The Environmental Movement: Global Issues and the Indian Reality

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The environmental movement globally and in India comprises a diversity of organisations with common orientations but with varying emphases and strategies. In India, the movement emerged as a response to a wide spectrum of struggles and conflicts over the use of natural resources, social justice issues and violation of human rights. A typology based on movement categories by issues and examples, provides a pointer to the diversity of organisations, issues and ideology that contribute to the environmental movement in the country. A review of key ideological underpinnings of these organisations and the differences highlight the points of tension, the paradoxes and contradictions underlying the actions of key organisations in the movement. The contributions of Gandhian thought, ecological Marxism, Green ideology, eco-feminism and eco-socialism are reviewed. The ideologies of the environmental movement are apparently distinct, but sometimes overlap. Many organisations are not exclusively environment-oriented, which* raises the question, 'Is the environmental movement in India the new social expressions rooted in old ideologies?

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The canvas of environmental movements is vast and includes very diverse environment issues. It requires an integrated analysis of various strands ranging from inter-relationships between science, eco-systems, livelihoods systems to public policy and international politics. Similarly, environment relationships may thus be explored over a wide range of levels, from the sub-atomic to the cosmic. Thus in the context of the environmental movement th^re is need to examine how science, social theories and ideologies of people's organisations and public policies have shaped what we recognise today as the environmental movement, with special reference to the Indian context.

Shifts in Development Discourse: Significance of Science and Environment

For more than a century, the thrust of all development activities has been on industrialisation, trade and urbanisation as symbols of national growth and progress. As one report points out, 'Since 1900, the world's population has multiplied more than three times, its economy has grown twenty fold, the consumption of fossil fuels has grown by a factor of thirty and industrial production by a factor of fifty. Most of that growth, about four fifths of it, occurred since 1950' (Mc Neil, Winsemius and Yakushij, 1991:3). It was almost a universally accepted conviction that economic growth depended on rapid industrialisation. Development policies attempting a transition from an agrarian economy to an industrial economy, therefore, concentrated on increasing production and reducing poverty.

With rapid and radical transformation made possible because of advances in science and technology, the 1960s saw the development of movements of 'contestation' amongst Western youth, expressing rejection of forms of lifestyles imposed by capitalism, its expansionist endeavours, the alienating work, the patriarchal family and militarisation. 'Materialism, technology power, profit and growth were characterised as symbols of all that was worst about Western society and as posing a threat to the environment' (Mc Cormick, 1989: 64). The late sixties provided a further momentum to these movements through theories based on the work of the Frankfurt School and Herbert Marcuse starting from the proposition that the western working class had lost its revolutionary role and the integration of this class required a revision of the theory of exploitation, and of strategy for liberation.

The struggles of the people in the Third World and the intensification of the arms race between the superpowers, gave a new dimension to movements of contestation, where anti-nuclear and peace campaigns attained considerable visibility. In the 1970s, the possibility of unlimited 'consumerism' was challenged and a new theme of 'ecology' and the planet's limited resources emerged (Hirsch, 1976). A much wider acceptance of resource issues as central economic and political concerns was gradually visible.

Emergence of environmental problems of resource depletion, pollution, acid rain, the hole in the thinning ozone layer, nuclear waste, destruction of tropical rainforests, land salination, famines, loss of biodiversity — have raised serious questions about the 'cost' of development

and progress, the direction of growth, the values and assumptions that have dominated modern science and development theory. In this context, it is necessary to understand the role of science and technology in the environmental problematic. The social and ethical dimensions of this relationship is critical.

Foucoult (1980) has linked power, knowledge and space, wherein he argues that increasing power over space devalues and deadens it. For example, space used to belong to nature, but when mapped by explorers and cartographers; catalogued and inventoried by traders and naturalists; coded by militarists and computer scientists, it is controlled by an 'eye of power' and subjected to unlimited surveillance. Therefore, what constitutes 'knowledge' for a society, how this knowledge is used, how it affects the ways in which we shape our lives and what are and ought to be the relations between theory and practice are primary questions.

The embeddedness of any scientific inquiry in the assumptions and values of society have to be recognised as they influence what questions are asked, the way they are posed and interpretations generated. Science has always reinforced dominant values and concepts of reality. Theoreticians of the Frankfurt School and Habermas (1971) connect positivist science to the processes of rationalisation and control in industrial society. They argued that the attitude of technical and instrumental rationality, which is at the core of positivist social sciences, serves the dominant group's interest in mastery and control.

Ideological frameworks within social sciences also become power structures. Shifts in scientific paradigms have at stake, power over society and nature, as they contest the very terms of reference, the assumptions about humans, the natural environment and forms of social organisations. Science is thus, both a social negotiation for meaning, theory and paradigm and a political negotiation for power over what realities are to be seen and what metaphors may be used to describe them. Thus, ideas are translated into ethics and behaviours that affect the environment.

Merchant (1989) expands Kuhn's (1962) concept of scientific revolutions to 'ecological revolutions' by including the far reaching changes in economy, society and thought related to transformations in nature-society relations. She stresses that the rise of reductionist mechanistic, quantitative consciousness is an ideological feature of the capitalist ecological revolution, which gave way to a global ecological revolution, which is altering our consciousness towards nature.

In the 1980s, a sea-change occurred as 'Green' issues took centre stage and environment evolved into a legitimate, high profile, enduring issue. There was a radical reappraisal of concerns over resource availability and use, the environmental consequences of resource exploitation and the relationship between environment, poverty and economic change. In the West, this period was marked by dramatic increases in the membership levels, public interest and resources of environmental groups. Distinct, however, from other periods, these environmental concerns became institutionalised. Thus, from the local through to the international level, the environmental agenda increasingly gained considerable prominence with the power to affect personal, commercial and political decisions (Young, 1990). The UNCED process, culminating in the Rio Conference in 1992, was perhaps the high watermark in this process. The great challenge facing the world is to cope with the impact of economic growth on environment processes. This emphasis is reflected in the approach which has become known as sustainable development.

Sustainable Development

This is a unifying approach to environment and economic development which seeks to reconcile human needs and the carrying or coping capacity of the environment in relation to the consequences of economic systems. It consists of broad goals and the human institutions responsible for managing the planet. The problems with this approach are manifold and we are a long way from turning these goals into a clear programme of attainable goals.

The World Commission on Environment and Development (WCED), popularly known as the Brundtland Commission (after its chair, Gro Brundtland of Norway) was created in 1984. The Commission initiated studies which culminated in the publication of 'Our Common Future' (The Brundtland Report) in 1987. This report set the direction of debate on all future discussions of sustainable development which was defined as 'Development that meets the needs of the present without compromising the ability of future generations to meet their needs'. It called for policies which recognised the need for economic growth in a way that did not jeopardise the position of vulnerable people or deplete the future viability of the resources base. This required an attitude to economic development in which quantity as well as quality of growth are equally important.

The report is significant as it argued that poverty, resource depletion and environmental stress arise from disparities in economic and political power. The Brundtland Report (WCED, 1987) delineates the following objectives of sustainable development policies.

- reviving economic growth;
- changing the quality of growth;
- meeting essential needs for jobs, food, energy, water and sanitation;
- ensuring a sustainable level of population;
- conserving and enhancing the resource base;
- reorienting technology and managing risk and
- merging environment and economics in decision making processes.

The ambitious goals, it was recognised, will require different forms of resource exploitation, investment patterns and decision-making processes, technological development and institutional change. Further, the report stated that it was futile to attempt to deal with environmental problems without a broader perspective that encompassed the factors underlying world poverty and international inequality. The report thus set a broad agenda for change, but the mechanisms to remove barriers that existed to achieving these goals were not addressed.

The Environmental Movement

Social movements have complex roots and it is difficult to dissociate one from the other. Bowman (1976) rightly argues that it was not a single issue or sudden crisis that led to the formation and growth of the environment movement.

The evolution of the environment movement indicates that it is life-centred, and distinguished by a sense of moral imperative regarding human behaviour in relation to other life-forms within the biosphere. The movement identifies a complex effort of international characters over a range of issues, and its participants cut across social and economic classes. It is not an elitist movement in an excluding sense, nor is it a mass movement comparable to those seeking economic or political reforms (Morrison and Dunlap, 1986). It comprises a diversity of organisations with common orientations but with varying emphases and strategies. A thesis common to the movement is that the undefined endless growth assumptions that dominate governmental and economic policies are impossible to attain in the long run and are

destructive in the short run. While all goals of the environmental movement have not been clearly defined, the attainment of a sustainable economy of high environmental quality is a widely shared objective.

It is a social force attempting to shape the world's future, although the movement contains several paradoxes and contradictions. There is a wide spectrum of agreement-disagreement over the incidence, significance, urgency and implications of an environmental crisis. Similarly the writing about environment is handicapped by ambiguity of terms as different people use words such as 'science', 'environment' or 'environmental movements' to mean different things, depending on their point of view. In fact, hostility to the environmental movement is derived from self-serving interests of some industrial and development-mission government scientists, who often cash in on these ambiguities and differences in view points.

With this backdrop about the trajectory of development, the revolutions in technology, a fundamental questioning of the role of science in interpreting natural and social reality and the emergence of environmental concerns on the international agenda, this paper attempts to review the status of the environmental movement in India. The next section discusses the ideologies embedded in the actions of various organisations, which have had a considerable impact, not only at local levels but also at national and international levels. The effort is to connect the ecological and social concerns of the groups to their political convictions and actions to comprehend the nature of the environmental movement on the Indian sub-continent. Finally the key concerns in the environment movement and the debates between the developed and the developing countries are briefly discussed.

Environmental Movement in India

Attempts at Classification

The environmental movement in India has essentially emerged as a response to a wide spectrum of struggles and conflicts over the use of natural resources and social justice issues or human rights. At one end of the spectrum, the movement is around a specific issue, such as deforestation or construction of a dam. At the other end, the focus is on an alternative development paradigm. The varied nature of these movements, their diverse methodologies and different ideological orientations render the task of constructing an adequate taxonomy of

these movements difficult. To understand the nature of the environmental movement in India, one attempt has been to analyse them in terms of their material, political and ideological contexts (Gadgil and Guha, 1994). According to this approach, the material basis of the environmental movement is served by the conflicts over natural resources. The political context of the movement relates to the involvement of action groups in the collective mobilisation of people affected by environmental degradation. The ideological expressions of the movement are analysed by describing different ideological strands of Indian environmentalism.

In another attempt, the nature and type of the environmental movement in India have been analysed on the basis of the classification of the struggles over the use and control of natural resources. In this schema, the environmental movement in India is contextualised by three types of struggles over natural resources. The first type of struggle is related to the entitlement of different social groups to environmental resources. Second, environmental action is directed towards seeking a change in the official policy related to the pattern of environmental resource use and, the third type of struggle raises ecological issues of development, particularly the dimension of human-nature relationship and presents a critique of the dominant development paradigm. All these struggles are clustered around various natural resources that include land, water, forest and air (Sethi, 1993).

The typology of the environmental movement, based on natural resource-based struggles, leaves out a number of activity-groups of the environmental movement in India. For example, there are a host of individual campaigns and advocacy groups engaged in lobbying for policy change, conducting research and training on environmental issues which are very much a part of the environmental movement. Table 1 classifies the environmental movement into eight broad categories by issues and examples.

***Nature and** Types*

The forest and land-based struggles have resulted from the large-scale commercial use of forest materials and clearing of forest by the state and the unequal access to land resources. The Chipko movement in the Himalayas and the Appico movement in the Western Ghats are the classic examples of the forest-based movement. Other forest-based movements include the agitation against the replacement of sal trees by teak species in the Jharkhand-Bastar belt in the country. Apart from

drawing widespread public attention to the issue of the basic rights of access of the forest dwellers to forest resources, the forest-based movements also had their critical impact on the proposed Forest Bill of 1982 which was ultimately withdrawn from discussion in the Parliament. Observing that the forest-based movements had their greatest spread, involvement and impact on Indian environtnentalism, Sethi points out that these struggles also led to a paradigmatic shift in the discourse on the commodification of natural resources (Sethi, 1993:129):

> This shift in discourse is best epitomised by the slogans that the different struggles threw up. In Chipko the cry was ' what do the forests bear? Soil, water and pure air!' as against the dominant notion,' What do the forests bear? Profit on resin and timber!' Similarly, the Jharkhand struggles highlighted the differences between sal (a tree species which gave the forest communities leaves for fodder, nuts and fuelwood) and sagwan (teak).

TABLE 1
Categories of the Environmental Movement by Issues and Examples

Sr. No.	*Categories*	*Issues*	*Some Examples*
1.	Forest and Land-based	• Right of access to forest resources. • Non-commercial use of natural resources. • Prevention of land degradation. • Social justice/human rights	Chipko, Appico, Tribal Movements all over the country, (for example, Jharkhand/ Bastar Belt)
2.	Marine resources and fisheries, aquaculture	• Ban on trawling, preventing commercialisation of shrimp and prawn culture. • Protection of marine resources. • Implementation of coastal zone regulations.	National Fishennens' Forum working for traditional fisherfolk in Kerala; Chilika Bachao Andolan, Orissa.

Sr. No.	*Categories*	*Issues*	*Some Examples*
3.	Industrial pollution	• Stricter pollution control measures, compensation. • Prevention of reckless expansion of industries without considering design, locational factors and livelihood issues of local population.	Zahirili Gas Morcha in Bhopal; Ganga Mukti Andolan in Bihar; Movement against Harihar Polyfibre factory in Karnataka; Movement against pollution of Sone river by the Gwalior Rayon factory led by Vidushak Karkhana Group in Shahdol district, MP; Movements against poisoning of Cheliyar river in Kerala by Kerala Shastra Sahitya Parishad (KSSP).
4.	Development Project		
	a. Dams and Irrigation projects	• Protection of tropical forests. • Ecological balance. • Destructive development. • Rehabilitation and resettlement of the displaced.	Silent Valley Movement by KSSP; Narmada Bachao Andolan; Movements against the Tehri by Tehri Bandh Virodhi Samiti; The Koshi Gandhak Bodhghat and Bedthi, Bhopalpatnam and Ichampalli in the West; The Tungbhadra, Malaprabha and Ghatprabha Schemes in the South; Koyna Project affected Committee.
	b. Power projects	• Ecological balance. . • Rehabilitation and resettlement, high costs.	Jan Andolan in Dabhol against Enron; Koel-Karo Jan Sanghatana in Bihar;
	c. Mining	• Depletion of natural resources. • Land degradation, • Ecological imbalance.	Anti-mine project in Doon valley. Anti-Bauxite mine movement (Balco project) in Orissa.
	d. Industrial plants/Railway projects/Airport projects	• Realignment, • Rehabilitation and resettlement of the displaced. • Ecological balance.	Protests and demands of Konkan Railway Realignment Action Committee. Citizen's group against Dupont Nylon 6.6, Goa

Sr. No.	*Categories*	*Issues*	*Some Examples*
			Amravati Bachao Abhiyan against a large chemical complex.
	e. Military bases	• Ecological balance. • Rehabilitation and • Resettlement, and safety.	Anti-missiles test range in Baliapal and at Netrahat, Bihar.
5.	Wild-life sanctuaries, National parks	• Displacement, Rehabilitation and Resettlement, loss of livelihood.	Ekjoot in Bhimashankar region of Maharashtra, Shramik Mukti Andolan in Sanjay Gandhi National Park, Bombay
6.	Tourism	• Displacement, cultural changes, social ills.	Himachal Bachao Andolan. Bailancho Saad, Goa.
7.	Advocacy groups/individual campaigns, Citizen's Action Groups	• Policy inputs, Stricter measures for protected areas. • Clear policy on national park and wild-life sanctuaries, lobbying, research, training and documentation on wild life, conservation education, community-based environmental management. Publications on environmental problems. • Intellectual support to grassroots movements on environmental issues	Society for Clean Cities. Bombay Natural History Society (BNHS). Centre for Science and Environment (CSE), Delhi. Research, training and documentation organisations, such as Bombay Environmental Action Group, Save Bombay Committee, Save Pune Citizens' Committee, etc.
8.	Appropriate technology/organic farming	• International debates. • Sustainable development, eco-friendly models of development. • Low cost, environmental-friendly housing and technology.	• Ralegaon Siddhi (Anna Hazare's village). SOPECOMM. Laurie Baker's Housing experiments. People's Science Institute, Dehradun.

The land-based struggles consist largely of localised agitations against land degradation due to the indiscriminate use of organic chemicals, mining and constructions (in urban areas). These movements are not well documented enough to enable a detailed analysis. The Manu Rakshana Koota (Save the Soil) movement in Karnataka is

a specific case of land-based movement launched against the Wasteland Development Policy that empowers the state to convert common village land into wasteland for social forestry purposes particularly for eucalyptus plantations. Similar protest groups existed in Gujarat in the early 1980s, which extensively debated the state social forestry programme.

The movement against the over exploitation of marine resources generally refers to the traditional fisherfolk's movement against trawling in shallow waters, resulting in the decimation of young fish and breeding and also depletion of marine resources on which the fisherfolk depend on for their livelihood.

Surprisingly, the agitations against industrial pollution have also been sporadic and localised and their substantive impact on Indian environmentalism remains difficult to discern. The country's worst industry-related disaster caused by the gas leak at Bhopal, killed about 25,000 people and left thousands injured and handicapped. However, 'the furious debate and action that Bhopal has given rise to has shaken, as never before, the near blind faith that many had in the beneficial impacts of modern industry, science and techno!ogy'(Sethi, 1993: 135). The anti-industrial pollution movement is largely concentrated in urban areas. Examples of such movements include the Vidushak Karkhana group in Shahdol in Madhya Pradesh and innumerable litigations against industrial pollution.

Next to the forest-based movements, environmental activism around development projects is yet another example of a broad-based environmental movement with larger coverage and impact. The specific development projects against which sustained movements have been launched by the environmentalists include dams, power projects, industrial plants, railway projects and mining. The dam-related agitations of local groups cover the entire geographical area of the country. The Silent Valley movement in Kerala has been the harbinger in the environmental uprisings against the large dams in the country. Unlike the other anti-dam movements where displacement and rehabilitation of the affected people have been the major issues, the Silent Valley movement raised the fundamental issue of ecological balance. The Silent Valley movement 'was unique because building a dam in this uninhabited area would not involve displacement of people, and thus was fought primarily on environmental grounds' (Sethi, 1993: 132). The movement was launched to save the rare tracts of Indian tropical forests.

Movements against the multi-crore Narmada Valley Project covering Central and Western parts of India and against the Tehri dam in the north are the more well-known and relatively recent examples of anti-dam movements. The Narmada Bachao Andolan (NBA) has not only made an international impact, it has also led to the formation of a national level campaign against large dams. The activities of the NBA are not simply restricted to the question of rehabilitation of the oustees; the movement has also raised fundamental questions about the model of development, whose interests are served through such projects and the accountability of the state and multilateral aid agencies such as the World Bank towards human rights and environmental issues in the host countries.

The other anti-dam movements include protests against Pong dam in the north and the issues range from rehabilitation of the project affected persons, land compensation, and the negative impact of the project on the environment and local communities. The movements against the dams and power projects are mostly localised agitations. The agitations, however, would also qualify for a movement as most of these issues are taken up by well organised groups.

As regards mining and quarrying, the long battle between the mine owners and the local people over limestone extractions in Doon Valley was fought in the Supreme Court of India. The Bharatiya Aluminum Company (BALCO) Resistance Committee and Gandhmardan Protection Youth Council in Orissa are fighting against the BALCO's bauxite mine project.

On the issue of military expansion and its consequences on the environment, the movement against Missile Test Range in Baliapal and the base at Netrahat area are known movements. The Konkan Railway Realignment Action Committee and its protest organisation agitating against the justification related to realignment of the Konkan Railway Project also generated considerable debate.

In the area of aquaculture, the Chilka Bachao Andolan in Orissa and other groups in Andhra Pradesh and Tamil Nadu are fighting against the growing commercialisation of shrimp and prawn cultivation. The movement demands the restoration of the traditional methods of shrimp and prawn culture.

The movement on wildlife issues has not yet gathered any significant momentum in the Indian context. Ekjoot, an organisation in Bhimashankar region in Maharashtra, has taken up the issue of displacement due to declaration of certain areas as national parks or as

wild-life sanctuaries. Similarly, the issue of tourism and its environmental consequences is also a relatively new issue of the environmental movement in the country. The Himachal Bachao Andolan is an example of recent environmental movement related to tourism in India. Several groups in Goa are addressing the social and ecological fallout of an uncontrolled tourist industry. Similarly, protests against golf courses in the country, to attract foreign tourists, are increasing.

The Advocacy and Appropriate Technology categories play a dual role in Indian environmentalism. At one level, they provide intellectual, theoretical and demonstrative stimuli to the environmental movement through their contributions to the discourse on development and ecology and by demonstrating small eco-friendly models of development in specific areas. At another level, they actively participate in lobbying and judicial litigation on issues of concern. Some of them are also active members of various environmental groups in India and abroad.

The typological profile of the various parts of the environmental movement in India discussed above indicates that these movements are largely localised, and issue-specific and restricted to relatively small areas. The range of issues raised and acted upon in the environmental movement in India varies from cost-benefit analysis of environmental impact to a discourse on alternative development based on distributive justice and human rights. The different ideological orientations, methodologies and a wide variety of actors involved in the environmental movement indicates the amorphous nature of the movement. The next section attempts to elaborate on the ideological underpinnings of the movement.

Ideologies of the Environmental Movement in India

What is Ideology?

It is beyond the scope of this paper to get into a discourse on the various conceptual problems related to the definition of ideology. The following definition would suffice for the present purpose. An ideology is 'a system of ideas which gives legitimacy to an existing or proposed system of relationships, and correspondingly supports an action programme to sustain or subvert the prevailing system' (Gore, 1993: 29-30).

Ideology constitutes an important element of a social movement. A social movement is generally described as a recurrent pattern of a

collective attempt to bring about or resist social change in social institutions, value systems and social relationships. Ideologies provide inspiration as well as legitimacy to a social movement. They also provide explanations and indicate a value framework of a social movement. Ideologies are action-driven. 'The action element related to an ideology is what we call a social movement' (Gore, 1993: 46). An ideology can also be a product of a social movement and this usually happens through the crystallisation of ideas during the course of a social movement.

The definitions of ideology and social movement suggest that both contain change-resisting or change-promoting elements. What, however, is problematic is the direction of change-resistance or change-promotion within a movement. It is suggested that a movement that is clearly directed towards the alteration of a structure of a system or against the threat to an alteration of a system is a social movement. A movement that aims at intra-systemic changes is thus considered a quasi movement and not a social movement proper (Mukherji, 1978). As a corollary to this, an ideology that is not aimed at any transformative change in the system may not be fully comprehended as an ideology.

Ideologies of the Environmental Movement

Ideologies of Indian environmentalism are essentially characterised by free-floating eclectic brands of multifarious, often conflicting groups. The crusading Gandhians, the Marxists, the proponents of appropriate technology (Guha, 1988), the ideology of conservation and the perspective of indigenous ecological management (Baviskar, 1995) and, eco-feminism (Mies and Shiva, 1993), are the known ideologies of the environmental movement in India.

The ideologies are apparently distinct but sometimes overlap. A particular environmental organisation/group may follow more than one ideology. Similarly, a particular ideology may inspire many environmental movements at the same time. In the Chipko movement, the oldest environmental protest movement in India, the Gandhian ideology of pre-modern village-based self-sufficiency of people championed by Sunderlal Bahuguna has combined with Chandi Prasad Bhatt's constructive ideology based on appropriate use of technology. During some phases of the movement, the Uttarakhand Sangh Vahini opted for a Marxist interpretation of history and followed a Marxist strategy of achieving its goal of environmental movement. The course

of the Narmada movement also seems to have been charted out through a Marxist value framework that has questioned the monstrosity of large dams as a product of capitalist development and has also included the Gandhian perspective of decentralisation and non-violent action (Baviskar, 1995).

The presence of different ideological positions within an environmental movement suggests that ideologies are often used more as strategies than as ideologies *per se.* Ideologies being embedded in strategies is not unusual because one of the functions of an ideology is to specify strategies or means to attain it. The problem arises when a movement follows one particular ideology or goal but adopts another ideology merely as a strategy. A movement based on the Gandhian ideology is likely to suffer from many organisational incongruities if it follows Marxist strategies to achieve its objective. What is possible is that at different points of time and phases, a movement may adopt different ideologies or shift completely to a new ideology. The differences in the leadership of a movement may also give rise to different ideologies within a movement. Various ideological strands within the Chipko movement clearly bring out such differences.

Although the characterisation of an ideology as transformative or radical, constructive or reformist and so on depends upon the value judgement of the observer, the general observation about the environmental movement is that it is largely guided by a reformist ideology. As Bharadwaj (1992) points out:

> The overriding emphasis of the environmental movement has been reformist. Concern with conservation and efficiency in resource and energy use, rather than with reallocating the production surplus among social classes, has dominated its agenda. Thus, the radical challenge to the dominant high-technology 'treadmill of production,' and the 'softening' of the resource perspective of environmentalism by the emergence of equity concerns surrounding the new 'appropriate technology' and 'deep ecology' movements have remained largely rhetorical, even as the focus on efficient resource use in production has made common cause between their membership and elite interests.

The observation applies both to Gandhian as well as to the ideology of appropriate technology. Gandhi's Utopia for simple living and village economy, which is interwoven with his moral belief in human-nature symbiosis, reflects his concern for an ecologically sustainable

society. The gospel of non-violence and decentralised self-governance at various levels are some other elements in Gandhian ideology that find prominence in the mainstream environmental movement in India. Interestingly, Gandhi's ideology of trusteeship demanding that the rich should be the trustees of the poor in the justice delivery and so on has somehow remained de-linked from the Gandhian ideology of the environmental movement.

The ideology of appropriate technology raises the agriculture-industry linkage and attributes environmental problems to the mismatch between these two sectors in terms of size and level of their operations. According to this ideology it is not modern technology per *se*, but the appropriateness and sustainability of such technology in specific contexts that needs to be examined. The ideology includes an element of 'constructive' philosophy of Gandhi but unlike Gandhi, the appropriate technologists emphasise the synthesis between the traditional and modern technology in order to make technology socially viable. Ecological Marxism addresses environmental issues from a Marxist perspective, in which environmental concerns are located in the economic sphere. In this ideology, 'systemic economic change is viewed as logically prior to ecological stability and political action towards that end becomes an overriding priority' (Guha, 1988: 2580).

The issue of preservation aimed at protection of biodiversity has been the ideological force behind the movement towards the preservation of Silent Valley and other conservation efforts that have led to the creation of wildlife sanctuaries and national parks in the country. The ideology of indigenous communities is derived from the view that the culture and the belief systems of these communities (the adivasis or the original dwellers) provides an alternative ecological wisdom (Baviskar, 1995).

The above mentioned articulations are the major ideological streams in Indian environmentalism. A few more ideologies have given birth to the environmental movement elsewhere in the world particularly, in Europe. The Green ideology, eco-feminism, eco-socialism and deep ecology are the four prominent ideologies that inspired the environmental movement in Europe and other parts in the West. Although these ideologies are yet to become a driving force in Indian environmental activism, they have the potential to influence the future environmental movement in India. Some similarities between some of these ideologies and Indian environmentalism are already in existence. For example, ecological Marxism has some resemblance to

eco-socialism, though the latter uses Marxist principles to address ecological issues from a different perspective. Eco-socialism is anthropocentric with a humanist bias. It aims at securing 'the material welfare of all humanity, through the growth of productive forces via the domination of nature. But it rejects modern industrialisation (capitalism or East European brand of socialism) which masters nature by transforming it to the detriment, in the broadest senses, of humans' (Pepper,1993: 232).

Similarly, the Green agenda has its influence on the Indian environmental movement that upholds low intensity and sustainable use of nature and enhances the regenerative potentials of nature for subsistence (Baviskar, 1995).These similarities in agenda notwithstanding, the Green movement in Europe has attempted to provide an alternative political culture by forming a Green Party and actively participating in party politics (Sarkar, 1994).

The ideology of eco-feminism refers to the ideas and belief that women's affinity with nature and their responsibility for the maintenance of everyday life make the environmental concerns predominantly feminist concerns. This feminist perspective on environmental issues presents a critique of man's control and manipulation of the natural world. The ideology originally developed in the context of women's involvement in environmental movements in the West but has gained popularity in other parts of the globe including India. However, many scholars expressing doubt about its ideological profoundity, have pointed out that the ideology of eco-feminism has mystified the role of women in environmental issues. Specifically, it has been argued that the women's role in the environmental movement (such as in the Chipko movement) is often exaggerated and is given legitimacy by an eco-feminist perspective while in fact these movements have actually been led by men (Joekes, Heyzer, Oniang'o and Salles, 1994: 138).

The ideology of deep ecology challenges the assumption that humans are at the centre of concern. It treats human beings as one among and equal to other species and emphasises the intrinsic (and not instrumental) value of nature. It raises several ethical questions about human action/activity and its implications for ecology. Some elements of deep ecology can be traced in the ideological positions of various Indian environmentalists in their perceptions about human-nature relationships.

Teleological Commonality?

Within the environmental movement, the ideological differences and cross-currents are bound to result in confusion and conflicts. However,

the ideological differences produce conflicting situations in the choice of methodologies and identification of the social actors of the environmental movement. In so far as the goals of environmental movement are concerned, there appears a seemingly common-by-purpose but different-by-strategies sort of a situation.

The common element in the varied nature of the Indian environmental movement is the general concept of 'environmentalism' itself that includes ideologies and practices which inform and flow from a concern wiih the environment (Pepper, 1989: 13). At a more concrete level, the concern of the Indian environmental movement is expressed in terms of an alternative vision of development. The issues of moral economy versus market economy and the vested versus public interest in the use of natural resources have provided the necessary stimuli for the moral and intellectual justification for an alternative development paradigm as the major objective of the environmental movement in India. To quote Shiva (1991:47-48):

> Environmental movements that emerge as a protest against the violation of public interest groups must therefore not merely indicate the social and environmental consequences of narrow profit maximisation. A deep and sustained resolution of such conflicts in favour of the larger public interest must be based on the emergence of a different approach to nature in the creation of a public interest science.

According to Shiva (1991: 48), 'the partisan view of nature manifests itself in the form of a reductionist paradigm that reduces nature into its constituent parts and leads to the human transformation of nature' that results in the production of exchange value without crying for life-support systems and survival. She attributes the distinction between the partisan reductionist materialism and public interest ecological perspective to the difference between mechanical materialism and dialectical materialism of Marx. It is difficult to consider Shiva's position as truly Marxist as she suggests a resolution of conflicts between these two brands of materialism in favour of public interest. In genuine Marxist perspectives, conflicts in such instances are not resolved but 'burst asunder'.

Old Ideologies, New Forms of Expression?

Environmental consciousness and its social expressions through various protests, form part of what has come to be known as 'new social movements'. The major ideological strands (particularly, the

Gandhian and Marxist ones) of the environmental movement in India discussed earlier are, however, neither new, nor are they exclusively meant for the environmental movement. Is the environmental movement then a new social expression rooted in old ideologies? An appropriate answer to the question is difficult without empirical investigation. One of the significant factors that distinguishes the newly emerging environmental groups and their activities from the older movements (for example, Freedom Movement, Trade Union and Peasant Movements) relates to the growth of development-oriented action groups, popularly known as non-governmental organisations (NGOs). Most environmental movements in the country are now spearheaded by these groups and thus constitute the 'actors' of these movements. The nature of these groups is varied and disparate with numerous ideological shades. Yet they share one common platform, the non-party political platform. Politically conscious of their movements, these groups operate outside the sphere of party politics.

There are both mass-based high profile as well as small community-based grassroots environmental NGOs. Conscientisation, education, mobilisation and public interest litigation on environmental issues are the major objectives of these NGOs. While there has not yet been an NGO ideology, so to say, the rise and development of this sector and its influence on the social and political life in India has undoubtedly added new meaning to the social and political organisations in the country. .

In his analysis of the sociological relevance of various action groups in India (in which environmental NGOs occupy a crucial position), Dhanagare (1993) has drawn our attention to the social composition of these groups and their perceptions about the contradictions in contemporary civil society and the state. According to Dhanagare (1993: 166-167), most actors in the NGO sector in India are represented by the middle class professionals and intellectuals whose 'disenchantment and disillusionment with institutional structures of the state and civil society are almost always highlighted as the reason for middle class urban educated youth and intelligentsia getting drawn into the non-party political formations and processes'. Dhanagare further adds that contemporary action groups are very varied and defy any classification. Broadly, there could be the radical, the functionalist and the orthodox Marxist groups. The radical group would attempt to weaken the authority of the state through the empowerment of people for social transformation; the functionalist group would follow a

consensus approach towards non-class contradictions; and the orthodox Marxists would place ideology in the economic sphere or consider it as a function of class position of the subjects. In Dhanagare's opinion the functionalist and the orthodox Marxist approaches cannot possibly escape criticisms on their viability. The functionalist position does not necessarily provide a critical view of the state and civil society while the orthodox Marxist approach would likely to reduce everything to class analysis.

There is another set of actors involved in communication and advocacy related to the environmental movement within the voluntary sector. This group comprises media persons, professionals, scientists, academics and so on. The strategies of the group for environmental actions includes lobbying through government, press and politicians and, litigation in the courts of law.

As a result of all these, the picture of ideological unity among various action groups remains hazy. On this problem Dhanagare (1993) suggests that Gramsci's view of ideology and political action in which hegemony transcends class phenomenon and also Laclau's theoretical framework to study populism in the context of contemporary social movements bear special significance for an analysis of the ideologies of action groups. For our purpose, the same applies to environmental action groups as well.

The Counter Ideology

The ideology of capitalism with its environmental consequences appears to be the main adversary or counter ideology of the existing environmental movement in India. Environmental damage may be one of the many negative fall outs of capitalism. The phenomena of poverty, hunger, unemployment and a host of other problems of human existence may also be imputed to a capitalist process of development. Modern capitalism and its intricate national and international network has penetrated into almost all spheres of human life. Can the environmental movement attack all these when its entry point is environment? The issue-based sporadic nature of the environmental movement does not indicate such a possibility. Identification of capitalist ideology as an adversary in an environmental movement would at best be a Utopian and at worst, a contradictory attempt. The counter ideology of environmentalists thus needs a redefinition. What they are protesting against is not capitalism but eco-capitalism or a capitalist ecology.

Another weakness of environmental movements relates to the adequacy of scientific knowledge about ecology and uncertainties about responses of nature. As Sethi (1993:145) observes, 'In an arena like ecology where so-called scientific knowledge, particularly for tropical and semi-tropical climes, is very inadequate, even the debate between ostensible experts is plagued with a high degree of uncertainty about the validity of different positions.'

Furthermore, even as the experts are certain on particular issues there is no guarantee that the issues will be easily comprehensible to the actual 'victims' on the ground. Thus, 'the issues are not only less understood, but also they often generate only scattered protest and adjustment-based resistance, and primarily attract voluntary and non-party groups and movements. Such a mix rarely adds up to a potent combination of radical and paradigmatic change'(Sethi, 1993). On balance, one can conclude that the ideologies of the environmental movement in India are still in the making. The action elements of the ideologies are largely issue-based and are not yet clearly directed towards systemic change.

The Global Issues

Prior to multinational technology and culture, there existed enormous cultural diversity, which, in fact, was a direct result of the world's biodiversity. The modernisation process has reduced diversity and is transforming nature into high-yielding monocultures (Agarwal, 1994). This process is essentially a product of power relations between nations and economic interests. The polarisation between the North and South on environmental issues, therefore, needs to be examined.

It is now known that 25 per cent of the world's population consumes 85 per cent of its wealth and produces 90 per cent of its waste. If the rich reduce their wasteful consumption by 25 per cent, worldwide pollution will be reduced by 25 per cent, while if the poor 75 per cent reduced consumption totally and disappeared from the earth, the reduction in pollution would be only 10 per cent. Similarly, within the United States, 6 per cent of the world's population consumes over half of the world's non-renewable resources and over a third of all raw materials produced.

It is often argued, therefore, that the real threat to environment comes, not from the poor but from the affluent mega-consumers and mega-polluters who occupy more space, consume more of natural resources, disturb the ecology more and directly and indirectly pollute

the environment with ever-increasing amounts of thermal, chemical and radioactive wastes.

Developing countries are more concerned about issues such as soil erosion, land salinity, desertification, water pollution, urban air pollution and deforestation. Combined with rapid population growth, the number of those living in extreme poverty is increasing. Poverty lies at the heart of a number of processes producing detrimental environmental changes. Many of the fragile eco-systems in the developing countries (wetlands, arid lands, marine lands) have deteriorated due to the way in which capitalist market economy has affected peasant economies and societies.

Environment problems are thus created by both affluence and poverty. In the North, the high and unsustainable levels of production and consumption cause considerable pollution and damage to the environment. The developing nations have little power to alter this and the implementation of measures to reduce global pollution depends on 'enlightened self-interest' on the part of wealthy nations.

The poor lack the ability to act in ways which would maintain or improve the environment as they often lack the resources of time, equipment and money. They are forced to trade off long-term sustainability against short-term survival. According to Blaikie (1985), environmental degradation is often simultaneously, a result of underdevelopment, a symptom of underdevelopment and a cause of underdevelopment. In fact, the concept of sustainability is seen by many as an attack by developed countries on the sovereign rights of developing countries and often viewed with suspicion as a new form of 'environmental imperialism'.

It has been convincingly argued that the interests of the developed world are also reflected in the environmental problems of the developing world because developing countries not only provide raw material for its own industries but also for the industries of the West. For example, the Japanese and Western timber industries have been the largest source of forest destruction in Southeast Asia. Having turned countries like Thailand from net exporters into net importers of wood, Japanese companies are now turning to the last great wooded frontier of the world: the Amazon basin of South America (Agarwal, 1994). Similarly, large-scale cattle ranching in Central and South America has destroyed forests since 1960s.

Given the nature of development and international trade, the developed countries are buying resources and the Southern nations have few

alternatives but to supply them, often on terms that are economically and environmentally unfavourable (for example the debt crisis, cash crops for export, use of fertilisers, pesticides, and related soil erosion). This conflict of interest and mutual interdependence creates a vicious circle. As a result, the central dilemma of sustainable development is: what is the best way to confront and overcome the powerful vested interests that would feel threatened by structural changes in the *status quo ?*

Countries in the South argue that industrialised nations have an obligation to help those in the developing world as they have benefited greatly and continue to benefit through transfer of resources from developing world. They have improved their standard of living not only by consuming their own resource bases (which they now seek to conserve), but also by importing a proportion of the resource base of the developing world. They must, therefore, now provide funds and expertise for developing nations to improve their well-being and invest its technology that would increase production, energy use and efficiency with minimum environment damage. Further, it is felt that the North must persuade their own populations to accept a change in their lifestyles and consumption patterns.

Countries in the North, on the other hand, insist that developing nations must check their rising population and reduce poverty which causes social and economic pressures and consequent environmental degradation. These debates raise two clear questions: one, who decides what is an environmental problem, which in itself is often disputed and two, how can the competing interests of different groups in society be balanced when selecting and implementing policies to deal with these problems. Therefore, even when there is unanimity about the causes of environmental degradation, it can be very difficult to identify solutions that nations are willing to implement.

Environmental problems affect a range of groups with different interests, all of whom argue for different policies. The groups could be differentiated by location (urban-rural or North-South), by income and class or consumption patterns within these locations and also by gender. Since some groups have greater political and economic influence than others, the definition of an environmental problem and policies adopted to deal with them are circumscribed by these power relations within and between countries. In India, for instance, the debates on GATT, the impact of the structural adjustment programme and patenting of herbs, plants and trees — all fall within the purview

of dictatorial policies which cannot be divorced from the environmental concerns.

The creation of a cooperative relationship between the developed and developing world in political and economic spheres, and the reduction of dominance of the developed over the developing nations are very critical, if environmental problems are to be solved. If damage to the environment is to be reduced, there is a need to develop mechanisms whereby values other than those of pursuing narrowly defined economic growth and profit can effectively govern decision-making with the influential agents of the world economy. This constitutes is a major political challenge.

The environmental demands on developing countries leave them three key choices: persist with development irrespective of environmental problems, minimise ecological imbalances at the expense of development, or create integrated development environment policies. The global rhetoric favours the last, but conventions and protocols have concentrated on the broader problems of the environment such as global warning, depletion of ozone layer and biodiversity, points out Roy (1996). Some examples of these conventions are the 1985 'Vienna Convention for Protection of the Ozone Layer for Research, Monitoring and Information Exchange', signed by 20 countries, and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, later amended in 1990.

The Global Environment Facility, established in 1990, attempts to bring about collaboration on financing global environmental problems between the World Bank, UNDP, and the UNEP. The UN, especially the UNEP has been one of the principal organisations stressing environment concerns within context of development. The pressure of international NGOs like Greenpeace International, their criticism about the negative impact of World Bank policies and projects, which often run contrary to environmental values, has compelled the largest multilateral aid agency to help countries improve their environmental management. Financial resources for environmental investments, support for national and regional environmental planning exercises and deepening and disseminating knowledge about environmentally sustainable development are now legitimised activities within the World Bank. The Bank's environmental personnel has risen from five in the mid-1980s to about 200 in recent years which reflects the significance attached to the environment issue. The substantive impact of these changes continues to be critiqued and their implications for poverty,

development and environment remain questionable especially for developing countries. The Rio Earth Summit debated many these of concerns and resulted in five agreements: The Frame Convention on Climatic Change; the Convention on Biological Diversity; Agenda 21; The Rio Declaration; and Forest Principles. While the goals of the Rio Summit marked a turning point in international thinking, the developing countries were disappointed as 'basically the Rio texts reflected an implicit acceptance of sustainability based on conventional economic development within an open international economy' (Roy, 1996). The developed countries were unwilling to give up their privileges while the South was trying to use the 'Green' card to force through economic concessions. The tension between the North and the South continues on these issues.

Conclusions

The environmental movement has visibly enlarged, refined and extended our understanding of environment issues and their significance. Robert Nisbet (1982), says that when the history of the twentieth century is finally written, the single most important social movement of the period will be judged to be environmentalism. It is no longer possible to treat ecology and international political economy as separate spheres.

One of the fundamental contributions of the environmental movement has been to demonstrate the ultimate unity of the subject matter of science. No other area of human concern has drawn a greater diversity of scientific disciplines into the service of a developing field of policy, nor offered greater occasion for development of inter-disciplinary collaboration.

Sustainable development has become a global issue both because of the high levels of ecological interdependence that exist within many parts of the global economy and because it raises fundamental questions concerning the distribution of wealth, power and resources between the North and South.

The striking dichotomy between the seamless web of ecological interdependence on the one hand and the fragmentation of the international political system on the other, makes finding and implementing 'solutions' to environmental problems a formidable enterprise. It will require a diversity of actions and a political will. There are, today, serious disagreements over the ultimate goals of society and, therefore, over what constitutes an environmental problem and solution and how far the solutions should radically reform or adapt to current circumstances.

The centra] challenge facing us, is how can a fragmental and conflictual political system, made up of over 170 sovereign states and numerous other social, economic and religious actors, achieve high and historically unprecedented levels of cooperation and policy co-ordination needed to address environment problems on a global scale? The key questions in this regard are:

1. What kind of development is consistent with what kind of environment, and how can science clarify the options?
2. How can science advance human welfare in ways compatible with the integrity, diversity, and continuity of the biosphere?
3. What beliefs must be abandoned, which values revised, and which institutions changed for human-earth relationships to be sustainable at high levels of economic and environmental quality?
4. What new attitudes and behaviours must people and their governments be persuaded to adopt that will sustain a world of high economic and environmental quality?
5. What strategies may be necessary to achieve a human society that will enlarge rather than diminish future options and the quality of life on earth?

The major problem of reconciling environment and development is not just technical, but fundamentally political and ideological also.

The ideologies of environmental movements are apparently distinct, but sometimes overlap. Many organisations are not exclusively environment-oriented, which raises the question, 'Is the environmental movement in India the new social expressions rooted in old ideologies? It is also evident that ideologies within the environmental movement are still in the making and the demand for change is sporadic and issue-based and have not yet crystallised into a major political force at a national level. It is equally important to address the questions — who decides what is an environmental problem and how can the competing interests of different groups across the nations and also within the nation boundaries be balanced when selecting and implementing policies to deal with these problems.

GLOSSARY OF TERMS

1. Ecology: The science of the intricate web of relationships between living organisms and non-living surroundings.

2. Ecosystems: These interdependent living and non-living surroundings make up eco-systems: for example, forests, lakes, estuaries.
3. Biosphere: The earth, its surrounding envelope of life and all its living things comprise the biosphere.
4. Environment: Of humans includes not only the biosphere, but also the interaction of humans with their natural and human-made surroundings.
5. Environmentalism: Definitions reveal two meanings:
   - the sense of environmental determinism often used in anthropological literature (for example, Ellen, 1982), and
   - the ideologies and practices which inform and flow from a concern with the environment (Pepper, 1984).

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