ENVIRONMENTAL MOVEMENTS IN ORISSA

UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY

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NEW DELHI - 110067
1996

TO

MY FAMILY

FOR THEIR LOVE,

INSPIRATION AND

SACRIFICE



जवाहरलाल नेहरू विश्वविद्यालय JAWAHARLAL NEHRU UNIVERSITY NEW DELHI-110067

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CERTIFICATE

Certified that this dissertation entitled ENVIRONMENTAL MOVEMENTS IN ORISSA, submitted by BISWARANJAN MOHANTY in Partial Fulfilment of the requirements for the award of the degree of Master of Philosophy of Jawaharlal Nehru University is his own work and has not been submitted to any other University for the award of any degree.

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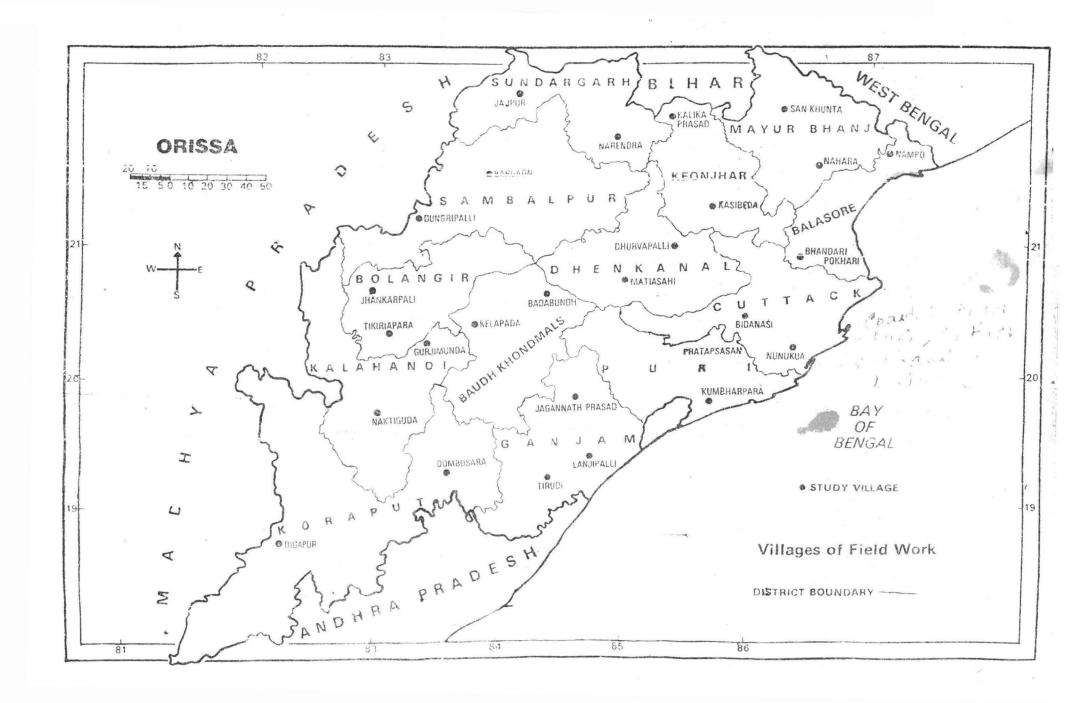
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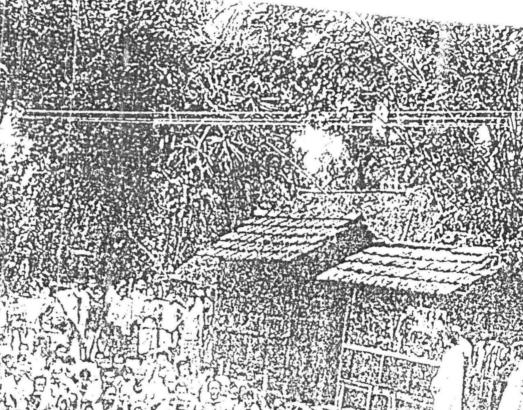
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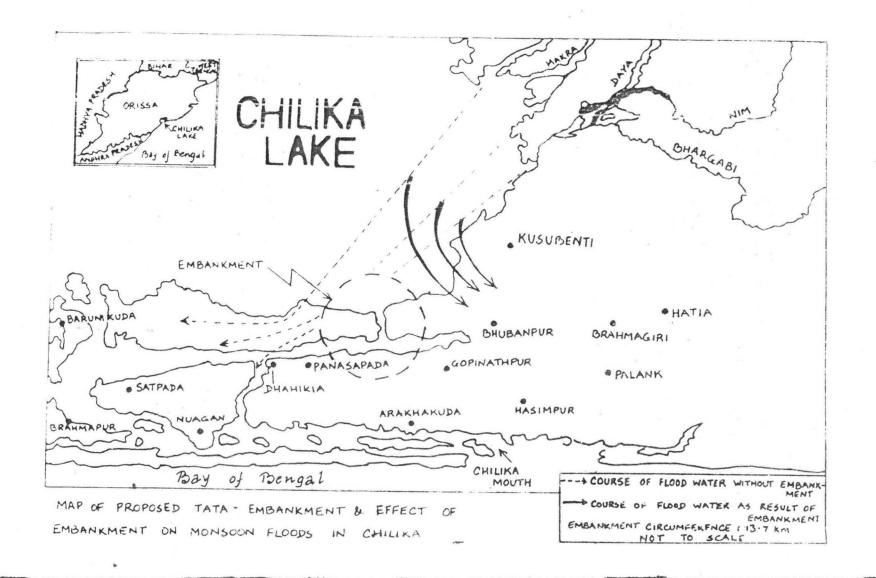
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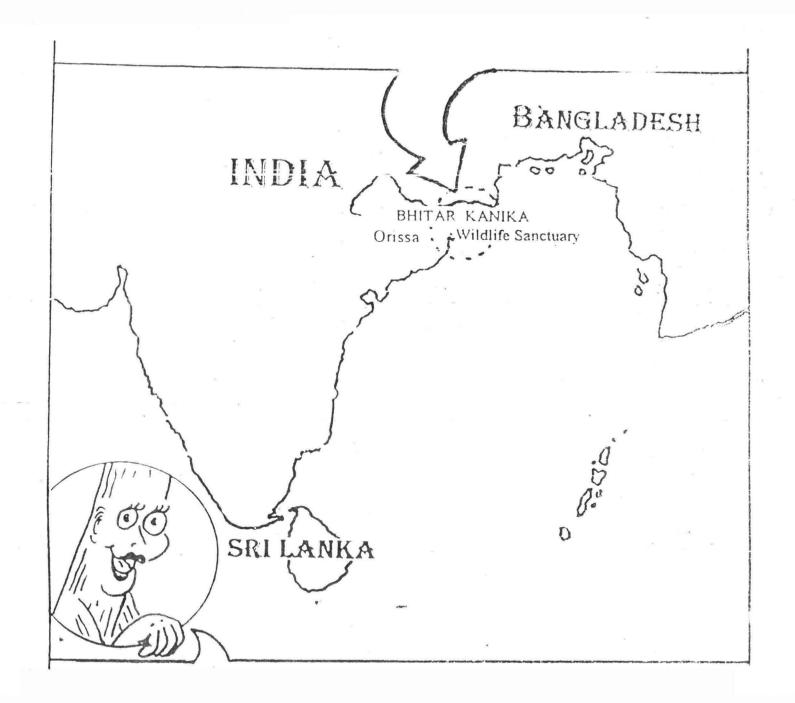
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CHAPTER - I.

INTRODUCTION

The present study is intended to assess, the working of Environmental movements in Orissa with a special reference to Baliapal, Chilika and Bhittarkanika.

The problem of collective rights of Individual in the nationmaking process is now engaging the attention of policy-makers, teachers, students allover the world. There is increasing realization of the political imbalances, that human rights violations has created-race discrimination disturbances in the right to language and the right to religion, discrimination, death penalty, police brutality, violation of fundamental rights and Environmental degradation as well. The researcher undertakes this study to focus greater attention on men's lives and problems as they are affected by the process of socipeconomic transformation. The researcher seeks practical solutions to this challenge that engulfs us today. researcher sought explanations and methods for arresting this adverse impact. While the social scientists' search for deeper explanations may continue, the problems now being experienced by man-the victim-cannot wait, and call for immediate intervention by public authorities and persons who have a social conscience.

The need to search for an alternative the to existing arrangements in political management concerning freedom arises from a sense of dissatisfaction that things are not going well. There are many reasons such a political management losing confidence. basic inadequacies in the political structure in achieving national goal. Ιt is from academic elite that the initiative must come to restructure political system and the chance is fair to alter the existing situation and doing better. As the developing society is not developing as it was expected to develop, it is necessary that alternatives are sought in various spheres of public life.

Before proceeding further, it is necessary to provide a framework of norms and values against which both the diagnosis of current and expected state of affairs and the design for an alternative can be judged and evaluated.

In case of India, the values that guided the country's leadership at the dawn of independence provide an adequate framework for analysis and evaluation. Making its entry into the modern world at a time when the best in the humantarian traditions of both East and West had come to inform human consciousness, India decided to adopt all the values of that consciousness and to evolve a polity that would give shape to them. Paramount among these was the value of Freedom for the individual and as a means there to, for the nation.

Freedom for the individual, justice in the arrangements of the society, participation in decision making all are necessary values for constructing a civil society. All these values were inherent in the constitutional structure adopted by the founders of modern India. The political system today is found to work against these values today in most of the time. Stating them at the outset provides us with a set of criteria against which both the diagonosis of what has happened so far and the design for an alternative society can be developed.

For the purpose of thorough assessment, the following objectives have been taken into consideration, such as :-

- (i) suitability of various programmes for protection of collective rights of individual,
- (ii) impact of democratic programmes on the scheduled tribes, scheduled castes, minority community, women, dalits.
- (jii) extent of people's <u>participation in formulation and</u> implementation of development programmes,

- (iv) factors favouring or hindering Environmental protest movements at the grassroot level,
- (v) extent of contribution of humanrights movement to development of political consciousness,
- (vi) movement for sustainable development giving a chance to the community for its own style of economic mobilisation,
- (vii) consequences of protest movements in Orissa,
- (ix) suggestions for strengthening administrative machinery better involvement of the people, better flow of institutional support for rights' movement.

It is a difficult task to workout the demands theorybuilding. Empirical research would be barren without theoretical referents. In our present study, democratization of political process, may considered as theoretical referents, we will be attempting correlate the behavioural pattern, influence or non-influence of Protest Movements with the democracy. In this context, it may be observed that India has adopted westen model of democracy, whose best epitome is perhaps the preamble to Indian constitution. We have treated liberty. equality, justic, fraternity as basic tenets of democracy. The democracy is to construct a civil society-

Swaraj of the citizens, by the citizens and for the citizens. Democracy should be accepted as philosophy of life one must treat another fellow citizen as equal and as significant as oneself. It must provide perspective a wider role to citizens. They are to behave not just as occasional electors, but as participants in community decisions, which would imply a system of rights and duties, of claims and obligations. If construction of civil society is not in accord with the concept, the effort should be to improve the movement of collective rights of individual for a democratic society. This in brief, is the rationale and theoretical perspective informing the present study.

Study area and period of review:

The present study is intended to assess the role played by Environmental protest movements in steering political consciousness among the people of Orissa for a period of ten years (1985 to 1995) State of Orissa is selected for study in this proposal as the home of the researcher is in this area.

Extent of political awakening in the process of Protest Movements, the functioning of non-governmental organizations in mobilising public for protection of individual rights, extent of utilisation of infrastructural facilities for such act are to be critically studied. Suggestions for improvement and modifications for better human rights record area also to be explored. The findings of this survey, the researcher believe, will help the Government for subsequent improvement in the state of affairs of rights.

It would be noted here that people's consciousness had increased but not at a tremendous pace since independence. This study is spread over some vital Protest Movements. These movements are selected on the basis of their political competitiveness in their respective regions. These movements are namely; Baliapal Movement, Chilika Movement and Bhittarkanika movement. Total Revolution movement led by Jayprakash Narayan had also considerable impact on Orissa.

We are conscious of the limitations of the study both in substantive and methodological terms. We feel that focus of the study is too limited to bringout the role of Environmental protest movement in awakening political consciousness in its totality and varied dimensions still this study hopefully provides meaningful insights into the pattern of influence. And in that perhaps lie both the rationale and importance of the present study.

After dealing with the problem objective, theoretical concern and scope of the study, we now propose to turn to a brief description of Environmental protest movement as it evolved and worked. It is against delineating a historico-legal profile Environmental protest movements.

This study has been concerned with finding out:

- (a) What are the reasons for their agitation?
- (b) How genuine are their fears?
- (c) What factors motivate the people to participate protest Movements?
- (d) How protesting activists approach civil society?
- (e) How do they make an effort to influence public opinion?
- (f) How the Environmental Protest Movements can stand up to the pressures and exigencies of competitive politics?

It is hope that this study will provide a broad picture of Environmental Movements in Orissa.

Quite a few studies have been done on various aspects of humanrights in this country but there are not many studies which examine it from the part of view of political conciousness. We need more of such studies in different parts of the country to understand the dynamic of protest movements. Protest Movements is a political process which leads to a rise in the capacity of the people to control their environment. It is generally agreed to carryout these popular movements through effective public participation inorder to promote political conscience and conciousness.

Hence we ought to ask new questions to elicit information about the movements.

- (i) questions relating to the study of socio-economic progress in the period under discussion. This will reveal the role of man in a changing society of India,
- (ii) questions relating to the major changes in the developing society in the post-colonial period (such as cultural movements, popular revolts, or protest movements, technological advancement etc.) as they advance the status of individual in study,

(iii) questions relating to the freedom struggle and popular movements, in which participation of man was so vital, but very little mention is made of their roles in protest movement (for example, in the context of Orissa).

Independent India claimed to have institutionlised rule of law, free and fair elections and a strong judiciary. But in many cases, there is widspread denial of civil liberties. There was censorship of the press during emergency of 1975-77. There is suppression of freedom of expression in some parts. We see several alarming trends in most of the regions India. They may be briefly summarised: growing exploitation and powerlessness of the majority of the urban and rural poor, growing incidence of malnutrition, hunger and starvation degradation of physical environment, worsening of the conditions of the women, childrens, religions or minorities, the growth of religions fundamentalism growing trend govermental-lawlessness, increasingly authoritarian nature of political institutions, large scale building projects such as construction of river dams which displace thousands people and ruin the ecology etc. All these trends contribute to violation of popularmovements in Orissa.

Before selecting the topic for research, the scholar has consulted various Books, Journals dealing with Environmental Movements in Orissa. Civil Rights Movement and social struggle in India'(in E.P.W.,12 July 1986) written by Prof. Aswini Kumar Ray is a source of inspiration for this work 1 Journal like'World Focus' (March 1992),'World Focus'(July 1993), 'Seminar' (May,1993) and other news papers articles helped me in the critical analysis of the subject. Baliapal Agitation:Leadership crisis (in E.P.W. 9th June,1990) written by Sujata Patel has also helped me. She attempts to analyse the socio-economic background of the people of Baliapal. In her another article she discussed the sustained nature of the agitation against the National test range Baliapal as well as its militancy is to a large extent due to the mass involvement of the people, including the poorer

Prof. Aswini K. Ray, Civil Rights Movement and Social Struggle in India, EPW, 12 July 1986,P-430-434.

sections. Prof. N.Ramdas in his article" A Range of protests" summed up the localisation of the struggle. He had posed a significant question of ideology and politics, but its resolution now will be part of the politics of mainstream parties. Our Environment: a books is written by Laeed Futehally emphasizes that most of the damage inflicted on the environment is unwrittingly done. In Chilika Movement, Chittaranjan who has been one of the Principal guilds of the Andolan since its inception, speaks of the value based alternative that is emerging from the shadow of a decaying valueless capitalism. He speaks of the ecological features of Chilika. Das the President of Orissa Krushak Mahasangh (OKM) in his book "Environment Movement in Orissa" highlights that these developmental projects were necessary for the development of the area.

Uday Shanker in his article"Chilika- A Lake in limbo" that the ecology of the already Shrinking Chilika lake is treatened by the scramble among fisherfolk, farmers and traders to grab their share of the depleting stock of fish and prawn.2. Prithwiraj Misra in his article 'Chilika. The film' attempts to discuss that chilika is one of the world's most unique wetland habitats. The cover illustration depicts an oral legend, which tells of how the Chilika lake was formed when a buccaneer, Raktabahu (red arm), came from across the seas to plunder Puri. Accordinging to him, Chilika, the largest and arguably the finest wetland on the subcontiuent, supports over 25,000 small fishermen. The unique however, shrinking at an alarming rate of 1.5 Sq. Km. every year. Kar in his article "Chilika: An overview" has discussed about Environmental parameters of Chiilika.3. An article is written by Pallava Bagla " closer to conservation" attempts to highlight the large gap between 'development' 'Environment'. Banka Behary Das in his press note "Fisher rights fisherman and environmental problems of Chilika Lake" said that poormen's

Uday Shanker, "Chilika- A Lake in limbo" Down to Earth, Science and Environment FortNightly, August 31,1992,P-25.
 Sudhakar Kar, "Chilika: An overview" INSIDE, SANCTUARY, Vol,XII, No. 4,1992, P-29.

access to natural resources has become a fundamental parameter of development. He has emphasized the livilihood of fishermen and the question of human rights violation to hi, the question of human rights have occupied the centre-stage of the present social order4. Prof. C. K. Varshney (School of Environmental Sciences of Jawaharlal Nehru University) delivered a speech in a work shop in Bhubaneswar in February 1992 on a distinctive ecological character of Chilika lake5. Somanath Bandyopadhyay and B. Gopal in their article published In the Journal of Indian Association for Limnology and oceangraphy has described the causes of concern about environmental problems of Chilika Lake.

B. B. Das and Chittaranjan (Social Activist) in a press report has marked that "people do understand ecology. That is why it has survived so far. And it will continue to live if it is left with the people. needs are little. All they want is food, clothes and shelter. Nature can always provide for our needs but not for our greed. " To them, the fishing people are striving for a higher standard of living. A. G. K. article "wetlands and Agu7aculture" published in the Hindu 9.1.1994, said that poverty is the greatest enemy of the environment. OSE (Orissa Environmental Society): Chilika the pride of wetland our Bhubaneswar, 1948 has discussed how 'far there is a link between pverty and deterioration of environment. Tapas Ray in his article "Prawns and dollars: At the cost of land and environment" (Forntline, November 17,1995) has evaluated the ecological importance of Chilika at the national and international level. To him, these parameters will close the frame of the human-nature relationship. In relating to Bhitarkanika, article "The plight of Bhitarkanika Emblematic of the Thereats Mangroves Face" written by Alfredo Quarto has discussed the environmental problems of Bhitarkanika. M. S. Swaminathan in his press report, said that the threats

^{4.} Banka Behary Das, Fighery Rights of Fisherman, Press Note,1994,P-5. C. K. Varshney, Delivered a speed in a workshop in Bhubaneswar,1992.

and problems to conservation of Bhitarkanika Sanctuary6. Montgomery in his article "Bhitarkanika imperilled Paradise" has discussed about the threaten of natural havens.

Protest and change; studies in social movements by T.K.Oommen, Protest Movements in Two Indian states by Shah, ideology and the New Social Movements by Alanscott Social Movements: A social Psy chological perspective by M.Laughl in and social conflict and social movements by Anthony Oberschall etc. study the nature of new social movements.

It is also now realised that the right to development is a basic human right without the realisation of which it is not possible to enjoy any other human rights.

People are also demanding safe environment as a fundamental human right. It is a healthy sign that there is concern about saving the world watch institute (WWI), a human rights policy research organisation of USA, has demanded safe-environment as a matter of human right. This also called for sustainable development.

It is in this context that an attempt has been made to study the Environmental protest Movements in Orissa with reference to Baliapal, Chilika and Bhittarkanika. Based upon this back ground, the first chapter of the dissertation analyses the problem of study — objectives of the study. Theoretical concerns — Meaning and scope of the study are a — period of review. In the second chapeter an attempt has been made to analyse the Environment and Development Debate — conflict over Natural resources. The Third chapter Environmental Movements in Orissa deals with the review of literature regarding Baliapal National Test Range Missile Project, Chilika Lake Development Programme and Bhittarkanika — a paradise of Nature under threat of destruction. Chapter four deals with the field report of the scholar.

^{6.} M. S. Swaminathan, 'Thereats and problems to conservation of Bhittarkanika, 1994, P2.

CHAPTER-II

ENVIRONMENT AND DEVELOPMENT (CONFLICT OVER NATURAL RESOURCES)

Human-centered development is the major theme in contemporary national and international thinking. It is now realised that people are the centrepiece of economic development. The UNDP's Human Development Report 1990 came to the conclusion that "growth with equity is the optimal combination for generating good macro conditions needed to achieve human development objectives". Thus, the basic objective of development has been spelt out as creating a conducive environment that enables people to lead a long and healthy life to be literate and knowledteable, and to maintain a reasonable standard of living through satisfaction of their wants.

India is among the richest countries in biological diversity supported by a unique range of topography and climate stretching from the world's highest ranges in the Himalayas, with permanent snow and temperatures much below freezing point, through the grasslands and plains of Central India. the plateah of the Deccan, the dry and hot Thar Desert of Rajasthan, the Wettest areas in the world around Cherrapunjee, a long coast line and islands in the Bay of Bengal and the Arabian Sea. It supports 16 different types of Forest systems ranging from the tropical evergreen forests of the Andaman and Nicobar Islands the North-East and the Western Ghats, to the temperate coniferons and pine forests of the Himalayas, and the alpine pastures. The country has ample sunshine and rich soils supplemented over centuries by great rivers bringing down and depositing rich ranges. The Indo-Gangectic Plain is considered among the richest agricultural areas in the world. But India is also faced with formidable environmental problems.

India has a huge population, much of which lives in poverty. According to recent estimates, over 250 million children, women and men suffer from under-nutrition. It has a domesticated animal population of nearly 500

million. Considering only 3.5 percent of the land area is under grasslands, this population is supported by the forests and by agricultural residues which are thereby diverted from agricultural land. Out of total cultivable land, 175 m.ha. are degraded needing special treatment to productivity. Of the 75 m.ha. designated as forest land only about 35 m.ha. are closed forests. Despite all efforts, India has continued to loss forest cover during the last decade. Over 1500 species of plants and animals are on the endangered list. Levels of air and water pollution are much beyond accpetable limits especially in the cities and industrial belts. A very large proportion of the surface water resources in the country is not fit to drink from. This depletion natural resources and pollution environment is much more a cause of poverty than a result of Therefore, efforts to eradicate poverty, through development cannot succeed if in the process environment is further degraded. Thus, it is being felt that for a self-sustaining development within a nation and throughout the world, keeping a mind a futuristic perspective, the ostensibly conflicting claims of ecology, environment economics, energy, equity, ethics and efficiency have to be reconciled and harmonised for common good and "Common Future"-1.

INDIAN PLANNING :- a blue print for a welfare State.

Planning in India is a total national effort and commitment. It includes political leaders at all levels, the administration, and the people of the country. Planning in India is a successful story. It is mainly a political document. It indicates a programme for the economic welfare of the country. There is spectcular change in the field of social, economic and political field due to impact on planning Jawaharlal Nehru describes his anabytical approach to planning under a democratic pattern of socialism as a new model for Asian and African—development.

^{1.} Our Common Future, Oxford University Press, 1987.

The Indian planning will definitely brighten the prospects of democracy allover the world. Obviously, it is a great challenge to the Indian leadership and Indian people.2.

The initial thoughts about development strategies in India constitute a part and parcel of the freedom struggle in the country. The post-independence development strategy was pursued through a planned process. When the planning process was initiated in India, there was a legacy of pre-independence debate on India's development problems. The debate was centred around the concern for poverty alleviation, nationalisation, agricultural growth etc. The primary objective was to improve the condition of the Indian people battered by the centuries old colonial government.

However, during these hectic days of debating for an appropriate development strategy and its objectives, the concern for environmental protection and a particular environment friendly development strategy was never thought about. Although it was then absent in the agenda of development strategy throughout the world itself. And in India, the debate centred around the Gandhan approach, at one end, and the modernizing approach had never been seriously discussed by either mainstream economists or by its left wing critics. Both the approaches agreed on the central problematique of development, i.e. rapid growth oriented policies, but they differed sharply around the role and function of the market in the development process. Interestingly, the Gandhian approach has received a certain measure of support in recent writings of ecologists and ecologically winded economists which in the early fifties appeared to lack substantive theoretical foundation.

G. S. Bhalla, "Alternative Development Strategies in Indian Development' in Alternative Strategies and the Indian Experience, ed. by B. K. Joshi, P-91.

The first three five year plans, which bore the personal imprint Nehru - and especially the second plan gave concrete shape to the vision of transformation- social and economic. The First Plan has been praised as the most successful because of its very modest(12%) targeted increase national income over the plan period was surpassed in execution. The plan had emphasized public irrigation as a leading input into agriculture. but otherwise its diagnosis and solution for the development problem ran along very conventional lines. The real break with the past came with the 2nd five year plan. This saw, the articulation of what may be called the 'Nehru-Mahalanobis' strategy of development. The development strategy adopted in the 2nd plan was meant for promotion of rapid increasing scope and importance of public sector and development of heavy industry to strengthen the foundations of economic independence. Production of the required supplies of consumer goods would be mainly through household and hand industry which were to be protected against competition from the factory made article and the importance of agriculture was reduced. So, the adoption of mixed economy pattern with Private Sector and the State competing for scarce resources made finances a major problem. The 1st and 2nd Five Year Plan ushered in the policy framework and objectives of an industrial India. The emphasis on rapid growth through intensive agriculture and industrialization became the catchword.

Among the priorities listed in the 3rd Five Year Plan, it was recognised quite explicitly that agriculture had the first Place.

^{3.} S. Cakravarthy, ,"Development Planning. The Indian Experience', Delhi Oxford University Press, 1987.

The new strategy laid emphasis on technological modernisation. And Green Revolution was introduced as an experiment in development and agricultural transformation. Green Revolution was designed as a technopolitical strategy.4. For bringingout development, through the creation of abundance by breaking out of nature's limits and variabilities. The Green Revolution was based on the assumption that technology is a superior substitute for nature, and hence a means of producing growth unconstrained by nature's limits and thus leads to the creation of technology which create new scarcities in nature through ecological destruction. The reduction in availability of fertile land and genetic diversity of crops as a result of the Green Revolution practices indicates that at the ecological level, the Green Revolution, produced scarcity, not abundance.

Till then the assumption that continuee was that through growth poverty can be eliminated. Based upon the trickle-down effect it was assumed that the development of a country depends upon the level of growth which will trickle down to the pverty-stricken people. The broad objectives planning could be defind as rapid economic development accompanied by a continous progress towarads equality and social justice and establishment of social and economic democracy. Hence, the 4th Plan adopted a 3- pronged strategy viz. Restoration of economy on the path of rapid growth; surplus over current consumption from higher income groups were to be for larger consumption in future; reduction of inequalities greater diffusion of enterprise and ownership of means of production, increasing productivity of weaker sections and widening opportunities for productive work and employment to the common -

^{4.} Vandana Shiva, " The violence of the Green Revolution' Third World Agriculture, Ecology and Politics, London, Zed Books, 1991,P-11._

man and particularly less privileged of the society.5. During the Vth Plan the economy had reached a stage where a larger availability of resources was possible to launch a direct attack on unemployment and poverty and also ensures adequate growth and bringout development in the rural areas. This strategy was pursued in the 6th and 7th plan. However, the 8th Plan seems to be a watershed as it provides a new strategy for development which emphasises upon the participatory development of the nation which is ecofriendly. It seems that again there is a going back to the Gandhian strategy of development which pleads for a highly decentralised self-reproducing village communities having a better balance between man and nature.6.

And in the 8th Plan the main thrust of the development revolves around the harnessing of the latent energies of the people through people's involvement in nation-building and creating environment to encourage initiatives at the local level in order to bring out a societal change and to make development sustainable. The Plan also envisages the environmental assessment of all the development projects and the pursuit of economic development should not be socially and environmentally destructive.

ENVIRONMENTALISM AND DEVELOPMENT: -

'Environmentalism' has finally become part of the dominant discourse. 'Development' has given way to 'Sustainable Development', and 'growth', has given way to 'green growth'. Yet the ruling paradigm about environmental issues continues to be biased in favour of the North, and the elites of the South. This bias creates a number of misconception is that Third World countries need 'development' and cannot afford the luxury of protecting nature's ecological processes. The Second misconception, closely related to the first is that poor people cannot be a source of ecological solutions, they are merely a source of environmental problems.

^{5.} S. Tendulkar, ,"Economic Reforms," The Economic Times- Oct.,1991.

^{6.} S. P. Ahuja ," Environment, Development and Poverty, 1992, P-68.

However, as the case studies and analysis of this review show development is not universally benign. Development for some means under development and dispossession of many. Development interventions aimed at commercialisation of natural resources involve a major shift in the manner in which rights to resources are perceived and exercised.7. It transforms commons into commodities, and deprives the politically weak communities of access to resources, and robs resources from nature, to generate growth on the market for more privileged groups in society. Protection of the environment is now being seen as a prerequisite for sustaining economic growth.8. Hence, environmentalism, as a theme in social sciences, seeks to search for the environmental factors in the development of culture society. Environmentalism is construed variously as a social movement, a cluster of ideas based on ecology, a back-to-nature philosophy, or greater interest in environmental affairs. Most critical ecology movements are based on the need to protect nature and the neend to strengthen people's collective rights to common resources. The emergence of social around ecological issues related to forests and water systems, that it is the marginal communities in the Third World for whom the protection of Nature is essential for survival. From their perspective, it is destructive development which is a luxury that the Third World cannot afford. Also, ecology and economics are not opposed, but converge survival economies of the Third World poor.

^{7.} Vandana Shiva,, Ecology and the politics of survival, 1991 Sage Publications, United Nations University.

^{8.} Directory of Non-Governmental Environment and Development Organisations in OECD Member countries, Environment and Development in the Third World, P-23.

Environment became a public issue and more importantly, began to be seen as being closely linked to economic and social development. The UN stockholm conference of 1972 was a major event in the environment dialogue and gave a considerable boost to the environmental concern in the development policies. It was the Club of Rome's report published in 1972 which recommended a "transition from growth to global equilibrium" and emphasised the need to "establish a condition of ecological and economic stability that is sustanable far into the future". A feature of the movement by this time was the apparent antagomism of developing countries towards environmental concerns. According to Nitin Desai, this antagonism was a result of the nature of the movement itself which had earlier focussed more on 'tigers and pretty trees' than on 'pollution related' issues. 9. .. Environment had thus far not been seen in the broader context of development, and in developing countries there was a general feeling that in the face of so many fundamental problems like poverty, unemployment illiteracy and over-population, they could not afford - To divert scarce resources for pollution control or other environmental protection measures. An important turning point in this context was the report of the world commission on Environment and Development. This report introduced the concept of 'Sustainable Development' and showed how environmental quality economic development were not only compatible but linked'.And this view was endorsed in Rajiv Gandhi's Environment and Development at the UN General Assembly, when he reiterated " we are a strand in the signle fabric whose warp and weft link together all that is of the earth, the water the air", and the development which destproys the environment, eventually destroys development itself.

^{9.} Nitin Desai, 'Poverty and Environment in Africa: What can be done, P-16.

Development has attained World Wide attention as environmental disaster has become global. Population explosion and environmental degradation pose challenges for socio-economic development and has disturbed the ecological balance thereby threatening human existence in the 21st century. How to sustain human life on earth is now a big question mark for all of us in the latter part of the 20th century. The great disaster throughout the world like Chernoby, disaster, Bhopal Gas tragedy and may others have generated a great concern for the survival of human beings in the 21st century.

Ecological ignorance, tremendous carelessness, lack of foresight, and unbelievable human greed-all these have to led to the plundering of the earth with modern technology only accelerating the, process. To save mankind from catastrophe an ecological strategy must be developed to deal with environmental problems at their roots. One comprehensive of attempt this way is by putting the renewable resources to proper use, gradually replacing these for the non-renewable resources. The eco-system is the basic functional unit of life, a pyramid of interactions with capture and turnover energy, production and productivity and bio-chemical cycling taking place in it.

In India, the process of economic development in the 50's and 60's was mainly based on industrial development and the growth of gross national product and rise of percapita income. But the development resulted in widening the gap between the rich and the poor, and between the urban area and rural area. However, towards the end of 80's it was felt that the

ecological order of India has been continually deteriorating due to the blind quantitative economic development at the cost of depletion of natural resources.

In Orissa, the echo of the aforesaid movements, came to be heard in popular agitations such as "Chilika Bachao Andolan", Bela Bhumi Protection Movement", the "BALCO Hatao" movement near Gandhamardhan Hills of Western Orissa. All these movements were directed to render economic and technological development compatible with the protection of invaluable nature's gift such as, forests, rivers, ponds, the atmosphere, agricultural fields and their products etc.

The UN conference on Environment and Development held at Rio De Janeiro in June 1992 called for urgent steps to restore harmony between mankind and nature so that economic development can become ecologically sustainable. The 1993 Human Development Report of UNDP drawns attention to another dangerous phenomenon inglobal economic-development namely jobless growth. The priority thus shifts to enhancing human skills. Without such a shift, result in the further-marginalisation of the poor, degradation of of the environment sense of despair among educated youth and ethnic and sociopolical strife.

Recently, in India there's a growing awareness of the symbiotic relationship between the protection of the environment and sustainable development. There is the renowned Chipko Movement in the Himalayas, where women prevent the want to felling of trees by throwing themselves protectively around tree-trunks. Island communities join hands to stop the coral-mining which destroy their lagoons. Thus, "the intensify and range of ecology movements in Independent India have continuously widened as predatory exploitation of natural resources to Feed the process of development has increased in extent and intensity. 10.

In our Parliament, members are increasingly receptive to environmental concerns. They are beiginning to demand that the conservation of environment be quaranteed before major development projects are undertaken. And now it has become a policy per se, which is quite obvious from the fact when the work in the Chilika Lake Development Programme was stopped as it has not got the clearance of the Ministry of Environment since 1971, the Government of India has taken commendable initiative to inject environmental considerations into the process of planning for national development. These included compehensive preparatory activities India's participation in stockholm conference, 1972 and the settingup of National Committee on Environmental Planning and coordination, constitution state environment committee enactment of constitution (42nd Amendment)Act, 1976. inorder to mandate the state to endeavour to protect and improve the environment and to safeguard forests and wildlife.as formulated in the Directive Princples (Art 48A); enactment of environmental protection such as Environment protection 1986 eco-development laws. All of these are indicative of Governments recognition to check environmental degradation and of the need plan environmentally degradation and plan for to environmentally development. Green Reyolution was designed as a techno-political strategy for creating abundance by breaking out of nature's limits and variabilities. Vandana Shiva in her book entitled.

"The violence of the Green Revolution' shows how the quick fix' promise of large gains in output pushed aside serious pursuit of an alternative agricultural strategy grounded inrespect for the environmental wisdom of peasant systems and building an egalitarian, needs oriented agriculture consistent with the village-based endogenous political traditions of

^{10.} Vandana Shiva, etc. al. 'Ecology and the politics of survical: Conflict over Natural Resources in India", New Dehi, Sage-Publication, 1990, P-19.

Gandhism and shows how the Green revolution also contributed to the acute social and political conflicts. To her," the conflicts and violence in contemporary Punjab is due to the ecological and political demands of the Green Revolution as an experiment in development and agricultural transformation.11.

The Forest Policy of post-colonial India continued on the colonial path of commercialization and reductionism and with it continued the growing denial of people's basic needs both through alienation of rights and through ecological degradation.12. India's poverty is closely linked with its increasing deforestation and land degradation.13. As much as half of the 329 m. ha. is considered degraded in one form or another. Satellite imagery between the '70s and 80s revealed that forests were loosing tree cover at the staggering rate of 1.3 m. ha. a year. Out of the 75 m.ha.of forest under forest Management, 40 m. ha. are now without tree cover. In India, the National Forest Policy passed in 1952 stipulated that 60% of the hill and mountain regions and 33% of the rest of the country has very little or no tree cover. Deforestation areas has led to massive soil erosion and siltation. According to the centre for science and Environment approximately 53% of India's environmental damage. The bed of the Ganges has risen by 0.5 m. in the past few years. The social forestry projects are meant for afforestation and are a good example of single species.

Conflict over Natural Resources:-

The recent period in human history contrasts with all the earlier ones in its strikingly high rate of resource utilisation.

^{13.} V. Shiva, 'Conserving India's Forests, Protecting India's People',
Indian Jr. of Public Administration, July, Sept., 1989.



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^{11.} Vandana Shiva, , ibid, 1991,P-11.

^{12.} V. Shresh, ,' Development Destruction', Mainstream, Feb. 24, 1990.

intensifying industrial agricultural Ever expanding and and production has generated increasing demands on the world's total stock and flow of resources. These demands are mostly generated from the industrially advanced countries of the North and the industrial enclaves in the under developed countries of the South. Paradoxically, the increasing dependence of the industrialised societies on natural resources through the rapid spread of energy and resource intensive production technologies, has been accompanied by the spread of the myth that increased dependence on modern technoligies implies a decreased dependence on nature and natural resources. This myth is supported by the introduction of a long and indirect chain of resource utilisation which leaves invisible the real material resource demands of the industrial processes. Through this combination of resource intensity, at the material level and resource indifference the occupational and political levels, contlicts over natural resources generated by the new pattern of resource utilisation are generally shrouded and over looked. These conflicts become visible when resource and energy intensive industrial technologies are challenged by communities whose survival depends on the conservation of resources threatened by destruction and over exploitation or when the devastatingly destructive potential of same industrial technolgies is demonstrated as in the Bhopal disaster.14.

For centuries, vital natural resource like land, water and forests had been controlled and used collectively by village communities thus ensuring a sustainable use of these a renewable resources.

The first radical change in resource control and the emergence of major conflicts over natural resources induced by non-local factors was associated with colonial domination of this part of the world. Colonial domination systematically transformed the common vital resources into commodities for generating profits and growth of revenues. The contemporary period is characterised by the emergence of ecology movements in all parts of the world which are atemting to redesign the pattern and 14. International Social Science Journal, Vol,137, August 1993, P-35.

extent of natural resource utilisation to ensure social equality and ecological sustainability. Ecology movements emerging from conflict over natural resources and the people's right to survival are spreading in regions like the India subcontinent where most natural resources are already being utilised to fulfil the basic survival needs of a large majority of people. In this way, ecology movements have questioned validity of the dominant concepts and indicators of economic development.

A characteristic of Indian Civilisation has been its sensitivity to natural ecosystems. Vital renewable natural resources like vegetation, soil and water were managed and utilised according to well defined social norms that respected the known ecological processes. The indigenous modes of natural resources utilisation were sensitive to the limits to which these resources could be used. It is said that the codes of visiting important pilgrim centres like Badrinath in the sensitive Himalayan ecosystem included a maximum stay of one might so that the temple area would not put excess pressure on the local natural resources base. In the Precolonial indigenous economic processes, the levels of utilisation of natural resources were not significant enough to result in drastic environmental problems.

There were useful social norms for environmentally safe resource utilisation and people protested against the destructive use of resources even by kings.15. The Indigo Movements in Eastern India, the Deccan Movement for land rights of the forest Movement in all forest areas of the country, the Western Ghats, the Central Indian Hills or the Himalayas, were obvious expressions of protest generated by these newly created conflicts.

Conflicts generated by the colonial modes of natural resource exploitation could no, however, grow with a local identity, with the progress of the anti-colonial people's movement at the national level, these local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the national struggle for independence with the local protests merged with the local protests merged with the national struggle for independence with the local protests merged with the

collapse of colonial rule internationally and the emergence of sovereign independent countries in the Third World like India resolution conflicts at the local level became While a possibility. independence vested the control over natural resources with the Indian State, the colonial institutional framework for natural resource did not change in essence. Where colonialism collapsed, the slogan economic development stepped in. There are similar examples from all parts of the country, related to almost all massive developmental interventions in India's national resource system. Ecological degradation and economic deprivation generated by the resource insensitivity and intensity of the classical model of development have resulted in environmental conflicts. an understanding of which is imperative for the reorientation of our current development priorities and concepts. It is becoming increasingly clear that these classical concepts and priorities are being used as an alibi to direct' development' at the national level, while the educated minority elite is the main beneficiary of these development process.

The ecology movements that have merged as major social movements in many parts of India are making visible many invisible externalities and Spressing for their internalisation in the economic evaluation of the elite-oriented development process. In the context of limited resource base and unlimited development aspirations, ecology movements have initiated a new political struggle for safeguarding the interests and survival of the poor, the marginalised, including women, tribals and poor peasants.16.

In the light of this background, ecology movements emerged as the people's response to this new threat to their survical and as a demand for the ecological conservation of vital-life support systems. The most

^{16.} Vandana Shiva, ; Ecology and the politics of Survival: Conflict over Natural Resources, New Delhi, Sage Publication 1990, P-21.

significant life-support systems in addition to clean air are the common property resources of water, forests and land on which the majority of the poor people of India depend for survival. It is the threat to these resources that has been the focus of ecology movements in the last few decades. Among the various ecology movements in India, the Chipko movement (Embrace the trees to oppose fillings) is the most well known. It began as a movement of the hill people in the state of Uttar Pradesh to save the forest resources from exploitation by contractors from outside. It later evolved into an ecological stability of the major upland watersheds in India. Spontaneous people's respose to save vital forest resources was seen in Jharkhand area in Bihar-Orissa border region as well as in Bastar area of Madhya Pradesh where there were attempts to convert the mixed natural forests into plantations of commercial tree species to the complete detriment of the tribal people.

In the Southern part of India the Appiko Molvement, which was inspired by the success of the Chippko Movment in the Himalayas, involved in stopping illegal over-filling of forests and in replanting forest lands with multipurpose broad leaved tree species. Beyond the Himalyas, the ecology movement in the Gandhamardhan Hills in Orissa against the ecological havoc of bauxite mining has gained mementum and inspiration from the Chippko movement. The mining project of the Aluminium Company (BALCO) in the Gandhamardhan Hills is being opposed by local youth organisations and tribal people whose survival is under threat. The peaceful demonstrations have claimed that the project could be only continue over our dead bodies'. The situation is more or less the same in large parts of Orisssa-Madhya Pradesh region where rich mineral, and coal deposits are being opened up for exploitation and thousands of people in these interior areas are being pushed to deprivation and destitution. This is also true of the coal mining areas aroung the energy capital of the country in singrauli. In these interior areas of Central India movements against both mining and forestry are becoming increasingly volatile and people's resistance is growing.

Large river valley projects, which are coming up in India at a very rapid pace, is another group of development projects against which people have organised ecology movements. Most notable among the people's movements against dams on the issue of direct threat to survival from submersion are Bedthi, Icchampalli, Bhopal Patnam, Narmada Sagar etc. context of the already over utilised land resources. the proper rehabilitation on a land-to-land basis of millions of people displaced through the construction of dams seems impossible.17.The cash compensation given instead is inadequate in all respects for providing an livelihood for the majority of the displaced.

Though these ecology movements relate issues that to are geographically localised, like forests pollution. or water their reverberations are national and even global in import. This macro-micro dialectic is rooted in the cognitive gaps associated with development planning and this dichotomy has been analysed politically as the result of the existence of two Indias.18. Every development activity invariably need for natural resources. In the context of limited natural resources, either limited by non renewability or ecological limits to renewability, the resources needs of the two Indias are bound to compete with each other. In this unequal competition the survival of the less powerful but more populous micro-economy is directly threatened. This threat may be either due to resource transfer or to ecological factors leading to resource degradation. Yet the significance of ecology movements does not merely lie the fact that they are voices of the dispossessed who the highly unequal sharing of the costs of the development process. Ecology movements as a trend can no longer be viewed merely specific and particular happenings. They are an expression the universal socio-ecological impacts of a narrowly conceived development

J. Bandyopadhay, (1984) In Goldsmith and N. Hildy ard(eds.) The social and Environmental Effects of Large Dams. Vol.2, Cornwali, Wadebridge Ecological Centre, P. 209-13. R. Kothari, (1996) Dossier of International Foundation for Development Alternatives, (Nyon) No.52, P-4-14.

development based only an short-term commercial criteria of exploitation. The impact of ecology movements cannot be assessed merely in terms of the impact of the particular development projects they originate from the impact, in the final analysis, is on the very fundamental categories of politics, economics science and technology which together have created the classical paradigm of development and resource use. These ecology movements reveal how the resource intensive demands of current developmenthave ecological destruction and economic deprivation built into them. important and universal feature of ecology movements is that they are redefining the concepts of development and economic valves, of technological efficiency, of scientific rationality-they are creating a new economics for a new civilisation. Ecology movements are providing these insights for this new realism passed on resource sensitivity and recognition of the people's right to survival. Human being is looking for a new philosophy to harmony with nature and ecology that is needed to give a new meaning and relevance to economics. 19. Human survical in India even today dependent on the direct utilisation of common natural resources.20. movements like Baliapal, Chilika and Bhitarkanika are vaicing their opposition to the destruction of these vital commons so essential for survival. The political foundation of ecology movements lies in their capacity to enlarge the spatial, temporal and social bases for evaluation of economic development projects- in their capacity to bring into the picture.

Amarty K. Sen, (1986)' Economics, Ecology and Public Action'.
Personal communication.

^{20.} N. S. Jodha, (1986) Market Forces and Erosion of common Property Resources, Hyderabad (ICRISAT)(Mimeo.)

Ecological sciences are providing a new paradigm in which the criteria of scientific of modern science will not be strictly applicable due to its fragmented nature; Technologies will have to be evaluated in the background of only one part of the chain of process from natural resources to the final product, but the entire technological chain. People's involvement the evolution of ecological sciences is imperative on two counts. First the marginalised majority have a right to determine their path of development. Second, it is the marginalised communities who retain ecological perceptions of nature at a time when the more privileged groups have lost them. process has already been initiated in countries like India. At one level, people's attempts at redefining development through sustainability and justice are resisted by the introduction of a false dichotomy between 'development' and ecology. Which conceals the real dichotomy between ecolgical development and unsustainable economic growth. At another level, the resistance is a consequence of the rejection of people's perception of ecological destruction as unscientific' 'unproved' and " unverified". These attemps of experts and vested interests will work against human knowledge and public interest science, and inturn against the possibilities of human survival.

Many people throughout the world have been affected in recent years by declining or stagnating incomes, deteriorating infrastcture and public services, increased pollution and health hazards and a gradual loss of economic - resilence in the face of internal or external shocks. The deterioration in the developing world is of particular concern in view of the persisting and debilitating poverty which severly affects more than 1 billion people. All underlying causes of development failures need to be

^{21.} Vandana Shiva; Ecology and the politics of survival and conflict over Natural Resources in India, New Delhi, Sage Publication, 1990,P-55.

corrected if the transition to sustainability be effectively is to implemented. The integration of development and environment at all levels of political and economic decision-making essential 13 to ensure sustainability.22.

Development and environment are fundamentally affected by pupulation variables, critical factors that influence consumption patterns, production, lifestyles and long-term sustainability. But more attention has to be given to these issues in general policy formulation and the design of sustainable options. All countries need to improve their capacities to assess the environmental and developmental implications of their population growth rates and distribution patterns and to formulate and implement appropriate policies and action programmes. 23.

The quality of the human condition and hopes for a better future continue to be diminished in large parts of the world by a combination of pverty, maluntrition, demographic pressures, unemployment, lack of health care, wasteful uses of energy, pollution and degradation of air and landresources. It is a critical step towards ensuring that, within the failure of some one born today, the world will become a more just, secure and prosperous habitat for all of humanity. It includes concrete measures and incentives to reduce the negative environmental impacts of the rich, to revitalize development in the developing countries, to eliminate their pervasive poverty and to reduce unsustainable rates of population growth that threaten both their development and the environment. sustainable based on the premise that development is not just an option but an imperative in both environmental and developmental terms, and the while the transition to sustainable development will be _difficult, is entirely feasible.

 ^{22.} The Global Partnership for Environment and Development,
 A Guide to Agenda 21. Geneva, April,1992- P-7.
 23. The Global Partnership, 1992, P-8.

CHAPTER -III ENVIRONMENTAL MOVEMENTS IN ORISSA

Environmental Protest Movements in States reflect the local as well as national concerns. It is felt that the study of State Socio-Economic and political movement would make some contributions to our understanding of Indian Political Movement at different levels. As such, the study of protest Movements and its environmental concerns will be of deep interest to a scholar. Several attempts were made in the past/Footude to bringout publication s dealing with one or the other aspect of the Orissan protest movement. But the researcher had been contemplating for sometime in the past to assess such movement for protection of individual rights. Significantly, this Environmental protest movement reaffirms its faith in fundamental human rights in the dignity and worth of the human person, inequal rights of men and women, in rights to safe environment, in rights to child, in rights to development.1. Human rights consciousness is increasing People of Orissa are demanding as a right to preserve civil society and welfare. Promotion of higher standards of full employment, and conditions of economic and social progress are also in the agenda of protest movements in Orissa. The people's union civil liberties (PUCL) is trying to mobilise public opinion in favour of people's agitation. But it has achieved limited success. Police brutality atrocities on Harijan, tribals and women are minimal in Orissa.

Environmental Movements in Orissa calls for an integrated approach which takes into account not only their civil and political components but also the economic and social aspects and the well being of an individual against the unprecedented threat emanating from the problems, say for instance, pollution of human environment, exploitation of dalits etc.

^{1.} T. K. OOMMEN; Protest and change, Studies in Social Movements, sage Publications, New Delhi, 1990,P-11.

Orissa, one of the poorest and most backward states of India, is faraway from New Delhi. With a small population (about 3 crores as per 1991 census) a large part of which includes tribals and harijans, it still counts in national rights movement. Inspite of glorious past with spectacular achievement in the fields of art, literature, architecture, science, trade and military to its credit, present Orissa is a picture of poverty, illiteracy, corruption inefficiency, powerlessness alienation and political apathy.

In the ages past, Orissa had been standing as a strong and invincible citadel against foreign aggression. Orissa was the last province in the country to come under the Mughal subjugation. Orissa also took prominent part in the national struggle for freedom. It has been noted that Orissan also encouraged the people's agitation for the cause of freedom. Some exmaples in recent years are:-

- (i) Movement against the establishment of Test Range at Baliapal, Balasore, by Government of India, (it is a gross violation of human rights, as this project will displace the communities from their homes-hapless villagers to be displaced gave a strong fight from 1985 to 1994).
- (ii) Plea to save Chilika Lake, (against large-scale displacement of people from their homes, ecology degradation)
- (iii) Plea to save Orissan sanctuaries recently eighteen eminent person (including UGC Chairman Prof. G.Ram Reddy) have expressed grave concern over the 'Orissa Government's move to denotify two of the state's important sanctuaries Kendrapara Bhitarkanika and Konark- Balukhand without taking the opinion of experts and scientists.

(iv) People's movement against Gandhamardhan Bauxite Project of the Public Sector Bharat Aluminium Company (BALCO) (work on the project intended to undertake, bauxite mining to feed BALCO's korba project, people protested this project as it will endanger the ecology around — Nrushinghanath Temple complex along with streams and rare herbal medicinal plants.

The Government of Orissa has also taken some remedical steps to redress the grievances of the people.

The Environmental Protest movements, the feeling of man's dignity will have to be awakened again and again in man. Only these collective rights of the individual can transform society into a community of men to achieve their highest purpose, a democratic society.

In order to understand the politics of the people to save the ecology in the coastal district in Orissa and in the context of National Test Range; Baliapal, Chilika and Bhitarkanika proposal, attempt has been made in this dissertation to cover the period from the early 1985 to 1995. Though the movement began specifically in 1985 and picked up to its high point in 1986, certain political developments in the region cannot be separated from the discussion. The antecedents of the movement such as the ecological project the of the issue and organisational activities non-governmental organisations have bearing on the nature and direction of the movements. faras the activists of the movement are concerned, there were major organisations operating during the time. People involved in this organisation were a group associated with the Orissa Krushak Mahasangh(OKM) of the socialist, a group of Jaya Prakash Narayana followers, students from Utkal University Who initially came as part of a NSS camp to the area but later stayed back, students of the local Ayurvedic College, the Youth of local villages the tribals, and the Dalits of the region. The region has been known for its socio-economic under development for a long period of

time. This study spread over some vital protest movements. The movements like Baliapal, Chilika and Bhitarkanika are slected on the basis of their political Competitiveness in their respective regions.

BALIAPAL: -

(Socio-Economic Background)

The sustained nature of the agitation against the National Test Range in Baliapal as well as its militancy is to a large extent due to the mass involvement of the people, including the poorer sections. This participation of all sections can in part be explained by the commercialisation of agriculture which has yielded benefits for the rich as well as the poorer classess. 2.

To Sujata Patel, over the last ten years a rupture has occurred both in the political block and ideology that sustained the struggle in Baliapal. A leadership vaccum made the movement susceptible to the influence of political parties and the ensuing factionalisation of the political block froze the growth of struggle.3.

The people of Baliapal in Orissa have been carrying on a campaign against the proposal to locate the national missile test range there. What are the reasons for their agitation? How genuine are their fears. 4. (N. Ramdas)

^{2.} Sujata Patel. : Baliapal Agitation: Economic and Political Weekly, 25th March, 1989, P-38.

^{3.} sujata Patel; Baliapal Agitation: Leadershi Crisis, EPW,9th July 1990 P. 50.

^{4.} N. Ramadas; A Range of Protest; Frontline July 25 August 5,1988,P-81.

The last ten years have been seen the growth of a militant agitation in the coastal district of Orissa, Balasore, against the establishment of the National Test Range(NTR) in its two blocks, Baliapal and Bhograi. The area of the site extends over 102 Square Kilometres in the two blocks, a major part of it being in Baliapal. It is here that an agitation has been launched which questions the government's right to establish and place a project in an agricultural belt that may turnout to be the most prosperous area in Orissa.

The agitation in Baliapal was formally launched in December 1985 with the formation of the uttar Balasore Khepanashtra Ghati Pratirodh Samiti (KGPS) and since then has become one of the most militant agitations this country has seen in recent times. It is an agitation that has able to mobilize people from all classes in society and has broken down barriers of caste, age and gender in making it a mass agitation. What is most interesting and significant is the fact that it has been able to garner the support of all the mainstream political parties as well as political groups on the fringes of the Parliamentary process for its objectives. Active support for the agitation extends all the way from marxist-leninist groups to the congess(I) at the village and the block levels.

In a political climate, vitiated by narrow political objectives and considerations of personal gain, the support of a wide spectrum of political parties and groups for the agitation reflects not only the political strength that it commands but also its political maturity for not compromising for narrow political gains.

The twin issues of displacement and rehabilitation have been the source of the growth of many agitations in the country in the recent past.

What distinguishes this agitation from owners of a similar nature is mass involvement of all horizontal hierarchies as well as its militancy. In no other recent agitation has every individual in the acquired area got involved so passionately. An example of this militancy is the incident which led to the gherao and the subsequent banishment of the then collector from the area in March 1986. Some people thinking that the then collector had come to acquire their land, surrounded him and asked him to leave the Barricades were established to restrict his further entry. Later the KGPS took the decision to block the entry of revenue officials into the area by mobilising women and children to make a barricade. Thus no revenue official has been able to gain access to the area in the last three years even when accompanied by para-military forces. Last May in an operation termed 'operation Baliapal' an 8,000- strong police and Para- military force attempted entry only to be stopped by a human barricade of children and women. Fearing that this would lead to a massacre the government withdrew, but covert attempts at entry continued.

The government retaliated by suspending all developmental work such as the maintenance and extension of the infrastructure like roads, transport and electricity systems and also suspended the implementation of the poverty alleviation schemes. For sometime, even the supplies of Kerosene and sugar were stopped. Even though the law and order machinery in the form of police past has remained people have boycotted it, effectively negating any presence of the state in the area. For the last three years, the KGPS has functioned as a defacto government, resolving disputes and tensions and managing the barricaded area. And over the last three years, people's commitment to the objective has not diminished. Rather, the government's intransient attitude has led them to advocate greater militancy. There is no doubt that the militancy reflected in the agitation is the product of poorer class participation and support. This in turn is related to the nature of the Baliapal economy and its benefits to the people, specially the poorer classes, in its contemporary phase of development. 5.

^{5.} Sujata Paten; EPW, Research Foundation, 25th March, 1989, P. 39.

The area allocated to NTR in the Baliapal block is situated on the crescent-shaped coast of north Balasore and is bordered by two rivers. Geopgraphical and topographical attributes have historically hampered the growth of settled agriculture in this area. The continuous changes in the river belts and the receding of the entire villages, leading to land disputes, and on the other the creation of new land area, which has drawn many migrant groups, leading to further tensions over land rights, increasing density, and pressure on land.

Presently, the density of the population per sequare kilometre stands at 441. Before the 1934 settlement the average land holding size was not very high but after the settlement it decreased substantially. Today the Baliapal block is spotted with medium sized land holdings with very few large landowners. The average land holding is between five to six acres.

Late nineteenth century records indicate that the main cultivating castes are the Khandayats and the Rajus. The Khandayats of Orissa are likely the Kurmi or Kamma peasant cultivating castes. In the late nineteenth and early twentieth century these two cultivating castes were joined by migrants from Bengal, the Barajias and the Golas, the latter a bigger grouping who in addition to acquiring tenancy land settled through the 1934 settlement, also held harvest land rights called amalnama patta, pattas declared by Zamindars in areas recently cultivated as a result of the receding of the sea. Today the upper stratas of Baliapal society are dominated by Rajus, Golas and some Barajias as well as a section of the Khandayats. While it is difficult to find a poorer class Raju or a Gola, this is not true of the Khandayats, a caste which is proportionately the largest among all the cultivating castes in this area. 6. The non-cultivating castes can be divided into those were in fishing (futher sub-divided into four groups, the keutos, now sanskritised and calling themselves, karivartas, the Bhoomijas (the Sanskritised version Vjias), the Jhali and the Khejali) and the castes of sonar, Teli, Tanti, Khumbhar, Barber, Dhobi, Gopals and Domo and Hadi. 6. Recorded Speech (Saving Baliapal Area)

According to the 1931 census the cultivating upper castes constituted more than 20 per cent of the population. In addition some santhal tribes have settled in this area. They constitute five percent of the population. The last twenty years have seen some major changes in the economy of this area as a result of two developments: one, the commercialisation of agriculture gave immediate benefits to certain sections of the cultivating peasantry who intensified the use of land for agriculture by introducing lucrative second crops: groundnut, in the northern tracts alternating til and rice in the southern tracts where there is more than adequate supply of fresh water making irrigation redundant. Government statistics reflect these attributes irrigation is hardly present, yet HYV rice produced. Peanut production is another important feature of the area. The benefits accrued initially to the upper sections of the peasantry who used their access to land to start second crops. Successful attempts were also made to encroach on gochar land. As a result it is difficult today to find gochar land in this block, a process, which has effectively displaced occupation of the Gopals who have stopped maintaining cows and have shifted to cultivation.

What changed the course of the growth of lass crystallisation, with its resultant land alienation and increase in share cropping and the ultimate out-migration was the introduction and the extensive cultivation of paan in addition to that of cashewnut in this block. Paan cultivation was introduced by the Barajia caste who brought it to this area from Bengal. Its spread in the early 20th century, when it was first introduced was restricted because of superstitions beliefs regarding its production.7. 7. However, its production started expanding over the-following decades when the Banares paan traders established brokers in this area to buy this paan. This paan known locally as the jaggi paan(after Lord Jaggannath) was marketed as Banaresi patta after it reached Banares, where it changed colour from green to yellow through a heating process. This led to the 7. Sujata Patel; Baliapal Crisis, EPW, 25th March, 1989, P-40.

encroachment of this tract by the cultivating castes. However, they were not the only ones that immediately seized the opportunities. This tract was occupied by the fisher people who started experimenting with paan cultivation on their homestead land or on encroached land. They were highly successful in these attempts. Paan can be intensively cultivated in small tracts of land. A paan baraj (a baraj is a bamboo enclosure in whic rows of betel vine are grown)can be as small as 3 decimals (1 decimal= .01 acre). Its maximum size is 17 decimals. A three decimal size paan baraj can yield profits; at current prices yearly income could be Rs.2--22,000 While initial investments are comparatively low.

The introduction of Paan was not only the factor responsible for the sudden prosperity of the poorer classes. A long with the growth of paan and cashewnut cultivation, fish also became an important marketable commodity. The demand for fish in the neighbouring districts of Bengal has been increasing at a steady pace with supplies always low, specially after the diversification of certain types of fish for the export market. Orissa being the immediate neighbour and Balasore being the adjoining district soon started supplying the Bengal market. The nature of demand led to the introduction of new technology: new kinds of nets to attract different types of fish and the introduction of deep sea fishing: Also shrimp cultivation was introduced in the area.

These changes together with the introduction of paan, cashewnut trees as well as vegetables and fruits led to an almost radical change in the work and life stype of the lower class population as well to the restructuring of the division of labour in the family. It significantly changed their diet and introduced them to new kinds of food. The enormous profits from paan and cashewnut production and the incomes earned through the main occupation, whether that of fishing or of various artisan activities, made possible considerable economic mobility. Some families were

even able to buy cultivable land and start rice production while the artisan castes of Domo and Hadi reaped enormous benefits out of their traditional activity, that of Basket making.8.

As most of these families continued to maintain a stake in their traditional occupation, it was women and children who were now involved in these new economic activities. The burden of maintaining the new crops generally grown on homestead land, usually fell on the women whose sphere of activities now expanded. Among the lower fishing communities, specially the Jhali and the Khejali, the women of the family also trapped lobsters while the children collected shrimp eggs for sale. The Bhoomija women have been traditionally seelers of fish, selling it either in the local market or in the villages. None of these activities were redistributed, rather other work relating to agriculture increased, giving the poorer class woman a significant stake in the land, the sea and its resources. Their militancy can be traced to these factors.9.

If the upward mobility of the lower groups in the social structure had started a decade back, it spread to the other sections of this class has been a recent phenomenon. An idea of its extent can be ganged from the fact that notonly is it rare to find a cultivating caste which does not produce paan but it is also rare to find any family which is totally dependent an one major occupation as a source of income. The only available statistics are quoted in the recent report broughout by the People's Union for Democratic Rights (PUDR)entitled Bheetamaati. It quotes the district agriculture office as indicating that there were more than 10,000 paan

^{8.} N Ramdas; A Range of Protest Frontline, 5th August, 1988. P-10.

^{9.} Anil Agarwal, ,' Ecological Destruction and the Emerging patterns of Poverty and Peopl's Protests in Rural India, Social Action, January—March 1985.

Barajas in the area to be acquired for the NTR in the Baliapal block. This seems to be a gross under estimate. There must be as many as a lakh barajas in that area if we depend on the estimate made after doing a detailed eight-village survey of that area.

A Range of Protests:-

The local population is up in arms against the central government's decision to set up the national test range, spread over 130 Sq.Km. area. One of the range heads is proposed at Chowmukh village in Baliapal block. An interim test range at Chandipur and a radar station on the Nilgiri Hills also in Balasore district are part of the project. The people of Baliapal block who are likely to be displaced are involved in the ten yearold movement against the project to such an extent that for them the Government no longer exists. A majority of them do not go to the Government with their problems any more and the Government alleges that innocent people are being tortured by the leaders of the movement. The people have stopped paying land tax. The land is fertile and thickly populated and the people are not poor. There are three crops a year apart from the large scale betelvine cultivation. Even a 10 year old can earn about Rs. 500 a month besides food by working in a betel plantation. Where can Purshootam Behera of Karanj village be given employment by the Government if he is displaced? He is one of the thousands of examples that can be Cited Behera engages 50 people everyday to tend his betel plants and cashew trees Or take the case of Durya Patra, a matriculate who employees 50 people. The Orissa Government has promised employment for atleast one member of each displaced family, but what about those like Behera and Patra? The Central Government has also been thinking of having a launchhing station of the Indian Space Research Organisation (ISRO) at Chowmukh for its polar Satellite Launch Vehicles. Though the Government is planning to acquire prime agricultural land, none of the central leaders has thought it necessary to come and explain to the people the need for the range. Chief Minister J.B.Patnaik, who has completed eight years in office, has not visited the area in recent times. Before the

1985 General elections he had assured the local electorate that if his party was voted back to power, it would try to get the project dropped. The Congress(I) candidate won and the party was returned to power, but the Chief Minister did not keep his promise. The local people rallied round their leader Gadadhar Giri in 1985 after the Patnaik Ministry assumed office the second time.

The people are asking why the Government should think of setting up the project requiring large-scale displacement in a thickly populated area.10. They have vowed that the range can be established only over their bodies. The Uttar Balasore Khepanasttra Pradirodha Committee was set up in after the centre announced the decision to set up the Rs.1,000 crore facility at Chowmukh. As a first step the committee decided to prevent the entry of government officials into the area with baricades and a checkgate. It was followed by the formation of a "Morana Sena" or suiside squad consisting of children up to the age of 15in every village with a "Commander" Gouri Patra, commander of the suiside squad of Pratappur village, said he had under him more than 200 children and it was his responsibility to see that each boy was trained to meet an emergency situation. The children are taught that the "sea is ours and we shall sacrifice our lives but not hand over mother earth to the Government".11. In case the children have been taught how to stall it by lying on the ground. With movement gathering momentum, by the end of 1985 the Central Government decided call the opposition leaders and the agitators for discussions. Those who attended the March 1986 meeting included the Leader of the opposition the Orissa Assembly, Biju Patnaik, Samrendra Kundu and Madhu meeting failed as the centre was not prepared to discuss alternative site but only wanted to convince the leaders of the justness the rehabilitation measures. The opposition leaders walked out.

^{10.} Sarah Joseph; Social Movements, State and Democracy, EPW. February 20-27, 1993. P-330.

^{11.} N; Ramdas; A Range of protests, Frontline July 23-August 5,1988, P.85

When the project was conceived in 1985 the Government wanted 115 Sq Km for the range head and an additional 45 sq km spread over 126 villages as a Safty Zone. Though the official figure of displacement then was about 70,000 people involving about 11,600 families; the unofficial figure was one lakh.

The centre announced in May 1986 a reduction in the size of the Baliapal range shifting some of the facilites. It said that, 11 to reduce the suffering of the people" only 68 sq km would be acquired for the range head with an adjacent safety zone of 34 sq km spread over 55 villages. Officially, this would reduce the displacement to 50,000 people, though the unofficial figure was 70,000. Printed pamphlets were circulated in the area in a bid to persuade the people. But the response was poor.

Movements against government actions are nothing new to Baliapal. The Working president of the agitation steering committee, 72 year old Brundaban Raj, a Freedom Fighter said that in 1953, when the Government without the consent of the people tried to change the course of the Subernarekha river to control floods, the people started an agitation. The Government's bid to use force failed. Finally it withdrew the police force stationed there. He said that as long as the people protested in a non-violent manner they would succeed.12. The people of Baliapal were not interested in any compromise formula involving a reduction in the area.13. True that in 1953 the Statement Government agreed to abandon plans to divert the river in the face of popular resistance, but is such a course possible now? If Prime Minister Rajiv Gandhi decides that J.B.Patnaik can continue in office only if he is able to restore normality in Baliapal, what choice will Patnaik have?

The opposition leaders have been demanding that another location should be chosen so that human suffering would be less. Former Chief Minister

^{12.} Baliapal National Test Range Resistance Committee Report.

^{13.} S. Bandyopadhyay, and Gopal, B. Ecosystem Studies and Management, P-155.

Nilamani Routray has been writing to the Prime Minister and the Defence Minister asking them to reconsider the decision to have the test range at Baliapal. He argues that no other country has a missile range in a thickly populated area. He wanted the range to setup on the Andaman islands. But the Government says the cost would be double if it were to be shifted to the Andamans. Routray has, however, countered the argument, saying France has its test range and space centre in French Guina where annual rain fall is 430 Cm.14. Though the agitation has been on since the middle of 1985, the State Government has not felt the need to discuss the problems with the people or try to convince them of the need for the facility on May 25 collector Pitabash pathaik attempted to enter the through the checkgate at Kalipada. But the people of gheraoed him and hundreds of agitators lay down on the road, blocking vehicles. The collector has to return after talking to the leaders of the sterring committee. But fear continued among the people as the Government has not withdrawn the addition troops deployed at Baliapal. 15. The setting up of an expert will also enhance the government's creditbility.

There were another school of thought which supported Biju Patnaik's idea of having the range either in the Andamans or at Satbhaya in Cuttack district, also in Orissa. But officials say satbhaya will also entail human displacement and may not be a good site for the north-south polar According to Defence Minustry officials chowmukh is a good site range head facility. The crescent shaped seashore in the Baliapal area is ideal for setting up tracking stations and the Chowmukh range will be ideal for the polar launches. The Baliapal coast affords a clear view upto 1,600 Km. in the South and 400 Km. in the east. Apart from being cyclone free, it has 200 day visibility and a clear, shallow sea. Satbhaya's disadvantage may be the absence of a crescent-shaped coast. But siting the facility there will save the mangrove forest of Bhitarkanika. 16.

^{14.} Expert Team Report.

^{15.} Ravinder Kumar; Social Movements in a broader historical perspecting EPW, February 20-23,1993.P-332.

16. Gazette Notification.

To acquire any land the Orissa Government will have to start issuing gazette notifications are no more valid. The Government has drawn up a massive programme of rehabilitation costing Rs. 400 crores, which includes payment of compensation for land acquisition. J.B.Patnaik had said his Government would not displace people until model villages were setup fortheir rehabilitation. Does he still stick to this stand? Earlier the Government had planned 6.500 houses but has started work on only 400. The apex level rehabilitation committee which met in May after a gap of 18 months discussed these details but the outcome does not appear to be encouraging.

The State Government, instead of demanding from the centre a defence based heavy industry has sought Rs.18 crores as seed money to set up industries to provide jobs to the displaced. But how can the Government satsfy the youth of Baliapal? What job can they do? There is perhaps one solution for the present and that is the constitution of an expert to examine all the factors.

The growth of this agitation has been a significant development in the Indian Polity, for, it has been able to mobilise all the inhabitants of the area, cutting across the lines of class ,caste,gender and tribal affiliation on the issue of displacement.17.To understand this and to estimate further developments it is necessary to analyse and ascertain the role played by, on the onehand, macro forces that promotee and provided the impetus for the growth of this struggle and the developments and dynamics within struggle, today, in relation to the changing politico ideological climate of the country 18. The fact that this agitation has remained restricted to the Baliapal block and not spread to the Bhograi block where thirteen villages are to be acquired in the revised scheme, indicates the localisation of this struggle. Evidence of its specificity lies in the failure of the attempts to mobilise the Chandipur Peasants and tenants against the use of the interim

^{17.} Patel; Sujata: Baliapal Agitation:

Leadership crisis, EPW, June 9, 1990,P-1238.
 Sujata; Patel, Baliapal Agitation: Socio-economic Background, 25 March 1989,P-38.

Test Range's facilities for testing missiles (Again was tested in May 1989). Features specific to the locale of Baliapal have facilitated the growth of the movement, conditions which have to be analysed to understand the present constraints in the movement. Such analysis should contexualise the role that the macro processes have played and continue to play in constructing the local struggle. The localisation of the struggle in Baliapal is a result of the consolidation of certain economic, political and social processes in one conjuncture. There are, the topographical and historical development's that have restricted the growth of both large land holdings and absentee land lordism, excellent natural resources including fresh water supply all through the year, the spread of cash crop economic and the growth of the market for rice, groundnut, coconut, cashewnut and paan.

The consolidation of these features was made possible by the increased demand for paan leading to a growth in the volume of Baliapal, with demand exceeding supply. This process was dependent on the integration of the local market with the national market. Three features distinguish this aspect of the agitation. These are, its mass character, independence from political parties, inspite of having obtained support from all political parties and its well articulated ideology of bheetammati that formed the basis for various sections indentifying themselves with the struggle. Mobilisation was largely done through the fronts of students, youth, women and fisher people. Two political currents integratd the various sections of Baliapal society and the block of interests based on cash crop economy and created a political entity. These currents were represented in to individuals, Gadhagar Giri and Gananath Patra -the former socialist and a liberal associated with the centrist Janata Party. but because of grassroots political base was autonomous of factions in the party and the latter a member of the United Centre of Communist Revolutionaries of India. Marxist-Leninst.

The institutional structure and the political block was defined by the ideology of bheetamaati, a word, which can be loosely denoted to mean 'home' hearth' and the emotions that are rooted in these words 19. This ideology converted a cultural sentiment for land into a political demand for the absolute right to its continued use through religio-mythological tools. Stories from the puranas, and heroic tales of Shiva, Parvati, Durga and Kali were inter/wined with political action to confront the state. The figure was thus for Sonar Maati, the golden land and for the protection of Ma, the mother, who was symbol of prakriti; nature; a fight conducted by the entire community against the State which wanted to destroy all three: Sonar Matti, Ma and Prakrit 20.

The articulation of this ideology of bheetamaati, in this manner broughtout the environmental dimensions of the struggle. 21. It should be noted, though that the ideology as it was articulated and extended during the struggle emphasised economic issues rather than the cultural and the environmental. Macro economic processes provided the impetus and the context of the growth of the struggle while the intervention of macro political processes is aiding its slow death. This struggle had posed a significant question of ideology and politics, but its resolution now will be part of the politics of mainstream parties. 22.

^{19.} THE ORIYA SAMAJ, 25.5.1986.P-5.

^{20.} ORIYA DHARITRI, 12.5.1986.P-3

^{21.} Manoranjan; Mohanty: Right to Earth, 1994.P-3

^{22.} Sujata; Patel: Baliapal Agitation:Leadership Crisis, EPW, June 1, 1990.P-1240.

Chilika:-

Mythology has it that an invader (Javan Raktabahu) of Jagannath Puriled his army to war against the sea. As the army advanced, the sea initially retreated, till all the army had advanced beyond the shores. The sea then leapt with an angry roar and flooded the shores, destroying the invading armies. The Chilika Lake was created in the flooding of the shores perhaps the mythology anticipated the present invasion by outsiders on the Chilika and the people of Chilika. Perhaps the mythology is also right in anticipating the destruction of these invaders by the angry uprising of the people of Chilika. 23.

The Region: -

The Chilika is a brackish (brackish; mixture of fresh water and sea water) water lagoon— the largest in Asia Situated in Orissa, off the coast of Bay of Bengal, between Puri and Berhampur, the lagoon stretches across a length of 72 km. and width of 25 km. covering an area of 920 to 1050 sq km (variation between summer and monsoon). The lagoon is the home of a wide variety of birds. About 158 species of birds, including 94 species of migratory birds are reported to be found in the chilika. In addition 153 varieties of fish are to be found and some of these varieties are also rare and scarce. In fact at the International Ramgar convention held in Iran in 1971, Chilika, alongwith Bharatpur, Rajasthan, was declared as on of the important water bodies of the world.

Chilika is also the home of another commercially important species—the tiger prawn. The lagoon, formed by the confluence of 14 fresh water rivers and the magarmukh channel from the Bay of Bengal, has brackish water. In summer the water recedes and the shallow ponds created, and filled with luxuriant growth of grass, form a natural habitat for prawn. The lagoon is also the home of over 50,000 fishermen (over 2 lakh total dependants) from 192 villages situated around the Chilika, who are all dependent on fishing and particularly prawn—fishing as their major source of livelihood fishing cooperatives.

^{23.} Chilika; Voice of the people., Chilika Banchao Andolan, Kranti Darsi Yuva Sangram, Orissa.

Fishing has been the traditional occupation in the Chilika region for centuries. The fishermen trace their rights to fishing in the Chilika back to the time of Afghan rule over Orissa. This right was protected even by the British who aided the fishermen in setting qu 25 fishermen's co-operatives. The British formed the first co-operative the year 1926, a co-operative store for fishermen at Balugaon, the first such co-operative in Asia. Thus Chilika has rare and history of fish producers co-operatives and village level democracy since early times.24.

In post-independence India, the situation continued with the right to fishing being formally agreements to the fishermen. In 1959, this system was formalised further, by the formation of an apex central fishermen's operative society limited at Balugaon, to which was leased by the Orissa government all fishing rights on the Chilika, which inturn further subleased smaller areas to 65 primary fishermen's co-operatives. A system of ecologically-stable coexistence had developed between communities, the lake and its inhabitants, without inter ference from outside influences, which continued till the late 1970S.

The lake is the biggest brackish water lake of India of about 11 hundred sq. kilometers and is designated as the wet land of 25 international important under Ramsar convention, 25. When Orissa Krishak Mahasangh just organising the fishermen numbering about one lakh of about 116 villages surrounding Chilika Lake and was creating awareness for protection of environment, suddenly the State Government decided to permit the Chilika Aquatic Farm Ltd. , A joint sector company of the House of Tatas State Government for semi-intensive prawn culture inside the constructing huge prawn ponds. This would have displaced large number of

^{24.} Banka Behary Das;

Environment Movement in Orissa centre of Ecology and Development. P. 1. S. A. Hussain and C. K. Varshney, 1989 Directory of the Asian Wetlands India,IUYNV,Geneva.

fishermen who were utilising . The area by fishing on traditional method, and would have created environmental disaster to this lake. The Orissa Krushak Mahasangh opposed it and organised the fishermen against hi-tech prawn culture inside a closed body like lake by having various awareness programmes, and peaceful actions including conferences seminars, cultural programmes. It also sought the intervention of the Environment Ministry of Government of India. Scientific opinion of the ministry and of outside supported Orissa Krushak Mahasangh's stand. In the beginning some young activists were arrested and harassed. With mounting public opinion against the Tata's entry into the lake the police action ceased. To broad-base the movement a state level convention was organised at Bhubaneswar on 1st November, 1992, where Chilika Bachao Andolan (Save Chilika Molvement) was born and it was given an institutional shape. 26.

The Government of India have declared Chilika as a bird sanctuary for facilitating the migration of nearly 132 species of birds from siberia every winter. The socio-economic importance of the lake is no less mean, as it is the source of wealth and contributes to the State Domestic Product, Foreign exchange earnings, provides livilihood and sustenance to more than 1.5 lakhs of population living in the neighbourhood villages, attracts tourists, houses, the Naval Training Centre etc. the lake is important for its fish, prawn and crap population. The physical changes occuring in the lake are observed to be significant.27. Taken together all these natural and artificial factors lead to a degradation of the eco-system of the lake.

According to Prof. C.K. Varshney, Chilika Lake has a distinctive ecological character which has no parallel in the tropical world, He further says, "Chilika Lake is very strategically sandwhiched between terrestrial and marine eco-systems. Ecologically Chilika Lake is a transitory system

CIDA: Chilika Lake Project.

^{26.} Recorded Speech(CIDA: Saving Chilika Lake)

representing a serial stage of hydrosphere. The natural processes in a normal, course will bring abount progressive changes in the character of Chilika Lake ecosystem overtime. Human activities in near and distant watershed areas of the lake inform of capture and culture fisheries. additives or perhaps synergetic influence.28. According K.P.Biswas, a fishery Scientist," illegal encroaching of Janos and other low lying areas of the lagoon by erecting mud wall and enclosure, not only have a strong ecological impact by cutting off the area from the lagoon ecosystem and probibiting the same to function as nursery and breeding grounds variety of organisms but causing a social conflict between the traditional fisheremen of the lagoon and the prawn farmers. 20. The shifting of the mouth, siltation at the muggermukh and consequent reduction in the tidal impact have naturally led to the decline in recruitment of commercially important species of prawns and mullets". The increase of fishermen population coupled with the rise in protein demand has led to the introduction of modern technology and exploiting hitherto resources. Increased number of traps, especially around the Muggar Kukh, use of nylon nets, indiscriminate catching of fingerlings and granid females have weefully led to overexploitation of stocks. 30. This leads to question, 'will there be a Chilika, fifty years from now? So the main aims and objective now is to restore Chilika to sustainability, so that future generations can live of its bounty. 31.

^{28.} Recorded Speech (CIDA: Saving Chilika Lake.

^{29.} K. P. Biswas; Environmental Management in coastal area Marine Fisheries, P. 12.

^{30.} S. Bandypadhay, and Gopal, B. -Ecosystem Stuties and Management, Problems of A coastal Lagoon: The Lake Chilika. P.155.

^{31.} V. Asthana, Limnological Studies of Lake Chilika, Crissa, A Project Sponsored under the Man and Biosphere programme by the NCEPC ,Gol, Deptt. of Science and Technology.

The Ecologically-Friendly System:-

Ecologically, Chilika is a stupendous collector of water and sunlight. The solar energy is converted by the process of photosynthesis, by grass and photoplankton into food for brakish-water fish and grass for cattle to graze on. The fish and cattle in turn provide food and livilihood to the thousands of traditional dependents of Chilika. This is a well-balanced, sustainable self-regenerating system needing no outside high cost and non-renewable inputs - no outside high cost and non-renewable US, European technology. It is a system developed by years of experience of living in the region by the poor "engineers" of Chilika and maintained without any catastrophe by them, for well over a century. It is a model of those indigenous 'Primary' nature conserning technologies on whose existence life on earth depends. The whole ecology and environmental concern is to defend such production processes from the high-cost, import-dependent, higher-waste, nature-destroying processeses that will turn the toilers- the folk "engineers" today into destitutes. 32.

The Chilika Reorganisation scheme in 1959 made a landmark in the history of management of the sairats in the lake like 'bahani'.'jano' 'uthapani'''prawn khanda' and 'dian' by Government of Orissa. A cooperative structure was first implemented and strengthened in regard to the lake fisheries, although there was only one fishermen's cooperative society at Balugaon prior to this. A dual cooperative structure was introduced in 1959, with a number of primary fishermen cooperative societies at the grassroot level and an apex society at the top known as the centra1 Fisherman Cooperative Marketing Society Ltd. (CFCMS). The central society used to take the lease of the various fishery sources from the Revenue Department through the Collectors, Puri and Ganjam and sublease them to the PFCSS numbering about 48. Those sources which were not taken on lease by the CFCMS were being settled through open a action by the Tahasildars of Puri Krushna Prasad, Banapur and Khalikote. The 1959 lease policy gave a priority. and precedence to the fishermen societies in the matter ofleasing of fishery sources through a recognition of the traditional rights of the fishermen. 32. Report of the Fact Finding Committee, P-31.

However, the nonfishermen went on exploiting the fishery unauthorisedly. The government failed to recognise the reality of the situation in Chilika. Win the growth of population the non-fishermen could not depend upon agriculture as the only means of livelihood, they had to supplement their family income through fishing in the lake which resulted in perpetual conflict with their fishermen counterpart. A second lacuna is observed in regard to the functioning of the Apex Society (CFCMS), was commissioned in 1959 with the laudable objectives of a smooth management of fishery sources, marketing the fish catch of the affiliated facilities for the member societies and also to provide working capital the PFCSS for purchase of fishing gears and crafts etc. The management of fishery sources of the Lake was in utter disarray between 1988. Hence, a change was introduced in the 1988 lease policy. important change in the lease policy of 1988 is a 3 year period operation as against annual lease in the past, Clause 12 of the agreement of CFCMS stipulated: "The sub-lease or the Sub-lessees as the case may be are required to operative the fisheries by themselves and have power to sublet further. This condition has hardly been implemented by the Central Society and a number of PFCSS have reportedly sublet their fishery sources to third parties.33.The question of rationalising the principles of settlement of fishery sources in Chilika Lake as under active consideration of Government. And after careful consideration of Government Issues the following important guidelines to regulate the settlement of Chilika Fisheries with effect from 1.1.1992.

- (i) All capture fisheries may be leasedout for 3 years with 10% increase every year to the central society and primary societies may be allowed to get the sources on the basis of sub-lease from the central society.
- (ii) No source lease out to a primary fishermen society or society/organisation of villagers comprising persons not belonging to fishermen society may be permitted to be sub-leased.

However, in the meantime, the year 1977-78 saw the development of prawn as an important export commodity. The name Chilika became synonymous

^{33.} Report of the Fact Finding Committee, P. 31.

all over Orissa with prawns and money. The prawn-mania led to certain culture experiments which were taken up in 1981-82 and it should that the area had a potential to produce upto 1300 kg/ha. Meanwhile, the government also promoted fresh water aquaculture through the Economic Rehabilitation of the Rural Poor (ERRP) scheme, intended to benefit the rural poor by providing them with tanks or ponds and inputs. The experiment was so successful that the then Chief Minister J.B.Patnaik, ordered 3,000 ponds should be taken up for prawn culture immediately and anaother 2,000 the following year. Thus in 1986, the J.B.Patnaik government decided on exploiting the resources of Chilika more systematically and selected the Tatas as a partner in this venture.

THE STRUGGLE-

The Chilika struggle is a struggle of the poor against 'development'—a form of development which threatens to leave them destitute and exiles from land which has supported them and coexisted with them for centuries.34.

With the development of an export market for prawn in 1977-78, the region saw the arrival of traders from Puri, Bhubaneswar and Cuttack. Backed by the power of money and goondas, they systematically started taking over the prawn cultivation from the local fishermen using benami(surreptitions) transactions and memberships in fishermen's cooperatives. Political patronage was not slow in reaching the region. By 1984-85, Chilika was effectively under the finluence of the likes of the then Chief Minister J.B.Patnak's brother in-law Tara Patnaik, Ladoo Patra, Vijay Das and others. They came with their seedlings brought from Paradeep, finemeshnets, and a reckless disregard for environmentally sound fishing practices. Prawn big and small, under developed, all fell prey to their rapacious greed. As did the fishermen who stood in their way.

There was opposition. The fishermen opposed the huge extortion and violence unleashed by the competing fish mafias. There is hardly a house among the villages in Chilika which does not have a country-made gun. They opposed with litigations.

^{34.} Chilika: Voice of the people Chilika Bachao Andolan, Kranti Darsi Yuva Sangram, Orissa,P-4.

The name Chilika brings the lawyers of Bhubaneswar Courts Swarming in like flies. Lakhs of rupees are siphoned out of the villages everyday into the pockets of adminstrators, politicians, lawyers, police, to us and even some judges at Puri, Bhubaneswar and Cuttack. However, the outsiders stayed on.

The Role of the Government-

In 1986, the J.B.Patnaik decided on exploiting the resources of Chilika more systematically. Their choice as a partner in exploitation was, aptly, the premier house among Indian Industrialists the Tatas. The proposal was to lease out 1,400 hectares of Prime Prawn areas from the Chilika to a company to be formed jointly by the Tatas and the Orissa Government. This time the resistance of the fishermen was joined by the opposition political Party – the Janata Dal. The Janata Dal leader Biju Patnaik is claimed to have taken an oath, with a handful of the holy waters of Chilika, that he would rescue the region from the clutche's of the Tatas. The resistance gave Biju Patnaik and the Janata Dal all the five assembly seats in the region. However, in 1989, with the Janata Dal coming to power, the situation once again took a change. The Tatas once again made their appearance.

In 1991, the Orissa government, in a total about turn from the earlier position adopted by the Janata Dal. invited the Tatas joint-sector company for prawn development in the Chilika. The initial steps for this sellout had already been taken. In 1988, the earlier congress government had, in a drastic departure from centuries old practice, a practice which was legalised since the thirties by the colonial rulers, opened the lease of Chilika to other parties beside the fishermen. This right to lease, which was extended to farmers from near by villages, deliberate attempt by the government to break the unity of the fishermen and their struggle. In 1991, the Janata Dal government took a further step. They did not extend the lease which expired in September. Fishermen's cooperatives. Instead, the government decided to put the Fishing resources of Chilika to Public action. And in December 1991, Joint Venture with Tatas was allowed advance possession of 400 hectares of

of Chilika land. It was correct to develop all export-oriented initiatives, to augment foreign exchange reserves of the nation. It did not matter if such delivered a death blow to the livelihood of tens of thousands of toa traditional right of these fishermen. It did not matter further if the steps opened up the destruction of the beautiful, low cost, high effeciency, balanced eco-system the Chilika.

The year 1991 also saw the birth of an intense struggle. The fisher people from 192 fishing villages of Chilika united under the banner of "Matsyasibi Mahasanga" to fight for their rights. They were joined in this struggle by "Meet the Students", a group of students from utkal University. And it way this united struggle which, on January 15,1992, at Gopinathpur village, saw the formation of a peone's movement— the "Chilika Banchao Andolan".

The Environment Ministry also convened a conference of representatives of various concerned ministries, of the Tatas, of the State Government of the Orissa Krushak Mahasangh and some prominent M.Ps of Orissa on July 30, 1992. There it was decided that the work of the project should stop and Environmental impact Assessment should be conducted. Though the firm made an environmental study through water and power commission consultancy services (WAPCOS) to push through the project, its report was rejected by the Environment Minstry. Atleast the project was abandoned by the Tatas and they have intimated the President of Orissa Krushak Mahasangh accordingly.

The Tata Project:-

The Chilika Aquatic Farms Ltd. is a joint sector project promoted by the house of Tatas and the Orissa government. The project is to be located on the Chilika Lake near village Panaspada in Puri district. The site is a low-lying peninsula, bounded by the Chilika Lake on the west and the Bhubaniq Chqnnel on the east. It is an integral part of the Chilika lake system. This low-lying land bank is submerged during the monsson. It is a

big escape flow route of Chilika's water and silt, vital to the health and life of the system. The total area covered by the shrimp farm is 400 hectares. A further 200 hectares are in the process of being leased out. The other elements of the project are a hatchery, to be located at Puri, a processing Plant, on the Bhubaneswar-Puri road, and a feed mill. The total project is estimated at Rs.20 crores. There are a number of serious objections to the project, both from an environmental and a social point of view. These include-

- (i) The 600 hectares land mass allotted to the project has great economic significance to the region. During the rainy season, the entire land mass gets covered by water and the shallow waters are ideal for the natural breeding of prawn. Fourteen thousand fishermen from the neighbouring 26 villages of Brahmagiri block have traditionally used the location for harvesting prawn. Further, in the remaining six months, when the water recedes, the area gets a lugh cover of grass. It has been estimated that upto 80,000 heads of cattle used this land for grazing during that period. The grass is a special salt-resistant grass very nutritions for the cattle. The left over grass and cattle dropping is good food For the prawn and the fish when this perninsula is submerged in monsoon. Thus the ecological cycle is maintained, involving grass, biomass, cattle and fish and using only sunlight and water as inputs.
- (ii) Impact on Water Flow: The rivers entering Chilika carry with them silt which gets deposited mostly at the outlet of the lagoon to the sea. This silt is continuously cleared by the natural dredging process-tidal and monsoon flood. The dredging of silt is vital to the life of Chilika. It is essential to ensure that enough river water enters Chilika and a proper balance of sea water and river water is maintained. Silting had already been on the increase over the years, due to continuous deforestation of the hills from which the rivers flow into Chilika.

The Tatas propose to build a ring -shaled embankment, about 13.7 Km long, 40 feet wide and 30 feet high, on the Bhubania Channel, near the outlet of Chilika to the Sea (See map). This would seriously hamper the flow of silt-heavy water from the Daya and Bhargavi rivers, and other rivers, which reach the Bay of Bengal through the Bhubania Channel and Chilika. The natural dredging process of the channel will be affected. This will have a serious impact on the quality of water on the Chilika and hence the acquatic life it can support. It will spell a slow death of the Chilika. 35.

- (iii) The fish and prawn from the Chilika move from the brackish waters to the Sea (Bay of Bengal) through the Magarmukh Channel for breeding and return to the lake along the same channel. The embankment being constructed by the project, and the resultant situation will greatly hamper this movement and significantly affect natural regeneration of prawn in the lake.
- (iv) The project will use high protein feed, fertilisers, chemicals and pesticides in the artificial lake for prawn breeding. The toxic effluents from the artificial lake will be drained out to the Bhubania Channel, which is a part of the Lake system. The resultant damage to the life system in the lake will be enormous.

It should be noted that even the Environment Impact Assessment by the water and Power Consultancy Services, India Limited (WAPCOS), reports that the annual discharge of waste water will contain a BOD level as high as 30 ppm, which is the limit of tolerance for discharge of industrial effluents into fresh water.

The acquatic farm and embankment will obstruct the free access of local fisher people to the Lake, thus further increasing their hardship. The land leased to the project is a reserve wasteland and community pasture land. The manner in which the Tatas have sought to go ahead with the project is totally illegal. The Ministry of Environment has still not given its

^{35.} C. K. Varshney, Integrated Shrimp Farming Project at Chilika Lake:
Ecological Implications and critique of Environmental
Management Plan, For WWF, India.

clearance. In fact, at a highlevel meeting in August 1992, the Environment Minister Kamal Nath has said that he would initiate another enquiry into the environmental aspects, and made it clear that work on the project must stop. However, the project work still continues.

WAPCOS STUDY: -

The Environment Impact Assessment Study commissioned by the project and the report submitted by the consultants WAPCOS, is a further indication of the way in which the Tatas are trying to muscle the project through the report while giving the project a clean chit, totally ignores the two vital aspects of the project its impact of the embankment on the surrounding regions. In deed, the report is an amazing mixture of broad generalizations and unscientific attitude, couched at times in scientific language aimed merely at removing all possible hindrances to giving the project a clean chit. The way the report deals with the impact on birds in the region has already been mentioned. The report talks of some animals from nearby villages, grazing on land allocated to the project. What is the basis for arriving at this figure some animals? And how can we reconcile this with the estimated 80,000 heads of cattle which graze on these lands? So much for the plight of about 14,000 fishermen and their families who are directly dependent for their livelihood on this area.

A truly amazing report, particularly as it comes from a public sector organisation or is it? After all the Public Sector is supposed to serve its masters—and here the masters are certainly the Orissa Government and the Tatas who commissioned this study. And certainly not the fishing community, who had no role to play in the preparation of the report, who did not even know that such a report was being prepared. They, like other affected people in similar projects are just a minor irritant to be ignored, castaway, and if too much of a nuisance, to be rehabilitated, with a couple of hundred jobs to compensate for the thousands of livlihoods lost. CAFL report describes the WAPCOS reports as overly preliminary and inadequate to make decisions on the projects environmental acceptability.36.

^{36.} Report of the Fact Finding Committee on Chilika Fisheries.

Inorder to augment the position of the foreign exchange reserves of the nation, the steps taken by the government for Chilika delivered a death blow to the livelihood of the traditional fishermen. Thus the year 1991 saw the birth of an intense struggle. The fishermen for 1992 fishing villages of Chilika united under the banner of' Matsyajibi Mahasangha' to fight for their rights. They were accompanied in this struggle by 'Meet the Students' a group of students from Utkal University. Thus a quite powerful people's movement has emerged in the Chilika over the last 5 years, to protect it from the commercial exploitation for the big business and to restore to the people their right to manage Chilika. The grivances of the people are:

(i) The Matsyasibi mahasangha, an organisation of the fishing community of Chilika, had consistently protested against the Tata Project, and against any step by the Orissa government to take away the rights of the fishing community over Chilika. A batch of students from "Meet the students working within the campus to bring a value based change in society"-(Meet the Students) a group active in Utkal University joined, the struggle in August 1991. In August 13, 1991, A meeting of intellectuals and supporters at Puri led to the formation of a Platform "Chilika Surakshya Parisad" to coordinate activities.

However, the movement is continuing because there are many causes for the lake's degradation for which the State Government and the people are responsible. So the environmental awareness programme is being continued and along with meetings and conventions emphasis is being given on cultural programmes including dramas in important villages surrounding the lake. In December 1993, a seminar and folk dramas were also organised in Delhi with the help of the centre for science and Environment. Most important feature of the movement is that fisher-women of Chilika have played a significant role in it. Last November, 19, 1993, the Hon'ble High Court of Orissa in a case regarding fishermen's right in Chilika, has directed that intensive prawn culture should be prohibited in Chilika lake and prawn culture can be done only by extensive method and that too, by pen method on the fringe areas because of environmental reasons. 37.

^{37.} Times of India: High Court Order regarding fishermen's right in Chilika, 1993,P-8.

The greatest danger that the fishermen are facing at present is the large scale illegal encroachments thathave taken place within the last 5 years by outsiders. They include relations of ministers and politicians, high bureahcrats and businessmen with the full convenience of the state government. They are responsible for induction of mafias in the lake to protect their illegal activities. Though such actions are against the revenue laws of the State, the Government has not tried to evict them. Even though the Orissa High Court in its judgement clearly stated that these encroachers should be evicted immediately, the State Government has not implemented this order. This has given rise to constant unrest and tensions.

To put pressure on the Government to accept these demands, the Orissa Krushak Mahasangh organised a big rally and on day dharana(sit in) of about six thousand fishermen and fisher-women at Chhatrapur, the headquarters of Ganjam district on June 6, 1994. Fisher-women of Chilika played a prominent role in this rally and dharana before the collector's office. The government was warned that if they did not accept and implement these demands, then the railways and National High ways (Madras-Calcutta) which pass by the Chilika Lake, will be paralysed for a day by the fishermen community. 38. The people of Chilika have continuously questioned the objectives of development is it to remove poverty or to remove the poor? This can be further enumerated as:

Doses Chilika belong to the inhabitants of Chilika or to the government? The question of who should own and control local resources is being asked by the local people the users and protectors of local natural resources in villages all over Indiaand the world. This is an articulation of the fight between the local people and the government and big business who are mostly from distant cities. If multinational companies and large industrial concerns enter into the primary sector of production, where will

^{38.} Banka Behary Das:, Environment Movement in Orissa: Orissa Krushak Mahasangh, Centre of Ecology and Development,P.3.

the farmers, fisher people and artisans go? What is the primary concern of the State? earning dollars or extending protection to the right of people to live?.

With all its problems and controversies the Chilika Lake are a during the last 5 and 6 years has also provided a five example of a social movement in which the educated youth has joined hands with weaker sections of society to protect the resource base common people of this area. The immediate aim is to prevent ISFP and similar projects from taking root in the area, the later aim is to continue to struggtle for solving the other problems also. The movement has remained non-violent. It has not sought the help of any funding agency or any rich vested interest. Despite this repression and even worse threats, the movement is determined to save the resource base of the Children of 'Mother Chilika".39.

BHITARKANIKA: -

Bhitarkanika Sanctuary which is the second biggest mangrove forest of the country on the Orissa coast of Kendrapara district, is rich with arived flora and fauna. It has some rare species of mangrove trees which is no where found in India. It is the second biggest resting place of birds both mighratory and indigenous in the country. Its coast is the biggest nesting ground of Olive Ridley Sea turtle in the world and the sanctuary also hosts a crocodile reserve. Both human and state intervention have posed a threat to the very existence of the mangrove forest and the nesting ground of sea turtles. This region is unique in the world and a natures gift to the humanity. It serves as the greatest natural barrier against high tides and serve cyclone, which last this portion of the coast very often and saves the lives and property of millions of people living in the hinterland. Notified as a sanctuary in Apri, 1975, it is located on the Eastern Coast of India' (Bat of Bengal) in Kendrapara district, about 125 Kms. from Bhubaneswar, the capital city of Orissa State in India.

^{39.} Bharat; Dogra: Chilika Lake Controversy: EPW, January 2-9, 1993, P-21.

The area of the sanctuary spreads over 650 square Kilometers having a forest cover of 380 square kilometers, out of which the mangrove forest is 115.50 square kilometers. This micro environmental region at the interface of the land and sea is an outcome of the interacting flurial and processes in an esturine environment of the tropical zone. The environmental and ecological parameters of this micro region in a deltaic setting with an ideal habitat for the crocodiles, diverse wildlife including migratory birds and the visit of the most endangered species of Olive Ridley Sea turtle in lakhs from December to April every year for laying of eggs, have drawn the attention of the entire world. The area in association with a diverse variety of mangrove plants with smooth leaves and butress roots, has a unique significance uncommon to the earth.

Bhitarkanika sanctuary in the mangrove regions of Orissa, famous for the world's largest congregation of the highly endangered Olive Ridley turtles, is facing an imminent onslaught from commercial fishing. On the cards is the construction of a jetty, an ice factory, store house and staff quarters inside the sanctuary. Between 1985 and 1993, 18 sq.km of forest land have been cleared, several forest blocks encroached upon. immigrants in the region, and approximately, 6,075 ha. of forest land has been lost to aquaculture. As a result of these activities, a number creeks and channels in the are have been blocked.40. It is a gift of nature to the humanity and should be conserved at any cost to be handed over to the posterity without any impairement. If nature has any paradise, it is here in Bhitarakanika. 41.

The Bhitarkanika mangrove forest covering an area of 115.50 square kilometers in this sanctuary may be second to Sunderban in India, but rich is biodiversity. The habitat is unique as there are 62 mangrove species out of the total 67 secies of mangrove (Heritiera Kanti-ensis and

^{40.} Rustam Vania: Conservation Boomerang, Down to Earth, Science and Environment Fortnighly, October 15,1995,P. 38.
41. Banka Behary Das: Why Save Bhitarkanika, Centre of Ecology and

Development, P. 1.

Angualata) are found here, which is confined to Bhitarkanika only, not being reported from any other part of India. Therefore it may be comparatively a small pocket, but is considered as true representative of the mangrove regions of the country. Vegetation is specially adopted to survive an salty mud of the deltaic region of the coast, which is located on the confluence of two large rivers, the Brahamani and Baitarani. Stilt roots, leathery leaves and vivipary are very typical to this micro-region, which is permanently wet with salt water and high tides.

Human intervention and State's intervention have already posed a great threat to this beautiful mangrove forest. Extensive conversion of these forests to agricltural land in the past, coupled with over exploitation and heavy grazing are the main causes for the depletion of the forest wealth. The degradation is continuing because of influx of immmigrants from outside. There are about 190 villages in Bhitarkanika comprising of 7000 houses and 40,000 people, of these about 90 percent are migrants from undivided Bengal. The primary occupation of about 60% of the people 15 paddy cultivatiokn and the remaining 40% depend on fishing. the area are illegal encroachments into the mangrove forest. In recent greater threat has been posed by the State Government that mangrove on the plea of rehabilitationof people of the villages which threatened by sea erosion. But the rehabilitation programme in most cases has not been a success as the land is unsuitable for human habitation. 42. In many places, prawn culture has comeup both legally and illegally, without caring for conservation of this prize spot, the Revenue Department has leased out revenue land inside the sanctuary for prawn culture mostly to outsiders. Taking advantage of this, many have started clearing the forest illegally and have started prawn culture. State Government has remained a silent specator all along. Till 1980 when the Union Government passed the Forest (Convervation) Act, the forest was being controlled by the State

^{42.} Centre of Ecology and Development Report, A Paradise of Nature under threat of Destruction, Bhubaneswar, P-2.

Government. Time and again patches of mangrove forest were being destroyed on the plea of rehabilitation of displaced people. There is a check since 1980 because centre's permission is required to rell trees to use forest area for non-forest purposes. Inspite of this, there is no stoppage of deforestation because of vandalism of the State. Recently in Pataparia area inside the mangrove forest of trhe Bhitarkanika Sanctuary, destruction of forest is going on for resettlement purposes with the full on for resettlement purposes with the full support of the State Government. Forest Conservation Act of 1980 was enacted, the State Government(Forest Department) allotted one thousand acres of magrove forest area to the Revenue Department to lease land for agriculture and habitation purposes. But taking advantage of it, another seven hundred acres of adjoining forest area have been encroached upon with the full knowledge administration. When Forest Department is trying to take action about these encroached lands, they are being prevented and are being presurised to hand over those areas to the Revenue Department for allotment. Government of India should not agree to this. Rather it should be recovered from encroachment to regenerate mangrove forest there. Post facto approval by the centre will only when the designs of the michief-mongers, whether they are the State or the interested parties.

In 1991, under the instruction of the people's representative of the area who is prominent Minister, the Tahasildar of Rajnagar with the help of contractors cleared an area in the Sunei-Rupei Forest block of Bhitarkanika magrove forest without sanction of the Central Government. In the process of burning the forest large number of wild life were destroyed. The purpose was to rehabilitate about 400 families of Satabhaya and Kahnupur villages of Rajnagar block, who were threatened by Sea erosion. About Rs. 40 lakhs were spent from the State exchequer to construct the infrastructure. As the State Forest Department did not hand over the land to the Revenue Department because of lack of clearance from the Central Government, the purpose of

rehabilitation has not been served. The central government in the Forest Ministry had sent two teams of officers to visit the area, but have not given post facto clearance because of the strong opposition of local environmentalists and Orissa Krushak Mahasangh. We demand that illegalities by the State Government should not to legalised. Otherwise it will encourage the encroachers to destroy the mangrove forest.

The greatest threat to Bhitarkanika mangrove forest and to such areas on the coast of Balasore, Bhadrak, Kendrapara and Jagatsinghpur districts are from prawn culture. That has been introduced recently on the coast. It has attracted outsiders who have encroached upon forest land and also revenue land illegally. With powerful support of administration and people's representatives, they have spread their nets farand wide. Recently there was an attempt to demolish their illegal prawn ponds, but after two or three days of operation, it was stopped due to interference from the top. It is high time that if we want to protect mangrove forest and utilise degraded areas for regeneration of forest to protect rhe area from cyclonic disaster, all the encroachments should be remove ruthlessly and a shelte belt of forest should be created. The cyclonic disaster of 1971 which took a toll of ten thousand human lives and devastated the economy of Kendrapara district, should not be allowed to be repeated.

Gahiramatha beach of Bhitarkanika harbours the largest known rookery of Olive Ridley Sea Turtle (Hepidochelya Oliva Sea) in the world. Mexico coast which attained world fame for this sea turtle, has been relegated from its number one position due to economic activity which scares away this endangered species. 43. Though the number of adult female Olive Ridley Sea turtle that visit this beach varies from year to year yet it is in lakhs. The number was about six lakhs in 1991. They come for resting purposes (the "Arribada" the spamish word for mass resting) mostly during December-March and each one lays atleast 100 eggs at a time. It is breath taking sights to

^{43.} Banka Behari Das, Environment Movement in orissa, Centre of Ecology and Development,P-4.

sea thousands and thousands of these giant turtles (each wieghing about 40 Kgs.). Though Bhitarkanika Sanctuary (Gahirmatha beach) is one of the four extant resting sites in the world where this endangered species exhibit mass resting strategy, a phenomenon that has been described as one of the most remarkable in the natural world of animal kingdom, it has attained number one position due to the natural environment of the area. 44.

After a heavy cyclonic storm in 1989, the Gahirmatha beach of 10 k.m. stretch was partly disintegrated and the mass vesting is now mostly taking place on an island called "Nagi" (end of a stretch) of 400 meters in the norther end of the Gahiramatha beach. This has resulted in the destruction of large number of nests by the vesting turtle themselves due to over crowding. This may affect the turtle population in the long run. This global treasure is seriously threatened because of construction of a large jetty for a fishing complex at Talchua at a distance of 10 Km. from the nesting place of Gahirmatha. This Rs.84 lakhs fishing Jetty was inaugurated much fanfare by the Chief Minister last year and is scheduled to be completed in 1994. Once it is completed it will anchor more than 500 mechanised boats which will land about 50 tons of fish every day. movement of these mechanised boats will scare away these sensitive sea turtles and the ecological balance of this sanctuary including the nesting ground of sea turtles will be disturbed. It is apprehended that it may sound ythe death knell to this priceless spot of nature's wonderful heritage.

Another three fishing jetties at Jambu, Kharanasi and Tantiapal have been approved for construction on creeks near the sea beach in Mahakalapada Block between Paradeep and Gahirmatha, the nesting site of sea turtle. The construction is being started without taking approval of the Forest and Environment Ministry of Government of India. 45. Even the consent of the Forest Department of State Government was not obtained. The local

^{44.} Why Save Bhitarkanika, Fact Finding Report, P-5.
45. The Mangrove Action Project (MAP) and the Sea Turtle Restoration Project (STRP),P-3.

representative who happens to be a powerful minister of the State Government is responsible for the construction of these three jetties including the Talchua Jetty. They are done in the interest of the fishermen community who are mostly Bangladesh immigrants. The four jetties wil, I definitely disturbe the movement of the sea turtles to Gahiramath beach and within a few years we will see with our own eyes, the destruction of the biggest resting place of the sea turtles of the world. With increase of these economic activities, whatever mangrove forest is still left there, will vanish and marine environment will be polluted.

At present the biggest threat is from the trawlers using plastic gill nets which are often more than one to two Kms.long .Turtle are caught in its and many are also fatally injured by propellers of the trawlers. In U.S. use of Turtle Excluder Devices (TEDS), a simple, low-tech device that allows sea turtle to escape unhurt, are mandatory for trawler fishing. That is so even for shrimp trawlers. It should be introduced in this part of the sea for all trawlers plying in the region.

Orissa Krushak Mahasangh and some of the national ande international environmental organisations have repeatedly appealed to the Chief Minister of Orissa to review the fishing jetty proposal, but to no effect. We have also urged the Government of declare Gahirmatha area including the coast and atlest 20 Kms. area into the sea as marine sanctuary and to prohibit fishing activity in this area. Even now the fishing jettey project should be reviewed to drop it, if possible and make it mandatory for trawlers and motor boats to use the low cost U.S.A. system of TEDS instead of plastic gill nets. Finally it has been suggested to move the world body to designate the entire Bhitarkanika area including the Gahirmatha beach as world heritage site. Till then the Government of India may declare the entire area as biosphere reserve. The proposed road from Rajnagar to Talchua throuth one side of the sanctuary will add to the problems that beset the area. The

work has started. The heavy trafic on this road will ausher in human intervention in a big way, which will ultimately threaten the mangrove forest, Olive Ridleys and the entire sanctuary with its bio-diversity.

mentioned While undertaking the developmental projects. nο environmental impact assessment has been undertaken. has environmental clearance been sought from the Environmental and Forest Ministry of Government of India. Bhitarakanika estuary is know to be the home of esturine crocodiles. Till a crocodile research station was established, its population was depleting due to biotic interference. particularly fishing and hunting. A project called' Integrated Crocodile and Sea Turtle Conservation and Management" was initiated in 1975 with the assistance from Government of India and FAO/UNDP.

The Conference was organised by the Orissa Krushak Mahasangha (OKM) spearheading the "Bhitarkanika Banchao" movement. Environmental activists including the former environment minister Menaka Gandhi expressed grave concern over the moves started by the Orissa Government to denotify Bhitarkanika sanctuary and large scale prawn farming taken up in the area as it would destory the rare mangrove forests and spell disaster for the entire State. The government move to construct jetties, bridges and roads cuttking across the sanctuary would accelerate its destruction and the country would lose a great heritage. 46. The former Union Minister Maneka Gandhi and the editor of the sanctuary Magazine Bittu Sehgal warned that prawn cultivation launched in the Bhitarkanika area would destroy the entire mangrove forest. 47.

^{46.} Menaka Gandhi, Save Bhitarkanika Seminar, Sun Times, Dt. 24.10.94, P-1.

^{47.} Bittu sehgal, The Real Story of Bhitarkanika: The Mangrove Action Project,1994..

Expressing their strong disapproval of the prawn culture projects many with the World Bank assistance. In the Orissa Coast, they said that prawn farming was the biggest threat to the environment and the people of the area-48. Maneka observed that 'the people should pressurise the not to accept any funding from the World Bank as it brings disaster it-49. The seminar was also addressed by the representative of the US based sea turtle restoration project Brian West and the representative of Green peace Movement Anke Hunning hanse. Sehgal likened the duelence sanctuary as between two groups who are either supporting the denofification of the park or opposing it with the majority of the people directly affected in the process being silent onlookers. This silent majority must otherwise as Baba Amte one said, they would turn into silenced majority". The former Chief Justice of the Sikkim High Court Jugal Kishore Mahanty presided over the seminar. In a very emotional speech the president of OKM Banka Behari Das said that he was not against development as portrayed by vested interest. But the rule of law should followed for the construction of jetties and roads inside the sanctuary-50. He said that the government of orissa has violated all the four Central acts in environment, forest and wildlife and was yet to seek the formal permission from the centre. Das alleged that the motor launch on which the people from Talchua were

Das alleged that the motor launch on which the people from Talchua were coming to the conference was toned on the way at Lalit Pat as a result of which more than a hundred people could not attend the Seminar. The green activists also came down heavily on some local daily news papers who launched a tirade against him to foil the conference. Das said that he was prepared to agree on the construction of jetties and roads inside the sanctuary and for its denotification if an expert body consisting of environmentalists it would opinine so.51. He demanded that the Orissa

^{48.} Bitta Sehgal; The prawn Project, P-6.

^{49.} Maneka Gandhi, Save Bhitarkanika Seminar, Green activists caution State Government, Sun Times, 24th October, 1994,P-I.

^{50.} Banka Behary Das: Bhitarkanika Seminar, Sun Times, P-I.

^{51.} Das; Gaurahari, Pragati Banam Parivesha and Bhitarkanika, Oriya Sambad, 6th November 1994,P-9.

government should appoint an expert body to study the proposal of denotification the Bhitarkanika Sanctuary. The representative of the Turtle Restoration Project of the Earth Island institute. Brian West. organisation was trying to build up public opinion in the United States against the move of the governmentto denotify the sanctuary which would completely destroy the mangrove forest. He said that more than international organisations representing more than two million members have signed letters to the centre calling for complete protection of Bhitarkanika reserve as a national park and its inclusion of UN biosphere reserve. The organisation has also launched a letter writing campaign petition drive that has gererated thousands of letters, and post cards government officials in India. The Congress(I) leader argued that these developmental projects were necessary for the development of the area. Warning of the dangers ahead in opting for large scale prawn cultivation the Bhitarkanika area the former Union Minister said due to prawn farming. the mangrove forests would be destroyed and the prawn cultivation would have to be stopped after few years. Either way the people of the area would suffer and become poorer. The money from the prawn cultivation would also to outside the State as most of the beneficiaries are bangladeshi refuges. Eighteen eminent persons, including top scientists, environmentalists, educationists and parliamentalians, have expressed grave concern over the "Orissa Government's move to denotify two of the State's sanctuaries. Bhitarkanika and Konark Balukhand- without taking the opinion of experts and scientists.

In a Joint Statement, they alleged that while Bhitarkanika, nature's gift to humaninty, had been subjected to "illegal actions" because of a "nexus between forest - felling contractors, land -grabbing infiltrators and illegal prawn culture companies with full support of some politicians", the government had decided to denotify the Konark - Balukhand sanctuary to establish the controversial hotel complex on the fragile sea beach Urging

upon the central and State Governments to stay their hands and not to undertake: these illegal actions" for which the denotification proposal had been mooted to "Subvert any bypass the rule of law"' they said if government though that these " so-called" development actions were necessary it should set up an expert body consisting of eminent people drawn from the fields of sanctuary, forest, wildlife, and environment to advise the government about the merit and extent of the denotification-52. The statement was released at a Press Conference convened here by the President of the Orissa Krushak Mahasangha, Mr. Banka Behary Das. The signatories to the statement included eminent scientist and Rajya Sabha Member. Prof.M.G.K. Menon, the Chairman of the UGC, Prof. Yashpal, Emeritus Professor of environmental engineering, Andhra Pradesh Professor I.Shivaji Roa, the General Secretary of the Indian Council for Enviro-Legia Mr. M. Mehta, the CPM, MP, Mr. Amal Dutta, Congress MP, Mr. Gopinath Gajapati, Prof. Gunavant M.Oza of the Foundation for Environmental Awareness and International Society of Naturalists Prof.K.Gopal Lyer of the Punjab University and Environmentalists, Dr. Vandana Shiva, Mr. Smita Kothari prof. Manogranjan Mohanty of Delhi University, pointing out that the decision to substantially reduce the area of the two sanctuaries was taken " under pressure from vested interest". They said that despite the repeated advice of the centre, developmental work like a fishing jetty and a road had been" undertaken illegally violating laws of the land without environmental clearance". They said that the government, having been caught on the wrong foot had decided to dentify the sanctuary to eliminate a larte area from its limit so that" illegalities can be automatically legalised event at the cost of the large population.

A four day seminar on the environmental hazards faced by the coastal ecological system due to large scale industrialisation in the area organised in December 14. Eminent scientists from different nationally and internationally renowned institutes will discuss on plans for conservation and sustainable development of coastal resources at the seminar. The seminar which is organised as part of a global follow up of agenda 21 of UNCED, a draft plan for the conservation of biodiversity of the planet in

the march towards 21st centuary discussed various problems faced by the coastal eco-system and their control. Topics of regional interest such as threats to biodiversity of mangrove forests in Bhitarkanika and Sunderbans pollution problems in Chilika lake and effects of the radiation from installation of Indian Rare earth Limited were also feature in the discussion. Five plenary sessions and even technical sessions are on the agenda to discuss on these issues and other aspects of marine environment.

Because of stiff resistance of prominent assembly members, of both rulling and opposition parties, the State Government devided to drop the proposals in the last moment. If these motions sould have been passed, the Bhitarkanika sanctuary would have lost about sixty percent of its area and the Balukhand -Konarch Sanctuary would have been reduced by about 600 acres. Literature and leaflets are regularly published to create greater awareness.

The Bhitarkanika movement has drawn the attention of environmental organisations and the scientists of the world. The Indian press have also taken note of this movement. The battle for saving 8hitarkanika for humanity and for our posterity are are bound to be long and bitter, but Orissa Krushak Mahasangh is determined to save it for good. programmes are the first staye of our struggle so that organisation strength of the people is built up to move forwards for a resistance movement of the people. Sometimes we find that short-term interest of the people harms the cause of environmental protection and vested interest takes full advantage of this short-term interest to cuase environmental disaster. That has happened in case of Bhitarkanika Movement. It seems as if there is a contradiction between protection of environment and interest of the people. The long term interest of the society and of the people is paramount and protection of environment can only ensure this. So struggle for resistance becomes inevitable, if environment for a healthy living is be safeguarded.

The natural heritage of a nation is one of its pricless possessions. This heritage is irreplaceable, and any loss or serious impairement of it is a tragedy, notonly for the nation concerned, but for humanity in general.

CHAPTER -IV

A FIELD REPORT

A fair chance now exists for man to bring about his own extinction and the ruin of the world. Still ignorant of both the consequences of his own initiatives and the inherent limitations of environments within which he must operate man only now begins to recognize his peril. But when the first alarms are sounded, no greater clarify or depth of understanding comes to reassure us, much less a clear and general agreement on any urgent measures necessary for survival.1. technological and to a certain extent the sociological dimensions environmental risk and crisis have attracted some attention. Many more less immediate ingredients of the problem have long been recognized. Population pressures, resource scarcifies, defective public hygiene, technological backwardness in the "less developed' countries. simultaneously gross environmental abuse along with a growing frustration and anomie among the peoples of the more developed nations. But we have far no clear perception of the fundamental mechanism responsible for this dual set of symptoms. It appears that when man's peerless power to remake his world is not employed sufficiently, then multitudes are doomed to starve of sicken; at the same time, it seems that where all that power most fully used, the habitat degenerates, and the soul itself must sicken and society be riven and demoralized. The greatest biological peculiarity of mankind, and what had previously appeared to be its greatest biological advantage-namely, the capacity of human beings to work together to transform environments- seems loaded now with tragic portent. Geography, the study of the earth as man inhabits it, affords a special insight into mankind's plight. Comparing all the earth's diverse societies in all their homelands it can hardly fail to comment on the relative success or failure of their management of the environment. Geography records a wealth of object lessons in these matters. Its perspective has to be both wider less manageable than that, for instance, of ecology alone, for it has to take

Wagner; L.Phillip, Environments and Peoples Prentice Hall, INC, New Delhi, 1972,P-1.

account of mankind's spatial continuities as well as of the local circumstances of each human nucleus. This need to take as it were a dual view of mankind precludes the study of human settlements as closed systems, and vitiates attempts to state precise determinant relationships within them; thus far it has inhibited geographer's attempts to formulate a viable "ecology of man".

Dispossessed, cheated and extremely angry, the displaced people—are now retaliating and in many places they have actually caused substantial damage to the protected areas. So, in the conservation process actually becoming a threat to biodiversity? Arvind Khare of the society for the promotion of wasteland Development(SPWD), says that the reation of protected areas has excluded people from their resources at an alarming rate. Creating more and more protected areas and formulating anti-people draconian laws—is then, definitely, not the answer.

Man continues ever more to revolutionize environments, and in doing so he threatens inadvertently to ruin and annimilate them. At some point, the use of all the world of nature as a raw material for mnemonic and commemorative objects has to reach its limits, as at some time the preserved results of human procreation must accumulate to overload a given If all or much of mankind goes on trying to externalize experience in environment on the present scales, the outcome is predictable. The larger collectivities of mankind, efficiently and purposefully making over things, will at last exact their final grotesque triumph over nature. Those collectivities, contain their saving weakness. Who can love them, who will care enough? As means increase our motives vanish. While the systems of order and power in technological society grow ever vaster, the creative impulse in the transformation of the world becomes bureancratized. impersonal, and ultimately meaningless. Efficiency may increase - for a while -as the inverse of untidy personal involvement. But the memory that

men externalize is personal its dominating content even now is personal identify: our handiwork betokens timeless selfhood. The hopes and destines that drive mankind will not submit for long to perfect rational coordination and that the urge to transform the environment can only flourish when the frivolity, individual's autonomy is paramount. Anomie, disaffection, and bordom signal a rebellion in industrial societies that may largely thwart the further massive violation of environments. Definance of the system has itself become a vehicle of creativity, and personal direct encounter with the world of "nature", an emerging value-man henceforth seek may increasingly to find, in modest individual domains devoid of cosmic threat, the scope for personal expression and commemoration. The creative or expressive urge may thus emerge in sublimated, or rather perhaps in restored and more authentic form, before catastrophe occurs. For the very means of massive transformation of the world, aside from threatening a cataclysm, almost surely rob that very transformation of its human motive and fulfilment.

We are all guests in the planet, which provides opportunity for a vibrant life interms of "goods", 'wealth'. 'honour' and "happiness". The opportunities are channelled in span of time historically known as "Development". Judging from the present status of the Civilization, it appears that we have erred some where in the process of development. Perhaps an integrated packages of Resource Demand Index(RDI), Economic Institutional Capacity (EIC) and Political will and commitment(PWC) can reduce the degree of disillusionment with development. There is genuine concern as quality of life for about five billion people on the Mother Earth is deteriorating inspite of growth.

The Baliapal, Chilika and Bhitarkanika movements are the creation of the rulers of our country- a consequence of their compete insensitivity towards the genuine needs of our people; of their lack of understanding and vision

regarding the pattern of development India must follow; of their stubborn unwillingness to pursue the path of openness and dialogue. The struggle of the people of Baliapal, Chilika and Bhitarkanika have been a truly in which socia1 activists, engineers, geologists. movement environmentalists, and most of the people from allover the country, have participated. They have contributed to the movements a monumental labour of love, of mobilisation, original research. unearthing information from an unyielding government, documentation, analysis disemination of knowledge among the people. These movements emerged as a strong grassroot level environmental movement against the opening of developmental projects in the coastal district of Orissa. Developmental projects of the India state have inevitably sought development, through progressive encroachment by the state on the rights and privileges of the people to natural resources, Development interventions as Vandana Shiva highlights, aimed at the commercialisation of natural resources and involved a major shift in the manner in which rights resources are perceive and exercised. They transform commons into commodities and deprive the politically weak communities of resources and rob resources from nature, to generate growth on the market for more priviledged groups in the society- 2. The case of National Test Range project, Chilika's Tata Project and Bhitarkanika's Fishing Jetties project cannot be isolated from the fact that the and overwhelmingly the marginalised sections of them including tribals. women, and farmers, landless labourers and fishermen of perceived the project as their destruction and a hindrance in their life and livilihood. The attractive inducements and promises of employment opportunities and other aspect of the development package such as schools, colleges, medical facilities etc. seemed for them a mere offering of charity by these movements. The response to the booklet from all over the

^{2.} Shiva; Vandana, Ecology and the politics of Survival: Conflict over National Resources in India, Sage, Publications, United Nations University Press, New Delhi, 1991, P-5.

Country has been truly overwhelming in its expression of support for our cause. It is also heartening that more and more people, both within the region and outside, have committed themselves to the struggle. There has been greater mobilisation among the people of the region which has led to greater awareness, but even more importantly, has widened the horizons of those active in the movement. There has also been original research, as a result of which fresh insights porject and possible alternatives to it. The movements has grown in strength, understanding, and maturity.

Area study:-

As far as the people and their perception an environment is concerned, they understand very closely their relationship with nature which provides them with their sustenance. Inorder to examine the people's opinion regarding the project, a field survey was undertaken by the scholar himself during the month of November and December last year. The method of collection for this data from the people of the area was carriedout through group discussions with the local people including farmers, women, fishermen, landless labourers and tribals. Interview was done by means of semi-structured questionaries and also followed the observactional method. For the purpose of understanding people's perceptions and opinions about the project as many as 100 people were taken as a sample of all age groups and socio-economic background. Analysis of this data is indicated in Table 1. However, in this Chapter, an attempt has been made to analyse the peoples response strictly on the basis of field work survey which may hopefully provide certain insights in-to the issue.

: 78 : Table-I:- People's Response on the Projects.

		Yes	No	Total
1)	Do you think Baliapal,Chilika and Bhitarkanika Projects are necessary for the development of this area?	10	90	100
2)	Who would get benefit from this kind of Project:	(Response)		
	(a) Farmers		5	
	(b) Fishermen		31	
	(c) Tribals/poor people		4	
	(d) Outsiders		. 55	
3)	Do you think such developmental project	Yes	No	No comment
	(a) are inddispensable for national economic development	12	30	58
	(b) should be planned in such a way that it does not displace the people	51		49
	(d) are meantonly to help the rich	70	-	30
	Total: (100)			a agus atha nore agus stat har and, sain ann agus amh

The above three questionaries were employed primarily to understand peoples opinion about the project. However, during the interview time careful attention was paid specifically to know the contradictory opionions of the farmers, fishermen, tribals etc. The first question which had sought the people's opionion interms of opening of the project, implies that over eighty percent of the collected samples did not support the project. As far as the benefit of the project is concerned, the majority opinion goes infavour of the outsdiers, whereas the farmers, fisher people, paan traders, landless labourers and the local youth declined to get any real benefit out of it. Question No.3 is more general interms of peoples' opinion about the development and displacement. As the responses indicate, maximum number of people have no comments which implies the people's perception on development and displacement from an alternative perspective. They feel that this type of development projects are meant only for the rich sections of the people. Perception on the movement and tough it was necessary were not

uniform among all the villagers who were interviewed by researcher. While the relatively well to do, upper caste villagers traced into the spiritual importance of the place and its glory in the religious tradtions of local Hindus, the farmers, the Dalits explained it in term of their dependence on the area in their day to day life. They donot view the industrial, mangrove and fishing area and its eco-system as something outside their daily life, that was the primary reason due to which they participated in these movements overwhelingly large number inspite of the lowlevel of political awareness among these sections of the people. Both young and old participated in the movement. However, the women from respectively well to do social groups showed negligible even rare participation out of the total number of arrests during the agitation, more than 70% among them were women. The actual scene of the Baliapal, Chilika and Bhitarkania, were still remains deeprooted in their mind. As the people argue, they feel it as their social problems and thus inevitably struggle to save the movements. The integrative nature of the movement has that it cut across all social and cultural cleavages that might have been expected to be divisive. The movement also had an integrative effective at the national level.

But the major question is that particularly in Baliapal, the resettlement and rehabilitation programme of the displaced persons was not undertaken. Everybody knows that compensation is never a substitute for rehabilitation. There was no rehabilitation programme worth the name, nor was it implemented, if there was any. It is an inhuman and brutal treatment to the displaced persons, of the region. It was gross violation of human rights. No arrangements has been done for their health care, education facilities, communication and roads etc. The Action Plan that has been prepared for outside consumption and publicity after majority of the displaced and home, has proved to be a hoax and nonstarter. Untold miseries have been heaped on the people for a project which are bound to be a disaster in future. Without proper data base, and sufficient investigation,

the projects have been contemplated. As a result, its economic benefit has been overstated, whereas social and environmental cost has not been assessed at all:

The researcher followed analytical and descriptive method in the course of his study. The researcher followed the natural and non-participant observation method to get the data. The sources of data are from both Primary and Secondary sources. For the purpose of interview 3 categories of samples were selected viz. (a) The people (b) The movement leaders and (c) The Government employees and leaders of political parties. A three-pronged approach to the interview was undertaken to set up an inter-relationship between people's perception, government's and political parties' leaders' attitude and the movement leaders' approach to solve the problem. It was a micro level study requiring extensive and intensive dialogue with the people of different villages.

At this juncture, another force started exerting itself: the upper caste inhabitants around Chilika who are non-fishermen. And prawn mafias supported fishermen from behind the scene. The traditional fishermen who were the losers in the allotment of surplus land and non-fishermen who were the gainers started bloody battles for the possession of the land leading to social unrest. At this critical time, in 1988, Tata arrived at the scene. The then Congress Government signed the agreement with the please that Tata's entrance will stop all these disturbanceS. There was a great uproar, which was picked up by the Janata Dal as an election issue., The uproar was mostly from the non-fishermen who also being comparatively more conscious, could foresee the bleak future of Chilika. Janata Dal became the representative of non-fishermen who constitute 60% of the total population around Chilika. Thus, all the seats previously in the hands of Congress I went to Janata Dal. Once in power, the government expressed its inability to get Tatas out, but took serious measures to deprive and supress the fishermen only to

satisfy non-fishermen by the end of 1991 the situation was such that not a single week passed without ariot or murder. According to Chittaranjan Sarangi, "the Tata's entrance would be a death trap to the mafia", as proclaimed by the government", is a false statpement". It is through these local prawn frading companies that Tatas are purchasing prawn from the fishermen. Bijoy Marine Products(P) Ltd., leading traders among these, earn Rs.5000/- per day as commission as middlemen, besides profit they earn from the transaction. This disproves the Tatas Claim that fishermen would get higher price for prawns if sold to the Tatas. The memorandum of understanding between the State Government and the Tatas have been challenged by him. Hence, to Chittaranjan the movement's never negative i.e. ' Tata Hatao' rather it has a lot of constructive objectives viz. (i) people's control over the natural resources: (ii)the process of social transformation, mak ing conscious against the mafiaraj and making the movement a mass mobilization challenging the entire system.

The fishery rights of fishermen who are living by fishing in Chilika Lake from time immorial and another on environmental problems of Chilika which is destroying the fragile ecosystem of the lake. Both are now a days interrelated because all civilised countries believe in "Sustainable development without destroying the eco-system" of earth. With the question of livilihood of fishermen, the question of human rights is involved. The question of human rights have occupied the centre-stage of the present social order and the Indian constitution through its directive principles and fundamental rights, has laid great stress on this aspect of social and economic justice. In this connection, ecological question has been drawn ineven in matters of human rights, so in many of the incidents concerning environment, people's right to living which is a fundamental right in the constitution, has been referred to.

Poomen's access to natural resources has become a fundamental parameter of development. If in the name of development and higher income to the state, the poormen lose the right to access to natural resources, which is the creation of nature, not of men, then economic growth becomes unreal. Men, the poormen become a victim of development, not beneficiary of development. The activist is of the opinion that, Chilika is a victim of this human greed and the interest of the fishermen are being butchered in the altar of human and State's aggrandisement.

This is, in nutshell, the ecological problems of the lake. The life of the lake depends on removal of these causes on which availability of the fishery resources will be determined. Uptil now an ecosystem perspective for a management programme of the lake has not been evolved. That is why we have all along demanded for setting up a multi-disciplinary group which can drawn up the required management strategy and programme. Otherwise sectoral approach to the problem will not be able to correct the fragile eco-system of the lake.

Environmental degradation of Chilika, Bhitarkanika and Baliapal haave been caused both by natural intervention and human intervention. Both are inter-related, because forest destruction around the lake and on estuaries of rivers has caused heavy soil erosion leading to siltation of the lake. It is indeed that some people are so intenselyh conscious of the environmental" tragedies" that may arise out of man's pver-greed and unscientific approach to brackish water farming in the lagoon eco-system." To prevent tampering with the lake's environment in the name of development, the union Government in the Environment Ministry is examing" to notify the Chilika lake as a ecologically sensitive area. "3.

Chilika is a wonderful illustration of repository of this food web. Tampering withoue element may have disastrous effect on the other and ultimately on the whole structure. Chilika Banchao Andolan will soon

organise seminars, conferences and mass action for creating strong public opinion not only within the State, but also outside for preventing environmental degradation and for ensuring longer life for the lake.

In the Field, Banka Behary Das said majority of the fishermen, who were living on the lake are on the verge of starvation and about two thousand fishermen from about fifty villages on the fringe of the lake had left for surat and other distant places. Besides, he added, the antifishermen policy of the government, various other factors both natural and man-made were responsible for this disaster. He stated that the primary duty of the people of the state is to ensure the longitivity of the lake by promoting the environment of the lake. The green leader stated that unless the government was pressurised under the impact of public opinion, he did not see any sign of anxiety on the part of the government to save this worled famous lake, which was the pride of every Oriya.

From the time the State Government changed the fishery policy in the lake by introducing the prawn culture system in 1991, the environmental degradation of the lake got accelerated, Tatas have gone and with it the possibility of commercial hi-tech prawn culture has been banished.

Das alleged that although he had been urging the Chief Minister to setup a body of experts and environmentalists to immediately attend to these problems, no positive steps have being taken up till now. None seems to realise the gravity of the situation in the lake, which is heading towqrds extiuction. Das said he had also u7rged the Chief Minister to designate two marine sanctuaries in Orissa Coast, one for Olive Ridley Sea Turtle on the Gahiramath beach in Bhitarkanika Sanctuary and another an Chilika Coast from Muggurmukh to the Rishukulya river mouth including outter channel from Satpal to Arakhakhud for the Dolphins—both being endangered spcies of the world. Both the proposals are being burried in the files of the government and is gathering dust, though in India there is no marine sanctuary for olive Ridley and Dolphin".

Answer by Sri Kamal Nath to an unstarred question No. 4680 of Srivallav Panigrahi in Lok Sabha on 22nd December, 1992.

The green leader urged the Chief Minister and the government to give urgent attention to the environmental crisis of the Chilika Lake of the aNalabana Sanctuary and ban prawn culture immediately. Unless all the measures-long term, short term and immediate, - are not taken without, further delay, the present generation of Orissa will be responsible for the death of the lake.

As far as concerned, Bhitarkanika, thenature's paradise on earth is threatened, because of the State Government's illegal and whimsical actions in name of development. The rich mangrove forest, its varied Flora and Fahna, its biggest rookery of Olive Ridley Sea turtle are gradually deteriorating due to Orissa Government's vandalism and connivance of encroachments by outsiders into mangrove forests. The establishment of a fishing Jetty and a complex at Talchua on the northern border of Bhitarakanika Sanctuary which is under construction, has created world-wide consternation among environmentalists and naturalists. They are of strong opinion that movement of hundreds of mechanised fishing boats and trawlers functioning from this fishing jetty daily, will scare away the endangered species of olive Ridley Sea turtle who came in lakhs to Gahirmatha Sea beach of Bhitarakanika, which is hardly ten Kilometers from the Talchua fishing complex. This whimsical action will destory forever.

Despite so much protests, the State Government has decided to establish another three Fishing jettles to the South of the Sanctuary near Jambu in Mahakalapada Block. India under Forest conservation Act, 1980, the Forest Department has objected to it. But all in the vain, we have drawn the attention of the government of India about such repeated gross violation of laws regarding environment, Forest and coastal zone regulation. During the last three or four years, many outsiders, hundreds in numbers have already encroached illegally into mangrove forest lands and revenue lands on the coast from Dhamra Mouth upto Devi river mouth and have taken to prawn culture illegally. They have already destroyed thousands of acres of

mangrove forest. They are given all protection by political masters. Recently a feeble attempt was made by both Revenue and Forest Officials—to remove those illegal prawn culture ponds. After two days of operations, it was halted because of interference of political rullers—in—favour—of—the rich and influentials prawn culturists. All right thinking people of Orissa should raise their strong voice to stop this forthwith.

CONCLUSION TOWARDS A SUMMING UP: WAYOUT

The world has experienced tremendous development since second world war in the field of socio-economic sector. Men have come together and been able to prove that they can change the course of civilisation. They been able to challenge anti-rights establishments. Man can actively protest any injustice in any front of life done to them. Some State Governments have also given lot of facilities and conducted programmes awareness. We have rule of law. But there is widespread denial of civil Rights. The tactors responsible for violation of human rights in India are mainly"growing exploitation and powerlessness of the majority urban and rural poor, growing incidence of malnutrition, hunger starvation degradation of the physical environment. growth religious fundamentalism, growing trend towards gobvernmental lawlessness increasingly authoritarian nature of political institutions large scale building projects such as construction of river dams which displace thousands people and ruin the ecology etc.

The purpose of this paper is to examine how recent developments have brought the Environmental protest movements (focus is on right to sale-environment) into focus on the political agenda. It should also be noted took good governance and accountability are also bound up with the increasing socio-political environmental awareness in Orissa. We age impressed

by the people's eagerness in supporting the movement for right of safe-environment particularly in Bhitarkanika, Chilika, Baliapal, and Nrusinghanath areas of Orissa. These movements generate eco-awareness. For example - political role of the working class (mainly farmers and fishermen) if Chilika implies protest actions against the government decisions to carryout prawn projects.

"Environmental consciousness is increasing to the extent that people are demanding safe -environment as a fundamental right. It is a healthy sign that there is concern about saving the world from environmental degradation. and disaster for future generations". (analyse by Dr. Shakuntala Mahwal in 'world focus' March 1992).As the current debate is an 'safe and environment as a basic right', it will be appropriate to discuss on the movement' to serve Chilika' in Orissa to understand eco-awareness in Orissa. Article 51 A of constitution of India states," it will be the study every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion living creatures". According to preliminary study, prawn project of Chilika Acquatic Farm is a joint sector programee of both the Tata and Government of Orissa. The report of the water and power services (WAPCOS) of the Ministry of Environment on the environmental and a series of the series of impact of the proposed prawn culture project on Chilika not satisfactory. There is resentment against such prawn culture in Chilika . lake. Nearly one lakh of fishermen are apprehensive of their Thus a movement was launched by Orissa Krushak Mahasangh, Chiliak Matsyajibi Mahasangh and all other environmental organisations.

The Scholar an activit of these movements. The view of Justic V. R. Krishna Lyer on Chilika movement. To him, "The Chilika Banchao Andolan is a patriotic manifestation of the people's wish collectively rich with biodiversity and Nature so vital for human survival. 1. We are glad that

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^{1.} V. R. Krishna Lyer, on Chilika Movement, Times of India, 20.3.94, P-10. 2. V. R. Krishna Lyer, on Chilika Movement, Times of India, 23.10.92, P-8.

being mobilised, through awareness deepened and people are conscience awakened so as to prevent pollution of the lake and the deprivation of our fisher-folk of their livilihood".(on October 1992). Hope, this study would be useful to policy makers and policy executors. Prawn-project in Chilika is becoming controversial. Because its social cost is ignored by the Government at that time. This leads to believe that people are not happy with the Government's assurance of better living. Despite use of modern technoligy it does not portray sustainable development. Consequently the people are not interested to disturb the social composition and availability of fishing opportunity in the locality. Due to construction of large-scale acquatic-farm, most of the land, of Chilika locality will get submerged. People have to suffer a lot of hardships and the Chilika has to lose its charm. beauty and birds.

The book namely" Chilika Lake: Nature's gift' prepared by Orissa Krushak Mahasangh also states", the opinion is gaining ground that the prawn culture in a large scale with modern technology should be prohibited in the Chilika lake and all those including the Tatas should not be allowed any entry. Orissa krishak Mahasangh is not against the modern commercial prawn culture, is not against Tata or any other corporate giant undertaking such culture on the vast coast line having brackish water, provided the general-environmental measures are undertaken nor against the country utilising its resources for earning foreign exchange. But it is very much against such prawn culture in Chilika lake, whose fragile eco-system is already facing threats due to natural causes and also human activity.

As discussed. "Save Baliapal', 'Save Chilika', 'Save Bhitarkanika", 'Save Puri-konark Sea Beach',' Prevent BALCO', etc. movements will continue. All these movements are directed for the attainment of sustainable development. The Book namely "Environment employment and development edited by A. S. Bhalla Published by I. L. O. Office, Geneva discusses the ways and

means to reduce, If not arrest, environmental degrationa". Above analysis has emphasised on the need of promoting environmentally sustainable development inorder to strengthen Protest Movements State should initiate development strategies inorder to establish a new environmental order.

Various studies in Sustainable Development have already suggested to pursue economic projects without disturbing ecology. The mad rush for prawn culture to earn foreign exchange should be stopped. Finally, we have to report that the process to curb the Nature may be minimu. Unnecessary unwanted disturbance of the natural life and beauty should not be encouraged.

It is gratifying to note that the new government and 11th Assembly in Orissa are coming forward with eco-awareness. The New government is promising all encouragement in favour of eco-friendly economic investment. "Union Minister of State for environment and Forest, Kamal Nath expressed concern over the unsustainable and indiscriminate spread of prawn culture units along the Orissa coast and the sufferings of the people residing nearby". (as reported in 'Sun Times' dt. 5.4.1995). Environmental guidelines to set up acquatic far are to be finalised soon by the Government. The State Government declares to free the state from hunger. It is the obligation of the state to ensure that human rights are not violated.

The need of the hour is to give all support to this movement at the grassroots level. New look at the existing economic and political management is called for. The national Commission on Human Rights should take over this enormous task to create environmental awareness. The Non-governmental organisations (NGO) can also open public discussion and participation on this issue of national importance. Rights of the citizen for safe environment should be protected. This popular movement is a potential force and is being organised in an aggressive manner to further environment—

^{3.} A. S. Bhalla, Environment, Employment and Development, ILO Office, Geneva, P-23-25.

friendly economic progress. These movements has genuine grievances and is a reserve force for progressive upliftment of the rural poor, as we observed.

"It is rightly said that at any time and in any society, democratisation of remedies in the cause of collective rights of the individual has great importance, but in a developing society, this subject assumes much greater significance", (Justice P. N. Bhagwati, U. N. Committee on Human Rigts).. This Dissertation has tried to examine the strength of popular movement to bring in a just environmental order. Sane society is the final goal of a democratic political system, what India needs today is to expand our mass movement to achieve this same society.

Thus this research proposal analyses the (a) significance of this study, (b) its relevance to the present day problems and needs of the society, and its likely contribution to knowledge. Let us conclude with Prof. P. V. Young that social research is a scientific undertaking and the scholar promises to work for such undertaking.

BIBLIOGRAPHY

EIBLIOGRAPHY

Primary Sources
Public Documents

Centre For Science and (CSE) Environment

The State of india's Environment: a Citizen's Report New Delhi, The centre 1982

Centre for Science Environment, 1984-85 The Citizen's Report New Delhi The centre 1985.

Centre for Science environment 1988-89.

The Citizens report New delhi the centre 1989.

Centre for Science environment 1992-93.

The Citizens report New delhi the centre 1993.

CIDA 1992.

Chilika lake Project : feasibiltiy and design report.

Directory of Non Governmental Environ ment and Development Organisatins in OECD Member Countries

Government of Orissa:

Bulletin on the Development of Baliapal Chilika and Bhitarakanika 1949-55 No 5

Government of Orissa :

Bye-Laws of the Primary Fisherman Cooperative Societies, Registrar Cooperative societies.

Government of Orissa :

Lease Agreements of the C.F.C.M.S

Government of Orissa : Government of Orissa :

Lease Policy of 1988 Lease Policy of 1991

WAPCOPS, 1992 , Chilika Aquatic Farms Ltd, Environment Management Plan for Integrated Shrimp Farm Development Revised Intercin Report Septment New Delhi 1992.

World Development Report 1992 1993 1994 1995

A Sthama V , 'Limnoligical Studies of Lake Chilika, Orissa, A Project sponsored under the Man and Biosphere programme by the NCEPC, Govt of India Dept of Science and Technology.

M.S.Swaminathan Research Foundation , Threats and Problems to Conservation on Bhitarkanika 1994 1995.

Environmental impact of Fish Landing Centres, Roads etc. on

the Ecology of Baliapal and Bhitarkanika wild life Sanctuary. Report by the committee constituted by the Govt of Orissa November 1994.

Kaputt Special Report on National Test Range in Baliapal 1993.

Conference on Environment and Forests: Eastern Region Govt of India. Bhubaneswar Nov 27 1995.

Patkar Medha: Seminar on Environment and Development JNU Feb 24 1995.

Secondary Sources Books

Adams, W. M.: Green Development Enviranment and Sustainabiltiy in the Third World' Routledge London and Newyork 1990.

Adiseshiah Malcoim s(ed) 'Sustainabel Development: Its Contents Scope and Prices Lancer International 1990.

Agrawal V P and Rana S.V.S. 'Science Development and Environment Muzaffarnagar Society and Bio-sciences 1987.

Ahuja S.P. - Environment Development and Poverty ' the Publication Division Centre for Reasearch Planning and Action New Delhi 1992.

Aggrawal Anil (ed) - 'Fight for Survival CSE' Peoples Action for Environment Sage Publication New Delhi 1987.

Agrawal, A and Narain, S - 'Towards Green Villages a Strategy for environmentally Sound and Participatory rural development Centre for Science and Environment, Delhi 1989.

Attwood D. W. and B.S. Baviskar (eds) - Who Shares? Delhi Oxford University Press 1988.

Ahluwalia , Sagar , - Youth in Revolt , Young Asia Publishing House New Delhi 1972.

Bartelmus P.- Environment and Development Londan Allen and Unwin 1986.,

Bhargava. G. - Environmental Pollution and Law, Bombay, Commerce Pamphlets 1981.

Blumer Herbert (ed) - Social Movement A. M. New Outline of

Priniciples of Sociology New York, Barnes, Noble 1951.

Bhattacharya D. K. - Ecology and Social Formation in ancient History Sage Publication Calcutta. 1990.

Bhasin, Veena, - Ecology Culture and Change Inter India Publications, New Delhi 1989.

Bhatt, S - Environment Protection and International law Rachiant Publishers, New Delhi 1985.

Berkes, F. (ed) - Common Property Resources Ecology and Community based Sustainable Development, Belhaven Press londan 1989.

Bahuguna, S, - Walking With the Chipko Message Silyara Navjivan Ashram, 1983.

Bhalla, A. S., - Environment, Employment and Development, ILO office, Geneva, 1992.

Hasan, Joya. (ed) - Forging Identities, Gender Communities and the state, Kali for Women 1994.

Jodha, N. S., - Environmental Crisis in the Himalayas lessions From the degradation process, in S. Hanna and Munasinghe (ed) OP. cit, Washington D C world bank 1995.

Jena B.B., and J.K. Baral (ed) -' Govt. and Politics in Orissa' Print House, Lucknow, 1988.

Jacobs P, and Munro D.A., (ed) - Conservation with Eaviter Strategies for Sustainable Development. (Cambridge - (IUCN) 1987.

Joshi, B.K. (ed) - 'Alternative Development Strategies and the Indian Experience. Bombay, Himalaya 1984.

Kothari, A.P. Pande Si Singh and D. Varaiva, - Management of National Parks and Sanctuaries in India. a Status report, Indian Institute of Public Administration, New Delhi 1989.

Kothari, Rajni, Kumarappa, J.C. - Re Thinking Development In Search of Humane Alternatives, Ajanta Publicashers, Delhi 1988. Why the village movement? All India village Industries Association, Wardha, 1938.

Meadows, D.H. Meadows, D.L. - ' Beyond the Limits: Global Collapse or Sugarainable Future' Earth Scar

Publications Ltd. London, 1992.

Misra, Pandit Godavari -" Ardha Shatabdira Orissa o tahinre Mo Sthana, (in oriya).

Pal, B.P. - 'Environmental Conservation and Development Natraj, Dehradun 1992.

Pirages, D.C. (ed) - 'The Sustainab C Society Implications for Limited Growth, Prager Publishers, New York London 1977.

Rao, M.S.A., - Social Movements in India volume 1 Monohar, New Delhi 1978.

Scott; Alan. - Ideology and the new Social Movements Unwinhyman, London 1990.

Shiva, Vandana. - Ecology and the Politics of Survival Conflict over Natural Resources in India, Sage Publication New Delhi 1991.

Shah, Ghanshyam, - Protest Movements in Two Indian States a Review of Literature, Sage publications, New Delhi 1990.

Sharma, H.S., and Sharma M.L (ed) -' Environemtal Design and Development Conthctor Harmony, Scientific Publishers, Jodhpur 1978.

Shiva, Vandana., -' The Violence of Green Revolution Third World Agriculture, Ecology and Politics, Zed books, London 1991.

Shiva, Vandana., - Shaying Alive Women, Ecology and Surival in India. Kali for Women United Nations Universty Press, New Delhi 1988.

Singh, R.B., - 'Studies in Environment and Development' Commonwealth Publishert New Delhi 1988.

Tis dell, Cleni., - Environmental Economices Politics for environmental management and sustainable Development, Edward Eligr Publishing House, New Delhi 1993 1994.

Vettivel, S.K., - Participatian and Shstainable Development Theory and Practice in Govt and NGOS. Vetri Publishers, New Delhi 1993.

ARTICLES

- Ahmed, F, 'Chilika: <u>Depths of Despair,' India Today,</u>

 15th Nov, 1987
- Aggarwal, Anil, 'Ecological Destruction and the Emerging

 Patterns of poverty and people's protest in

 Rural India, socialAction, January-March, 1985
- Anonymous, A, The Sangarh Yatra: a first hand account, Baliapal:

 A Campaign Newsletter, (7 and 8) April, 1991.
- Arora, D. From State regulation to people's participation: case of forest management in India. Economic and Political Weekly,

 March 1994: 691-98.
- BandyoPadhya, J and Shiva, V; 'Chipko, Seminar, Feb, 1987
- Basn, N.G, 'Ecology and Development,' <u>Mainstream</u>

 <u>1st July, 1989</u>
- Brundtland, G.H., 'sustainable Development: an overview,

 Development 2:3 (1989)
- Bhaskaran, S.T., The rise of the environmental movement in India; Media Journal '37(2) 1990

Chandra, S., 'Economics of the Chilika Lake,'
Orissa Review, 44(1), Aug, 1987

Chowdhry, K, 'Social Forestry: Roots of Failure,'

Mainstream 1st July, 1989.

Chapman, V.J., "Mangrove Vegetation, "

J, Cramer, Swtitzerland, 1976

Choudhury, B.P, "Bhitarakanika Mangrove swamps," Env. sci, Vol-3(1)

Dept. of Botany, Utkal University

Bhubaneswar, Orissa, 1990.

Das, Banka Behary, Chilika Lake, Enviroment and Fishermen's Rights, <u>Press</u>

<u>Report, 1993</u>

Das, Banka Behary, "Why Save Bhitarakanika,

Orissa Krushak Mahasansha

and the centre of Ecology

and Development, Orissa, India

1993.

Dakshinamurthy K.S., 'Politics of Enviroment,'

<u>Economic and Political</u>

<u>Weekly, 3rd May, 1986</u>

Daly, H., 'Sustainable Growth: an

impossibility Theorem', <u>Development</u>
3:4, 1990.

Dogra, B., 'Chilika Lake Controversy',

<u>Economic and Political Weekly,</u>

<u>2nd Jan, 1993</u>.

Das, Banka Behary., Prawn Attack, The Ecological
Asia, Vol-3, Nos, Sep/Oct, 1995.

Dasgupta, P., Population, Poverty and local environment, 'scientific American', Feb, 1995.

Ghosh, A.,

Perspectives on Enviroment and

Development' Economic and

Political Weekly, 2nd May, 1992

Guha, R.,

'Ecological crisis and Ecological

movement: A Bourgea's Deviation?

"Economic and Political weekly,

25th December, 1982.

Hardin, Garrett, "The Tragedy of the Commons',

Science Vol-I-162, Dec 13, 1968

Aussaian, A., 'Resource Base Erosion and Sustainable Development in South Asia, EPW, 18th Aug, 1990.

Hellier, C; "The Mangrove Wastelands",

The Ecologist, Vol-18, No 2, 1988

Inamdar, N.R., 'Sustainable Dvelopment: The concept

and Policy Perspectives; Indian Journal

Of Public Administration, July-Sept, 1993

Kadekodi, G.K., 'Paradigms of Sustainable
Development', Development, 3 1992.

Korten, D.C, 'Sustainable Development, World

Policy Journal 9:1- (Winter 91-92)

Kothari, S., 'Ecology Vs. Development: The Struggle for Survival', Social action, Oct-Dec, 1985.

Kar, Sudhakar., Chilika, <u>An overview Inside</u>

<u>Sanctuary Asia, Vol XII, No 4, 1992.</u>

Lele, S.M, 'Sustainable Development : a Critical Review
World Development, 19:6 (June, 1991)

Lugo, Ariel E and Samuel, Snedarkar, The Ecology of

Mangroves, " Dept. of Natural

Resources, common wealth, of
Pureto Rico, 1974.

Munu, R.E., 'Towards Sustainable Development an environmental Perspective, <u>Development</u>

2:3, 1989.

Misra, Prithwiraj., Chilika, Inside, <u>Sanctuary</u>,

<u>Asia, Vol XII, No 4, 1992</u>

Menon A.G.K., Wetlands and Aquaculture.

In. The Hindu, 9.1.1994

MOHANTY, S.K., On the Brackish water shrimp

Farming in Orissa. In: <u>Bullentin</u>

of the Department of Fisheries,

Orissa, Vol.1, Nr.1. Jan 1992,

S.36 - 50.

Mukul, A auaculture Boom: Who really
Pays? In: Economic and Political
Weekly, December 3, 1994

MahaPatra, M., 'Enviroment Politics and the Chilika,

BaliaPal and Bhitara Kanika Project,

Link, Nov 8, 1992.

Mckay, J., 'The Development Model,' <u>Development</u>
3:4, 1990.

Misra, S.N., 'People's Participation For

Sustainable Development; Indian

Journal of Public Administration,

July - Sept, 1993.

Misra, P., 'Contemporary Chilika and

BhitarKanika. The Enviroment

Issue', The Indian Magazine of

her People and Culture, March, 1993

O' Riordam, J. 'Future Directions in Environment

-al Policy; <u>Journal of Environment</u>

and Planning, Vol-17, 1985.

OSE (ORISSA Enviromental Society)

(Hrsg.), Chilika - The Pride of

on r wetland Heritage, Bhubaneswar,

1988.

Ray, Ashwini K. 'Civil Rights movement and social struggle in India', in EPW Vol XXI, No 28,
July 92, 1986.

Patel, Sujata., Baliapal Agitatia, socioEconomic Background <u>EPW</u>,

25 March, 1989

Patel, Sujata., Agni, cyclone and BaliaPal Agitatiaan, EPW, 24 June, 1989.

Patra, Himansui, National Test Range

Kaputt, <u>Asian Dawn</u>,

<u>February</u>, 1994

Patel, Sujata; Socio-economic Factors of BaliaPal movements, <u>EPW, 25 April, 1989</u>.

Patel, Sujata., Leadership crisis in

BaliaPal, <u>EPW, 25th March,</u>

1989

Paranjpye, V., Dams and their Dangers', Seminar, Feb, 1989.

* Ramdas, S., A range of protests, Frontline, July-Aug, 1988.

Shankar, Uday. 'Chilika: A lake in

Limbo'. Down to Earth, Vol - 1

No 7, Aug 31, 1992.

Shiva, V: Mere Prawns in a profit Chase.

In: The Telegraph, 2.9.1994.

Saxena, R.C., Enviromentalists' Fallacies,

EPW, Vol XXII, No 18, May 2, 1987

Sachs; volfgang:, Enviroment and Development,

The Ecologist Asia, Vol-1, No 2,

Sept/Oct 1993

Smith , T.B., -Analysis of Policy Failure:

A three dimensional Framework

Indian Journal of Public Admini
-stration, Jan - Mar, 1989.

Suresh, 7., 'Development or Destruction', mainstream, Feb 24, 1990.

SivaramaKrishna, K., 'Forests in Development',

Seminar, February, 1987

Santhanam, M.L., 'Community Participation For sustainable Development,

Indian Jr. of Pub. Admn. July- Sept

1993.

PAMPHLETS:

Baliapal - Voice of the People.

Chilika Lake Controversy - Dollars Vs. Livelihood.

BhitaraKanika - A Billian Bollar Nightmare

BhitaraKanika Sanctuary - Will it be Allowed to Die.

Crisis in Chilika Laboon and
Invitation of a People's movement.
Fishery Rights of Fishermen and Environment
Problem of Chilika Lake .

Veetamati in BaliaPal .

Maa Mati, Chilika (Published in Oriya) .

Why and How Tatas in Chilika .

Mangroves : At the roots of the Sea .

NEWSPAPERS

SUNTIMES Bhubaneswar,

SAMAJ, Cuttack,

Dharitri, Bhubaneswar,

Prajatantra, Cuttack

Eastern Tames Cuttack

Hindustan Times New Delhi

Indian Express New Delhi

Times of India New Delhi

Telegraph Calcutta

"Bijaya" Magazine Published in Oriya
"Biklap Bichar" Published in Oriya.