CHAPTER - III
ENVIRONMENTAL MOVEMENTS IN INDIA

"The most alarming of all man's assaults upon the environment is the contamination of air, earth, rivers and sea with dangerous and even lethal materials."

- Rachel Carson

Writing a decade ago, the American Sociologist Robert Nisbit observed, "It is entirely possible 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". That observation is even more appropriate today.1 Established 30 years ago as one of the new social movements, it is almost impossible to imagine contemporary political discourse without it.2 These statements describe the growing importance of the environmental issues in the contemporary world. Therefore, it is safe to say that without the environmental movements there would be little or no 'greening' of governments and corporations.3

Ghan Shyam Shah, in his study on ‘Social Movements and the State’, explains various components of social movements. According to him, objectives, ideology, programmes, leadership and organization are important components of social movements. They are interdependent, influencing each other.4 These essential factors of social movements are also visible in the functioning of NGOs. Consequently, NGOs are treated as being a constituent part of social movements.5

5 Timothy Doyle and Doug McEachern, in Supra no.3, p.56.
of environmental movements, environmental NGOs (ENGOs) are the most influential actors across the world. Environmental groups are the primary policy instruments of the movement, the representatives of millions of citizens who are concerned about green issues. They organize public protests and pressurise political parties on environmental matters. In sum, we can say that ENGOs are central to the study of environmental movements.

Before we analyse the various facets of environmental movements, a attempt is made to understand the term ‘Social Movement’ including an ‘environmental’ one. There is no precise definition of the term ‘social movement’ accepted by scholars of all disciplines or even scholars belonging to the same discipline. Like many other terms such as ‘democracy’, ‘masses’, ‘popular’, ‘equality’, the term ‘movement’ also is often used differently by different social activists, political leaders and scholars who have written on ‘movements’. It is fashionable for political leaders and social reformers to call their activities, which are essentially confined to lobbying or advocacy, ‘movements’, even though their activities are restricted to forming organizations with less than a dozen members.

Generally speaking, the term movement refers to ‘Joint action’ or ‘Collective action’. From this perspective, not only the collective action but also any action involving a huge number of people can be called movement. Collective action may take its expression in many forms such as protest, agitation, strike, hartal, riot, etc. According to Ghanshyam Shah, these agitations or protests are not strictly social

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6 Russell J. Dalton in Supra no.1, p.244
7 Ghanshyam Shah in Supra no.4, p.15.
8 Ibid. p.15.
movements. Moreover, a particular collective action may only be an agitation for some scholars, and a movement for others, depending upon the level of analysis and perspective. Thus, agitations, protests, strikes and even riots are often but not always part of a social movement of a particular stratum of society. At this moment, Subhash Sharma's interpretation on social movements seems to be more appropriate. In his opinion, a social movement is not a spontaneous individual outburst, but a conscious, collective, and organised effort to challenge a system or an organisation to meet some common perceived goals. To achieve those goals, it adopts various strategies and tactics of mobilisation of people on the one hand, and communicates to its opponents to understand its viewpoint. Further, it may involve a single-issue or multi-issue protest. It usually sustains for a relatively long time. As far as environmental movement is concerned, generalized environmental degradation as a threat to livelihood and welfare is the product of recent industrial development, and it now calls forth largely defensive new ecological/green social movements.

The Origin and Growth of Global Environmental Movement:

All social movements have a history, and many have found it necessary to invent one. Gail Omvedt in her major study of social movements in India, ‘Reinventing Revolution’, she argues that the environmental movements, women’s movements, Dalit movements and

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9 Ibid. p.18.
10 Ibid. p.18.
11 Ibid. p.19.
farmers' movements that emerged in the 1970s represent a new class of social movements. The new social movements in India and in many parts of the Third and First World, particularly in the 1980s onwards, have largely been termed as 'environmental movements'. Thus, like all other movements, environmental movements also constitute a part of social movements. Therefore, at this point, it is pertinent to examine the historical evolution of the environmental movement from its early period to the emergence of contemporary environmental movements. An awareness of historical record of environmental action gives useful insights into understanding present movements.

It is difficult to understand environmental movements in India without referring to the wider global context. The international 'environmental movement' that generated the Stockholm Conference has a long history and no immediate beginning. Many of the problems that we now regard as environmental, such as pollution, deforestation and land degradation are not new. In the classical world, Plato, Lucretius and Caesar all commented on the problem of soil erosion. The collapse of the Mayan civilisation hundreds of years ago can probably be attributed to deforestation and soil erosion. This indicates that the environmental problems we are facing today were definitely not unknown in the past.

Scholars like Russell Dalton, Neil Carter and Ramachandra Guha talk of various waves of environmentalism. The period 1880–1910 included the first major wave of environmental action in Western Europe. The first wave of environmentalism proceeded step-by-step with the Industrial Revolution, itself the most far-reaching process of social change in human history. The industrialization of the world dramatically altered the natural world through new methods of resource extraction, production and transportation. In most nations, the environmental consequences of the Industrial Revolution were becoming manifest during this period. Urbanization and industrialisation had transformed landscapes, and the harmful effects of these processes were destroying wildlife and natural areas, as well as polluting the environment. In this way, the process of industrialization contributed to the wanton environmental destruction. As a result, people started to express their deep concern towards environmental issues. The growth of the natural sciences during that century also stimulated awareness of environmental problems. Biologists and Botanists studied and catalogued the natural environment, documented the loss of habitats and species, and traced these problems to industrialization. The German botanist Ernst Hickel first used the term ecology in 1866. In the first wave concern about environmental issues can also be traced to the emergence of conservation and nature protection groups in the latter part of the nineteenth and the early twentieth centuries, reflecting a growing middle-class interest in the protection of wildlife, wilderness and

19 Russell Dalton, in Supra no.1, p.25.
21 Russell Dalton, in Supra no.1, p.262.
22 Ibid, p.27
natural resources. Inspite of growing awareness about environmental issues in the first wave, there was very little consciousness of environmental problems when the UN was established immediately after the Second World War.23 However, popular concern towards environmental issues can be seen with the emergence of modern environmentalism.

**A New Environmental Wave:**

In the late 1960s environmental issues again became a salient political topic in Europe.24 This period witnessed a speedy rise in public attention with regard to environmental problems in industrial countries. When then did the environmental movement begin? Most accounts of the American movement date its beginnings to Rachel Carson’s book on pesticide pollution, ‘Silent Spring’, published in 1962 and variously described as the ‘bible’ and ‘founding event’ of modern environmentalism. It is true that it is only in the Sixties that environmentalism emerges as a popular movement, successfully influencing public policy through a mixture of protest in the streets and the lobbying of legislators in the corridors of power.25 Therefore, the emergence of modern environmentalism was a significant development in the environmental history and it has become a subject of political importance. Fierce public debates about the consequences of population growth, technology and resource depletion encouraged people to think increasingly in global terms about the environment.26

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24 Russell Dalton, in Supra no.1, p.35.
25 Ramachandra Guha, in Supra no.20, p.3.
26 Neil Carter, in Supra no.18, p.4.
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Modern environmentalism came of age on 22 April 1970 when millions of Americans celebrated and protested on Earth Day, which remains the largest environmental demonstration in history. In the wake of these developments, UN convened an international environmental conference. The watershed 1972 Stockholm Conference, which examined how a range of global environmental problems affected human life, marked the entry of the environment into the international agenda. Influenced by this conference national governments started setting up of environmental ministries and introduced new laws to protect the environment.

Despite the efforts of national governments to safeguard the environment, the trend is the waning ability of state power to engage with the environmental security agenda. The appearance of this trend has been accelerated by the speed with which environmental degradation emerged as a central political issue in the late 1980s.

The nuclear disaster at Chernobyl in 1986 may be the event that finally changed the course of contemporary European politics on environmental issues. The routine assurance that there was no danger became a bitter joke in conversation. Scientists estimated that between a few thousand and tens of thousands of Europeans will eventually die from cancers produced by radiation from Chernobyl. This nuclear hazard has drawn widespread public attention on environmental problems. In short, Chernobyl and its by-products
convinced many Europeans that the environmentalists’ claims were not mere political rhetoric, and this forced political leaders to respond to public demands for environmental reform.33

In 1990, for the first time since the rise of modern nationalism, the threat of major war has lifted; but at the same time the inability of states to protect their citizens to their own satisfaction from risk through poisoned water, air and food from violent storm or rising sea level, is revealed.34 In addition to the environmental concerns mentioned above, the problems of global warming, the ozone hole, the massive destruction of rain forests, and other issues captured people’s attention. The 1992 Rio conference or Earth Summit represented this new concern and took measures to solve these problems.

**Historical Evolution of Environmental Movement in India:**

As stated earlier, the historical origin of environmental concern will serve the purpose in understanding how individuals and organizations were reacted to the environmental problems. Throughout history Indians have shown a great tradition of environmental consciousness. According to Rush, India has the oldest and most diverse environmental movement in Asia. It is more deeply rooted and integrated within its host civilisation than any other environmental movement in the region and often refers back to religious traditions and ancient forms of social protest.35 An early record of a struggle of this kind in India is mentioned in the epic *Mahabharata*, where the clash between the Aryans, pastoralists and

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33 Ibid. p.44.
34 Gwyn Prins, in Supra no. 29, p.722
agriculturists, and the Nishads, forest-dwellers, resulted in the burning down of the Khandava-Vana, the site of modern-day Delhi.36

Kautilya's Artha Shastra enjoined the kings to protect forests and wildlife, particularly elephants. The cultural values in favour of protection of environment were strong enough to give rise to the institution of the sacred groves or Devara Kadu (literally, forests reserved for God), where exploitation of forest produce including wildlife was severely restricted or prohibited.37 Several ancient hymns in Sanskrit were in praise of nature and specially prayed God to bless the Earth with regular rainfall and greenery. Indian religions are not anthropocentric and have emphasized non-violence (Ahimsa) and rights of animals of life and compassionate treatment.38

Much later, however, with the arrival of the modern period, India came under the British rule. The advancement in the field of science and technology made possible for the establishment of modern industries, and consequently, a different method was adopted for the use of natural resources. British ships were built of Burma teak, their sailors wearing clothes of cotton grown in India, drinking Kenyan coffee sweetened with sugar planted in the Caribbean. Decimating the forests of north-eastern United States, Southern Africa and the Western Ghats of India – to name only three regions – the British were, through the eighteenth and nineteenth centuries, unquestionably the world leaders in deforestation.39 Thus, environmental degradation

38 Ibid. p.33.
39 Ramachandra Guha, in Supra no.20, p.4.
gained momentum with the exploitation of natural resources by the colonial rulers. The demands of the industrial revolution in Britain imposed new conditions in India. The setting up of indigo plantations in Bengal and Bihar to feed the dye industry, the introduction of cotton in Gujarat and the Deccan, or the large-scale felling of trees in the sensitive mountain ecosystems of the Western Ghats and the Himalayas to meet the requirements of the ship building and railway industries – all led to the emergence of new conflicts that induced new forms of poverty and deprivation, resulting, in turn, in local responses geared to retain control over local, natural resources. This indicates that throughout the colonial era, people resisted the destruction of their environment.

At this stage of our study, it is noteworthy to mention the contribution of intellectuals to the Indian environmental movement.

The legacy of the thoughts and writings and practices of Mahatma Jotiba Phule, the radical social reformer and pioneer of non-Brahmin movement, had dwelt about the people’s right over the forest and the importance of the decentralized water harvesting systems.

The life and works of ‘Mahatma-Gandhi’ have had a considerable influence on the environmental movement in India. Ever since, Mahatma Gandhi has been the usually acknowledged and occasionally unacknowledged patron saint of the Indian environmental movement. From Chipko to the ‘Save the Narmada Movement’ of the present time,

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41 Harsh Sethi, in Supra no.36, p.123.
42 Sanjay Sanghi, in Supra no.16, p.220.
43 Ramachandra Guha, Mahatma Gandhi and the Environmental Movement in India, in Arne Kalland and Gerard Persoon (eds.) Environmental Movements in Asia, Nordic Institute of Asian Studies, 2000, p.65.
environmental activists have relied heavily on Gandhian techniques of non-violent protest or Satyagraha, and have drawn abundantly on Gandhi’s polemic against heavy industrialization. Again some of the movement’s better known figures, for example Chandi Prasad Bhatt and Sunderlal Bahuguna of Chipko or Baba Amte and Medha Patkar of Narmada, have repeatedly underlined their own debt to Gandhi. Therefore, indeed, Mahatma Gandhi, is held to be the founding figure of the environmental movement.

J.C. Kumararppa, a noted environmentalist and a devout follower of Mahatma Gandhi made significant contribution to the Indian environmental movement. ‘The Economy of Permanence’ by J.C. Kumararppa was the first in-depth and practical masterpiece of the rationale and outline of sustainable and appropriate technology and organization of production, much before the environmental classics, like ‘Silent Spring’ and ‘Small is Beautiful’.

Another intellectual, Dr. Ram Manohar Lohia, was one of the strong critiques against the construction of big dams and river-valley projects. Even a democrat like Nehru arrogantly dismissed the powerful criticism posed by the socialist leader Dr. Ram Manohar Lohia against large dams and river valley schemes. But Lohia’s essays on these themes are relevant even today. The anti-dam struggles also have their roots in the issues raised by the peasants and tribals in India regarding the right over the land and forest.

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44 Ibid p.65.
46 Sanjay Sanghvi, in Supra no.16, p.220.
Interestingly, the first ever struggle in India by the affected peasants of the Mulshi Dam in 1921-24, near Pune, led by Veteran 'Senapati' Bapat, Vinayak Bhuskute and their colleagues, has raised the questions regarding the propriety of dam, its social and environmental aspects.48

So far, we have briefly examined intellectual’s contribution to the Indian environmental movement. By analysing their contribution to environmentalism, we may consider them, as the pioneers of Indian environmental movement. Hence, the modern Indian environmental movement is substantially influenced by their ideas.

**Modern Environmental Movement:**

There is difference of opinion with regard to the origin of modern environmentalism and environmental movements in India. It seems that in most cases the origin or root of a particular environmental movement can be traced to a specific event and is thus intimately tied to a very specific case of environmental degradation or resource use conflict.49 The beginnings of the environmental movement in India are conventionally dated to the early 1970s, although there are differences as to its foundational event. Thus, officials locate the movement’s origins in Indira Gandhi’s famous ‘poverty and pollution’ speech at the 1972 Stockholm Conference on the Human Environment whereas activists point to the Chipko Andolan, which broke out a year later.50 Gail Omvedt opines that the story of India’s green movements began

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48 Sanjay Sanghvi, in Supra no. 16, p.220.
49 Arne Kalland and Gerard Persoon, in Supra no.35, p.7.
with the Chipko movement.\textsuperscript{51} Whereas Harsh Sethi says that it was the 1972 Conference on Environment and Development at Stockholm that set the stage for the entry of the concepts of environment and ecology into the mainstream of Indian discourse on both development and social movements.\textsuperscript{52} Whatever may be the case, both events have considerable influence on modern environmentalism. As Bowman rightly argues, it was not a single issue or sudden crisis that led to the formation and growth of the environmental movement.\textsuperscript{53} With this backdrop about the origin of modern environmentalism, there emerged some new movements in the 1980s.\textsuperscript{54}

The resistance by women in 'Chipko' agitation against the tree-cutting in Uttarkhand, the opposition to the Silent valley Project in the Kerala, the fishworkers' movement in the coastal area, or the tribals' movements for the right over land and against the large projects have asserted the new environmentalism and right of the people over the natural resources.\textsuperscript{55}

**Classification of India's Environmental Movements:**

The canvas of environmental movements is vast and includes very diverse environmental issues.\textsuperscript{56} By looking into the sprawling activities of environmental movements in India, we came to know that the country has vast and vibrant environmental controversies. The varied nature of these movements, their diverse methodologies and

\textsuperscript{52} Harsh Sethi, in Supra no.36, p.126.
\textsuperscript{54} Sanjay Sanghvi, in Supra no.16, p.222.
\textsuperscript{55} Ibid. p.222-223.
\textsuperscript{56} Janki Andharia and Chandan Sengupta, in Supra no.53, p.422.
different ideological orientations render the task of constructing an adequate taxonomy of these movements difficult.\textsuperscript{57} Inspite of the incredible variety of environmental movements operating in the country, it is still possible to produce a description of the different types of movements. In this context, scholars like Janki Andharia and Chandan Sengupta have attempted to provide the typology of environmental movements. Table 3.1 classifies all the Indian environmental movements into eight broad categories.

\textbf{Table - 3.1}

\textbf{Categories of the Environmental Movements by Issues and Examples}

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Categories</th>
<th>Issues</th>
<th>Some Examples</th>
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<tbody>
<tr>
<td>1.</td>
<td>Forest and Land-based</td>
<td>• Right of access to forest resources.</td>
<td>Chipko, Appico, Tribal Movements all over the country, (for example, Jharkhand/Bastar Belt)</td>
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<td></td>
<td></td>
<td>• Non-commercial use of natural resources.</td>
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<td></td>
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<td>• Prevention of land degradation.</td>
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<td></td>
<td></td>
<td>• Social justice / human rights.</td>
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<td>2.</td>
<td>Marine resources and fisheries, aquaculture</td>
<td>• Ban on trawling, preventing commercialisation of shrimp and prawn culture</td>
<td>National Fishermens' Forum working for traditional fisher folk in Kerala; Chilika Bachao Andolan, Orissa.</td>
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<tr>
<td></td>
<td></td>
<td>• Protection of marine resources.</td>
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<td></td>
<td></td>
<td>• Implementation of coastal zone regulations.</td>
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\textsuperscript{57} Ibid. p. 427-428.
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.

Zahirii Gas Morcha in Bhopal; Ganga Mukti Andolan in Bihar; Movement against Harihar Polymefre factory in Karnataka; Movement against pollution of Sone river by the Gwallor 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 Amravati Bachao Abhiyan against a large chemical complex.
<table>
<thead>
<tr>
<th>Section</th>
<th>Issues and Examples</th>
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</table>
| 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.  
| 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. |
- 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 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. This broad typology of environmental movements helps us to understand these movements in a scientific manner. It gives a clear picture of all the environmental movements of the country.

Before going to discuss the various environmental movements, we are bound by certain limitations. Firstly, it is not possible here to analyse each and every environmental movement of the country. Therefore, we selected seven popular movements for an in-depth analysis.

Secondly, as far as time series of movements is concerned, they cover different periods from 1970s to 1990s. Though Chipko movement started in 1970s and ended in 1980s, the spark of the movement is still continuing. Silent valley movement also covered the same period. Save Narmada movement started in the late 1980s and today it is in a position to draw the attention of the government.

Thirdly, the movements that we have selected for analysis differ from one another in terms of nature as well as the number of issues involved.

Finally, geographically these movements represent length and breadth of the country.

Taking into account these limitations, an attempt has been made to analyse seven major environmental movements of India starting from Chipko.

The Chipko Movement:

The most well known of ecology movements is undoubtedly the Chipko movement. The NGO, which has pioneered the world famous
Chipko movement, was the Dasohli Gram Swarajya Mandal (DGSM) in Gopeshwar. The movement began in the early 1970s in order to protect the precious forests of the great Himalayan region. Chipko movement can be interpreted by different angles. Hence, the movement has been projected as a peasants’ movement, a women’s movement and above all it was the first organised environmental movement of the nation. It is true that the movement involves all these issues. Before going to explore the major dimensions of Chipko, it is pertinent to understand the movement in its historical dimension.

The Historical Background of the Chipko Movement:

The roots of the Chipko Movement can be traced in the Pre-independence days. The historical legacy of Chipko strategy of tree saving goes back to 1763 when in Rajasthan 300 persons belonging to Bishnoi sect sacrificed their lives for saving (by hugging) their Khejri trees which were being felled under the orders of the then king of Jodhpur. But we cannot find any link between this historical incident and Chipko movement except in the similarity of action. However, the seeds of the Chipko movement can be seen in the colonial period. The British regime took over the control of India’s large forest areas in 1864, when it established the Forest Department. After destroying the forests in their own country, the colonial rulers embarked upon exploiting Indian forest resources to meet their timber needs for shipbuilding and railway tracks. Almost everywhere and throughout the colonial period, the local populations bitterly resisted the government’s takeover of the forests. As a result of this, several

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60 Subhash Sharma, in Supra no.12, p.146.
61 Quoted in Ashok Swain, in Supra no.47, p.819.
struggles were organised to protest against the colonial forest policy. Many protests took place in Tehri-Garhwal region of UP in 1904, 1906 and 1930 against the so-called scientific forest management. The pressing demand of the people in these protests was that the benefits of the forest should be available to local people.

After Independence, India continued the same forest policies, which are not different from those of the colonial days. As Madsen argues, the Forest Department’s sins of Commission (exploitation of forest resources) as well as of omission (inability to protect the forest) resulted in massive deforestation. These factors led to several protest movements in different parts of the country by the local people. With this background, the emergence of the Chipko Movement in the 1970s has to be seen in the hills of Uttar Pradesh.

The genesis of the movement was in Chamoli district, one of the eight mountain districts of Garhwal and Kumaon. The region is known as Uttarkhand and it is the source of major rivers, the Bhagirathi and the Alakananda. The Himalayan region is a treasure of natural resources. This terrain comprises high mountains and deep valleys, exquisite flowers, lush mountain pastures and inaccessible glaciers. Since ‘scientific forest management’ by the government had manifestly failed to preserve the forest resources. Therefore, the inhabitants of the region, particularly poor who are dependent on the forests for their basic needs raised their voices against the anti-forest policy of the government. Further, the hill people are dependent on agriculture for

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63 Quoted in Subhas Sharma, in Supra no.12, p.148.
64 Quoted in Ashok Swain, in Supra no.47, p.821.
their livelihood, which does not suffice for their survival. Consequently, there is a massive male migration in order to search employment opportunities in armed forces and other works in plains. As a result of this, many families eagerly await the postman for the money order. The prevalent statement, "Hill Economy is a Postal Economy" is quite apt. As men are compelled to leave their families for finding jobs, the women have to bear all the responsibilities such as collection of firewood, cooking food, fodder for animals and carrying water for family requirements. Thus, in a hill family, the woman is the pivotal point of all activities.

The Flood in the Alakananda Valley:

In 1970, natural catastrophe in the form of massive flood occurred in Alakananda River, which marks a turning point. It was observed that some of the village people lost their lives, roads and bridges were destroyed and the irrigation system and crop production were also drastically affected. However, the state government of UP did not come to their rescue in terms of compensation for victims of disasters. This incident gave a new perspective to the Chipko movement. The forests should not be considered merely as a means to earn commercial benefits but also as a strong defence against soil erosions and landslides.

The villagers' cause was taken up by the Dashauli Gram Swarajya Sangh (DGSS), a co-operative organization based in Chamoli district. The organisation consisting of local youths was started

68 Ibid. p.156.
69 Subhash Sharma, in Supra no. 12, p.149.
mainly to generate local employment. DGSS workers soon realised that they had no rights or control over local forest resources, even though they could see their unscrupulous exploitation by rich contractors in collusion with the government. On 22 October 1971 the DGSS organised a major demonstration in Gopeshwar, the district town of Chamoli. The demonstrators called for an end to liquor sale and to untouchability, and for giving priority to the local use of forests. Thus, DGSS has became the main organizing base of the early Chipko movement.

Birth of Chipko Movement:

In early 1973 the forest department refused the request of DGSM to allot ten ash trees to make agricultural implements. Instead, the Symonds Company was allotted 300 ash trees. This outright injustice inspired the DGSM to organise villagers in Mandal and Gopeshwar to discuss a possible action. In March 1973, when agents of the Symonds Company arrived at Gopeshwar to cut 300 ash trees the villagers protested against it by beating drums and singing folk songs. Chandi Prasad Bhatt, the leader of the organisation, came out with the brilliant idea of embracing trees. The term Chipko is a Hindi word, which means embrace or hug the tree. Thus Chipko movement was born. Later on, the Symonds Company was allotted trees in the Phata forest. There also, the DGSM organised local people who did not allow the felling of trees. The forest department offered one ash tree to DGSM, if it allowed Symonds Company to cut those trees. But DGSM became quite firm and refused; then it offered ten trees, but it refused again. Ultimately forest department cancelled the company’s permit and the trees were assigned to the DGSM, instead.

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73 Ramachandra Guha, in Supra no.71, p.156.
74 Subhash Sharma, in Supra no.12, p.152.
The movement started spreading to other areas of the hill district of UP such as Reni, Tehri, Kumaon and Badyagarh. A turning point for the movement came when the government auctioned a large area of the forests in the region, and some 2000 trees were to be felled in the Reni forests alone.75 The leader of the DGSM, Chandi Prasad Bhatt, mobilised the villagers by reminding disastrous Alakananda floods and guided the people to embrace the trees as a tactic. Under the spirited leadership of Gouri Devi, the women of Reni hugged the threatened trees and prevented the felling of a single one, and by doing so wrote an important chapter in the history of women’s participation of environmental protection.76

The Reni incident had drawn the attention of the UP government, which setup an expert committee to investigate the matter. The committee concluded that one important reason for the 1970 flood was the widespread deforestation in the Alakananda catchment.77 Accordingly commercial felling was banned for a period of ten years in the upper catchment of the river and its tributaries.

After the Reni incident, the spark of the movement spread rapidly to other parts of the Himalayan region of UP. In the Kumaon area, the Uttarkhand Sangharsh Vahini (USV) mobilised a powerful protest movement against various issues. This organisation focuses on wider issues of alcoholism, mining and deforestation in the region. Therefore, it was due to the efforts of USV that tree felling in the entire catchment’s area was largely reduced.

75 Joe Human and Manoj Pattanaik, in Supra no.66, p.59.
76 Ibid. p.60.
77 Ramachandra Guha, in Supra no.71, p.160.
Sunderlal Bahuguna, who realized that this would not serve the purpose, in April 1981 took the decision to go for an indefinite hunger fast demanding for a total ban on tree felling in the Himalayas. In response, the government headed by the then Prime Minister of India, Mrs. Indira Gandhi met with Bahuguna and ordered for a fifteen-year ban on the commercial felling in the entire Himalayan forests. Thus, in many incidents the Chipko activists organised the villagers and succeeded in their endeavour.

It is pertinent to understand how Chipko can be analysed from the perspective of peasant movement and feminist movement. Today, few environmentalists remember that the villagers were not just against the trees being cut. They had organised themselves in the context of a deteriorating environment, but specifically to fight an economic injustice. They wanted greater control of natural resources. Thus the Chipko movement was not started as an environmental movement but began as a people’s movement for their right over natural resources. Guha has made useful distinction between the private face and the public face of the Chipko movement. To quote Guha, the ‘private’ face of Chipko, which is that of a quintessential peasant movement, and its ‘public’ profile is one of the most celebrated environmental movements in the world.

Noted environmentalist, Vandana Shiva, has powerfully projected the Chipko movement as a women’s movement. Environmental movements, like Chipko, have become historical landmarks, because

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78 Sumi Krishna, in Supra no.65, p.154.
80 Ramachandra Guha, in Supra no.71, p.178.
they have been fuelled by the ecological insights and political and moral strengths of women. The Chipko movement is a women’s movement. They participated not only as the main limbs but also as its brain. Sarla Devi and Miraben provided leadership to the Uttarkhand Sarvodaya Mandal, an organization based on Gandhian ideology after independence. Gouradevi led the victorious struggle to save the forest of Reni village in 1974. Thus, women constitute the bedrock of the movement. Even both the Chipko leaders, Chandi Prasad Bhatt and Sunderlal Bahuguna, openly admit the front place of women in the movement. Bhatt as DGSS chief, puts women in the centre of all activities of the DGSS while Bahuguna calls himself “a messenger of Chipko women”.

Many incidents confirm women’s dominant role in the movement. The most dramatic event took place when Bachni Devi of Adwani led a resistance against her own husband who had obtained a local contract to fell the forest. ‘We have come to teach you forestry’, the women told the forest officials. ‘You foolish women, how can you who prevent felling know the value of the forest? Do you know what forests bear? They produce profit and resin and timber’. And the women immediately sang back in chorus:

What do the forests bear?
Soil, water and pure air.
Soil, water and pure air.
Sustain the earth and all she bears.

82 Sanjai Bhatt, in Supra no.67, p.157.
83 Ibid, p.158.
84 Vandana Shiva, in Supra no.81, p.93.
The slogan is an excellent and simple summarisation of the ecological importance of the mountain forests, especially in the Himalayan context.85

During the last three decades our country has witnessed several forest-based movements. It is noteworthy that none of these movements have attracted public support or influenced the government policies as much as Chipko. Thus, the Chipko movement has become a watershed in environmental movements. Several factors have contributed to the success of the movement. The type of leadership, the tactics of mobilisation, the adaptation of Gandhian principles are the leading factors for the success of the movement.

The quality of the leadership provided by DGSM was remarkable. Stalwarts of the movement, Chandi Prasad Bhatt and Sunderlal Bahuguna were known for their simplicity and sincerity and guided the movement successfully. Bhatt is famous for his reconstruction work and appropriate technology to develop forest resources. Bahuguna is a pure conservationist, fighting against modern development.86 His saintly appearance and ability to communicate in English to urban audiences in India and abroad contributed to his image of an environmental messiah.87 In this way, he has made Chipko an international phenomenon and provided moral support to many other environmental movements in India.

As far as the nature of agitation is concerned, Chipko activists have relied heavily on the Gandhian method of peaceful non-violent

86 Joe-Human and Manoj Pattanaik, in Supra no.66, p.61.
87 Sumi Krishna, in Supra no.65, p.159.
struggles. To quote Guha, there is the veneer of Gandhianism with which Chipko is cloaked, a matter of some embarrassment for a state claiming to be the rightful successor of the freedom struggle and upholding Gandhi as the Father of the Nation. In this manner, Chipko has, knowingly or unknowingly, successfully exploited the ambiguities in the dominant ideology of the Indian state.88

**Achievements of Chipko:**

As all observers agree, Chipko has had some remarkable achievements. It succeeded in halting commercial forestry in sensitive catchments.89 The biggest achievement of this movement, which even its worst critics admit, is the enlightenment of the layman regarding the importance of the protection of trees.90 This movement is not confined merely to protect the trees, but it is a collective move against man’s atrocities against nature. This is why Chipko movement has been powerful enough to inspire the subsequent environmental movements. It expanded to Sirsi, Karnataka in 1983, as the Appiko movement.

The Chipko movement received international recognition. Gail Omvedt calls it the Third World’s first grass-root ecological movement.91 It is said that “the Chipko movement is the foundation event of the Indian environmental movement having the same status here as Rachel Carson’s ‘Silent Spring’ has for the western

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88 Ramachandra Guha, in Supra no.71, p.177.
89 Sumi Krishna, in Supra no.55, p.161.
90 Sunderlal Bahuguna, in Supra no.70, p.9.
environmental movement. Thus, the Chipko movement became a glorious epic in the history of ecological struggles in India.

**Protest Against Big Dams:**

The construction of big dams have created major struggles and generated crucial environmental debate in India. Consequently, the strongest environmental protests in India have centred around dams. Several major dams in peninsular India were built, or planned, before independence. Soon after independence, the country has the bitter experience of the division of the subcontinent. Due to this division, India faced migration problem, huge population displacement and food scarcity. In its First Five-Year plan (1951-55), India emphasized increasing agricultural production and allocated 29% of the total budget to irrigation. Nehru launched surface water development projects on a massive scale and, in the very first year of his prime-ministership, the government considered, investigated or executed the construction of 160 large dams. After achieving growth in food production, the energy requirement for rapid industrialization led the central government to give priority to building large multipurpose dam projects. Since then the government has indulged in a dam building spree as a panacea for shortages of irrigation water and electricity.

India has the dubious distinction of having the largest number of river valley projects in the world. The 1578 major dams had been built

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95 Sumi Krishna, in Supra no.65, p.216.
96 Ashok Swain, in Supra no.47, p.823.
97 Ibid, p.823.
by 1985 at a cost of Rs. 15,026 crore. The dams have the answers to many of our economic problems. Big dams, like Nagarjunsagar, Hirakud, Bhakra-Nangal and Damodar, have been symbols of India’s economic and social progress. Until recently, big dams had been widely regarded in India as prestige symbols of industrialisation and development. India’s first Prime Minister, Nehru, called large dams the new ‘temples’ of modernising India. These modern temples have provided several benefits like irrigation facilities, generation of electricity, supply of drinking water, saved the land from floods and droughts and created employment opportunities.

As against these benefits, the dams have also created colossal environmental damages. The world commission on Dams notes that dams and similar interventions have already fragmented 60 percent of the world’s rivers. A time is not far when there may not be a single free flowing river left in the world. Besides a litany of environmental problems, the construction of large dams resulted in a massive population displacement, including a sizable number of tribal people. Vijay Paranjpye estimates that 21 million of them were displaced between 1951 and 1985 due to dam-related development, while Walter Fernandes counts a minimum of 14 million people through 1990. One glaring instance would be with regard to displacement by large dams. According to the world commission on Dams (India Report), for instance, though dalits and tribals account for roughly 24.5% of the

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102 Quoted in Ashok Swain, in Supra no. 47, p.824.
total population, they comprise 62% of the total of those displaced.\textsuperscript{103} It was clear by then that mega dams were generating immense social and ecological problems – from forced displacement to ecological destruction of both catchment and command areas.\textsuperscript{104} Further, the rehabilitation measures adopted under various projects are very inappropriate and inadequate.\textsuperscript{105} The government believes that someone has to pay the price of development.\textsuperscript{106} Thus, dams in India have become more and more socially unjust, economically non-viable and environmentally disastrous.\textsuperscript{107} As a result of this, the construction of big dams has become the target of widespread agitation. Bedthi, Ichampalli and Narmada projects in the west, Tehri and Vishnuprayag dams in the North; Thungbhadra and Ghatprabha in the South and Gandhak, and Koel Karo Schemes in the east are major cases in the point. From Silent valley in the south to the volley of flowers in the North – the anti-big dam movements have generated all the issues related to justice to the displaced persons, the design of the dam, and all the environment problems like destruction of forests, damage to wild life and rare species, silting, water logging, salinity etc.\textsuperscript{108} As such, India has shown a fine example of how people’s movements have succeed in stalling dams, not only because of the human dimension, but also out of concern for the environment.\textsuperscript{109} Anti-dam struggles in India date back to the early part of this century when Senapati Bapat

\textsuperscript{105} Udaya Bhaskara Reddy, in Supra no.99, p.473.
\textsuperscript{106} Anil Agarwal, Sunita Narain and Srabani Sen (eds.) in Supra No. 104, p.131.
\textsuperscript{108} Pravin Sheth, in Supra no. 93, p.5.
\textsuperscript{109} Anil Agarwal, Sunita Narain and Srabani Sen, (eds.) in Supra no.104, p.133.
led an agitation against the Mulshi hydroelectric project in the Western Ghats. Ever since, the local people have been fighting, and spontaneous resistance is put up whenever a project is proposed by the government, which would have adverse effects on the environment or would displace the residents.\textsuperscript{110} Therefore, in this context, an attempt has been made to study popular anti-dam movements in India. Notable among them are Silent valley hydroelectric project, Tehri Dam, Narmada Valley Project and Bedthi project.

**Silent Valley Hydroelectric Project:**

One of the early and victorious of anti-dam movements was the renouncement of the Silent valley hydro-electric project in the state of Kerala. The Silent valley Campaign in the 1970s set the stage, and anti-dam struggles started gaining importance, receiving support from a wide section of the society.\textsuperscript{111}

**Silent Valley: Its Topography and Ecological Importance:**

The Silent valley was a dense table land of tropical evergreen forest, measuring approximately 90 square kilometres in area and hemmed in on all sides by the steep hills of the Nilgiri ranges.\textsuperscript{112} Silent valley is a narrow valley of Kunthi or Kunthipuzha river in Kerala state, South India, at an elevation between 2400 metres and 1000 metres.\textsuperscript{113} It has 8950 hectares of rainforests with rare plants and animals including the lion-tailed macaque, a threatened primate.\textsuperscript{114} It is clear from the above that Silent valley has a unique ecosystem, a wonderful

\textsuperscript{110} Ibid. p.133.
\textsuperscript{111} Ibid. p.134.
\textsuperscript{112} S.K. Agarwal and P.S. Dubey, in Supra no.107, p. 148.
\textsuperscript{113} Subhash Sharma, in Supra no. 12, p. 155.
\textsuperscript{114} Ibid. pp.155,156.
biodiversity and is regarded as one of the last surviving evergreen forests in India.

The Proposed Silent Valley Hydro Electric Project:

In February 1973, the Planning commission approved as 240 MW Silent valley Hydro Electric Project (SVHEP), with an estimated outlay of Rs.25 crores. The proposed SVHEP was to be located in the northern part of Kerala, to harness the waters of Kunthipuzha, for generation of power.\textsuperscript{115} It would have submerged 830 hectare including 500 hectare of prime tropical evergreen forest. The project would have generated 240 MW of electricity to facilitate industrialisation in the region, irrigate some 10,000 hectare of land in the relatively underdeveloped districts of Palghat and Malappuram, and would have given employment to 3000 persons during the construction.\textsuperscript{116} This has led the people to look this project with high hopes.

When it became clear that the implementation of the project would incur heavy loss to flora and fauna of the region, the issue soon drew the attention of the Kerala Shastra Sahitya Parishad (KSSP). The KSSP is a local organisation dedicated to teaching people the science that explains environmental concerns. It is an association of school and college teachers with a widespread network among the villagers, and its membership includes every section of society.\textsuperscript{117} Against the complete support given to the proposed scheme not only by the state government but also by all the political parties in the state, the

\textsuperscript{115} S.K. Agarwal and P.S. Dubey, in Supra no.107, p.148.
\textsuperscript{116} Subhash Sharma, in Supra no.12, p. 156.
\textsuperscript{117} Ashok Swain, in Supra no.47, p.826.
agitation was spearheaded by the Kerala Shastra Sahitya Parishad (KSSP).\textsuperscript{118} In the case of Silent valley none of the local people believed that a dam could possibly have adverse effects. They thought that the KSSP was just talking academic nonsense.\textsuperscript{119} Therefore, KSSP found it difficult to convince the people regarding the adverse environmental impact of the project. "The second lesson that the KSSP learned was that when you damn a dam, you have to start by suggesting alternatives. It did exactly that which, in fact, convinced the people that the benefits supposed to be coming out to the dam could also be available by alternative means and by sparing the forests".\textsuperscript{120}

KSSP celebrated 'Save Silent Valley' in the entire state. B.G. Verghese, a noted journalist created public awareness by writing articles. Organisations were formed by academics, scientists, environmentalists and public-spirited people throughout the country to serve as a focal point of public action against the project. An attempt was made by the "Friends of Trees" and the "Society for the protection of Silent Valley" at the High Court of Kerala to halt the execution of the project. A stay order was obtained from the court and this gave a temporary respite.\textsuperscript{121}

On the other hand, several NGOs like Save Silent Valley Committee and Bombay Natural History Society joined in defence of the movement. In July 1978, the BNHS sent letters in millions to the Prime Minister to stop the project.\textsuperscript{122} The movement was also

\begin{thebibliography}{9}
\bibitem{118} Harsh Sethi, in Supra no. 36,1993, p.132.
\bibitem{119} S.K. Agarwal and P.S. Dubey, in Supra no.107, p.151.
\bibitem{122} S.K. Agarwal and P.S. Dubey, in Supra no.107, p.152.
\end{thebibliography}
supported by international NGOs like World Wild Life Fund India and International Union for the Conservation of Nature and Natural Resources (IUCN) especially to save the lion-tailed macaque, a rare species of monkey, which is a resident of the Silent valley. Thus, the movement assumed international importance.

All these stormy debates, lobbying through the press, massive campaigns and several court orders have pressurized the central government headed by the then Prime Minister Indira Gandhi to appoint a ten member scientific committee headed by M.G.K. Menon to look into the matter. M.G. K. Menon found that Silent valley represents a “Largely undisturbed, uninhabited and relatively inaccessible ecosystem with a significant riparian regime and rich and diverse flora and fauna” and the construction activity for the project would result in “serious loss in biological diversity and irreparable damage to the area as a whole”.123 In view of this, Menon opined in favour of conservation. Ultimately, this led the government to drop the idea of a dam. The Silent valley hydel power project in Kerala was given up for such reasons. Interestingly, there was popular backing for the environmental movement, which pressured political leaders, including the then prime minister, Indira Gandhi, to give up this project.124

The Silent valley Movement is one of the unique environmental movement because of its remarkable features. In the proposed dam, no displacement of people was involved here as in the Narmada projects, and the Silent valley scheme would have generated significant employment. Yet there was a strong movement, in which grass root

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organisations and intellectuals joined hands to save the unique forests. As Darryl D'Monte rightly pointed out, the Silent valley movement became a unique environmental campaign in the entire Third World. It was the most fiercely contested environmental dispute in the country and quickly symbolised the quest for a new paradigm: “Development without Destruction”.

Silent valley is the first victory by the Indian environmental movement against a big project and boosted the morale of dam opponents elsewhere in India. Though the movement received support from various levels, the ultimate success of the movement was due to the sincere efforts of KSSP.

**Protest Against Tehri Dam:**

The most long-standing opposition has been the Tehri dam, being built on the river Bhageerathi in the Garhwal Himalaya. The Tehri experience has highlighted the crying need for scientific and socioeconomic assessment of mega projects in the country. This mammoth Russian aided dam project has met with widespread non-violent resistance from the local populace.

The Tehri dam, when completed, will be one of the highest dams in the world harnessing the waters of two important Himalayan rivers – Bhagirathi and Bhilangana. The dam is finally expected to be 260.5 meters high and impound 3.22 million cubic meters of water. The

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125 Ibid, p.1186.
129 Madhav Gadgil and Ramachandra Guha, in Supra no.62, p.111.
130 Anil Agarwal, Sunita Narain and Srabani Sen (eds.) in Supra no.104, p.145.
131 Ashok Swain, in Supra no.47, p.826.
reservoir is expected to irrigate 2,700,000 hectares of land and generate 346 mw of hydel power.132 The initial project cost of Rs.192 crore in 1978, reached Rs.6000 crore in 1998.133 The project was also claimed to provide 300 cusecs of water to meet the water supply needs of Delhi.134

However, the building of the dam involves huge environmental costs. The objections to the dam range from the seismic sensitivity of the fragile mountain chain (and hence the possibility of a dam burst), through the submergence of large areas of forest, agricultural land and the historic town of Tehri, to the life of the reservoir from deforestation in the river catchment.135 In view of this, the Tehri dam has been witnessing ceaseless questioning and struggles by environmentalists including the Chipko leader Sundarlal Bahuguna. The Tehri Baandh Virodhi Sangharsh Smriti (committee for the struggle against the Tehri Dam), founded by veteran freedom fighter Veerendra Datta Saklani, has been opposing the construction for more than a decade.136 Some of the controversial issues relating to the Tehri dam which are raised by the environmentalists and a forum like Tehri Baandh Virodhi Sangharsh Smriti (TBVSS) can be analysed here.

**Displacement:**

The dam will submerge the small town of Tehri and 23 villages in its vicinity. About 72 other villages along the river will also be partly submerged. People from 21 villages have already been displaced for

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132 Mukul Sharma, Saffronising Green, Seminar 516, August 2002, p.27.
133 Anil Agarwal, Sunita Narain and Shrabani Sen, (eds.) in Supra no. 104, p.145.
134 S.K. Agarwal, P.S. Dubey, in Supra no.107, p.188.
135 Madhav Gadgil and Ramachandra Guha, in Supra no.62, p.111.
constructing the New Tehri township, thus displacing about 70,000 people from their ancestral lands. Due to inadequate rehabilitation for the displaced people, many of them are leading a miserable life. These displaced people do not have any future. Thus, the dam is the biggest human tragedy. The dam is inhuman.

**Life-span of the Dam:**

The life-span of the dam is one of the important factors of economic viability of the dam. It has been argued that the economic life of the dam will not exceed 61.4 years and the dam will not yield-promised results within the next fifty years at least, by which time the reservoir would be substantially silted up. This is an important criticism against dams.

**Threat to the Safety of the Dam:**

There has been a lot of controversy with regard to safety of the dam. The government has appointed a group of experts on seismic safety of Tehri dam. However, experts have difference of opinion with regard to the safety of the dam. Fear has been one of the strongest elements in the anti-Tehri dam movement. Fears regarding the safety geology, seismicity, hydrology and other life and death risks involved in the construction of the dam are based on a comprehensive and technical analysis of the project. Fear is clearly expressed with regard to geology, seismicity and earthquake and most of the literature published by the Tehri Bandh Virodhi Sanghersh Samiti (TBVSS), Sunderlal Bahuguna and other concerned people, is full of such

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137 Anil Agarwal, Sunita Narain, Srabani Sen, (eds.) in Supra no.104, p.145.
139 Mukul Sharma, in Supra no. 132, p.28.
It is ironic that the Tehri dam is a danger to our Defence. It is an ecological disaster, a geo-physical hazard and a determined enemy that can make it a devastating nightmare for the country. These criticisms have gathered force since the massive earthquake in the upper Bhageerathi valley in October 1991, but the government appears resolved to go through with the dam none the less.

On the other hand, the TBVVS, a strong opponent of the dam, insisted the authorities about the dangers of building a dam in the earthquake prone region. Thus, the safety of the Tehri dam has raised the debate between the government and the environmentalists.

**Religious and Cultural Issues in the anti Tehri Dam Movement:**

In the anti-Tehri dam movement, some environmentalists and socio religious leaders have opposed the Tehri dam by using Hindu myths about the Ganga. The project area appears to be a sacred place for the Hindus. Therefore it is said, India is a holy land: and holiest of the holy and greatest of the great is the Himalaya, especially its Uttarkhand region. All our scriptures support this view. Uttarkhand is Devbhumi (a place sanctified by Gods) and Tapobhumi (a sacred land of penance and austerity)..... A land of gods, it is called.

In addition to religious issues, there are numerous cultural matters surrounding in the anti–Tehri dam movement. The holiness and uniqueness of the Ganga water: its great economic and practical significance, symbolising Indian culture and civilisation from very

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140 Ibid. p.30.
142 Madhav Gadgil and Ramachandra Guha, in Supra no.62, p.111.
143 Quoted in Mukul Sharma, in Supra no. 132, p.29.
ancient times right up to the present; holy places, temple complexes, and rishis-munis at vantage points along the banks, and so on.\textsuperscript{144} These issues gathered momentum especially in the later part of the movement.

By using the myth of the Ganga and Hindu conservative forces centred around the dam, the Tehri Bandh Virodhi Sangharsh Samiti (TBVVS) and Sunderlal Bahuguna and his Himalaya Bachao Andolan have strongly appealed the Hindus to unite and arouse for a noble cause. The Tehri Bandh Virodhi Sangharsh Samiti appeals to pious sadhus-sants to stop the catastrophe of Tehri dam as ‘the foreign powers are conspiring for the Tehri dam, to end the religion and tradition of the Bharatbhoomi’.\textsuperscript{145} In this way, environmentalists have been opposing the construction of the dam on various grounds.

**Government’s Action:**

All this widespread resistance to the dam forced the central government to appoint the Roy committee, headed by Sunil K. Roy to assess the impact of the dam. In March 1980, the Roy committee submitted its report and expressed unhappiness about the lack of attention paid to ecological considerations. The 1991 earthquake posed many questions with regard to the safety of the dam. Therefore, government appointed another five-member team headed by Jai Krishna, an earthquake engineer of Roorkee University, who made an evaluation in support of the project. The successive governments at the centre headed by Prime Minister P.V. Narasimha Rao and Deve Gowda never kept their promises. They have appointed only expert

\textsuperscript{144} Ibid. p.29.  
\textsuperscript{145} Ibid p.29.
committees from time to time and reports of these committees with regard to the safety, environmental and rehabilitation aspects of the dam never saw the light of the day. So, Bahuguna felt that the government was not in favour of fulfilling the demands of the environmentalists he went on a series of hunger strikes in 1992, in January 1995 and in October 1997 to put pressure on the government. But all these lone battles by Bahuguna and TBVSS ended with no results. Ironically, in this long-drawn battle between the government, experts and environmentalists, the woes of the oustees are never heard. The residents feel that "the dam will neither be stopped nor will it be completed, and so the situation for them will also remain unchanged."

The Save Narmada Movement:

The Price of ‘development’ is the death of a river

- Shripad Dharmadhikary

Today, the environmental movement against the Narmada dams has been considered as the most celebrated anti dam movement. Recently the March 8, 2006 order of the Narmada Control Authority (NCA) to allow the height of the Sardar Sarovar dam to be raised from the present 110.64 metres to 121.92 metres has once again generated a serious controversy about the environmental and social impacts of the Narmada Project. The most vociferous amongst the “anti dams” groups has been the Narmada Bachao Andolan (NBA) which won the Right Livelihood Award, popularly known as the alternate Nobel Prize.

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146 Anil Agarwal, Sunita Narain and Srabani Sen, (eds.) in Supra no.104, p.148, 149.
147 Time to Heed Medha’s Message, The Hindu Editorial, April 13, 2006, p.10
The NBA has put all its efforts to oppose the construction of the Rs.9000 crore multi purpose project on the Narmada river.148

**Background:**

The Narmada River is the biggest westward-flowing river in India. Living in the mountains and plains of the Narmada river valley, stretching for 1,300 kilometres through Madhya Pradesh, Gujarat and Maharashtra, the natural resource based communities including tribal people are also known as adivasis.149 The preliminary investigations for the development of the Narmada valley were taken up in the late 1940s, and by the mid-50s about 16 sites were identified where dams could be built for hydropower. In 1962, Jawaharlal Nehru laid the foundation stone for the Sardar Sarovar Project in Gujarat.150 The projects comprise 30 large dams, 133 medium size dams, and 3000 small dams, along with 75000 kilometres of canal networks to direct the waters of the Narmada river to wherever the state decrees.151 Considering the gigantic nature of this project, the writer Claude Alvares rightly termed it as the 'World's greatest planned environmental disaster'.152

At present, the two large dams, which are under considerable controversy, are the Narmada Sagar Project (NSP) and the Sardar Sarovar Project (SSP), the former in Madhya Pradesh and the latter in

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150 Shripad Dharmadhikary, in Supra no. 101.
151 L.S. Aravinda, in Supra no.149, p.4002.
Gujarat. The Sardar Sarovar Project alone is one of the largest water projects in India and one of the most controversial. However, the pro-dam activists claim that the project will bring various benefits to the people. The state government of Gujarat, a strong supporter of the dam considers Narmada Waters, and the SSP in particular, as its lifeline. The planned benefits included irrigation of 2.27 million hectares of land in Madhya Pradesh, Gujarat and Rajasthan states, pisciculture, drinking water and electric power. The two main dams would also be designed to moderate floods.

Despite all these benefits of the Narmada project, we cannot ignore the harmful effects of the Dam on environment. Experiment from all over the world has shown that large dams have major environmental and ecological impacts. The project would have enormous environmental impact like destruction of flora and fauna, water logging and soil salinisation in the vast command area, spread of water-borne diseases and seisonic risks among others.

Apart from environmental implications, big dams like SSP also lead to large-scale displacement. The SSP will be the second largest concrete gravity dam in the world. Opponents of the dam claim that the reservoir will submerge a total of 297 villages. In all, 297 villages are to be submerged by the reservoir: 19,33, and 245 villages in Gujarat, Maharashtra and Madhya Pradesh, respectively. Though

155 Jeff Haynes, in Supra no. 100, p.228.
156 Ashish Kothari, in Supra no.153, p.480.
158 Ashok Swain, in Supra no.47, p.826-827.
accurate estimates of the number of people displaced are not yet available a minimum of 23,500 people in Gujarat, 20,000 in Maharashtra, and 1,20,000 in Madhya Pradesh are expected to be displaced by the reservoir.\footnote{Cited in S. Parasuraman, \textit{The Anti-Dam Movement and Rehabilitation Policy} in Jean Dreze, Meera Samson and Satyajit Singh (eds.) \textit{The Dam and the Nation: Displacement and Resettlement in the Narmada Valley}, Oxford University Press, New Delhi, 1997, p.33.} Some claim that if all parts of the Narmada Project are completed, it may displace more than two million people.\footnote{Ashok Swain, in Supra no.47, p.827.} Notable thing is that many of the people to be displaced by the dam, majority of them are tribal people. All these figures clearly indicate the magnitude of the problem of displacement. Therefore, proper resettlement and rehabilitation of SSP oustees is a central issue in the Narmada river controversy. The Government of India does not have an explicit national policy on resettlement and rehabilitation. Typically, resettlement is the responsibility of the relevant project authorities, and what displaced persons actually get depends a great deal on their political power and organizational abilities. Given that displaced persons often belong to tribal communities and other disadvantaged sections of the population, there have been few instances of successful resettlement in India, and plenty of disasters.\footnote{Satyajit Singh, \textit{Introduction} in Jean Dreze, Meera Samson and Satyajit Singh (eds.) \textit{The Dam and the Nation: Displacement and Resettlement in the Narmada Valley}, Oxford University Press, New Delhi, 1997, p.2.} Unfortunately, the project like Narmada also falls in this category of disasters. As a result of this, a powerful movement is going on in the Narmada Valley.

**Evolution of the anti-Narmada Dam Movement:**

At the initial stage, there was no immediate opposition to the project. As early as 1977, the villagers in the Nimad region of Madhya
Pradesh began protesting against the prospect of eviction due to Sardar Sarovar. By the mid-1980s various middle-class activists and non-government organisations had started working in the valley. Based on the experience of grass-roots politics in different areas, they began informing the oustees of their imminent displacement and mobilizing them around collective demands for an improved resettlement policy.

The anti-dam stir started brewing in the valley in 1985 when a 'do or die' agitation was launched across the states of Gujarat, Maharashtra and Madhya Pradesh to stall the building of "socially and ecologically destructive" Sardar Sarovar and Narmada Sagar dams. The active groups comprising Narmada Ghati Navnirman Samiti, Narmada Dharangrast Samiti, Narmada Asargrast Sangharsh Samiti and the Lok Adhikar Sangh, called for scrapping the project.

**Birth of NBA:**

In 1989, organisations such as NDS, Maharashtra Ghati' Navnirman Samiti, Narmada Asargrasta Sangharsha Samiti and a few others merged to form the Narmada Bachao Andolan (NBA). On the other hand, groups such as the Arch-Vahini decided to support the Gujarat government to resettle the affected people. Over the years the main actors in the field have been the two NGOs: the ARCH-Vahini and the Narmada Bachao Andolan. Groups such as ARCH-Vahini

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162 Madhav Gadgil, Ramachandra Guha, in Supra no.152, p.73.
163 Satyajit Singh, in Supra no.161, p. 8.
165 Ibid. p.137.
continued to concentrate on the objective of improved resettlement. By contrast, the Narmada Bachao Andolan Coalition (NBA) took an anti-dam stand, on the grounds that the government was not responding to demands for proper resettlement.\textsuperscript{167} Since then, the NBA has been firm in its stand on anti-dam position.

The anti-dam movement spearheaded by the NBA played a major role in drawing attention to the problems associated with large dams, and in giving a voice to the ousters. Under the charismatic leadership of Medha Patkar, the NBA received widespread support from environmental and social movements in India and abroad.\textsuperscript{168} At this juncture, it is worthwhile to mention Medha Patkar’s inspiring role in the movement.

Medha Patkar came to the valley for the first time in 1985 as a social activist and researcher. She was assigned a project by Tata Institute of Social Science, Mumbai to look into the problems of the Narmada Valley, which is expected to be submerged by the Sardar Sarovar Project (SSP). But the more Medha Patkar worked on her research, the more she got interested in the life and problems of the poor tribals. Later on, she left her survey and joined the movement for providing right livelihood for the displaced people. It was because of her oratorical and exceptional organisational capacities many local people and external activists joined the anti-dam movement. As Ramaswamy R. Iyer has rightly said, Patkar is one of the great Indians of our time.\textsuperscript{169}

\textsuperscript{167} Satyajit Singh, in Supra no.161, p.8.
\textsuperscript{168} Ibid. p.9.
For more than two decades, Patkar and the Narmada Bachao Andolan (NBA) have projected the perspective that mammoth projects like the Sardar Sarovar dam cannot be built on the broken lives of the hundreds of thousands who will be displaced.\textsuperscript{170} The NBA organised a massive demonstration at Harsud in 1989.\textsuperscript{171} The rally was attended by activists like Baba Amte, S.L. Bahuguna of the Chipko movement and Medha Patkar of the NBA. The Harsud rally was also a demonstration of the NBA’s broad-based support, in the valley as well as among intellectuals and activists nation-wide.\textsuperscript{172}

In March 1990, NBA demanded that the project be suspended. It succeeded in influencing the suspension of Japanese aid ($200 million for the turbines of SSP) after the Tokyo Symposium in April 1990 on environmental and faulty R&R Grounds.\textsuperscript{173} Encouraged by its success in the valley, the activists of NBA went to New Delhi in May 1990 and sat on ‘dharna’ at Gol Methi Chowk, near the residence of the then Prime Minister V.P. Singh, demanding a review of the project. The then Prime Minister assured the oustees to review the SSP and then they went back.

In December 1990, the NBA led a much-publicized march from the village of Rajghat in Madhya Pradesh to the dam site, with the objective of physically stopping the construction of the dam through Satyagraha.\textsuperscript{174} The activists hoped that this exhibition of their strength would force the government to undertake a full review of the project. However, the march was stopped at Ferkuwa, on the border of

\textsuperscript{170} Supra no. 147, p.10.
\textsuperscript{171} Satyajit Singh in Supra no.161, p. 9.
\textsuperscript{172} Ibid. p.9.
\textsuperscript{173} Anil Agarwal, Sunita Narain and Srabani Sen, (eds.) in Supra no.104, p.137.
\textsuperscript{174} Satyajit Singh, in Supra no.161, p.10.
Madhya Pradesh and Gujarat, by pro-dam activists from Gujarat who called themselves the Jan Vikas Sangharsh Yatra. The government of Gujarat actively supported the pro-dam lobby.175

Withdrawal of World Bank’s Financial Aid:

In the wake of intense struggles, the role of the World Bank in this project is particularly noteworthy. The Bank provided financial support for the Sardar Sarovar Dam Project in 1985 despite knowing that no viable resettlement plan existed for those who were to be displaced. This directly violated the Bank’s own policy, established in 1982, that “the Bank will not assist development projects that knowingly encroach on traditional territories being used or occupied by tribal people, unless adequate safeguards are provided”.176 The growing opposition to the dam at the national as well as international level has ultimately forced the World Bank to rethink the appropriateness of its involvement in the project. In view of this, in March 1991, a high level team led by Bradford Morse (known as the Independent Review Team) was set up by the World Bank to investigate this issue. The team's report, submitted in June 1992, was highly critical of the project.177 Thus, the anti-dam movement led by the NBA and even international NGOs, like Green Peace International, Friends of the Earth and the US-based Environmental Defence Fund put pressure on World Bank to withdraw its funding in 1994. As Lori Udall of the Washington based International River network explained, the cancellation 'sends a strong signal to international donors that large

175 Ibid p.10.
177 Satyajit Singh, in Supra no.161, p.12.

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dams are risky, expensive and destructive investments and that they should support smaller, more flexible projects."\textsuperscript{178} Despite the World Bank's withdrawal of funds, the government of India is going ahead with the project in the midst of popular opposition.

Though the movement has been unsuccessful in its primary objective of stopping the construction of the dam, still it has achieved many remarkable victories. The Narmada issue shows that ordinary people – if they organise, – can defeat both state and business interests.\textsuperscript{179} The NBA is a great mass movement, one of the most important ones since independence.\textsuperscript{180} In the words of the Washington Post, "Sardar Sarovar has become global symbol of environmental, political and cultural calamity."\textsuperscript{181} Thus the Narmada movement is a source of inspiration to many other environmental movements in the world.

Lastly, the Narmada has fallen victim to fools. We can only hope that the wisdom of humanity prevents other rivers from meeting the same fate.\textsuperscript{182}

\textbf{Save Chilika Movement:}

Environmental Movements all over the world are known for their variety and complexity. As such, in our country also we are observing diverse environmental movements. However, it seems, the developmental policy of the Indian government is catastrophic both to nature and to the marginalised people. This has resulted in so many environmental problems and protest movements.

\textsuperscript{178} Cited in Jeff Haynes, in Supra no.100, p.229.
\textsuperscript{179} Ibid, p.228.
\textsuperscript{180} Ramaswamy R. Iyer, in Supra no. 169.
\textsuperscript{181} Anil Agarwal, Sunita Narain and Srabani Sen, (eds.) in Supra no.104, p.137.
\textsuperscript{182} Shripad Dharmadhikary, in Supra no.101.
Orissa is one of the poorest and most backward states of India. At the start of the 10th plan, 66 percent of its population was below poverty line; only 10 percent of its cultivable land is irrigated. But the state is harbouring some of the country’s most important biodiversity hotspots as also most sensitive tribal communities. The state government has embarked on a massive industrialisation phase, inviting global giants to invest money in such projects. Scant regard has been shown to environmental laws, or to constitutional safeguards of adivasi communities. Where people have resisted, they have been dealt with violently by the state or by private corporations. It is clear from the foregoing that the state is an important place for many environmental conflicts. Whether it is pollution from industries and mines, deforestation and destruction of wildlife, displacement by dams and degradation of the coastal ecology, the people of the state have an impressive record of intense environmental movements. The Lake Chilika, which is one such movement, also falls into this category. The model of development has been spreading its wings to the lake environment of Chilika. As a result of this, in the last few years a very powerful environmental movement is taking place in and around the Chilika Lake.

The Chilika Lake is Orissa’s pride, and it is the treasure of natural wealth. The lake is located in the eastern coastal part of Orissa and it has been considered the largest brackish water of Asia. Apart from this, lake Chilika is one of the beautiful spots of Orissa, a home of both indigenous and migratory birds and it is the source of

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livelihood of more than a lakh of fisher folk living around it. Due to its unique natural eco-system the lake has been declared a ‘wet land of international importance’ under the Ramsar Convention in 1971.

Fishing has been the oldest and traditional occupation in the Chilika region for centuries. Fisher-folk have their traditional rights to fishing in the Chilika since the days when Orissa was under the rule of Marathas in the 18th century. The Afghan rulers of Orissa also protected the rights of the fishing community. Even under British rule, fisher-community was able to get the lease of fishery sources. But the trouble started at the time of independence. With the advancement of transport and communication, Calcutta became the biggest market for fishery resources. So, the situation changed and the new class of people, like money lenders, middlemen and traders came on the scene. The fishing community has to depend upon money lenders to purchase fiship equipments, like country boats and nets. Consequently, these people became the exploiters of fisher-folk community.

During the 1950s, when the popular government was established, an attempt was made to free the fisher-folk from acute exploitation and abject bondage from these middlemen. With the assistance of a Canadian expert, A.F. Laidlaw, the state government started a scheme in 1959 known as Chilika Re-organisation Scheme (CRS) to bring the fishing community under the cooperative banner. The scheme was mainly to eliminate trader's intermediaries and money-lenders from the scene and to ensure the payment of fair prices to the fisher-folk in order to improve their socio-economic status.185

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Thus, the fisher-folk community came out of the exploitation and their conditions began to improve. But this has no longer continued. After a decade or so, the situation of the co-operative societies of the fishing community deteriorated due to lack of support from co-operative banks and bureaucratic control of the government. The non-fisher folk people put pressure on the government demanding that they should be allowed to take the benefits of fishery resources. The year 1977-78 saw the development of prawns as an important commodity. The name Chilika became synonymous all over with prawns and money. The whole area became a virtual gold mine. And, with this transformation, the commercial invaders started appearing. First, the traders and middleman, then the politicians with their musclemen, some big business families of Orissa through local middlemen and mafia, and family, the big industrial houses, with the blessings of the state government, which was now very keen to usher in ‘development’ to the region. In this way, outsiders started to have control over most of the fishery resources in Chilika. As a result, the traditional fishermen have to face the problem of resource crunch, and they have been marginalised.

**Threats to Chilika Lake:**

Chilika Lake has been facing an unprecedented environmental threat. The lake is being severely degraded: its area, depth and salinity are all declining, as a result of which between 1985 and 1992 fish production decreased by nearly 50 percent. Although the government is a party to the Ramsar Convention to protect Wetlands of

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international importance, no serious step has been taken to protect Chilika. Infact, the very opposite has happened.\textsuperscript{187} There are industries situated in and around the lake, which discharge their wastes directly into the lake. Fertilisers used in the agricultural fields nearby the lake also find their way to the lake during rainy season. Apart from this, the lake Chilika has also experienced badly from deforestation.

The problem became more acute due to the ongoing expansion of prawn culture in the lake. Prawn aquaculture attempted by Tatas and other groups has threatened the lake’s ecology. The Tata Project exemplifies the problems inherent in intensive prawn aquaculture, a model of production that has proliferated in recent years causing serious damage to the lake. According to R.N. Das, a senior scientist in the state environment department, “People have realised that indiscriminate prawn farming and siltation have greatly reduced the life of the lake.\textsuperscript{188} This is because of the development model adopted by the state of Orissa which not only worsens the lake’s environment but also severely affects the majority of poor fishing community who depended on the lake for their very survival.

\textbf{Orissa Government’s Policy of Developing Prawn Aquaculture in the Chilika Region:}

In 1986, the Orissa government under the leadership of J.B. Patnaik, through the OMCAD entered into a deal with the Tata business house to lease 600 hectare of land to Aquatic Farmers Limited for 15 years. The state government initiated steps to finalise

\textsuperscript{187} Joe Human and Manoj Pattanaik, in Supra no.66 p.67.
\textsuperscript{188} Sarmistha Pattanaik, in Supra no. 185, p.56.
this deal. In 1987, they conducted a survey of the fish resources in Chilika without any participation of the fishing communities.\(^{189}\) In this way, the government took all possible steps to undermine the traditional rights of the fishing community.

The plan was for Chilika Aquatic Farms Limited, a Joint venture of the Government of Orissa and the Tatas, to spend Rs.200 million on prawn culture in the lake. The project envisaged the creation of a huge artificial lake inside Chilika by embanking 1400 acres with a 13-kilometre ring dam. The plan was to divide the lake into small ponds for intensive prawn culture and pump into them water from the lake. Using the right protein food, fertilizers, and pesticides, the prawns would be grown 250-300 grams within 40 days. When the cycle was completed, the polluted water of the ponds would be pumped back into Chilika, regardless of the damage that would be caused to its fragile eco-system.\(^{190}\) The bigger threat came in 1992 in the form of an Integrated Shrimp Farming Project (ISFP) financed by World Bank for the development of prawn and fish farming at an estimated cost of $100 million.\(^{191}\) Thus, the state government with the collaboration of Tatas started prawn culture promising that it would bring about the economic development of the state.

**The Birth of the Movement:**

The CAFC maintained that it was not involved in intensive prawn culture and there will be no harm to the eco-system of Chilika region. But this was questioned by the environmentalists and the

\(^{189}\) Ibid. p.59.
\(^{190}\) Joe Human and Manoj Pattanaik, in Supra no.66, p.67.
\(^{191}\) S.K. Agarwal and P.S. Dubey, Supra no.107, p.270.
fisher folk community. Consequently, the year 1991 witnessed the emergence of a powerful people’s movement. The fisher-folk community united under the banner of Chilika Bachao Andolan (CBA) to protect their rights against commercial exploitation. The movement was also supported by ‘Meet the student’, a student organisation of the Utkal University and Orissa Krushak Mahasangha. These organisations have played a major role in mobilising the people against the CAFL. In protest against the Chilika Aquatic Farm, the Andolan has launched several actions such as dharna (non-violent strike), rally, padayatra (travel by foot), symbolic breaking of the farm embankments, gherao of the State Legislative Assembly.\(^{192}\) However, as it happens in various environmental movements like this, the government’s response was poor. Again struggles continued, the residents of the Chilika region went to meet the then Chief Minister Biju Pattanaik sometime in 1992. He promised the agitators not to create any prawn manufacturing company against the livelihood of poor people. But the government never kept its promise. So all the mass of the Chilika area with the active support of the “Krantidarshi Yuva Sangam” (about 35 students of Utkal University) started to break the dam, which was built by the Tatas inside the Chilika. The leader of the movement Chittarangan Sarangi was arrested by the police. After agitation by the students he was freed.\(^{193}\) In the wake of these developments, the Government of Orissa took the issue seriously and cancelled the lease and finally Tatas had to withdraw in December 1992.

\(^{192}\) Sarmistha Pattanaik, in Supra no.185, p.60.
\(^{193}\) Pravin Sheth, in Supra no.186, p.252.
The movement has got a new dimension when the OKM raised the issue of the ecological health of the lake. The president of the OKM, Banka Bihari Das took the issue to the Supreme Court. The Supreme Court in its verdict of December 11, 1996 said that the Shrimp culture industry cannot be permitted to be setup anywhere in the CRZ under CRZ notification 1991.194

Though the movement started as a grassroots movement, in due course, intellectuals, environmentalists and environmental NGOs joined into the struggle. The movement also has drawn international attention to its important issues, such as environmental degradation through intensive prawn aquaculture, pollution of the lake and livelihood of the poor fishing community.

The CBA has played a remarkable role in the success of the movement. It has adopted various strategies to put pressure on the government. It took the matter into law courts, mobilised the mass media, and it was successful in getting the support of elites. At the same time, the role of the local fisher-folk community in the movement was exceptional. Thus, the battle of CBA exhibited the strength of the fishermen.

**The Bhopal Gas Tragedy:**

All over the world, the Bhopal gas tragedy has been known as the most severe man-made ecological disaster. The gruesome tragedy that overtook Bhopal on the night of December 2, 1984 have been described as history's worst environmental disaster in the world. What Bhopal witnessed that night was a "Chemical Hiroshima", with all its

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194 Sarmistha Pattanaik, in Supra no.185, p.63.
frightening consequences. This incident has stunned those responsible for pollution control, and put fear in the hearts of millions of industrial workers and people living near factories.

The Union Carbide Corporation, a US-based multinational chemical corporation, was operating a giant pesticide plant on the outskirts of Bhopal city. The poisonous gas, which gushed out of the Union Carbide Pesticide Factory, formed into a huge mass of white cloud and moved menacingly towards the densely populated areas, spreading death and devastation in the city. More than 40 tonnes of toxic liquid stored in a union carbide tank, turned into deadly Methyl; Isocyanate (MIC) gas and escaped in 90 minutes. As a result some 3,500 people were killed and 2 lakh injured in the Bhopal tragedy. Apart from loss of lives, the Bhopal disaster created numerous health problems. Due to this tragic incident, a large number of people in Bhopal will continue to suffer for no fault of theirs. Other than that they happened to live near a factory that was deliberately under-designed and operated in gross violation of the safety norms by Union Carbide.

Mega-disaster like the Bhopal has raised a number of questions covering the entire range of industrial policy. Bhopal has triggered off groups of concerned citizens and environmentalists in all Indian cities and industrial locations, who are questioning the entire gamut of

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195 S.K. Agarwal, P.S. Dubey, in Supra no.107, p. 239.
197 Pravin Sheth, in Supra no. 186, p. 224.
198 S.K. Agarwal, P.S. Dubey, in Supra no.107, p.239.
industrial policies, from location of industry to choice of technology and product machinery to deal with man-made disasters, policies related to medical treatment and rehabilitation and laws to determine culpability and damages. 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 technology.201

However, Union Carbide is totally indifferent to the miseries of the victims and, in turn, it is doing its best to minimize the severity of the disaster. Consequently, environmentalists, human rights activists spontaneously rose against the apathetic attitude of the MNC authorities. Despite the pressure of regional, national and international NGOs on State and Union governments in providing relief to the victims, the problem is not yet solved. Hundreds of thousands of survivors of union carbide corporate crime in Bhopal are still waiting for compensation for illnesses resulting from the gas leakage 15 years ago and suffering this day from ground water contamination due to the leaked toxins and remind us that ‘we all live in Bhopal’.202

Though it seems that the Bhopal disaster does not emerge as a mass movement, it has created a solid environmental awareness. Therefore the subsequent power projects held out by such MNCs as the Enron and Cogentrix and other chemical projects have been subjected to rigorous scrutiny and critical approach by the environmentalists in India.203

201 Harsh Sethi, in Supra no.36, p.135.
202 L.S. Aravinda, in Supra no.149, p.4005.
203 Pravin Sheth, in Supra no.186, p.226.
The Ralegaon Siddhi Experiment:

There are some unique stories of environmental movements, which have followed different paths for achieving their objectives. Healthy lands and ecosystems when used sustainably can provide all the wealth that is needed for healthy and dignified lives. There have been outstanding experiences, both as a result of government and non-governmental interventions in various developing countries, which have shown that good natural resource management built around community-based rainwater harvesting systems can transform not only the local ecology but also the local economy in a dramatic manner. In this respect, it is necessary to understand the case of Ralegaon Siddhi village.

Ralegaon Siddhi, a small village located in Ahmednagar district of Maharashtra, which was an underdeveloped part of the state. Ralegaon Siddhi was once perpetually drought-prone and poverty-stricken. Only one industry thrived there—illicit distilleries, which helped the men to forget their miseries and frustrations in the evenings, but at a great cost to themselves and their families. The villagers systematically overgrazed and exploited the surrounding forests and experienced shortage of fodder and water. Agriculture and animal husbandry were in a poor state in the village. Most of the families lived in absolute poverty. Thus, Ralegaon Siddhi was one of the poorest villages of India in the 1970s.

205 M.V. Nadkarni, in Supra no.199, p.1188.
206 Anil Agarwal, Sunita Narain, Anju Sharma and Achila Imchen (eds.) in Supra no.204, p.4.
With the arrival of Anna Hazare, the entire situation of the village underwent a dramatic change. Anna Hazare, a native of Ralegaon Siddhi who had joined the army, returned to the village in 1975. In a war with Pakistan, he had the mortifying experience of seeing all the other soldiers in his group being killed. He thought that God saved him with a purpose – the purpose of helping the people of his village to overcome backwardness and misery and live with dignity. Therefore, he has adopted Gandhian ideology to bring the desired change in a deteriorated society. Very soon Hazare won the confidence of the villagers by bringing the faction-ridden village together, which is a pre-requisite for the success of any activity. Hazare undertook various activities for village development such as renovation of village temple, organising of youth clubs, putting a total ban on liquor shops, mobilising ‘Shramadan’ for development schemes, and seeking loans from co-operative societies and banks.

The villagers, under the spirited leadership of Hazare, prepared plans for the sustainable use of natural resources. They took measures to regenerate uncultivated lands, stored rainwater, built check dams and developed reforestation. As a result, the village could thus have clean drinking water and enough milk not only for home consumption but also for sale in nearby cities.

Every effort has been made to achieve various dimensions of development. They achieved total literacy, they saw to it that there were no dropouts in the schools, and provided adequate health facilities. The villagers fought social evils like dowry and the

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207 M.V. Nadkarni, in Supra no.199, p.1188.
208 Ibid. p.1189.
exploitation of dalits and tribal people. The weaker sections of the population were integrated into the mainstream and equality was promoted.\textsuperscript{209} In this way, there was a silent revolution, which took place in Ralegaon Siddhi village, which has been transformed into a model village to the entire country. Today, it is one of the richest villages with over a quarter of the households earning US $12,000 every year.\textsuperscript{210}

\textsuperscript{209} Ibid, p.1189.
\textsuperscript{210} Anil Agarwal, Sunita Narain, Anju Sharma and Achila Imchen, in Supra no.204, p.4