani) highlights the threats to internal security that badly managed, resource deficient, inequitable and bludgeoning urban conglomerates pose not only to the fabric of urban life but to much of the hinterland. The paper warns that: *"If we are worried about security, we must stop the further growth of our megapolises and large cities."* Focussing on specific conflicts, it highlights the conflicts over resources between the urban and the rural areas, especially in the sensitive political situation of Delhi where the dependence is on other states that might not always have the same political dispensation.

In July [2004], the Haryana Chief Minister threatened to cut off the water supply to Delhi. Suppose he or some future Chief Minister were to actually carry out the threat – or be forced to do so by angry farmers – what do we do? Send in the army? What happens to the security of our national capital?

However, perhaps the most desperate conflicts are those that form a part of the struggles for environmental justice. In this case communities, usually the poorest of the poor, are

deprived of what little resources they have to meet some abstract “development” goal or, worse, to supply additional water and electricity to those who already have more than enough. Conflicts around major “development” and infrastructure projects, especially around major dams are of this nature.

Asthana (Conflicts over Water Resources) states:

Apart from riparian conflicts, conflicts over water are also socio-economic and equity related. A large water resource development project creates conflicts of interests between the people of the upper catchments and those who live downstream, between people who bear the social cost of the project through displacement of population, loss of land by submergence, cultural loss, loss of livelihoods, dispersal of integrated communities and severance of their links from the natural resource base. Development apart, distributional inequality and issues of social inequity are also inherent in the caste and class structure of India. It is not only a question of availability but also ease of access to the available waters. Such water related conflicts also impact up on ethnic, economic, rural and urban populations within and across waters.

In India, there are many examples of such conflicts, many of which have continued for over two decades and are still not resolved. The campaign against the dams on the Narmada river – primarily led by the *Narmada Bachao Andolan* – is one. There are others around the Tehri Dam (in Uttaranchal), the Bisalpur Dam (in Rajasthan) and the proposed new dam in Arunachal Pradesh, just to name a few. There have been similar campaigns against mining leases, against urban and highway projects, military and nuclear installations, and even luxury farm houses and entertainment parks all fighting for the equitable distribution of natural resources.

However, a contrary, if not a contradictory, view is given in the Overview paper (T.K. Oommen). Oommen argues:

While there is evidence which clearly refutes the null hypothesis that environmental degradation is irrelevant to political conflict, there is no evidence which links the two positively. Indeed, competition for scarce resources can, and does lead to political conflict. But this happens in economies dominated by natural resources rather than those in which manufactured goods dominate. But the more important question, which are the groups involved in conflict, is invariably ignored. My own studies of ethnic conflicts show that conflicts occur when the dominant group is actually and/or perceived to be an outsiders and an intruder. This is certainly a security issue, but to define it as an environmental problem is to confuse between cause and consequence.

The argument, as it is presented, seems difficult to maintain. This might, nevertheless, be due to the limitations inherent in a seminar paper rather than any weakness in the argument itself. What can be reasonably conceded is that social conflicts rarely emanate out of a single reason. Nevertheless, even where access to natural resources is not the sole reason for many of the social conflicts, it certainly is one of the major ones, perhaps even the critical one.

### **Conflicts Over Pollution and Degradation of Nature and Natural Resources**

Social conflicts also arise where community resources – water, air, land, etc. – are polluted or degraded. This degradation can be national or global, or very localised, affecting one village or even a few families.

Although the paper on Global Warming (C.K. Varshney) does not explicitly talk about security, many of the problems outlined inevitably aggravate conflicts between and among social groups. In fact, global warming, along with the depletion of the ozone layer are two emerging issues that have the

potential of fuelling conflicts (and disrupting security) across the world, and not just among geographically proximate countries.

Industrialised countries have been primarily responsible for the emission of green house gases (leading to global warming) and of ozone depleting substances. The consequent environmental damage has not only dangerously exposed the world to dire consequences, but also led to huge opportunity costs for the rest of the world. The poorer countries have had to curb their own use of inexpensive fuels, materials and technologies and replace them by far more expensive ones. Though various international agreements and protocols have been set up to offset some of this opportunity cost, much of it remains. Besides, some of the worst culprits, like the United States of America still refuse to be a party to important agreements like the Kyoto Protocol (on climate change).

The double standards of the industrialised world on these issues have been severely criticised by analysts and continues to heighten tensions between nations. They have resulted in dividing the world into groups where disagreements on the environment spill over into other spheres of life.

In fact, the arguments being used by the USA and UK (among others) to justify attacks against Afghanistan and Iraq in their “war against terror” would be far more appropriate (and certainly more ethical) in the environmental arena. They (USA, UK and allies) argue that they have a right to defend themselves through pre-emptive action against those states whose internal activities threaten them, even though the evidence to this end is at best dubious. They also talk of imposing sanctions and collecting reparations, as victims of terror.

Global warming and depletion of the ozone layer threatens the whole world, especially the poorer countries. There is irrefutable evidence that the internal activities of many of the industrialised nations, especially their consumption patterns has led to this threat. Therefore, the victims of “ecological terrorism”, which kills and maims just as surely as bombs and bullets do, and perhaps more widely, should also have the right to retribution or, at the very least, to reparations. However, it is not forthcoming!

Apart from global phenomena, there are other forms of pollution and degradation that have sparked tensions between states. It is in the very nature of environmental issues that they do not necessarily confine themselves to national boundaries. In the “Overview” paper Oommen has argued thus:

Today it is widely recognized that for understanding different issues we must focus on different units of analysis. Thus, for ensuring security of the environment we need to transcend the boundaries of state.... While environmental security is linked to a territory, a geographical region, this region need not be co-terminus with the state territory.

A good example of the “extra-territorial” nature of many environmental concerns is the trans-boundary movement of pollutants, especially in the form of acid rain. These were a source of significant tension in Europe. More recently, the smog from the forest fires in Indonesia created havoc in many of the neighbouring states and almost led to hostilities. Increasingly, contamination of river waters by industrial pollutants has been a source of tension among riparian states, and so has been the deposit of large amounts of silt, as is the case between Nepal and India.



Within states, there are numerous examples of conflicts and clashes due to air and water pollution from industries and mining operations. Conflicts have also occurred over the degradation of forests or hunting of sacred species of animals : the Chipko movement in the Himalayas and the Bishnoi's sacrifices to save the Black buck in Rajasthan being the well known examples in India.

Of course, conflict has also been generated by activities aimed at protecting the environment, especially when public access to forests, national parks and sanctuaries is sought to be restricted. But this is also a manifestation of either perceived injustice or greed.

### **Sustainable Use and Management of Nature and Natural Resources**

Perhaps a more appropriate understanding of the term "environmental security" would not just include, but focus on the security of nature and natural resources in terms of their sustainability. According to Asthana ("Conflict Over Water Resources"):

Many analysts argue that all environmental issues are potentially security issues because security, despite the traditional state-centric focus, is in essence about the quality of life of individuals, which is bound to be affected by the depletion or degradation of environmental resources. The paradigm of human security encompasses human development, secured food, employment and environmental security. Fundamentally, human security encompasses security of people against threats to life, health, human dignity and personal safety.

It seems to be correct to assert that natural resources are actually the most fundamental of resources and that, in so far

as humans are a part of nature, human resources are a part of natural resources. However, even if we do not take such a grandiose view of natural resources, we can still argue that natural resources and human resources are the two fundamental resources, and economic resources are created when human resources interact with natural resources (goods) or with each other (services). Looking at it in this manner, any thing that threatens the security of natural resources threatens human security in a very fundamental way, for human beings cannot live on services alone.

However, Oommen views this as “existentialist extremist”. In his Overview paper he states:

Existentialists broaden the definition of national security to include environmental security and argue that global environmental protection is a vital component of national security, and one cannot be separated from the other. This provides the rationale to incorporate the environmental dimension into security planning. Extremists among them argue that environmental degradation imperils the most fundamental aspect of national security by undermining the natural support systems on which all human activity depends. Thus, the existential view rejects the traditional concept of national security and opts for a more comprehensive view that takes environmental degradation into account.

He goes on to state that acceptance of such a view would involve double counting since the nation state and “environmental territory” are not co-terminus. He further suggests, quoting Richard Stanley, that “existential extremists” are not naive but seek to “securitize” the environment, as security issues are “high politics” which gets much more attention from national leaders than “low politics”, to which environmental issues traditionally belonged. He wraps up the argument by asserting:

But let us not mistake the reality for the rhetoric. In fact the existential view rarely can generate appropriate policy responses. For example, it is frequently argued that acid rain is a security threat. But in the list of threats to national security it ranks very low because the objects under threat are trees, sports, fishing and the like. These are not vital for national security.

However, the last sentence seems to bring out the circular nature of the argument. It is assumed, by definition, that trees and “the like” are not vital for national security, therefore obviously environmental matters cannot be vital for national security. But a careful reading of the various other papers under review would bring out the argument that national security is about the survival and quality of life of the people, and that military and internal violence is not the only, perhaps not even the primary, threat. In countries like India where a very large proportion of the population does not get water from taps but from wells and rivers; does not get energy from wires and pipes, but from the forests; and does not buy raw materials for their trade from the super market, but gathers it from the river banks or from the wilderness; continued access to nature and natural resources is as vital as protection from physical violence or foreign armies. Oommen, nevertheless, raises some other important issues about the implications of “securitization”, which are discussed a little later on.

If we accept, that threats to nature and natural resources are also threats to the security of a people, then it is useful to categorise the types of threats currently in evidence. The paper on Biological Security (Shekhar Singh) presents a schema of threats to biological security that could well be extended to cover, at least in its main heads, threats to most or all of environmental resources.

## **1. External Direct Threats**

- a. Destruction of habitat caused by war or military action (including responsive military action and preparation by Indian forces).
- b. Destruction of species due to cross-border poaching.
- c. Destruction of habitats and species due to cross-border introduction of invasive species.
- d. Destruction of habitats and species due to cross border pollution and movement of hazardous wastes (including oil spills and ship breaking).
- e. Theft of genetic material for external commercial utilisation.
- f. Theft of genetic formulations for external commercial utilisation.

## **2. External Indirect Threats**

- g. Destruction of habitats and species for meeting external commercial demands for animals and plants, and their parts.
- h. Destruction of habitats and species in order to accommodate demands of multinational commercial houses.
- i. Destruction of habitats and species in order to meet the aspirations and lifestyles inspired by external influences.
- j. Erosion of conservation cultures due to external influences.
- k. Global warming and ozone depletion.

## **3. Internal Direct Threats**

- l. Destruction of habitats and species for commercial purposes.

- m. Destruction of habitats and species for development projects and activities.
- n. Destruction of habitats and species in order to meet the basic needs of the people.
- o. Destruction of habitats and species because of the spread of the exotic and invasive, and because of forest fires.
- p. Destruction of habitats and species because of pollution.
- q. Destruction of agro-biodiversity because of the exclusive promotion of modern agricultural practices.

#### **4. Internal Indirect Threats**

- r. Ignorance about the nature and value of biodiversity.
- s. Inadequate or inappropriate regulatory mechanisms.
- t. Adopting unsustainable lifestyles and models of development.
- u. Abject poverty or excessive consumerism and opulence.

At this point, not much purpose would be served by listing all the damage that has been done to water, land and atmosphere, and to the plants and animals that survive on them. This is well known and can be taken as read, as can be the tales of resultant ravages that have befallen the people of this planet, especially the large majority that lives powerless and impoverished. It might be more useful to investigate why humanity has come upon such hard times.

Oommen, in his "Overview", says that:

If we want to address the issue of environmental degradation we should see the conjunction between the institution of nation-state

and the instrumentality of modern technology. But this conjunction has been facilitated in the West by a value orientation. This value orientation which may be designated as 'homocentric' is drawn from the Semitic religions – Judaism, Christianity, Islam – that are not western but eastern religions. (In fact, the West has not produced a single world religion.) As it stands, it is western Christianity which is the fountainhead of the value orientation that I am referring to.

He goes on to say that:

It is paradoxical but true that notwithstanding the tremendous contribution of science and technology for human progress and development, science and technology also pose the greatest threat to human existence.

He, of course, goes on to qualify this statement and finally appears to be coming out in favour of technology and particularly against those who argue against high-technology, arguing that damage to the health can be just as serious as a result of using low or primitive technology (like manually making slate pencils) as it can be through high-technology (like the UCC factory in Bhopal).

He develops the causality further and states a little later that:

The cause for environmental crisis lies at the conjunction between four sources: Nation-state, modern technology, western religious values and capitalism. Many policy makers would dismiss this as arm chair academic analysis with little practical value. I am afraid I have to disagree because I believe that nothing is more practical than a good theory. We must, as good physicians, begin with a thorough investigation of the causes so as to prescribe appropriate remedy.

Fundamentally, his assessment of the factors behind the current human tendency to commit ecological suicide seems

unexceptionable. However, the question is, how do we determine whether it is correct? Without disputing the value of a good theory, theories on empirical matters must be capable of being empirically verifiable. But, then, where is that control sample? Where is the community that lives in harmony with nature against whom we can compare our life styles and our foibles?

Historical comparisons are not very useful for we do not have very accurate knowledge of how primitive people lived. And since the dawn of the age of scientific historiography, humans have been progressively destroying their environment. So that is not much help either. But perhaps we can turn to the few isolated tribal groups that still survive – like the Jarawas of the Andaman Islands – who have retained their traditional life styles and seem to live in perfect harmony with nature. We can also look at animal communities, for they have not changed their life styles all that much and seem to thrive within the bounds of nature, as long as the “modern” human does not interfere.

Humans seem to have an insatiable urge to change their environment – build houses, cultivate and domesticate, wear clothes, travel faster and further, cook food, experiment with new diets and eat an increasing number of things, even modify elements of nature to suit ever changing human tastes. This urge seems to be missing in the animal world – though not among the isolated tribals. Surely this is one urge that threatens the environment.

Also, human beings seem to be among the few sentimental creatures to whom the value of an individual is equal or even greater than the value of the group or the species. This again seems to be a tendency that is shared, though in varying degrees, by isolated tribes, but lacking in the animal

world where often the weakest of the offsprings is left to die, so that the stronger might survive.

But, as we have observed, these are not by themselves the critical differences, as even isolated tribes who appear to live in harmony with nature seem to share these characteristics. Perhaps the critical difference is technology, for that gives us the ability to act on these urges in a manner that is denied to the isolated tribal.

It is technology that has allowed us to pander to our taste for change, clearing forests, draining lakes and using the products of nature in fast increasing and unsustainable quantities to build cities, cars and airplanes. Similarly, it is medical technology that has allowed us to ensure that a larger number of people live for longer and longer, and agricultural technology that has allowed us to convert wilderness areas into agricultural lands, and lakes, rivers and seas into fishing resources.

But here we must heed the warning that Oommen has given:

I have hinted above that equipped with modern technology humans have developed the capacity to devastate the environment. But one cannot blame technology for this because it has no agency. It is important to recall here that there are two polar views on technology. One, that technology is essentially good; it is a humanizing agent. Two, technology is evil, inherently violent and would ultimately destroy human kind. But technology is a conditional good depending upon how it is produced and deployed.

This is true. The socio-economic and political milieu determines to a great extent the nature of the technology that develops. When the industrial revolution beset the world, nature seemed abundant and endless. Besides, there were



colonies to exploit and whereas destruction of the environment was a public cost (in the capitalist system), the financial gains that resulted were private. Therefore, the technology that developed was that which used and destroyed nature rather than conserved and regenerated it. Even when natural resources in the industrialised nations (for example Britain) ran low, or the adverse impact of pollution were felt, there was always the political option to transfer the costs of environmental degradation to colonies while keeping the benefits for the colonialists. What happened globally because of colonialism (and neo-colonialism), also happened within nations, as politically powerful (usually urban) areas transferred the costs of environmental degradation to weaker (usually rural) and regions.

Therefore, it is not technology that is inherently at fault. It is our political ability to transfer costs to others that gives us the option of adopting technologies and lifestyles that are unsustainable. The Jarawas, for example, though seemingly with all human urges intact, were unwilling to wreak havoc on their environment because they were politically too weak to transfer their costs on to others (by exporting waste and importing energy and resources), but politically strong enough to ensure that no one else transferred costs on to them. This ensured that they lived within their environmental means.

But does this mean that if we have to live within the bounds of nature, technological development has to stop? Certainly not. What is required is that the development and application of technology should be such that technologies that use natural resources or pollute nature must be twinned with those that regenerate natural resources and clean pollutants. This would inevitably lead to technologies that were less and less wasteful and less and less polluting.

As has been argued above, technologies ordinarily take the shape given to them by their socio-economic and political milieu. So what is the milieu we are looking for? Oommen has the following to say:

The traditional distinction between nature and culture, the latter being the man-made part of the environment, does not seem to hold any more. Nature is no more wild, innocent and virgin but is created, manipulated and violated; nature has become culture. Against this background I suggest that harmony between humanity and nature should be vigorously pursued for nurturing a secure environment. What are humanity's cultural and value resource for this?

Perhaps what is required is a world where no individual or community has the political option of passing on the environmental costs of its life style to any one else (present or future). This would not only help humanity to live within the bounds of nature, but also help them to coexist justly and equitably.

### **“Securitisation” of the Environment**

Prof. Oommen introduces the notion of securitization thus:

By the latter half of the 20<sup>th</sup> century, the link between environment and security had come to be recognized and by the last decade of the 20<sup>th</sup> century environment got securitized. Securitization involves two contradictory processes. One, to take it out of public gaze, not to subject it for everyday political discussion. This is facilitated by the fact that ordinary citizens have very little knowledge and information about the object securitized. Two, to elevate the object of securitization to high politics. What is subjected to discussion by ordinary citizens are matters of low politics; high politics is the realm of politicians, bureaucrats, diplomats and military personnel. Paradoxically this

is done for national interest! Curiously, the nation, i.e., the people, are excluded while pursuing national interests.

He goes on to argue that there are five factors that facilitated or even necessitated the process of securitisation. First, the rapid growth of world population; secondly, the widening income disparities between and within countries; thirdly, the unanticipated consequences of the rapid growth of technology; fourthly, the decline in the notion of the nation state and the growth of the concept of an international civil society; and fifthly, the rapid decline of biodiversity, which was a pre-requisite for the high consumption standards of industrialised nations and the high-living members of poorer countries.

Two of the implications of securitisation that he indicates are particularly important. First, as the environment gets securitised, information about the environment starts being treated as a state secret. Secondly, access to the environment becomes restricted. In fact Oommen rightly argues that secrecy and restrictions are not in the interest of the environment. But he then comes to the possibly erroneous conclusion that the environment, therefore, should not be securitised.

Various analysts have, especially after 9/11, credibly argued that what ails the security sector is too much secrecy. Based on meticulously collected evidence, they have begun to show that the aura of secrecy that shrouds all matters relating to security has many serious and adverse implications. Evidence gathered in USA, Sweden and the erstwhile Soviet Union has established beyond doubt that in the absence of transparency, security agencies are inclined to significantly misuse their powers. Besides, secrecy also hides incompetence and inefficiency among security agencies.

Secondly, secrecy often comes in the way of inter-agency cooperation. A particularly tragic case has been recorded from China where, when the first few cases of SARS were detected, the report was classified as top secret. Therefore, the information was not shared and the disease was allowed to spread unchecked because none of the concerned civil servants had the authority to share the document with their colleagues.

Similarly, in India many topographical maps are restricted. Consequently, many field level researchers, NGOs and government agencies are inconvenienced and constrained. This is despite the fact that even more detailed maps and satellite imagery of India are easily available in many potentially hostile countries. It has also been established that transparency facilitates public support and cooperation.

In conclusion, it can be argued that what is required is to make security processes more transparent and democratic. This is not to argue that all information should be made public, but only that every bit of information that is connected to “security” should not automatically be classified as secret. The newly enacted national Right to Information Act makes a beginning, by qualifying the blanket exclusion usually provided to security and intelligence agencies in transparency laws with the caveat that the exclusion would not apply to information relating to allegations of corruption and human rights violations. We must push this further and, rather than denying that threats to the environment are security threats, we must free the traditional security sector from irrational secrecy and red tape.

**ENDNOTE**

1. "Environment and Security: An Overview" by Prof. T.K. Oommen; "Global Warming" by Prof. C.K. Varshney; "Conflict Over Water Resources: Implications For National Security" by Dr. Vandana Asthana; "Urbanisation And Heritage" by Shyam Chainani; "Land and Security" by Colonel P.K. Gautam (Retd); and "Ensuring Biological Security" by Shekhar Singh.

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