

R.B. JAIN

CONFLICT AND COOPERATION ON ENVIRONMENTAL ISSUES IN SOUTH ASIA¹

Environment is one of the greatest development challenges in Asia today. The reason is not only the complexity of environmental issues themselves, but also the complex linkages among growth, population, poverty and the environment. According to a World Bank study, exponential growth in pollution, traffic and toxic water in Asia urgently mandates a series of sweeping Government policy changes to halt and begin to reverse the widespread damage to the environment. The report cites water pollution, solid waste management and inappropriate land use as force key issues needing attention in Asia's cities. In the rural areas, forests and marginal lands are under pressure from farmers, commercial logging, and excess demand for firewood and fodder. Land degradation, deforestation and loss of bio-diversity are also widespread.²

The solution to environmental issues security in Asia does not lie in halting the processes of growth. Instead growth has to be made sustainable by recognizing that the remedial costs the world faces today are far less than what it will cost in future. It has also to be recognized that the quality of life and not just incomes matters a great deal and can contribute to human

1. The paper is primarily based on the author's earlier study "Regional Cooperation in Environment" in Lok Raj Baral (ed.), *South Asia: Democracy and the Road Ahead* (Kathmandu, POLSAN, 1992).

2. See, N.C. Menon, "New Environment Policy Needed; WB" in *The Hindustan Times*, 8 December 1993, P-15:4-8.

happiness. Although broader policies of sustainable growth are formulated by individual national governments, most of the activities for environmental security are undertaken at the local level. Nearly every nation now has a stated policy for environment, and by treaty or statute, some national policies extend to international borders. Thus environmental problems, commonly regarded as local, regional, or national, may have international or even global ramifications. Some issues arise beyond the jurisdiction of any national government and are inherently international, the use of outer space and the deep sea bed, being examples. Other issues may be localized in particular countries, but are common to many others and are thus amenable to international cooperative efforts. Many environmental problems transcend national boundaries. In recent times, many governments have developed bilateral or regional arrangements to deal cooperatively with matters that they cannot effectively manage separately.

Such regional arrangements have been initiated by agreements between two countries such as Canada and United States for the management of the Great Lakes, and by the United Nations and by its specialized agencies, such as the campaign against the desert locust in Africa and Western Asia begun by the Food and Agricultural Organization (FAO). Similarly, common environmental problems have resulted in the establishment of regional arrangements as in the South Asia Cooperative Environment Programme (SACEP) initiated by the governments of Afghanistan, Bhutan, Bangladesh, the Maldives, India, Iran, Nepal, Pakistan and Sri Lanka. In the same manner, the ASEAN states have established regional environmental priorities headed by a regional seas programme, and followed by environmental impact assessment, urban water and air quality monitoring, and pollution control technology, all of which have an intimate relationship.

Lately, a number of efforts have been made by some states in South Asia to enter into some kind of regional arrangements for cooperating in the area of environmental management, and to direct attention to new issues of ecology, technology and quality of life of regional concerns.

This paper is mainly concerned with an analysis of some of the common environmental policies and problems faced by the countries of South Asia, which have ramifications transcending their national boundaries. The purpose is to identify the areas of environmental concerns, which are amenable to regional cooperation in the formulation, implementation and evaluation of environmental policies. An attempt is made inter-alia to review the existing institutional arrangements for securing such cooperation and suggest alternative strategies for effective coordination in this important policy area.

I. MAJOR ENVIRONMENTAL ISSUES IN SOUTH ASIA

The region of South Asia comprises a number of countries which have a need to develop a regional programme of cooperation in the protection of environment. Some of the countries in this region are geographically contiguous, a few of them are landlocked, while some have common rivers originating in one country and flowing through others. There is also a common sea coast-line extending from Pakistan to the eastern part of the region in Burma. Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh and Burma have common geological and geographic factors sharing a contiguous land mass, while Sri Lanka and the Maldives, are the island countries of the Indian Ocean, surrounding the sea coast line of Pakistan, India, Bangladesh and Burma.³

The major common issues confronting this region are mass poverty, underdevelopment and environmental degradation. The region possesses some of the world's largest river systems, which are highly polluted. The amount of pollutants released into water by industrial heavy chemical farming and urban waste have raised important regional problems of water and air pollution. Indiscriminate deforestation and felling of trees in the name of development results in heavy silting of the river beds and the recurrence of flood menace causing great environmental imbalance amongst

3. T.N. Khoshoo, "Need for a Regional Environment Agenda" *The Times of India*, 27 July 1990.

the countries of the region. The problem of marine pollution due to handling, storage and transportation of dangerous goods in package form or due to spills of noxious liquid substance, including the oil spills have become quite acute, particularly after the Gulf War in 1990 amongst the countries sharing the same sea-coast line of the region. The major environmental and disaster related problems faced by the countries of the region of common concern are as follows :

- a) The region with a population of over 1.1 billion is one of the most densely populated in the world, making the member countries of the SAARC (South Asian Association for Regional Cooperation), consisting of India, Pakistan, Nepal, Bangladesh, Bhutan, Sri Lanka and the Maldives as the world's poorest and most unemployed.
- b) Under the heavy pressure of agricultural development, industrialization, mining, logging, firewood collection and livestock grazing, land degradation and rapid rates of deforestation have become serious problems in this region.
- c) The region is extremely rich in bio-diversity and several areas show high levels of endemic species. India and Pakistan, encompass a unique spectrum of ecological regions ranging from snow capped mountains to hot deserts and coastal mangroves. Bhutan, Nepal, Bangladesh and Sri Lanka also have a high diversity of plants and animals and a high degree of endemism. The Maldives, on the other hand, possess some of the world's best coral reef formations, and a large variety of reef fish. While little of this bio-diversity has been studied, much of it is already under heavy threat of extinction. Degradation of forests, replacement of traditional crop varieties with modern high yielding varieties, destruction of coral reefs, and pollution of rivers and construction of dams and barrages pose a serious threat to the region's fish, animal and plant biodiversity.

- d) Rapid industrialization, urbanization and agricultural development have not only led to a serious water pollution but also to problems like water logging, decline in water quality, ingress of saline water from the sea into coastal fresh water aquifers, and decline of ground water tables and traditional water harvesting practices. Water resources in the region, therefore, face a serious threat.
- e) Floods annually range the deltaic regions of South Asia, bringing destruction and destitution to thousands of poor peasants who eke out a precarious living in these ecologically temperamental areas. The Himalayan mountain system is ecologically inherently primed for disaster, as it is extremely seismic having periodically witnessed some of the world's worst earthquakes. Exchanges of knowledge and experience and cooperative flood forecasting and emergency relief systems can help to reduce the damage. The flood affected member nations will have to learn to make the best use of the water and slit the floods bring and, thus, turn an adversity into an advantage.
- f) Countries of South Asia face a double burden of disease. Traditional factors like malnutrition, lack of sanitation facilities and inadequate supplies of safe drinking water are combining with modern factors like changes in lifestyle (for example, smoking) and industrialization to expose and subject human population to a range of diseases from diarrhoea and dysenteries to cancer and heart attack. Pesticide poisoning is now a leading cause of mortality in some countries.
- g) Air pollution, although not yet a serious problem in most SAARC member countries, has acquired acute dimension in the major cities of the relatively industrialized countries of the region, namely, India and Pakistan. Rapid urban growth has led to serious problems of overcrowding in most cities of the region. Cities near coastal regions have often resorted to land reclamation, sometimes with adverse environmental consequences.

- h) Droughts caused due to acute shortage of water, are common in India and Pakistan, and occasionally in Bangladesh, Nepal and Sri Lanka. The effects of drought on the people and economies of the region include severe fall in foodgrain production in rainfed dryland areas, drops in wage earnings, decreases in real incomes as food prices go up, food scarcity, increases in indebtedness, and in the absence of fodder and drinking water livestock is affected. Sharing of experiences in drought management, establishment of joint food resources, cooperative research efforts in dryland farming, sharing of research findings and cooperative efforts for water resources development can go a long way towards mitigation of social and economic consequences impacts of droughts.
- i) Many countries of South Asian region are susceptible to loss of life and property due to seismic tremors, earthquakes, landslides and mass wasting. The response of most countries to those incidences is still limited to ad-hoc post-disaster management. There is a need to establish a system of disaster preparedness, mitigatory action, rehabilitation and reconstruction. Moreover, environmentally sound and substantially less intrusive economic development activities are necessary in mountain regions and along river banks to minimize the damage caused to a fragile environment.
- j) Except for landlocked Nepal and Bhutan, the other five SAARC nations are all afflicted by cyclones, tidal waves or sea storms and their compounding effects. Because of their extensive coastlines, Bangladesh, India, Maldives, Pakistan and Sri Lanka suffer from the effects of sea-based storms and coastal erosion. The deadliest tropical cyclones in the world occur in the North Indian Ocean. Member countries of SAARC find that they are constrained by insufficient resources for relief and cyclone mitigation. An exchange of advance information and its rapid and timely dissemination to threatened population could help them to be better prepared before disaster strikes. Countries of the region can

greatly help each other through joint training efforts and sharing of experiences in disaster management and through the establishment of cooperative disaster warning and relief and rehabilitation systems.

II. REGIONAL AGENCIES / ARRANGEMENTS FOR COOPERATION IN ENVIRONMENTAL MANAGEMENT IN SOUTH ASIA

Given the above situation and the state of environment in South Asian countries, it is vital that the countries of the region cooperate amongst themselves to manage environment and to deal with natural disasters that threaten them on a regular and, in some cases, ever increasing basis. There is now a growing realization that all nations of the world are environmentally interconnected and interdependent. If there is one thing that can bring the nations of the world together, it is the common threat of a deteriorating global environment. Thus, national security and sovereignty in the traditional sense have lost significance on account of the common environmental threats⁵. Apart from the regional input into the development of institutional, legislative and technological frameworks at the national level, a significant development of the recent past has been the strengthening of regional cooperation through the formulation of a number of subregional environment programmes. Two of these regional arrangements, (a) the South Asia Cooperative Environment Programme (SACEP) and (b) Environmental Cooperation under the auspices of South Asian Association for Regional Cooperation (SAARC) are worth consideration.

4. For details see, SAARC, *Draft Regional Study on the Causes and Consequences of Natural Disasters and the Protection and Preservation of Environment* (Kathmandu, Report of the Expert Group held on 13-15 July 1988) Chapter 18, pp. 1-9.

5. See Khoshoo, *op.cit.*

a) The South Asia Cooperative Environment Programme (SACEP)

The South Asia Cooperative Environment Programme (SACEP) involving Afghanistan, Bangladesh, Bhutan, India, Iran, Nepal, the Maldives, Pakistan and Sri Lanka originated from inter-governmental expert group meeting convened in 1980 at the initiative of UNDP in Bangalore. The meeting identified the broad areas in which cooperation was urgently necessary and the different countries agreed to the focal point of those areas. This was followed by a ministerial level meeting in 1981 which formally approved the establishment of the SACEP⁶. A programme of the work was agreed upon in the following areas, which is to be undertaken through focal points in the countries of the region concerned.

- a) Environmental impact assessment and cost-benefit analysis: environment and development--Focal Point : Sri Lanka
- b) Environmental quality standards -- Focal Point : Iran
- c) Technology for the development of renewable and non-renewable resources -- Focal Point : India
- d) Environmental Legislation -- Focal Point : India
- e) Conservation of mountain ecosystems and watersheds-Focal Point: Pakistan
- f) Social Forestry -- Focal Point : India, later altered to Afghanistan
- g) Conservation of wildlife and genetic resources -- Focal Point : Iran
- h) Conservation of corals, mangroves, deltas and coastal areas -- Focal Point : Bangladesh
- i) Island ecosystems -- Focal Point : Bangladesh (in cooperation with the Maldives)
- j) Tourism and the Environment -- Focal Point : Not decided
- k) Desertification and Regional Seas Programme -- Focal Point - none, countries of the region to identify their needs and participation actively in the ongoing global programme.

6. See, SACEP, *Report of the High Level Meeting to Initiate the South Asia Cooperative Environment Programme*, 18-25 February 1981 (Colombo).

- l) Energy and the environment -- Focal Point : Iran (in cooperation with Pakistan and India)
- m) Environmental education and training -- Focal Point : India
- n) Training in wildlife management -- Focal Point : India⁷.

In order to carry out the above programmes, the SACEP Secretariat was established at Colombo (Sri Lanka), which started functioning in 1981.

b) Regional Seas Programme for the South Asian Seas initiated by the SACEP (1984)

In March 1984, the United Nations Environment Programme (UNEP) convened a meeting of the National Focal Point on the development of an Action Plan for the protection and management of the South Asian Seas Region. The meeting was held in Bangkok. The participants included experts from five member states (Bangladesh, India, the Maldives, Pakistan and Sri Lanka) and representatives from nine UN bodies, and Inter-governmental and Non-governmental organizations.

The conference reached consensus on items that should be considered in the further development of the Action Plan. The eight priority areas of regional concern identified by the meeting were, (i) environmental assessment of pollution from human settlements, by oil from coastal and maritime sources, from agriculture and from industrial sources; (ii) management of the coastal zone and marine ecosystems; (iii) conservation of endangered and threatened species, including establishment of marine parks, reserves and sanctuaries, (iv) study of environmental aspects of renewable sources of energy from the sea (v) exchange of information, including establishment of data banks and clearing houses (vi) development of human sources through education and training (vii) promotion of environmental awareness, and (viii) consideration of essential legislative aspects relevant to the action plan. Preparatory activities for the plan will centre around the preparation of country reports reviewing environmental problems in each of the areas mentioned above, outlining possible solutions, and describing available institutional and human resources⁸.

7. *Ibid.*, pp. 4-18.

8. See, SACEP, South Asia Cooperative Environment Programme, *Newsletter* Vol.2 July 1984, p.7.

The meeting further recommended that (a) the Government and the UNEP should initiate the preparation of documents as discussed, (b) the result of this meeting should be brought to the attention of the next session of the UNEP's Governing Council in May 1984, with a request for adequate financial support to complete the preparatory phase leading to the adoption of the Action Plan, and (c) UNEP should bring to the attention of relevant International Organizations, the result of this meeting, with a view to obtaining their assistance in achieving the goals of the Action Plan⁹. Moreover, appealing for the urgent cooperative action to arrest the forest depletion and intensify reforestation scheme in South Asian countries, the Governing Council of the SACEP had unanimously recommended that the year 1988 would be declared as "The year of Trees for South Asia"¹⁰.

However, it is to be noted that the continued ethnic-crisis in Sri Lanka has frustrated the operation and implementation of this programme since 1983-84. It is now, more or less deadlocked, waiting for its revival.¹¹

c) Regional Marine Pollution

In January 1982, prior to the inclusion of the South Asian region in the UNEP Regional Seas Programme, IMO convened a meeting of government legal and technical experts in Colombo, Sri Lanka, to consider cooperative arrangements for dealing with pollution arising from marine emergencies. The meeting made the following recommendations for consideration by the governments of the region pending the conclusion of a regional agreement :

- i) That countries of the region which still do not have a national contingency plan should initiate action to do so at the earliest possible time, giving such action the necessary legal and administrative backing required ;

9. *Ibid*,

10. *Ibid*, p.11.

11. See, Gopesh Nath Khanna, *Environment Problems and the United Nations* (New Delhi: Ashish Publishing House, 1990), pp.256-57.

12. For details see John F. Carroll (ed.), *International Environmental Diplomacy* (Cambridge: Cambridge University Press, 1988), pp. 256-57.

- ii) That respective governments should designate a person, body or authority in such national contingency plans who will, as the need arises, participate and act as focal points in the regional programme of action ;
- iii) That governments shall advise others of their fiscal points or contact and agree to establish direct contact/communication in case of major spill/pollution ;
- iv) That governments shall exchange data/information relating to existing legislation, administrative and other arrangements especially relating to resources both in respect of training and equipment;
- v) That any sighting or detection of spillage on the high seas should immediately be communicated to all such countries of the region which are likely to be affected ;
- vi) That governments should, with proper and prior arrangement with respective immigration and custom authorities, ensure fast passage of men and material for combating pollution ,
- vii) That governments should, through prior consultation, arrange for meetings from time to time and should at a later stage review the need for any institutional set-up or secretariat ;
- viii) That donor countries and other international agencies may be approached for technical and financial assistance both in respect of national as well as regional programmes ; and
- ix) That, in the event that governments eventually agree to cooperate on the development of regional anti-pollution arrangements, training of personnel at the regional level should be given high priority.

It was envisaged that a meeting of experts on the Action Plan would be held in November 1985 for the purpose of reviewing country studies on environmental protection priorities with a view to developing priorities for regional cooperation and action.

d) Regional Arrangements under South Asian Association for Regional Cooperation (SAARC)

The 1980s witnessed the emergence of the South Asian Association for Regional Cooperation (SAARC) comprising seven nations of the region with its headquarters in Kathmandu (Nepal), as a forum for promoting cooperation in the field of science, education, technology, cultural exchanges, and other matters of mutual concern and interests. The Third SAARC summit held at Kathmandu in November 1987 took a decision to commission a study to suggest how regional cooperation can stem the "fast and continuing environmental degradation", which the Heads of State at the Kathmandu summit thought was severely undermining the development process. The meeting of experts was held on July 13-15, 1988 at Kathmandu. It identified common areas of regional concern and regional-level measures and programmes for strengthening disaster management capabilities and for the protection and preservation of the environment.

The study suggested that SAARC should take a common stand in the forthcoming United Nations Conference on Environment and Development. The meet was held in Brazil in June 1992.

The environment management system according to the experts, can be strengthened if member states share and develop, even jointly, scientific capabilities, the pool of experts. Also if the member countries develop common standards, wherever possible and necessary, for monitoring environmental degradation.

Some of the recommendations made were : exchange of information and expertise for planning appropriate and comprehensive land and water use programmes. For common ecological regimes such as arid, mountainous, flood-prone and coastal regions. A joint study on traditional water harvesting systems was also suggested.

These programmes can optimally combine scientific inputs, environmental considerations and social discipline in natural resource use to give high productivity on a sustainable basis. This, according to the

experts, will solve both the problem of growing population in the region and deficient biomass (animal and plant products) production.

A SAARC cooperative programme for conserving the region's biodiversity and genetic resources also has been suggested, as is establishing wildlife corridors along border areas.

Since the SAARC region possesses some of the world's largest river systems, the experts suggest a programme on integrated development of river basins. This will regulate the amount of pollutants released into water by industries, heavy chemical-based farming and urban waste. Indiscriminate deforestation in the catchment areas resulting in heavy silting of the river beds and floods will also be checked by sharing countries.

Other suggestions include technological transfer for renewable energy systems, pollution control and hazardous waste management; networking of environmental information systems including a computer data base for the region; interaction between environmental non-governmental organizations (NGOs); and learning from each other about people's participation in resource management.

Natural disasters strike countries of the region with a certain regularity and often with little respect for the man-made boundaries. Occasionally, the scale is too large for a single country to cope with. Most member countries have weak disaster planning and management systems, says the SAARC study. Increasing population pressure and environmental degradation is worsening the situation. There is an increase in the number and severity of natural disasters and in their economic, ecological and social impact.

In this context, the study recommends regional cooperation on development of modern disaster warning systems. And research programmes on disaster-prone areas.

Solutions, say the experts, lie in linking institutions engaged in this work across the borders. These can be promoted to become centres for excellence for managing specific forms of disaster like floods, droughts, cyclones, landslides and earthquakes.

A SAARC relief system can be devised to assess the damage and provide food, clothing, medicines and other necessities immediately. Developing a cooperative strategy for rescue, relief and rehabilitation has been suggested.¹³

From the above discussion, it is obvious that there is a tremendous need for cooperative action amongst the SAARC countries to share experiences in environmental management, formulation and implementation of environmental policies, and legislation, development of systems of participatory resource management, and to exchange data and research findings through the establishment of networks of data base on environmental information and expertise. Environmental management is for the first time beginning to evolve in the region and the member countries of the SAARC can greatly learn from one another, especially given the fact that they share several similar ecosystems. As per recent reports, the SAARC was to set-up an inter-governmental group to examine these recommendations, whose meeting was scheduled to be held in Bangladesh on 20 February, 1992.¹⁴

III. ESCAP INPUT ON UN CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, RIO DE JANEIRO, BRAZIL 1992

Recognizing that sustainability of earth could not be achieved in parts isolated from one another, the Ministerial-level conference on Environment and Development in Asia and the Pacific, held at Bangkok in October 1990 called upon ESCAP to prepare a document for the 1992 conference that would reflect fully the regional aspirations, views and interests. The document drew attention to the following issues:¹⁵

13. See, SAARC, *op.cit.* pp. 9-16; Also see Aditi Kapoor, "SAARC Cooperation an Environment", *The Times of India*, 5 January 1992

14. See, Kapoor, *op.cit.*

15. See, Economic and Social Commission for Asia and the Pacific, *The Asian and Pacific Input to the United Nations Conference on Environment and Development, Brazil 1992* (New York, United Nations, 1991), Document No.SI/ESCAP/1022, pp.8-12

- a) Improvement of the living and working environment for the poor;
- b) Protection of health conditions and improvement in the quality of life;
- c) Protection of the atmosphere by combating climate change, depletion of the ozone layer and transboundary air pollution;
- d) Protection and management of oceans and coastal areas, and rational use of marine living resources through international cooperation ;
- e) Protection and management of land resources by combating deforestation, desertification and land degradation;
- f) Protection and supply of fresh-water resources;
- g) Environmentally sound management of toxic chemicals and hazardous wastes through appropriate technology transfer and international cooperation; and
- h) Conservation of biological diversity through the adoption of global legal instruments.

The countries felt that the need for poverty alleviation was most urgent. Environmental deterioration due to pervasive poverty is a matter of great concern in both rural and urban areas in the Asian and Pacific region. The World Development Report 1990 estimated that 800 million people in the ESCAP region are struggling to survive on less than a dollar per day. The interaction of poverty and environmental destruction sets off a downward spiral of ecological deterioration that threatens the physical security, economic well-being and health of many of the region's poorest people. The problem of poverty is so enormous that developing countries of the region cannot solve it with domestic resources alone. Therefore, the financing of many initiatives for achieving poverty alleviation and improvement of the quality of the environment will have to come from external sources, particularly developed countries.

The quality of life and good health depend upon the quality of the environment. The number of people in the Asian and Pacific region whose basic needs are not met in terms of proper shelter, clean water, basic

sanitation and adequate health and nutrition levels was never so large as it is today. Therefore, if environmentally sound and sustainable development is to have any meaning at all, it must relate to requirements for the survival of the poor in the Asian and Pacific region through meeting their basic needs.

The countries of the region are seriously concerned over the possible consequences of global warming and climate change, which could have a far-reaching impact on agriculture, the land eco-system, rainfall patterns and atmospheric circulation, including cyclones and rise in sea level. Their adverse impact has to be mitigated and the root causes of climate change have to be addressed. In this context, the effects of climate change could greatly exceed the financial and technical capability of many developing countries to take appropriate action. Within the region, priority should also be assigned to monitoring and data exchange in environmental conditions and trends; developing regional climate scenarios; securing adequate and additional funds; promoting technology transfer; and training of personnel. Cooperation also needs to be strengthened to assist the developing countries of the region in preparing and implementing national mitigation and response strategies.¹⁶

The South's View at the Rio UNED Conference 1992

At the Rio 'Earth Summit' at Brazil held in June 1992, India and other developing countries of the region evolved a common strategy to oppose the "hegemony" of the developed countries.

The basic stand of the Government of India (supported by some other countries in the region) contained in India's approach paper was that the developed countries, which were industrially advanced, were largely responsible for the degradation of environment, for the depletion of ozone layer, for the "green-house effects" and for climate change (global warming). It called upon the developed countries to share the major liability in adopting global action to check them. The developing countries could not

16. *Ibid.*

be held liable for all those factors, and their share would be marginal, and for that too, the developed countries should provide additional funding and transfer of new technology on non-commercial basis. The environment fund should not be dominated by donor countries.

The approach paper made it clear that India would not accept new environmental conditionalities for foreign aid and trade, nor would it accept any new global environment standards to be "imposed" for the management of national resources like forest and river. This was an area where national sovereignty had to be respected by the developed nations, and the management of natural resources would have to be done in the light of national priorities.

The document stressed that India could not accept a review of national policies by external agencies. It was opposed to the creation of a global resource system under international management policy. It was also against the setting up of a new legal international regime for environment management.

For any "global charter" for action, which would show concern for "common future" of the people in the world, the Summit was urged by India and other countries of the region to recognize that the responsibilities for future action could not be disproportionately shifted to developing countries. The discharge of radioactive wastes by industries in the developed world would have to be managed by the developed ones, and they would have to provide additional funds to other countries.¹⁷

The Post Rio Response of the South

After the Rio fiasco, Southern countries have, however, been quite vocal on many of the crucial environmental issues. In the final declaration of the 10th Non-aligned Summit Conference held in Jakarta in Indonesia on 1-3 September 1992, India and other countries have further reiterated their demand on the transfer of environment-friendly technologies to developing

17. See, "Move to Oppose Environ "hegemony" *The Hindustan Times*, New Delhi, 24 February 1992, pp.8-12

countries on non-commercial terms. The Non-aligned Summit Declaration further stressed the importance of "transfer of technology to developing countries on non-commercial and preferential terms". Of greater importance for such transfers is the availability of financial resources in an international fund for purchasing and/or developing environmental sound technology and transferring it in particular to developing countries. The Non-aligned Summit declared that this process must be started at an early date.

As the sequel to the above developments, the Governing Council of the South Asia Cooperative Environment Programme (SACEP) which met on September 21-23, 1993 at Colombo, and included seven member nations of the SAARC along with Iran and Afghanistan (both of which were absent) had agreed on principle that a Trust Fund should be set up to finance interstate environmental projects and programmes. The member countries felt that environment was one field of activity which should provide ample opportunity for regional cooperation since the South Asian countries shared common environmental problems and experiences.

At the SACEP meeting, the Indian delegation led by its Minister of Environment, Mr. Kamal Nath explained further that it was the UNCED decision to set up a Commission on Sustainable Development, to which the North would contribute substantially. This has created opportunities for concepts like the SACEP Trust Fund. Once the SACEP member countries have contributed the seed money, the Trust Fund would approach bilateral and multilateral funding institutions for funds to implement bilateral and regional environmental projects. There could be a common policy of the developing countries for funding the regional programmes of urgent nature. The SACEP meeting drew up a programme of action for the next four years, dealing with interstate subjects like the Himalayan ecology, river waters, conservation, technology and oceanology. Judging by the fact that the SACEP Governing Council was meeting after a gap of four years with absolutely no achievement to its credit, the advance made during the few hours of discussions suggests a South Asian awareness to be serious about environment. The SACEP governing body was also of the

opinion that the proposed UN Commission on Sustainable Development should be made sufficiently high powered so that it could monitor the flow of funds from the rich countries to the developing countries. The most crucial environmental issue was the balancing of the imperative of a quick development of the poor countries with the necessity of preserving environment.¹⁸

IV. NEED FOR A REGIONAL ENVIRONMENT PROGRAMME : REVIEW AND SUGGESTIONS

An analysis of the regional environment issues in the South Asian countries indicates that there is an urgent need to evolve a common strategy to tackle the unduly large number of often intractable and vicious environmental problems, based on scientific and technological inputs, without at the same time abandoning the path of industrialization and economic growth so badly needed by the low developed countries of this region. The review of some of the existing regional arrangements under the SACEP, SARC, SAARC and the ESCAP forming the overall umbrella of the UNEP suggests that while these programmes have been successful in making the countries of the region aware of the environmental catastrophe/disasters and degradation, which lie ahead in the coming years, the Action Plans devised and undertaken in pursuance of mitigating the impact of these problems have neither made any serious impact nor have been pursued with the zeal of a war on the growing environmental degradation. Most of these programmes exist merely on paper. At best these have remained rhetoric and populist policies in the North-South confrontation. There is, therefore, a need not only to strengthen the existing regional arrangements but also to devise alternative policies, institutional machinery, action plans, and a time bound programme to prevent the environment of the countries in the region from being further polluted and degraded. The main component of such a strategy ought to be:

18. See, the *Hindustan Times*, 24 September, 1992, p-15 : 4-5.

- a) Bilateral and multi-lateral cooperation arrangement at sub-regional and regional levels amongst the countries of South Asian Region.
- b) In the context of South Asian countries, experience indicates that SAARC has emerged as the most appropriate and enduring forum for environmental cooperation. It is necessary to establish a Permanent Council for Environment and Development consisting of high level ministerial/secretary representation to evolve common regional strategies for environmental protection and to monitor and follow up their implementation actions.
- c) A programme of regular seminars and joint projects initiated and conducted by the Departments of Environment of the countries of the region on specific regional environment problems purely on scientific and technical basis in order to help the governments of the region to implement developmental policies.
- d) Independent studies of strategies and action plans to be conducted by various grant of experts derived from the concerned South Asian Countries on specific environment problems, arising out of natural and geo-geographical fibres, especially on the possible effects of sea level rise as a result of global climatic changes. Based on these studies, a preventive strategy with a mitigative plan of action for countries like the Maldives, Bangladesh and Sri Lanka and the coastal belt of other countries has to be prepared.
- e) Establishment of a separate Regional fund for Environment Protection under the auspices of the SAARC to be maintained and managed by the suggested SAARC Permanent Council for Environment and Development, to be funded by the member countries, regional organizations like ESCAP, international organizations and programmes like FAO, WHO, UNESCO, UNDP and UNEP and regular grants and contributions from national and international foundations and development agencies.
- f) Building of a cadre of well trained environmental scientists, technologists and managers for, as a prominent environmental

specialist put it, "greening" of most of the government ministries so that message of environment spreads across the board, and task of environment departments and functionaries at all levels become easier. As also there is a need to establish in each of the countries of the region some kind of National Environment Development Corps, constituting of grass-roots workers involved in environmental and developmental reconstruction. This would also help in the employment of a large number of existing unemployed urban and rural youth, who would serve as a sort of barefoot forest, energy, agricultural, sanitation and health workers.¹⁹ Similarly there is some strength in the suggestion to make the foreign service personnel working in the embassies, sensitive to environmental issues. They should be trained as a new breed of professionals combining knowledge of environmental sciences (basic, applied and technology) economics, diplomacy, law, ethics, political science etc.²⁰

- g) Finally, in view of the proliferation of a large number of NGOs engaged in environmental issues in almost all the countries of the region, there is a need to value and set up an apex agency and some kind of federal institutional arrangement to coordinate the activities of these organizations, and to serve as a forum for the education and training of their members in environmental issues.

CONCLUDING OBSERVATIONS

There is no doubt that one of the major developments of the past few decades has been the recognition by the countries, that with appropriate institutional and legislative arrangements, and the political will of the Governments, the developing countries can learn from the mistakes of the developed world and adopt appropriate measures to prevent long-term degradation of the environment. It has been further recognized that environ-

19. Khoshoo, *op.cit.*

20. *Ibid.*

mental concern has to do with use of resources, with due consideration being given to their long-term sustainability, as an inherent part of the development process, not something apart from it.²¹ However, despite this recognition, little precious has been accomplished by way of concrete regional action plans to be implemented by the countries involved. This is due largely to the absence of a permanent enduring and strong regional agency adequately funded and invested with the requisite authority to prepare monitor and enforce environmental protection measures. The member countries have only shown concerns without evolving a proper regional machinery and the necessary political will to entrust such problems to be tackled by a supranational body either under the auspices of some regional organization or even the United Nations.

However, notwithstanding the increasing internal problems and conflicting social, political and economic interests amongst the countries of the South Asian region, the long-range prospects for environment protection in the future still appear to be encouraging primarily, because (a) there is now a better understanding and increasing awareness of the environmental problems and their implication for development, (b) there have been significant developments in the establishment and strengthening of national institutional and legislative frameworks, which could form the basis for the implementation of activities for environmental protection, (c) the countries in the region are now better equipped both in terms of technical knowhow and manpower to tackle environmental issues, and (d) there is a marked tendency amongst the countries of the region to combat the various problems that threaten the integrity of the environment jointly through preparation of a number of sub-regional environment programme. The need of the hour is to consolidate these efforts and to evolve an enduring institutional mechanism to keep up this momentum. All countries of the region have thus individual and collective responsibilities to act and work together to preserve and improve the quality of life of their people.

21. See, UN, Economic and Social Commission for Asia and the Pacific, *Review and Appraisal of Environmental Situation in the ESCAP Region* (Bangkok, 1982) also see ESCAP, Document SI/ESCAP/1022 (1991).

terms, the paper also focuses on questions: whether South Asia should remain caged within the deadly conflicts of its two militarily powerful neighbours or should it search for a viable alternative to nuclearization and avoid a regional disaster? What should be the position that smaller South Asian neighbours, as member of SAARC, contemplate for themselves to prevent the prospects of an overt Indo-Pak nuclear arms race?

THE PROLIFERATION SCENARIO

The contest for the great equalizer that began in South Asia in the early 1970s had taken a new dimension once it is assuredly confirmed that the nuclear weapons capabilities of India and Pakistan now demand a mechanism to manage them rather than their extinction. Fresh evidence provided by the Stockholm International Peace Research Institute (SIPRI) in its latest report, "World Inventory of Plutonium and Highly Enriched Uranium, 1993" suggests that India had already possessed about 290 kg. plutonium by the end of 1991 from its two weapons grade plutonium producing Dhruva and Cirus reactors. By 1995, it would be in possession of 425 kg. of weapons grade plutonium enough to manufacture 85 Hiroshima size nuclear weapons. Conversely, Pakistan had acquired capability to produce 6-10 nuclear bombs by 1991, and if current trend persists, Islamabad's capability will continue to grow despite its disclosure to have freezed the nuclear weapons programme in July 1990.⁸ A group of Austrian scientists have also arrived at similar conclusion as drawn by the SIPRI, in their independent study which compared to the American estimates, is modest in its account.⁹

8. At a press conference in Karachi, Pakistan's Prime Minister Benazir Bhutto disclosed this reality and suggested that it would be useless for Pakistan to roll back its nuclear programme. See, *BBC South Asia Report*, November 20, 1993.

9. See, *News Time*, (Hyderabad), September 25, 1993. For American estimate see Leonard S. Spector, *Nuclear Weapons and South Asian Security* (Washington DC: Carnegie Endowment for International Peace, 1988), pp. 10-11 and 16. Also see Leonard S. Spector, *The Undeclared Bomb* (Cambridge, M.A.: Ballinger Publishing Company, 1988).

down of the deterrence and the fear of nuclear conflagration in Europe in particular was the reason for discouraging any sorts of aggression or even crises from becoming policy imperatives, which have sharply decreased any further incentives for proliferation.⁶

In South Asia, however, the reverse is true. As events comprising the destruction of Babri Mosque in December 1992, the consequent Bombay blast and the frenzy of ethnic massacre followed by over a month long siege of the Hazratbal Mosque in Kashmir have complicated the dimension of conflicts, the ascertained reality is becoming more crisis prone than before, thus, providing alluring reasons for proliferation.

Consequent repercussion is the pessimistic assessment that this paper has reached in the context of ever deteriorating security environment triggered by an overt contention for nuclear missile proliferation for deterrence against war. The level of animosity persisting between India and Pakistan has proven that the available instrument of diplomacy - in the absence of political will to reverse the trend - is inadequate to prevent such a disastrous phenomenon. The framework set by the 1972 Simla agreement, in this regard, has lost its relevance once it received differing interpretations by the involved parties. Though dispute settlement remains a priority which could be gleaned through the recent pronouncements both Indian and Pakistani leaders have made, there appears to be little incentive available for an enduring modality of compromise without a basic understanding on the festering issue of Kashmir.⁷

The purpose of this paper is to assess primarily the impact of Indo-Pak strategic dissonance on the security future of South Asia. In relational

6. Robert Jervis, "The Future of World Politics: Will It Resemble the Past?" *International Security*, Winter, 1991/92, p. 48.

7. The Kashmir tangle is the core issue that surrounded the seventh rounds of Foreign Secretary level talks between India and Pakistan on January 1-3, 1994, in Islamabad. Though the talks were preceded by harsh rhetoric and neither side appeared willing to budge, it actually broke the frosty relationship after a year's lapse. However, as expected, nothing concretely shaped up after four rounds of talks. It was largely a dialogue between the deaf, although both sides had agreed to continue talks to resolve the problem. *The Hindu*, January 4, 1994; *BBC South Asia Report*, January 3, 1994.

discriminatory bias, providing legitimacy to already declared nuclear weapons states but withholding the same from other nuclear aspirants. This suggests of their positions as being quite independent of either country's nuclear weapons programme in South Asia. The case is, however, not so. Their nuclear programme is definitely not against the NPT, it is certainly against each other as their animosity escalates progressively and the symptom of conflict in Kashmir remains unabated.

The over-heated conflict in Kashmir, the past tendency to resort to arms and the sense of perpetual enmity have all made both India and Pakistan increasingly being infatuated with the concept of deterrence, the very nature of which, precisely, is consistently shooting themselves into their own feet.² Nuclear deterrence should be fielded as an alternative to war, however deeply entrenched is the logic in the strategic community of both countries. In what could be called a frustration to drive home this point in the repulsive minds of its leadership, a former Chief of Army Staff in India has dubbed his leaders as the *Blindmen of Hindustan* in a thinly disguised fictional study on India's nuclear imperatives.³ Any alternative to nuclear weapons option could be more hazardous and expensive for India's security, argued another ex-army official, suggesting that nuclear capability could only be a feasible way to cap the mounting defence expenditure in the country.⁴ Pakistan, on the other hand, is also not immune to this thinking, as it was persuasively asserted by General Mirza Aslam Beg, Pakistan's then Chief of Army Staff in October 1989. The set of logic guiding both the value and the philosophy for the nuclearization of South Asia is diametrically against the reality of nearly four decades of serious "nuclear learning" of the West, the experience of which has neither influenced nor structured the nuclear decision making process in the region.⁵ The break-

2. See, Noel Gayler, "A Commander-in-Chief's Perspectives on Nuclear Weapons," in Gwyn Prins, ed., *The Choice: Nuclear Weapons Versus Security* (London: Chatto and Windus, 1984), p. 24.

3. See, General K. Sundarji, *Blindmen of Hindustan: Indo-Pak Nuclear War* (New Delhi: UBS Publishers and Distributors, 1993).

4. See, Brig. Vijai K. Nair, *Nuclear India* (New Delhi: Lancers International 1992), p. 250.

5. Joseph S. Nye, Jr., "Nuclear Learning and US-Soviet Security Regimes," *International Organization*, Summer 1987, pp. 371-402. The bottom line of this study is "even stable bipolarity does not preclude the break-down of deterrence through accident."