

Environmental Security in South Asia: Dimensions, Issues and Problems *

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The fast depletion of natural resources, resulting in the scarcity of resources and the degradation of the environment and the growing conflict over resources within and between the states has given rise to a gearing concerns for environmental security all over the world. It is being widely accepted that the environmental scarcity and the environmental degradation pose a threat to the national security. Hence, there is a close linkage between the environmental degradation and the national security.¹ There are scholars to whom there propositions are not convincing.² Yet, in the recent years it has been widely accepted that environmental security is a significant dimension of the national and regional security frameworks of the nation-states.

In fact, it is true to say that there has been a growing concern for the environment in recent years. It may be pointed out here that since the beginning man has been imposing its needs and demands on the environment. Therefore, the concern of human beings to the environment has been always and obvious. But it is now only that the concern for the environmental security is being advocated. Why such a need for environmental security has arise now? What has necessitated it? Is depletion or scarcity of natural resources a threat to the environment? To what extent overpopulation has a bearing on the environment? Is human dislocation creating environmental hazards? Are natural disasters a cause and effect to the environmental degeneration? Than how to secure the environment? These are some of the issues and problems, which need a

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deeper probe in order to understand the phenomenon of environmental security and its relevance.

The present paper is an attempt to analyse these issues in the context of South Asian region. As a preliminary note it can be said that in a highly populated (rather overpopulated) and resource scarce region with ill coordinated development activities, threats to environment become more prominent. Therefore, there is a greater need for securing the environment in such areas. It may also be added here that in a situation as stated above, any stress on the environment can cause conflicts involving violence of a low to very high magnitude within the state boundaries as well as between the states.³

ENVIRONMENTAL SECURITY: A CONCEPTUAL FRAMEWORK

After the end of the cold war there has been an urge to redefine the national security and build up a comprehensive view of it.⁴ The thrust of the comprehensive view of security has been to secure social, economic and environmental dimensions along with securing the boundaries of the state.⁵ The traditional concept of security surrounded along defending territory and political integrity of a country. The state was responsible for defending its sovereignty and integrity and armed forces were assigned to this duty.⁶ The state alone had to perform this responsibility as there were no such other institutions which could share it.⁷ With the end of cold war and decreasing importance of geo-strategic considerations, the national security is being viewed in a comprehensive perspective. While there is no denying of the fact that the military dimensions of security are relevant, there is an added emphasis on the non-military dimensions of security. It is not sufficient to secure the territory and the sovereignty of the State. It is equally important to secure the people and his surroundings. It is in this perspective that a comprehensive view of national security has emerged. It may be noted here that the comprehensive national security approach is a deviation from the

state centric view of security. Japan was the first country to talk about the comprehensive approach to national security.⁸

The comprehensive view of national security is based on the notion that it is not only the state alone which needs security but the people, the resources the socio-economic structures within the state also need to be secured. In fact, now it is strongly believed that the security of the state is meaningless unless the people are secure. Therefore, some scholars have tried to define national security in terms of human security. The concept of human security gives the impression that the securing of the human beings should not remain confined to the state boundaries. The comprehensive view of national security obviously includes social, economic, environmental security along with the security of the state. Thus, both the military and non-military dimensions are important in the changed framework of national security.

The environmental security has become an important dimension of the comprehensive national security. The environmental security as a concept was officially mentioned for the first time, in the General Assembly of the UNO in 1987.⁹ Since then, it has become a significant aspect of security studies both in theoretical and empirical contexts. It has been widely accepted that the indiscriminate attitudes of the people and the governments towards the environment, the self-interest, over exploitation of resources, etc., have caused scarcity of resources and their fast depletion as well as degradation of the environment. This has caused conflicts and violence among and between the states.¹⁰ The scarcity of resources may give rise to a conflict for the remaining resources. Therefore, there is a need to secure the environment. The security of the environment needs a positive attitude towards it. Thus, environmental security may be defined as avoidance of negative linkages between human activities and the environment.

The notion of environmental security underlines the need to explore and propagate inter-linkages between resource use and environmental degradation. Because the environment can be properly protected and managed only when we understand urgency behind it. In this context environmental security can be viewed as an effective measure towards sustainable development.¹¹

Since environment can be a cause of conflicts, violence and a threat to peace and stability, securing the environment would mean, in a broader perspective, removing the causes of environmental conflicts, as well as, the causes of environmental scarcity.¹² This would require sustainability of the biotic resources of the earth and it is possible through environmental security.¹³

Thus, environmental security means ordering and managing the resources and the biosphere activities. It is related to the establishment of a proper human-nature relationship.

APPROACHES TO ENVIRONMENTAL SECURITY

It is clear that the central thrust of the environmental security is to secure the environment. But the point is how to determine the phenomenon of environment? In this regard, there can be two approaches to define the environmental concerns.

1. The first approach confines environment to the nature and the problems and constraints related to it. It can be termed as ecological approach. This approach is too narrow in its scope, as nature alone is not responsible for many types of hazards. How it is being exploited and protected is equally important.
2. The other approach has been termed as the maximize approach and it includes both the ecology and its human domains. This approach takes into consideration

the interaction between the two. It believes that the excessive dependence of human beings effects the environment and the depletion and degradation of the environment affects the human beings. The environmental security has to include both the domains and understand their inter-linkages. In fact, the uses of the environment and its proper maintenance are related to the human domains.

It may also be added here that the question of environmental security has to be addressed in a broader perspective. Both the living non-human domains and the human domains have to be included within the preview of environmental security. It is also important that a futuristic attitude has to be adopted in securing the environment. To days environmental hazards can environmental challenges tomorrow. Therefore, it is not sufficient that today's needs and demands are kept in view. It is equally important that the possible human-environment inter-linkages are taken into consideration in securing the environment.

SOUTH ASIA: SOME ECOLOGICAL FEATURES

The South Asian region is a compact geo-ecological zone with several geographical variations ranging between high Himalayan region to maritime zones. A region of nearly 4082 sq. kms., South Asia is characterised by Indo-centricity. India forms borders with almost all the countries of South Asia but no other country form borders with each other. India is the largest of the countries of the region. Its size, population, resources, economic development, scientific and technological advancement and military strength is heavily disproportionate in comparison to the other countries of the region. India alone holds 76 per cent of the land area. Its population is three times more than the combined population of rest of the countries of the region. It contains 78 per cent of the total GNP of the region. This kind of asymmetry in terms of size and resources is a source of numerous problems in the

region including the sharing and managing resources of the region. Such a situation also accelerates conflict over resources.¹⁴

The South Asian states do not synchronise with the eco-geographical region due to the artificial divisioning of the state into different regions. India, Pakistan and Bangladesh emerged as independent countries out of one geographic unit. As a result these independent states share a common geography. Therefore, mutual sharing and conflict over resources are obvious. It also necessitates the development of a common approach to environmental security.

The three major river systems of South Asia - The Indus, the Ganges and the Brahmaputra are shared by most of the countries of the region. It is, therefore, obvious that they also share the hazards emanating out of these river systems.

Nepal and Bhutan are land locked countries and Sri Lanka and Maldives are island countries. This asymmetrical incongruity between the states of the region accounts for many of the disputes and conflicts.

It can be said on the basis of above brief overview that the very nature of South Asian region is prone to various kinds of environmental issues and problems.

MAJOR ENVIRONMENTAL ISSUES IN SOUTH ASIA

The major environmental issues in South Asia are as following:

Population Explosion

Population has a direct bearing upon resources and the environment at large. There has to be a balance between population and resources. Otherwise, it is bound to create environmental hazards. South Asia is one of the most densely populated regions

of the world. The total population of South Asia is 1366 million (2001). The region holds more than 23 per cent of world's total population, while it has only 3.5 per cent of the total land area of the world. It shows that the region has much more population in comparison to the land area. India holds the largest share of the population of the region with 1033 million population, Pakistan 146 million, Bangladesh 141 million, Nepal 24 million, Sri Lanka 19 million, Bhutan 2.13 million and Maldives 0.30 million. India is the second largest populated country in the world. Similarly Bangladesh is overpopulated in terms of its land area. The average annual population growth of South Asia is 1.8 per cent, which is more than the average annual population growth of the developing countries (1.6%). Maldives has the highest population growth with 3.1 per cent followed by Bhutan, 2.8 percent, Nepal 2.3 per cent, Pakistan 2.7 per cent, India 1.7 per cent and Sri Lanka 0.9 per cent.¹⁵

It is clear that all these countries are over populated. The excessive pressure of population on resources causes numerous environmental problems and constraints. The problem of environmental depletion and environmental scarcity are closely associated with the problem of uncontrolled population growth.

Poverty

There is a direct correlation between population, poverty and environmental degradation.¹⁶ The poor countries are more vulnerable to environmental changes. Hence, they are more prone to environmentally induced conflicts.¹⁷ Poverty and underdevelopment affect the environment by causing environmental depletion and scarcity thereby contributing to environment related conflicts.¹⁸ The poverty conditions in South Asia can be understood by the fact that the region generates only 1.2 per cent of world's total income.¹⁹ The Human Development Report South Asia states that 32.3 per cent of the total population is below poverty line in the region. Nepal has the

highest number with 37.7 per cent followed by Bangladesh 36.0 per cent and India 34.7 per cent.

The per capita GNP (45 \$ 2001) is 448 in South Asia. The GDP growth rate has been 5.0 per cent during 2000-2001. South Asia's human development index has been 0.560 (2000). Nearly 22 per cent of the total population is without access to health services, 63 per cent population without access to sanitation facilities and 11 per cent without access to safe drinking water. These data clearly show that the South Asian countries are faced with the challenges of poverty and underdevelopment.

Threat to Biodiversity

The South Asian region is rich in biodiversity. The different ecological regions like mountains, hills, plains, deserts and the seacoasts have specific varieties of flora and fauna. The hilly countries of Nepal and Bhutan have numerous varieties of plants, many of which have medicinal value. Maldives has world's best coral reef formations. The development of roads, construction of dams, fast depletion of forests, pollution of rivers, excessive exploitation of plants, species and floral varieties for individual and commercial uses have posed threats to biodiversity. The issues involved here are biodiversity conservation and growth, protection of intellectual property rights, patents, security from bio-imperialism, etc.²⁰

Natural and Other Hazards

The region is prone to numerous kinds of natural hazards having direct curse on the environment of the region.

In South Asia forests play an important role in the developmental process as well as catering to the needs of the people. People have depended on forests for food,

firewood, fodder, manure, medicinal herbs, timber, etc. Forests play a significant role in soil and water conservation, reduction in air pollution and improvement of the environment, preservation and conservation of wild life, storage of water and controlling the green house effect. The countries like India, Nepal and Bhutan have been quite rich in forest resources. However, the excessive exploitations of forest resources and lack of reforestation policies, over dependence on forest resources, urbanization, increasing demand for cultivable land, etc. has caused fast depletion of forests. South Asia has only 15 per cent of land area under forests. India has 19.5 per cent forest area. Bangladesh has 9 per cent forest area. The annual rate of deforestation is highest in Nepal at 1.8 per cent.²¹ The depletion of forests has serious ecological effects such as soil erosion, siltation, shrinking of water resources, etc.

Floods are a common problem to countries like India, Bangladesh, Nepal and Pakistan. The annual floods cause loss to people, and property, sedimentation, etc. Bangladesh alone has experienced some of the most devastating floods.²² In Bangladesh 18 to 19 million people are affected by floods every year.²³ There is a direct co-relationship between environmental change and floods.

In the case of Bangladesh it is said that one third of the country may be submerged by 2050 due to the rise of sea level. It has been estimated that the one-meter rise in sea level would cover 14 per cent land area of the country and thereby displacing 10 per cent of its total population.²⁴ In the case of Maldives as well, it is said that the country is in danger of disappearing under sea after some years.

The Himalayan region is highly sensitive to seismic threats and has witnessed some of the world's devastating earthquakes. India, Bangladesh, Sri Lanka, Maldives and Pakistan are affected by cyclones, tidal waves, sea storms, costal area pollution,

etc. Bangladesh is also faced with the problem of salinity of water and also the problem of arsenic poisoning.²⁵

India, Pakistan, Bangladesh and Sri Lanka are subject to acute draughts. These draughts result in fall in agriculture production, causing food scarcity, scarcity of fodder, scarcity of drinking waters, hunger and unemployment.²⁶ Air pollution is also becoming a problem in some areas of India, Pakistan, Bangladesh, etc. due to urbanization and industrialization and other types of infrastructural growth. There are also problems of water logging, water pollution, etc.

South Asian countries have predominantly agriculture societies. With the rise in population there is an increased demand for agriculture productivity. In some countries the cultivable land is already exhausted. There is heavy pressure on agriculture land. Conflicts have arisen due to this. The demand for higher productivity has necessitated use of fertilizers and chemicals, which has generated many problems. In fact, the quality of soil, productivity has gone down along with many other environmental complications.

Most of the countries of South Asia are also faced with the problem of water pollution, decline in the quality of water, decline of ground water level, etc. India's annual renewable resources are 1878 cum., Bangladesh 9238 cum., Nepal 9122 cu. m. and Sri Lanka has 2708 cum. m.²⁷ But the depletion of renewable resources is believed to occur faster than their natural replenishment.²⁸

ENVIRONMENTAL INTER-LINKAGES AND CONFLICTS IN SOUTH ASIA

South Asia is a compact geographic unit and it is one ecological zone. Therefore, most of the environmental problems extend beyond national boundaries and shared by more than one country. There are some environmental issues which are

beyond the jurisdiction of any one country of the region.²⁹ These are regional issues indeed. The regional inter-linkages of environmental issues and problems have given rise to bilateral and multilateral conflicts. Thus, it can be said that the environmental problems are a threat to regional peace and stability in South Asia.

The population explosion, underdevelopment and poverty has resulted in large scale cross-country population movements in South Asia as illegal migrants, economic migrants and refugees.³⁰ It has caused disputes between the local inhabitants and the outsiders, given rise to ethnic conflicts and violent movements and caused bilateral disputes between the concerned countries. For example migration has become a serious issue between India and Bangladesh and India and Nepal. Similarly the question of migrants and refugees has caused tensions in Nepal-Bhutan relations.

The pollution caused due to the infra-structural developments have not remained confined to that country alone but it also affects the ecology of the other countries of the region. The issues related to unilateral uses and withdrawal of river waters by one country is a cause of concern for the other country whether in India, Pakistan, Bangladesh or Nepal. Similarly the sharing of river waters has caused disputes and misunderstandings between India and Bangladesh, India and Nepal and India and Pakistan.

The floods caused in India have more devastating effects in Bangladesh. Similar is the case between Nepal and India and India and Pakistan. The environmental hazards like, soil erosion, desertification, sedimentation, earthquakes coastal area pollution, deforestation threat to biodiversity and their multiplied effects are the issues, which are not confined to one single country.

NEED FOR A REGIONAL APPROACH ON ENVIRONMENTAL ISSUES

The environment related problems and their implications are regional issues as the countries of the region in most of the cases share them. It is true that there is a growing awareness on environmental issues in almost all the countries of South Asia in the last few years.³¹ The individual countries have persuaded environment friendly policies in certain sectors. Attempts have been made towards reforestation, flood control, controlling desertification, etc. However, there are two issues:

1. Some of the measures taken for environmental management and protection have not been effective as the sources of environmental degradation lies in some other country.
2. All the countries of the region are not conscious about environmental protection at the same scale. Their excessive dependence on natural resources, lack of alternative sources scarcity of capital resources and technical know-how has proved to be a serious bottleneck in making adequate efforts towards environmental protection.

A common approach to securing the environment at the regional level may involve the following aspects:

- (i) Sharing of knowledge and expertise regarding population control measures, policies and programmes.
- (ii) Cooperation for development and poverty eradication.
- (iii) Regularization of inter-state migrations, evolving a regional framework for controlling, repatriation and rehabilitation of refugees.
- (iv) Establishment of a system of disaster management and disaster preparedness at the regional level.

- (v) Exchange of knowledge and researches on seismic tremors, earthquakes, landslides, their causes and possibilities.
- (vi) Evolving common flood control measures and development of a regional flood warning system.
- (vii) Common measures can be taken up for increased agriculture productivity, treatment of salinity, development of cyclone warning system, reforestation, development of water resources, air pollution control system, etc.

All these measures can be covered within the framework of a Regional Environmental Security Treaty. Such a treaty will provide an institutional basis for the growth of a common approach to environmental protection and management in South Asia. The South Asian Association for Regional Cooperation (SAARC) can take a lead in this regard and prepare the necessary background for a regional environmental security treaty. The SAARC can further consolidate its environmental protection measures. Because it is through regional cooperation alone that many of the environment related issues can be settled.³²

Summing Up

After the end of cold war there has been much debate on the comprehensive approach to national security. It is widely accepted that the national security has to be viewed in a wider perspective. The environmental security constitutes a significant dimension of the comprehensive national security.

The environment has to be viewed in a wider perspective where human and non-human living beings are also important along with the nature. The environment and the living organs are closely interlinked. Hence, environmental security must take into consideration a balanced and sustained inter-relationship between the two.

In South Asia environmental issues have become significant in the overall framework of security due to high population growth, excessive dependence on nature, uneven infra-structural development, poverty, under-development and fragile ecology.

While there is an urgent need to take measures for environmental protection, a regional approach alone can be fruit bearing because of eco-geographical inter-linkages and interdependence in the region. Therefore, along with the strengthening of SAARC a Regional Environment Security Treaty can be suggestive. Given the socio-political realities of the South Asian region, the conflictual relations between the states of South Asia, complexities, identity crisis, over consciousness about resources, big-power, small-power angularities and the slow progress of SAARC and its ineffectiveness in many cases, the realization of the goal of a Regional Environment Security Treaty is not an easy task. There are several constraints. But it is not a difficult task as well if there is mutual confidence, trust and understanding between the countries of the region. It has to be realized that the environmental security in South Asia is possible through a regional approach only. Therefore, the efforts made by the individual countries need to be coordinated in a regional framework.

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