

Development Policies and Rural Women: A Study of Forest Policy

Dissertation submitted to the Jawaharlal Nehru University
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MASTER OF PHILOSOPHY

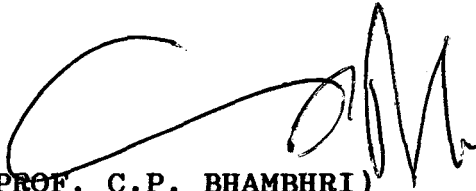
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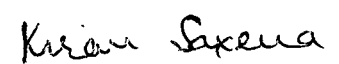
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CERTIFICATE

Certified that the dissertation entitled
"DEVELOPMENT POLICIES AND RURAL WOMEN: A STUDY OF FOREST
POLICY" which is being submitted by JAYA S.P. SHARMA for
the award of the DEGREE OF MASTER OF PHILOSOPHY is her own
work. It may be placed before the examiners for
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the award of any other degree of this University or
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with love

to

my parents

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Words fall short to express the jubiliation and gratitude that overwhelm me on completion of my work.

I wish to share my happiness with all those 'invisible hands' that have contributed towards making this study see the daylight.

I wish to express deep gratitude to my supervisor, Dr. Kiran Saxena who helped me throughout my work and offered valuable suggestions that helped weave my thoughts coherently. I would like to thank Prof. Kuldeep Mathur too for his forthcoming advice.

This study stemmed from my interest in a simple question, how should we live? in response to a felt need for a new way of life that is both socially and environmentally, friendly.

My friends have been with me through the moments of trials and tribulation and they deserve a special mention here. Bhaswati, Archana, Anupama, Subhra, Bulbul, Sonu and Mani, all have been of immense help.

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And finally, with the fond remembrance of a departed soul.

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INTRODUCTION

The summer of 1991 has witnessed a historic summit, 'The Earth Summit' at Rio de Janeiro. The signing of 'Agenda 21' less than a decade away from the twenty first century has been a significant event. This is a pointer to the fact that the issues of environment, ecology and development are prime issues of the day and both the developed as well as developing countries have a responsibility towards their environment. Together they have to build a 'safe future' with environment friendly steps and ensure development that is sustainable.

The present study will address the questions of environment, and people in the wake of development. It will not be the scope of this study to deal with the issue in totality due to time and economy constraints. It will mainly focus on the tribal women who are important contributors to the forest dweller economy. Their lives are impoverished due to deterioration of their environment. Deforestation has an adverse impact on their lives. To unviel this issue one requires a general insight into the development approach adopted by the government, and the forest policy which is a reflection of the same. Prior to this however a brief exposition of the concept of development will be of immense value. An attempt will be made made to weave together the

seemingly disparate concepts in theory and praxis through a common thread of continuity in the following chapters.

The initial chapter is a brief exposition of the concept of development. The meaning of development is highlighted by an understanding of development in its varied dimensions i.e. the economic, the ecological and the human dimensions. It will then discuss the developmental approach adopted by the government. A welfare state does not play 'sitting on the fence' role but an active developmentalist role. But how far is this meaningful to the lives of those at the grassroot level will be looked into.

Forestry, environment and development are interlinked issues. The second chapter will discuss the forest policy in its historical perspective tracing it to the present national forest policy. It will bring about the role of politics in society, for politics is reflective of society and politics interferes in society. The policy analysis will reveal the role of the state in the life of the natural resources and on the life of those who depend on these for their survival needs.

Tribal women play an all important role in the forest dweller economy this will be dealt with in the concluding chapter. We will see how environmental deterioration a result of the developmental approach that looks at natural resources from utilization aspect and not conservation point of view

affects the lives of the tribal women in a way different from the men. Environmental situation alone does not marginalize them for this impoverishes the men too but women's social situation too is responsible for this. Coming to the issues emerging out of researches on women, work, and development. The first issue dealt with here is:

Women and Development

The 1970's witnessed a turning point in the debate on 'Women and Development' and the concept acquired a new meaning and significance. The previous decade had generated a large mass of literature on concepts, approaches and models of development vis-a-vis women.¹ A new qualitative approach that emerged not only questioned what development has meant for majority of women, but also attempted to conceptualize some aspects of gender issues within the theory and practise of development. The central issue in this debate is the historical denial of equality to women. Several inter connected themes emerged and of these 'women and work' remains the most crucial. The single largest category of researches done in 70's was confined to the area of women,

1. The literature that was generated was an outcome of the UN decade for women (1960-70). The major goal was 'integration of women in the process of development as equal partners with men'.

work and development.² Most of these studies have suggested that the process of third world development has meant economic marginalisation of women, increasing rural women's workload and decreasing their resource base and opportunities.

Looking at the issue of marginalisation of women from the Marxian perspective points out that the interaction between the dominant mode of production and non-capitalist mode of production results in intensification of women's work in the subsistence sector and their marginalisation in the larger economy. A pre-existing division of labour by sex is the source of surplus extraction. This perspective focuses on how capitalism uses sex inequalities and how relations of production are integrally related with the forces of production. Women are weakened socially and economically due to pre-existing division of labour by sex i.e. they are not skilled workers and hence can participate in the economic process merely as marginal workers. They can participate as day labour (Reja, Banihar) their demand is generally for transplanted and weeding in agricultural fields that too at low wages. However, Marxian perspective does not make clear how patriarchy interacts with the relations of production and reproduction. Besides this perspective there is the

2. The First National Conference on Women's studies reviewed the researches and their findings indicated that women, work and development received most attention.

structural factors and processes (perspective) within the society and women's situation changes as a result of planned development and social change.

After Boserup's³ work a spate of studies emerged on the impact of agricultural development and modernisation on women's work and employment. These generated extremely important base line data and a differentiated view of women's work.

A third group of studies focusses on critique of policies and planning methodologies, instrumentalities and agencies created for implementing policies for women's development. In India there is still the tendency to regard women's development as a separate exercise within particular sectors, institutions or departments with little budgetary allocation granted to them. The concept of women and development is interpreted by policy makers in such a manner that small areas of action are formulated where women are confined merely to some select programmes and issues. Discussion about the impact of development policies and programmes on women often ignores the political dimension. In India the attempts to tackle the problem of poverty have focussed on grassroot participatory organisation of women to play a mediating role between women and oppressive structures.

3. Boserup, Ester, Women's Role in Economic Development (London: George Allen and Unwin Ltd, 1970).

The study of women, work and development unfolds a number of related issues and multiple structures that are ideologically intertwined in a complex pattern. The following observations are a result of researches on women, work and development and they are important for an understanding of this subject and for further research in this gray area.

- i) There emerges a need for improved collection of data for differentiated analysis of women's work and re-examination and re-interpretation of concepts and theories relating to women's work, productivity and differentials, division of labour, survival strategies of women in poor households labour market segment action and economic consequences of women's work within the household. This literature is largely descriptive of specific situations with low level of generalisation possible about the empirical reality.
- ii) The shifts in women's work does not occur in a vacuum therefore women, work and sexual division of labour has to be viewed in a historical context. For historical, cultural and economic reasons there are sex related patterns in the household distribution of work load, consumption patterns, assets and income distribution.
- iii) The issue of women's home-based production and its linkages with the economy raises several conceptual and methodological problems and remains a gray area of

research. Would women's productivity and income distribution improve if this area is given more attention? needs to be answered for certain myths have perpetuated regarding women's work and these have affected their work opportunity. Much of the work women do in processing of agricultural products in home based industries, in collecting minor forest produce is unpaid and therefore unrecognised.

The issue of women's home based production and its invisibility to developmentalists has been recognised as a crucial variable in exploring the links between culture and economy. However, the process is hampered by difficulties in uncovering its latent dimension.

Conceptual problems in constructing a paradigm on women and development across culture's remain an unresolved issue. One set of problems centres around the relationship between the sex roles, the economy and the family structures and another set of problems revolves around theories of development and social change.

The relative advantages and disadvantages of women and men vis-a-vis the fruits of development have an institutional basis, yet in traditional theories the gender issue is absent. There seems to be a big gap between general literature on development dealing with political economy, technical choices, changes in labour demand and income

distribution, developmental planning, administration, strategies and delivery system and literature focussing exclusively on women. This lack of literature emphasises inadequate examination of the historical dimension of these researches and a failure in employing the interaction and interlinkages between culture and economy. The isolated and scattered nature of research activities in the area of women and work have failed to develop a coherent theoretical framework. This is a major lacuna in women's studies.

Regarding the central question of 'Women and Development', one can say that development is not a value-free concept and concepts acquire meaning only in a concrete framework. How does one then explain its ideological content?

The point is that what seems to many as a disparate set of women's issues, involves the most central issue of women's struggle for equitable distribution of resources and power. Theories of development are largely confined to economic spheres and do not address adequately the social institution.

Women's studies have not been too successful in collaborative inter-disciplinary, multi-disciplinary research for constructing a unified theory of 'Women and development'. Then there are conceptual and methodological problems within the dominant paradigm of development itself. So merely creating 'female enclaves' within core disciplines is like

getting on with the task without questioning the basis of dominant theoretical approaches.

After a brief sketch of the theoretical premises of studies on women, work and development certain points of lacuna in research have come up for discussion and these will provide a headway to future researches. It is important to discuss the status of tribal women to understand the intricate relationship between women, work and the concept of development. The status of women has been affected as a consequence of additional workload, malnutrition and disease and lack of education. The developmental approach adopted by the government approach adopted by the has affected women in a way different from men for opportunities to develop self and contribute to home as well as larger economy are fewer.

STATUS OF WOMEN IN TRIBAL INDIA

Sociologists and anthropologists differ in their views of status of tribal women. However, two dominant views are easily recognisable. One suggests, the equality of status of men and women and the other argues that they occupy a low status in tribal society. The social feminists following Marx & Engels, tend to support the former point of view. According to Marx and Engles,

"Women occupied not only a free but also a highly respected position among all savages and all barbarians of the lower and middle ages and partly even the upper stage.⁴

Lowie too expresses similar views, writing on the Crow India's of North America he says,

Women were emphatically not chattles, that altogether the position of women was far from 'unfavourable' and that 'there were very few feminine disabilities in religious matters', and that altogether Crow women had a secure place in the tribal life and a fair share in its compensation.⁵

According to Lowie there are diametrically opposite views prevailing. One where she is considered a little better than a 'slave' or 'beast of burden' condemned to perform the hardest drudgery, bought as a commodity, and on the other hand she is regarded as an undisputed mistress of family if not of the communal life as well.⁶

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4. Karl Marx, and Fredrich Engels, Selected Works, Progress Publishers, Moscow Vol.3, 1971, p.226.
 5. Quoted in Evans Pritchard, E.E., 'Position of Women in Primitive Societies and in our own' in, The position of women in societies and other Essays in Social Anthropology New York, The Free Press, 1965, p.143.
 6. For details refer to R.H. Lowie, The Position of Women in Primitive Society, (London): Routledge and Kegan Paul Ltd., 1921, p.177.

Most of the studies on Indian tribes consider the second possibility pointed out by Lowie. Hutton for instance writing on Sema Nagar Women says that socially they enjoy a better position.⁷ Haimendorf says, 'husband and wife are for all practical purposes partners with equal rights and their property is jointly owned'.⁸ But both these conceptions seem to be wide off the mark. For as Evans Pritchard comments, 'these judgements rested only too often on quite inadequate accounts and were inclined also to be highly subjective and measured by somewhat arbitrary standards of our own sentiments.'⁹

Thus it will be more worthwhile to move away from the higher or lower dichotomy and view the position of relative asymmetry in status of the tribal women in the status of third world vis-a-vis men of a particular society.

Sachidananda offers a significant insight into this issue for he says,

The Indian social system exhibits such grave disparities that it is almost impossible to depict women's role and a status in a single statement which would be true for the entire country.¹⁰

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- 7. Quoted in R.S. Mann, "Social change and the Status of Tribal Women" in Social Welfare, Vol.14, 1963, p.18.
 - 8. Quoted in R.S. Mann, op.cit., p.19.
 - 9. Evans Pritchard, E.E., op.cit., p.47.
 - 10. Sachidananda, "Social structure and mobility patterns: The Case of Tribal Women", Man in India, (Ranchi), Vol.58, No.1, 1978, p.1.

The essential aspect that requires a careful analysis is that the political economy of the tribal situation requires an analysis of the social structure; economy and polity and other social and religious factors too serve as indices to evaluate her status. Regarding the role of women in tribal economy it can be said that women in traditional economy whether hunting and food gathering or shifting cultivation, played a significant role. But massive commercialisation of minor forest produce has resulted in the discrimination of her economic role.¹¹ In slash and burn cultivation there was a balance between tribal women and men's role. This balance, however, disturbed on the introduction of new technology and conservation of forests into reserved areas.¹² Various forces of social change enter into the tribal society and they alter the position of tribal women, they loose freedom and choice in social matters and independence in economy without gaining much in the political or educational fields.

Abha Chauhan's¹³ work which studied the impact of social change on tribal women in Bastar district points out that status of tribal women was better than the status of

11. Ibid., p.11.

12. Ibid., p.19.

13. Abha Chauhan, Tribal Women and Social change in India, (Etawah: A.C. Brothers), 1990.

non-tribal women for their participation is greater in the tribal economy also that status in matrilinear society is better than patrilinear society. It is significant to understand what Majumdar¹⁴ states, that equal opportunity for work does not necessarily come as a blessing. Abha Chauhan concludes by saying that status has gone from bad to worse, women have lost choice in economic matters and have not gained much elsewhere. Tribals are in a flux today, tribal women have lost their original world but cannot derive any benefit from the 'new world' which only adds an element of agony and melancholy to the whole episode. Besides this they face the problem of social, psychological adjustment in the industrial complex.

Yogendra Singh¹⁵ has pointed out that the British rule produced radical and lasting changes in Indian society and culture. British not only created an elite class for their vested interests but also kept majority of the tribals in isolation resulting in their backwardness. And when the dark arenas opened up it was for exploitation and not development of natural resources. The change was witnessed at two levels:

One at the structural level, shattering the traditional political economy of the tribals and the other at the socio-

14. Quoted in R.S. Mann, op.cit, p.19.

15. Yogendra Singh, Modernisation of Indian Tradition, (Delhi: Thompson Press), 1973, p.202.

cultural level, where the contacts with the Hindu's and the spread of Christianity were responsible for the decay of their own culture and traditions without their incorporating the new ones.

The Government of India followed the policy of integration of the tribals and introduced welfare schemes, but the results have very often been negative because the basis is the same - it is the legacy of the British rule.¹⁶ One can give the example of rich in natural resources. Bastar district which has centuries been a veritable melting pot of races and groups because of geo-political situation is still one of the most backward district of India.

Today there is a dialectics between old community values and the new ones, and the tribal women in Bastar are standing at crossroads without knowing which to follow. Improvement in the status of tribal women of Bastar requires the implementation of those policies and programme's which cater to the specific target group.

It is pertinent to ask: why is it important to study the developmental approach, the forest policy and the tribal women's life in the overall development perspective; for the

16. Nadeem Hasain, Tribal India Today, Hasain Publications, 1986, p.75.

answer to this question will highlight the issues that are crucial to this study.

The following reasons are cited here as the most important: First, there is a need to define the problem and state its magnitude. The tribals have been lamented as the cause for mindless, wanton destruction of forests. But this is not the objective reality. The people of the forests are alienated from their resources and the resources are diverted to satisfy the greed of the highly consumptive society. Development for the people has left them behind in the scramble for greater productivity and higher economic growth.

Second, to evaluate the success (or failure) of government's national forest policy, it is important to gauge the difference the policy has made to the life of the resources and to the life of the people close to the resources - whose very survival depends on these. Such evaluation helps to understand the ideological perspective of the policy in its formulation and implementation stage. It reveals the role politics plays in society to bring about social change.

Third, the effort to measure the extent of marginalisation of tribal women as a result of their being left out of development process and adverse clauses in the forest policy leads to the identification of the problem of the tribal women - 'the silent sufferers'. Once this is done

it is relatively easier to construct the profile of tribal women and such a profile is critical to the proper direction and targeting of development programmes and policies. It can lead to an understanding of the causes of marginalisation of the tribal women and this is an essential pre-requisite to the identification of a remedy.

The present study which will be an exposition of the developmental approach of the government as reflected in the forest policy will concentrate mainly on secondary sources. This limitation is self imposed as the scope and nature of M Phil work in terms of time and money constraints does not permit use of primary sources to a great extent. The study will however look at Government of India Reports on the related issues, these are the primary source material employed here.

The work is mainly compartmentalized into three broad areas. The first will present a conceptual analysis of development, proceeding to application of the same in practice. The models of development will be discussed too. The National Forest Policy as adopted by the Government after independence will be traced from the time of the British. The five year plans, and the steps the government has taken towards countering the problem of deforestation will be discussed. Planned development approach of the government aims to take care of the problems arising as a consequence of

development. This will form the second part of the work and finally, the study will discuss the problems that tribal women face as a result of the development approach that ignores their needs for commercial needs, especially deforestation which marginalises their lives and conservation efforts that often ignores their potential and needs.

*Development never will be and never can be, defined to universal satisfaction.... (But) development is more than the passage from poor to rich, from a traditional rural economy to a sophisticated urban one. It carries with it not only the idea of economic betterment, but also of greater human dignity, security, justice and equity.**

* Independent Commission on International Development Issues, North-South: A Programme for Survival, (London: Pan, 1980), pp.48-49.

CHAPTER - I

DEVELOPMENT, PEOPLE AND ENVIRONMENTAL CONCERNS:

ECOLOGICAL VALUES AND SOCIAL COSTS.

The concept of development is a central concept of Social Sciences. The 90's have been witnessing a change in development thinking. The recent thinking on development reveals that a 'rethinking' has begun. This has brought to the forefront an important question: Development for whom and at what cost? The archeology of the concept reveals that in its quest for economic growth and high rate of productivity the environmental and human factors have suffered.

The technocratic form of development approach which was adopted by the Government of India after independence assumed that higher investment and productivity would solve social problems like unemployment and egalitarian distribution of assets and incomes. It was understood that the social cost that had to be paid in order to improve productivity and GNP was essential for greater good (i.e. development). The socio-political factors were ignored in the process and planning was to great extent based on economism. However it was soon realised that

ultimately, the social and political factors of the society turn out to be more significant than the economic factors... Without a political will to help the poor, technically foolproof programmes will fail to achieve their results. Unless the underprivileged

groups of the society are freed from the yoke of their exploitation there is hardly any value of political freedom in a democratic set up.¹

To grapple with the essence of the concept of development it will be worthwhile to study the concept in its various dimensions. The dimensions of development classified here are as follows:

- Development and Environment
- Development and Forests
- Development and People

DEVELOPMENT AND ENVIRONMENT:

The development approach with its emphasis on productivity led to the isolation of socio-political and the environmental factors. Natural resources which are renewable in nature were exploited and treated as non-renewable. What was taken from nature was not returned back. This has been the case with the forests which have been regarded by industry primarily as a source of raw material and by the government as source of revenue. Very little efforts went into replacement of the stock that was destroyed.²

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1. Ashok Narayan, "Strategies for Development", in Desh Bandhu and Veena Bharadwaj (eds.), Energy and Development (New Delhi: India Environmental Society, 1979), p.45.
 2. Madhav, Gadgil, "Forestry with a Social Purpose", in Walter Fernandez and Sharad Kulkarni (eds.), Towards a New Forest Policy: People's Rights and Environmental Needs (New Delhi: ISI, 1983), pp.113-15.

Human intrusion into the functioning of nature is ofcourse accepted and necessary but one has to work towards maintaining the harmony in nature and not towards disturbing the balance. Beyond a certain limit interference causes environmental degradation and this can have grave consequences because the biological processes are fundamentally cyclical and interaction between a variety of species is essential for the survival of the whole. Interference with this interdependence can have adverse effects on the human life system.

The introduction of monoculture in the forests is only one such interference. Preservation of nature is important but it is worthwhile to understand that this must not be regarded as an end in itself. The Wild Life Reserves in India have been pointed out by Walter Fernandes³ to make the stated point clear. Many tribals and other forest dwellers belonging to the weaker sections are displaced in order to make place for animals and green patches required for recreational purposes. Quite often these conservation projects are based on the assumption that forests and wildlife needs to be preserved 'from the people' and not 'for the people'.

3. Walter Fernandes, and Sharad Kulkarni, *ibid*, pp.8-13.

Environmental deterioration a consequence of denudation of forests is a serious problem and this affects nature and man to a great extent. It is gradually gaining currency that preservation of nature cannot be seen as an end in itself. To understand the environmental issue one has to delve deeper. This has been aptly expressed by Michael Rayston in the following words:

the environmental issue is more than a question of pollution in the same way that the development issue is more than a question of short term economic growth.... 'Development' means total social development in which the key factors are not primarily economic, but are human and social and are in fact concerned with those basic human needs which should be met by development process and without which the development process is a travesty.⁴

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This aptly points out that environment and development are multi-dimensional concepts and emphasis on one single dimensions like 'economism' in case of development distorts the essence of the concept. The ultimate aim of all development efforts is to satisfy the basic human needs and for this the right to own the means required to meet these needs is essential. Any conservation or environmental protection effort needs to be placed and understood within the context of the satisfaction of these needs.

4. Michael Rayston, G., "Development Benefits of Environmental Management Policies" in Walter Fernandes and Sharad Kulkarni, op.cit. pp.8-

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It is essential to grapple with the environmental deterioration aspect not merely as a pollution and destruction of nature but as destruction of nature that leads to deterioration of the status of human beings and especially of the women folk.⁵ This is because they depend upon the ecosystem for their survival and sustenance needs. The women collect firewood, flowers, fruits, roots all from the forests and work towards making both ends meet. So if rights over minor forest produce are taken away or forests are reserved and their entry prohibited, while for commercial purposes deforestation continues unabated then certainly the deterioration of the environment affects them more than others. (This issue will be dealt with in details in chapter III).

The dependence of the forest dwellers is more on the forests than the state or the industrialists. To the industrialists, forests are a source of raw materials - a tool for greater profit. To the state they are a source of higher revenue. For the forest dweller, on the contrary, forests are their very life system. He depends on them for his survival and not merely for profit or higher needs. This

5. Anil Aggarwal, R. Chopra and R. Sharma, State of India's Environment 1982: A Citizen's Report (New Delhi: Centre for Science and Environment, 1982). They mention the weaker section of society as marginalised while this study will carry on this idea to emphasize marginalisation of the women folk.

aspect has been convincingly portrayed by D'Abero⁶ and it reveals how important it is to question the 'for whom' and 'at what cost' aspect of any developmental or environmental conservation effort.

If we tackle the environmental deterioration issue at the very root it reveals that it is often a result of poverty and inequalities that result in poor housing conditions, unhygienic surroundings, ill health, illiteracy and lack of basic amenities required to preserve the surroundings. The urban slums have been pointed out as one such example of the surroundings deteriorating because of the lack of basic facilities by Singh and Alfred de'Souza.⁷ Deforestation is another case in point. Though even the National Commission on Agriculture states that 'free supply of forest produce to the rural population and their rights and privileges have brought destruction to the forest'.⁸ There are other studies that indicate that the real problem and cause of destruction needs to be attributed to poverty, indebtedness and

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6. Desmond. D. Abero, People and forests: The Forest Bill and a New Forest Policy (New Delhi: Indian Social Institute, 1982).
 7. Audrea Singh and Alfred de Souza, The Urban Poor: Slums and the Pavement Dwellers in the major cities of India (New Delhi: Manohar Book Service, 1980).
 8. Report of National Commission on Agriculture, (New Delhi: Government of India, 1976), p.25.

exploitation by middlemen.⁹ The study was conducted amongst tribals in Bihar and it attempted to point out the factors responsible for unrest among the tribals that led to destruction of the forests -- their life supporting systems. The factors identified were scarcity, poverty, and exploitation. These factors must be highlighted for understanding and assessing the environmental issues realistically. The crux of the problem is that deterioration of the environment and high human cost paid have been the result of the development pattern that paid attention to immediate financial benefits and ignored the human, social and ecological factors. The human face of development has been veiled as a result of great stress on accruing short term economic benefits.

To put it briefly, development can attain its stated goal of serving the people only when environmental deterioration and human degradation are viewed within their proper perspective as the consequence of a purely technocratic approach and the consequent unjust system that marginalises the weaker sections. Any solution has to be engineered towards reversing this trend and making development people oriented.

9. Ranjit Gupta, Prava Banerji and Amar Guleria, Tribal Unrest and Forestry Management in Bihar (Ahmedabad: Indian Institute of Science, 1981).

DEVELOPMENT AND FORESTS:

The second dimension of development (viewed in this chapter) examines the technocratic development approach with its impact on the forest cover of India. There can be no two opinions about the desirability of protecting the forest wealth from excessive and illegal exploitation. However, one must be able to separate the chaff from the wheat and distinguish between exploitation for commercial interests and utilization of forest produce (not wanton exploitation) by the rural population who have traditionally depended on these resources.

The scientific management of forests or of other resources is cited as one of the reasons for the present investment pattern that concentrates on productivity as the cost of the social and political factors. The British introduced the modern "scientific management",¹⁰ and after independence the 1952 forest policy confirmed this approach. It is assumed that in order to make forest management scientific, forests have to be protected from the people who destroy them through their unscientific practices.

10. The term has been used here to reveal that forest management approach adopted by the British was one that employed science and technology exclusively for extraction of forest resources without replacing the stock. It ignored the social and ecological aspects while it stressed merely on financial gains.

However, in management of forests the revenue needs of the government and the commercial interests of industry have dominated to a great extent. Gadgil points out and rightly so that the British were concerned almost exclusively with the commercial exploitation without renewing the stock¹¹ with the result that forests were treated as non-renewable resources meant to be merely exploited. In independent India the government ought to have oriented its approach towards forests management but as Kanan¹² points out the five year plans have to a great extent, followed the same principle and have looked at forests only as sources of revenue for investment outside the forest areas, with only marginal investment for the regeneration of the same.

The National Forest Policy of 1952 did offer a new perspective and did not regard greater productivity as the only aspect of scientific management. The policy emphasised that industrial and revenue needs should be subordinated to environmental and people's needs, especially those of the tribals and other forest dwellers. But inspite of the policy

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11. Madhav Gadgil, et al., Forest Management in India: A Critical Review (Bangalore: Indian Institute of Science, 1982). He explains that forests were exploited because of need of wood for sleeper coaches that were to be run on the railways that were introduced by the British in 1837.
 12. K.P. Kanan, "Forestry Legislation in India: Its evolution in the light of Forest Bill 1980" in Walter Fernandes and Sharad Kulkarni (eds.), op.cit. pp.77-8.

statement, in its implementation revenue and industrial needs seem to have taken precedence over environmental and people's needs. There has been no increase in area, but a considerable depletion of resources has taken place.

An appreciation of forest ecosystem, their role in environmental equilibrium and their potential for sustained productivity are basic to any natural resource utilization policy. There can be no realistic forest policy unless we understand and preserve our forests. The complex centre-state relationship were partly responsible for the failure of the earlier forest policy. Nationalised forests were managed by State Forest Departments according to state regulations and often under local pressure. In 1976 forests were placed in the concurrent list by the forty-second Amendment to the constitution. The Forest Conservation Act 1981 requires the prior permission of the Centre for alienation of any forest land to non-forest use. This is a significant measure because it puts some restrictions on diverting forest area to non-forest use and thus prevents further loss of the forest area.

Forests play a vital role in improving the quality of agriculture, environment and rural development and this role has been researched upon in details by Ram Prakash¹³ and it

13. Ram Prakash, Advances in Forestry Research in India, (DehraDun: Forest Research Institute), vol.V, 1990.

points out the developmental and productive role of forests.

India has an area of 74 million hectares notified as forest area this is about 22 per cent of the total geographical area as against the world average of 29.5 per cent. The optimum proportion of forest cover to the geographical area is 60 per cent in the hills and 20 per cent in the plains. So in all at the overall level in India, 33 per cent of the geographical area is required to be covered with forests.

If one looks at the figures of revenue from India's forests they reveal a dismally low figure when compared with other countries of the world. India's forest land, when compared with that in other countries of the world will appear to be dismally low as is evident from the table (Table 1:1). This shows that there is a yawning gap between production and demand for forest resources. The National Commission (Table 1:2) worked out the production and demand projections of industrial wood estimates and it is estimated that an area of 2 million hectares should be brought under production forestry during the seventh plan period.

TABLE 1:1

FOREST AREA IN THE SELECTED COUNTRIES OF THE WORLD - 1983

COUNTRY	GEOGRAPHICAL AREA (000ha)	FOREST AREA (000ha)	PERCENTAGE FOREST AREA TO GEOGRAPHI- CAL AREA.
Japan	37,231	23009	61.80
Brazil	8,51,197	5,67,663	66.69
Indonesia	1,90,457	1,20,940	63.50
USA	2,240,220	734,792	32.80
Canada	997,614	326,000	32.68
West Germany	937,261	263,370	28.10
France	54,703	14,600	22.60
India	328,726	73,669	22.41
World	149,000,000	43,955,000	29.50

Source: 1. Indian Agriculture in Brief 1987.
2. Statistical Abstract of India 1985.

TABLE 1:2

REVENUE PER HECTARE FROM FORESTED AREAS
IN SELECT COUNTRIES OF THE WORLD

COUNTRY	GROSS REVENUE (per hec) in Rs.	NET REVENUE (per hec) in Rs.
Austria	336	80
India	21.50	11.50
Switzerland	494	190
United Kingdom	NA	140
West Germany	565	190

Source: National Commission on Agriculture Interim Report on Production Forestry, Man made Forests, 1972.

What has disturbed the land use pattern severely in the demographic pressure which has led to unsustainable and unproductive level of resource availability. So the development strategy of the country should be oriented in such a way as to use the available resources in a sustainable manner. The management of forests should be governed by efficient, disciplined and sustainable measures and not in an inefficient commercial and unsustainable manner. Resources are there, for us to utilize efficiently and not exploit mindlessly.

DEVELOPMENT AND PEOPLE:

Development environment and people are closely connected. The development paradigm adopted by the government of India forged ahead at the cost of leaving out those who matter the most 'the people'. The case in point here is the forest policy of India which catered to commercial and revenue needs and ignored the survival needs of the tribals. The conservation of forests has been attempted in such an arbitrary manner that the tribals are denied access to forest products while industry has 'managed access to them'.¹⁴

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14. In Karnataka the sandalwood forests, the bamboo forests prohibit the entry of tribals but poachers and industry have managed access to the wood. This was revealed by a study conducted by Prasad and Gadgil, Conservation of Bamboo Resources of Karnataka, (Bangalore : Karnataka State Council for Science and Technology, 1981).

Forests have been ravaged in the so called national interest and the tribal interest is excluded from its narrow concept.

Development came to be mainly concerned with the GNP and this was universally acknowledged as the main indicator of development and progress. Development was viewed as growth and progress was shrouded in the 'myth of progress' and this eclipsed over 'little traditions' and indigenous people were ignored as the model was that of western society. Vandana Shiva talking of the development paradigm comes forth with the statement that,

The founding fathers were predominantly white, western, Christian and needless to say, exclusively male. Ideologically, their ideas and paradigms were moulded by Newtonian Cartesian rationalism and positivism... development all along, has been the grand new project of western patriarchy.¹⁵

This brings forth the view that development was planned, unidirectional and cumulative, it is a coordinated strategy towards a pre-set target. People who matter the most in all development plans and actions were relegated to the background for short term gains and the economic dimension of development enjoyed priority over the social and cultural dimensions.

15. Vandana Shiva, Staying Alive: Women, Ecology and Survival in India, (New Delhi, Kali for Women, 1989), p.37.

One can very well question the underlying concepts of economic development arguing that the economic focus on growth and material wealth has led to negative development of 'objects' rather than an improvement in the quality of people's lives and 'non-quantifiable' resources.

One cannot say that people must be given free access over forests and they can continue to exploit it mindlessly for that defeats the purpose of all development that beings with involvement of people for the betterment of people's lives.

What is worthwhile to stress on is the role that people, their tradition, their culture can play in development that is just and development that is sustainable. Social scientists have emphasised the political, social and economic determinants of human development but only of late has attention been focussed on the concept of 'culture'. A people's own (the tribals) culture which has taught them to live in harmony with nature since ages can be tapped as a potential source and one can learn and implement ways and practices that allow utilization of resources at the same time care for their conservation too. Tribals rever nature to them it is sacred and not merely meant to be conquered and destroyed. Stephen Toulmin talks of integrating the world of

nature with the world of humans with a view of striking a harmony between the two, he writes:

Instead of viewing the world of nature as onlookers from outside, we now have to understand how our own human life and activities operate as elements within the world of nature. So we must develop a more coordinated view of the world, embracing both the world of nature and the world of humanity -- a view capable of integrating not merely aggregating, our scientific understanding and capable of doing so with practise in view....¹⁶

This leads us on to looking at one's own culture for alternatives and suggestions to tackle the problem of development which so far has concentrated on economism to development that is social and cultural too, to development that is just and sustainable.

Development of people cannot be achieved if one moves them away from their culture and traditions and imposes upon them alien traditions. The top-to-down development philosophy in which experts whether local, national or foreign make the decision for the recipients is undesirable. The basic needs are more likely to be fulfilled when people play a vital role in formulating policies that affect them. This principle of involvement and participation of people should be complemented with the principle of self-determination.

16. Stephen Toulmin, The Return to Cosmology: Postmodern Science and the Theology of Nature (Berkeley: University of California Press, 1982), pp.255-56.

To effectively use knowledge of one's own traditions and culture the understanding of the concept of culture becomes imperative. Galbraith chides fellow economists for not having 'the final requirement of modern development planning: a theory of consumption... a view of what production is ultimately for'¹⁷. Neither ancient wisdoms interpreted in static fashion nor uncritical modern scientific approaches suffice to produce such answers. So a dialogue between traditional and new is essential. Every culture is the outcome of a continuous process of creation and assimilation and continuance of traditions. Robert Redfield classifies cultures into two traditions

- The Great Tradition
- The Little Tradition

The Great Tradition can be understood if we focus our attention on the well documented vedic hymns, the Brahmanas, the Upanishads and the two great epics the Ramayan and the Mahabharat. Against this stands the little tradition of the illiterate masses in villages. These two traditions are not mutually exclusive categories but there is constant assimilation between the two spheres in which it is the dominant reality that subaltern classes have more often accepted the hegemony of the great traditions of the cities.

17. John K. Galbraith, Economic Development in Perspective, (Cambridge, MA: Harvard University Press, 1962), p.43.

What is important is to understand this little culture and the role it plays in the lives of the people, their environment to which they have adapted and adjusted themselves.¹⁸ So using the knowledge of their immediate environment is more productive than imposing scientific modern practises in conservation of nature. It would be useful to point out here the historian, Walter Rodney's book "How Europe under developed Africa" which was for the first time an exposure of the man dominant paradigm that considers only economic costs and ignores human costs (in terms of needs and resources) which is catastrophic in the long run and economics without the ecological perspective is a futile exercise. Although the root of economics is the Greek world 'oikos'/home which points to humble origins, but in reality economics 'laws' are largely mechanical.¹⁹

Thus the dimensions of development besides economics are social and cultural. Development to be meaningful should be sustainable and ethical. Sustainable development is

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18. The tribals have traditions that forbid them to enter the forests in particular season, for e.g. during 'Sarhul' season no felling of trees takes place. Then they also have certain trees as sacred, for eg. the 'Khejri' in Rajasthan which as a matter of principle they never cut.
19. The Science of Economics is grounded in the entropic notion of scarcity, Entropy denotes the tendency of the energy of a closed system. Refer Geogenscu, Roegen, The Entropy Law and the Economic Process, Cambridge Mass. Harvard, 1974.

vitaly linked to environmental degradation, poverty and scarcity. So development has to be environmentally sound to sustainable. This is the need of the hour. A way out of the dilemma between development and environmental protection (conservation) must come not as a gift of wisdom from development agencies and lending banks but from a society and its own people. Swami Vivekananda once remarked, "in the deep valley of despair, even the hand that comes out of darkness to help you must be your own". So an important feature of conservation ideology should be an active involvement of people - farmers, villagers, tribals, extension and voluntary organisation workers. Conservation until recently was viewed as merely the protection of endangered and rare species of wild animals. A cartoon in a newspaper in the early 80's depicts this point precisely. It depicts two villagers smoking a hookah and commenting 'wish we were a part of endangered species'. But call for participation alone is not enough to alter the situation of deteriorating environment, scarce resources, and lopsided development. A call for ethical development alone is not enough because in developing nations it is but natural for conflicting demands on natural resources to arise and development projects are bound to disturb the delicately poised ecological system unless suitable safeguards are provided. Here enters politics and effective political will alone can alter the situation. It calls for a dilution of

the role and responsibility at the apex of the state and creation of an open society and participation of its people in managing their resources and their immediate environment. Environment policies are both 'social' in origin and formulation. Though it seems difficult to explain the 'socialness' because behavioural sciences are looked upon with skepticism in their validity but nevertheless are valid.

Coming to the issue of how Social Sciences began to study national resources and the communities living in the national regions introduces us to the Sociology of Forests and the studies in Rural Sociology. This viewpoint regards natural resources not only as attributes of the physical environment but as attributes of social and cultural order as well.

SOCIOLOGY OF FOREST:

Studies in rural sociology are a pointer to the fact that forests are social as well as biological systems, and social and biological cycles interact. A comprehensive understanding of nature and functions of communities is a necessary step towards future policy analysis and prescription. The forest community and its stability and enrichment of life are broad social objectives and to bring about change in their lives has to be backed by political will. Changes in the forest policy, technical changes in timber production including new silviculture practises,

cropping system, are transformations which affect lives of the forest community.

Communities are the basis for the social order of human population. Human attitudes and values are vested within the community. Understanding of communities enhances the development and implementation of natural resource policy.

This is not a virgin aspect but one that has not been carefully understood by policy makers and planners. Policy making has twin aspects, formulation and implementation, that need to be understood and hence both have to be reconsidered.

Pioneer efforts of Radha Kamal Mukherjee in 1926 when he published *Regional Sociology* where he views natural resources in a holistic perspective and as components of an "entire cycle" for its parts are predicted upon "securing a more or less stable equilibrium of the whole living world".²⁰ In the *Changing Face of Bengal*, 1938, he notes, "Cooperation in conservation of land in the use of water, in forest management, in training and management of rivers and finally in the reciprocal relation of village and city must be the key note of the future."²¹ More recently in, *The dimension of*

20. Robert, G. Lee, D.R. Field, W.R. Burch, ed., Community and Forestry. Continuities in Sociology of Natural Resources, (New York: International Book Distributors, Indian Edition 1990), p.33.

21. Radha Kamal Mukherjee, The Changing Face of Bengal (Calcutta: University of Calcutta, 1938), p.17.

Human Evolution, published in 1963 Mukherjee observes that, "the ecological communities have, indeed, great practical significance for the stability and continuity of human civilization."²²

Rupert Vance in 1929, around the same time as Mukherjee published, Human Factor in Cotton Culture.²³ The parallel in view points between the two sociologists, writing in the context of two different cultural traditions is noteworthy. The holistic viewpoint developed by Mukherjee and Vance according to which natural resources can be seen not only as attributes of the physical environment, but as the attributes of social and cultural order as well, has been the characteristic of the approach sociologists have developed in their study of natural resources. Yet this has remained an implicit rather than explicit view.

The dynamic implications of holistic conception of natural resources were easily seen by Zimmeran, in 1936, in consumption and standards of living. Zimmeran notes that people's standard of living is not solely a function of their mode of the physical resources or industrial techniques but is a function of the mode of family life. His

22. Radha Kamal Mukherjee, Dimension of Human Evolution, (London: Macmillan, 1968), p.295.

23. Rupert Vance, Human Factors in Cotton Culture, (Chapell Hill, N.C. University of North Carolina Press, 1929).

observation is that man is a vain and careless animal and often tends to create the very structures which destroy him. Zimmeran applies to the national and supernational level the holistic perspective that has been so fruitful in his community studies. He notes there has been a widespread dislocation in the "balance of nature" attended by the soil erosion, forest depletion and an impoverishment of the rural population -- looking into the future Zimmeran suggests that "Unless we perish from this earth a conservation system will be the next step."²⁴

Hypes in 1944. published a paper, The Social implication of soil Erosion. Its theme stated in these words "soil erosion and human erosion are so closely connected that neither can be studied adequately without the other."²⁵

Harold, F. Kaufman's perspective on forest as a vital dimension of environment is of greater value.²⁶ To a sociologist "the forest economy is seen as a part of a total culture". It would appear that there is a conceptual

24. C.C. Zimmeran, Consumption and Standard of Living (New York: D. Van Nostrand, 1936), p.39.

25. Hypes, "Social Implication of Soil Erosion", Rural Sociology, 1944, pp.364-76.

26. Harold, F. Kaufman, 'Sociology of Forestry', in WA Duerr and H J Vanx ed., Research in the Economics of Forestry, (Washington D.C.), pp.113-114.

formulation implicit in these studies, the need is to make them explicit. Forest as a dimension of environment -- is at the root of the sociological view which involves the inclusion of physical and the cultural dimension. There is a dual reference to two orders of phenomena which are not exclusively physical, not social or cultural -- both are articulated into a single conceptual construct.

In a survey of the contribution sociologists have made to the study of natural resources two facts are striking:

- i) the immense contribution both from a theoretical and practical point of view.
- ii) The continuity these contributions seem to possess, supports that these findings have a unity.

Man's relationship with forests from early stages to the stage of industrial man has been qualitatively metamorphosized.

In the beginning depletion of forests under British Imperialisation have low perceptible impact on the forest resources. It only meant felling of the forest according to respective lifestyle.

The relationship of man-forest system is an important aspect of the type of relationship between the two. Three distinct concepts of forests have been enumerated by B.D.

Sharma²⁷ which help in understanding the changing relationship of man with forest system and specially the change in status of ownership.

COMMUNITY OWNERSHIP:

In the embryonic stages of human development, the native community enjoyed ownership over land as well as forest resources. When man was an intrinsic part of the natural system, concepts of ownership were vague and effectiveness depended on man's natural superiority even over other uses of forests.

The scenario changes for the modern economics point of view forests were a revenue and wealth source to the state. The colonial administration exploits forest resources. Valuable resources from forests were extracted for profits.

STATE OWNERSHIP:

The concept of state ownership introduced new changes. The final arbiter is the state not community. The local practises are viewed as diminishing forest wealth. The state tries to assert its rights while the local forests and its products are theirs, so arises a conflict situation. In this context Zimmerman applies to the natural and supernatural

27. B.D. Sharma, Forests Tribal Economy and Regional Development, (New Delhi: Ministry of Home Affairs, 1978).

level the perspective that has been fruitful in his community studies. Here he traces a dialectical succession "from a system of international capitalism in agrarian food products" to a 'politically grounded monopolization and bureaucratized agrarian system'. He notes there has been a widespread dislocation in the "balance of nature" attended by soil erosion, forest depletion and an impoverishment of the local population.

CORPORATE OWNERSHIP:

In the recent years a new concept of ownership is developing in the quest of attracting institutional finance for intensive exploitation of forest resources. Forests are merely resources, owned by a corporate body governed by economics of plantation, and not for the local economy. Local interests are not the main focus, revenue interest are of prime importance.

The people are rooted out of their natural ecological niche and this has great socio-political implications. Forest to its people are sacred and life supporting systems. Forest function as extensions of human society and serve as the repositories for many of its cultural values, just as human organizations are patterned by the ways in which people look towards forests.

Deputy Chief conservator of forest, Madhya Pradesh commented, "For over a hundred years the forest department has been made to be a quasi-commercial department, but never a quasi-social or quasi welfare department. The use and outside sale of fuel should be regulated subject to a availability of other sources of income to the villages".²⁸

Consequences of state ownership that followed the end of the colonial rule left the tribals outside their forests and it follows the top-to-down philosophy. Imperialism and consumerism value in society led to this situation. Rights of foresters are seen as 'burden' on resources and economic exploitation. The scarcity and poverty gnawing at those left out of development - results in compelling them to exploit the forest resources. The upsurge of intermediaries and contractors changed the attitudinal value of the locals. But the situational and panacea for ills is not universal over the diverse country. For in parts of Assam and North-East shifting cultivation still survives, while formulating forest policy, the conditions of the more advanced areas are used as index leading to a policy which reflects a bias.

The policy framers and the communities in the backward area are in complete divergence on the perceptions about the

28. M.L. Shrikand, Development of forest dwellers (Tribals) and forests (Pune: Vanayati, April 1982), p.29.

forest resources. In the interest of 'national needs' forests for economic resources overshadows the forests for 'basic needs' of the forest dwellers.

ETHICS OF DEVELOPMENT:

Discussion of is ethics of development is important because it can help define a new development paradigm (social) which can promote sustainable development. There has been a rising concern for morality and ethics in conservation and development (at the global level). Regarding the query: what is required for an ethical development or for ethics of development? It can be said that it does not entail a change in the concept of development alone for that would merely be a cosmetic change. It is imperative to understand that ultimately the behaviour of entire societies towards the biosphere must be transformed if the achievement of conservation objectives is to be assured.

A new ethic embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being. The long term tasks of environmental education is to foster or reinforce attitudes and behaviour compatible with this new ethic.²⁹

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29. International Union for the Conservation of Nature and Natural Resources, The World Conservation Strategy: Living Resource Conservation for Sustainable Development, (Gland, Switzerland: 1980), Section 13.1.

After introducing ethics in development paradigm what then will development stand to mean? Looking at what Willy Brandt³⁰ pointed out would help achieve a clearer understanding of the issue. He says that world development should not be confused with growth and development for it is more than just an economic process. It is fundamentally a matter of moral commitment to human solidarity to quote a few of his lines,

the new generations of the world need not only economic solution, they need idea to inspire them, hopes to encourage them... They need a belief in man, in human dignity, in basic human rights, a belief in values of justice, freedom, peace, mutual respect in love and generosity in peace than force.³¹

So this calls for the creation of a moral vocabulary assisted by appropriate regulations and policies required to hammer out a new concept of world order and ethical development leading to a sustainable way of life. Closely connected to this aspect Rajni Kothari suggests that the primary issue which marks any and all talk of the ethics of development, is the lack of shared moral language in which to think and deliberate about the meaning of the world creed.³²

30. Willy Brandt, 'SA plea for change', An introduction, in Report of the Independent Commission on International Development Issues, op.cit. He chaired the Commission.

31. Ibid., p.12.

32. Rajani Kothari, quoted in Engles and Engles ed., Ethics of Environment and Development, (Britain: Belhaven Press, 1990), p.9.

Moving on from the discussion of common concepts and shared values for an ethical i.e. sustainable development it can be said that one of the basic postulates of an alternative philosophy of development is to treat life as a whole and not in fragments. This calls for a perspective on science that is oriental rather than occidental, one that derives from accumulated wisdom of centuries rather than one that rejects all that is past and traditional.

After a brief analysis of the concept of ethics of development, the discussion will focus on the recent trends in development thinking in India.

The Planning Commission's paper, 'Eighth Plan: Perspective and Issues', makes the following significant statement,

Our development is entering a new phase which demands a radical change in our policies, procedures and institutions. (Further), the stress on equity and development should remain.

(is the opening of Planning Commission's paper).

So what is required to be done is to shed the traditional concept of growth in favour of seeing economic development with what people can or cannot do. Economic growth viewed from this perspective employs the expansion of human capabilities.

A brief look at what has been the observable relationship between growth of income and poverty reduction will help clarify why there is the urgent need to reorient the development paradigm adapted by the government.

Prof. Raj Krishna points out that there has been no observable relationship between the growth of income and reduction of poverty ratio in India. Based on the econometric model, he found that all the changes in the poverty ratio over time have proved to be growth neutral. Growth and development has not led to 'trickling down' effect. Indian economy has moved from 3.8 per cent average annual GDP growth rate during 65 to 5.2 during 1980-85.

The impact of developmental activities has been that developmental activities have created avenues for excessive consumerism of some as against the continued deprivation of many others.³³ This points out that logically consumerism and excessive consumption by a few as against scarcity and deprivation of most others should be checked. Raul Prebisch in his early writings had clearly advocated the restriction of consumption of the elite group either voluntary/forced as a suitable strategy for better distribution of benefits of growth.

33. V.R. Panchmukhi, in Financial Times, (New Delhi: July 16, 1988).

Traditional growth theories have been deriving growth rate as a function of capital investment and capital output ratio. Over emphasis on capital has implied neglect of the approach of recycling and the efficient use of available resources.

It will be worthwhile to note the basic principles of a human economy enlisted by Marja Liisa Swantz³⁴ that needs attention.

- In the present stage of development no country of the world economy can remain an island. But integration with the world environment should not necessarily mean total opening up of the economies
- Endogenisation of development impulses is an important prerequisite for sustainable development with suitable diffusion and equitable distribution of benefits. This requires strengthening of the human resource element and institutional basis of the developing countries.
- Distinction between growth and development needs to be reiterated education, health, welfare should receive priority attention in development process.

34. Marja Liisa Swantz, 'The Development Crisis in the North' quoted in Financial Times, *ibid.*

REFORMULATION:

So discussion and analysis so far leads on to the central issue of reorientation, a necessity in the development paradigm and the need of the hour is for an immediate rethinking. Engle and Engle's view regarding this are cogent and important to understand. They talk of grappling the development issue from its inception, emphasis and impact before we can develop an alternative road to development.

Unless the origin, thrust and destructive impact of the dominant social paradigm of world development are clearly identified only then it is possible to achieve adequate critical distance from the forces that structure our lives.... indeed the necessity for and nature of the alternative only become evident as the oppressive character of the regnant paradigm is understood.³⁵

It is worthwhile to point out what Engles and Engles have stressed regarding the basis of sustainability of environment.

Sustainability of environment and development is rooted in ethics, not in monetary policy and this strives towards an alternative model of development. Without such striving, it is an empty term. For present model of development destroys nature's wealth and hence is non-sustainable. Thinking and acting ecological is basically a matter of ethics, of respecting the rights of beings both human and non-human.³⁶

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35. Ronald J. Engles, The Ethics of Sustainable Development, in Jengle and Engle Ethics and Development, (London: Printer Publication, 1990).
36. Rajani Kothari, 'Environment, technology, and ethics' in Engles and Engles ed., *ibid*, pp.27-28.

Of course this does not imply that all our endeavours in knowledge and institutional structure's have to be discarded but they have to be consciously reviewed.

This brings us to a central issue for reorientation or rethinking about development approach, alternative or paradigm can cease to be a mere paper tiger and move towards a realistic reorientation only when political will to do so exists. For political will to check the mal development, lopsided development and one dimensional development is imperative. A mix of science and politics is essential. Scientists and Politicians may feel that they are not compatible but actually they are. It would be very interesting to note that the nature of mix is reminiscent of a joke that went around in Washington a few years back -- about an elephant and a rabbit-stew. Even if the chef adds 2/3 rabbits for every elephant, the final mixture is a great deal like elephant. Similarly even when one adds competent and hardworking social scientists to the policy making process, the final result is likely to retain a heavy flavour of political factors.

Coming back to the issue of forests and their development and conservation it will be fruitful to understand that questioning the forest policy is but one step to questioning the present economic system that has led to concentration of wealth in a few hands and impoverishment of

the masses. Genuine development emerges from the living aspirations of communities need to affirm themselves as truly human. Similarly, a veritable active respect for nature is to be found more solidly entrenched in non-elite population who are the repositories of traditional culture than in the coterie of new experts who call themselves system analysts, resource planners, future modellers or ecologists.³⁷ This points out how important it is to use the indigenous knowledge of the tribals, their little traditions before any attempt for their development can be progressed at.

Inspiration from an old Chinese poem can be well taken and the experience and knowledge can be weaved into actual plans and actions regarding development and conservation of natural resources and the people living close to them. It goes like this

'Go to the people
Live among them
Learn from them
Love them

37. Denis Goulet, "Culture and Traditional Values in Development, in Susan Stratigos and Philip J. Hughes ed., The Ethics of Development, The Pacific in the 21st Century (University of Papua New Guinea Press, 1987), pp.165-78.

Start with what they have

Build on what they have'.³⁸

Understanding the depth of dependence of forest dwellers, who are by enlarge tribals on forest resources for their survival and for the retention of their separate entity as an ethnic group, would be of great value and would help us re-cast our attitudes towards forests and the people in their surroundings.³⁹

The future of forestry movement, the development of its community, the conservation of forests, the vital role forests play in the life of its dwellers will all depend on how effectively the community can be involved and made to participate in preserving their natural environment. The top-to-down philosophy will have to give way to bottom-to-top philosophy where meaningful contribution will come forth from the grassroot. This will not weaken the structures at the apex but will ably make democracy (participation) and

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38. Mukul Sanwal in 'Social Forestry Framework: People, Development and Environment', (New Delhi: Training Division, Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions, Government of India, October 1986).
39. Ramachandra Guha, The Unquiet Woods. He discusses at length the dependence tracing the history of forests their changing ownership and the unrest among forest dwellers as a result of exploitation, corruption and malpractices.

federalism more meaningful and fruitful. To quote Dr. Swaminathan, here, would be of great significance.

The future of our forestry movement depends on how we would be able to carry the community with us. Unless we can create in people a sense of belonging and make them realise the need of preserving forests both for the interest of local community and the nation with all our good intentions and expertise. We may not be able to prevent the increasing denudation of our rich forest resources and our national target to cover 33 per cent of the total area of forests would be a far cry.⁴⁰

Thus development should be for people taking people along with it and forests should be for them people rather than isolating them from it and these basic fundamentals should guide our planning efforts and development philosophy of the nation.

40. M.S. Swaminathan, Member, Planning Commission, Seminar Paper, Indian Forestry at Crossroads, November 20-29, 1980, (New Delhi, Oxford University Press, 1984).

THE GREAT TREE

Ten wells are equal to one Tank

Ten Tanks are equal to one lake

Ten Lakes are equal to one son

Ten Sons are equal to one tree

(Quoted from Matsya-Purana)

The Tree has been referred to as Das Putra (ten sons). The ten sons reflect the following properties:

1. Oxygen
2. Water
3. Soil
4. Food and Honey
5. Cloth
6. Medicine
7. Fodder
8. Shade
9. Timber
10. Fuel*

* COURTESY:

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CHAPTER - II

EVOLUTION OF STATE POLICY IN FORESTRY IN INDIA:

PEOPLE'S NEED AND CONSERVATION IDEOLOGY

"Forests precede men, deserts follow them".¹

The wisdom of this statement very often skips our minds and is reflected in our actions that are not environment friendly.

Forest play an important role in the tribal world. They form the eco-system of the tribals and their culture and traditions are intertwined with their forest system.

"Forests are intimately connected to the life of the tribals and play a vital role in their economy. The relationship has been recognised but has not been defined and interpreted in terms of clear cut policies and programmes. This has caused adverse ecological balance. In some cases, forests have suffered a great loss, while in others tribal economy has been badly affected. There is an urgent need to review the relationship of forests to the life, culture and economy of tribals".²

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1. Chateaubriand, a 18th Century French Philosopher.
 2. Erick Eckholm, Planning for the Future: Forestry for Human Needs (Washington D.C.: World Watch Institute, 1979).

During the course of the present chapter the forest policy will be reviewed and its emphasis studied. The impact of the policy on the forest dwellers and on the developmentalist planning for natural resources too will be dealt with. The efforts of the government towards regeneration of forest resources will also be discussed. It is imperative to look at the policy from the historical perspective at the outset.

The importance of forests as a natural resource, its impact on the environment and its contribution to the income and employment in the rural sector has to be understood as also the social significance of forests. Sociologists and environmentalists claim that tribals have lived in harmony with their natural system. The only people who have a realistic understanding of forests are the people who inhabit them. The policy for forests is formulated at the top by those who have knowledge but not understanding of the forests and its people.

Forests play a three-dimensional role. They supply raw material, they help maintain an ecological balance and they are the source of life and livelihood to its people. Continuous exploitation of forests leads to deforestation which eventually tells upon the environment and its people.

"The three dimensional contradiction appears to be inevitable in the development process. But it is not

necessarily so. It is the kind of development process the government chooses that determines exploitation, destruction or detonation of the life of forest people".³

It is important at the stage to separate the wheat from the chaff and understand that to a significant extent the course the development process has taken should be held responsible for deforestation but the authorities both before independence and after built an argument that tribals are responsible for the process. The study attempts to unfold the building of the forest policy historically and later attempts their critical evaluation.

In the last three decades it has been an oft repeated allegation that the introduction of regular forestry in the country has broken the symbiotic relationship between the forests and the tribals. Scientific management* did impose some discipline but did not curtail any right of the tribals over forests. The steadily increasing number of tribals was to a degree responsible for disturbing the harmony.

People in the country have been out of ignorance or deliberately fed the myth that most environmental ills in the

3. J.B. Lal, India's Forests: Myth and Reality, (Dehradun: Natraj Publishers, 1989), p.16.

* The term has been explained in the previous chapter to clarify the meaning it signifies in the present context of this study.

country are on account of the commercial nature of forest. Forests are not merely greenwood cover, but extensions of human society and serve as repositories for many of its cultural values, just as human organisations are patterned by the ways in which people treat forests.

Tribal economy is intimately connected with the forests and their economy, this relationship has been recognized but has not been articulated in terms of clear policies and programmes. The tribal economy and forest economy have thus tended to drift apart with adverse implication on both... In some cases the loss to national economy has been sizeable and to the extent it has adversely affected the target groups, the imbalance in the socio-economic structure has increased.⁴ This view is supported by Deputy Chief Conservator of Forests, M.P.

For over a hundred years the Forest Department has been made to be a quasi-commercial department but never a quasi-social or quasi-welfare department. The use and outside sale of fuel should be regulated subject to availability of other sources of income to the villages".⁵

Despite enactment of numerous laws and the formation of the Central Board of Forests and National Committee on

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4. B.D. Sharma, Forests, Tribal Economy and Regional Development, Ministry of Home Affairs, Government of India, (New Delhi: 1978), p.1.
 5. M.L. Shrikand, Development of Forest Dwellers (Tribals) and Forests, Vanyati, April 1982, p.29.

Environment Planning and Coordination during the last four decades denudation of forests has gone on unabated. It is important to pause here and question ourselves as to why tribals would indulge in destruction of their life support system the forest? Tribals have been held responsible for destruction of forests due to shifting cultivation, customary rights, poaching, illegal felling, etc. This is essentially related to a problem of land availability and resource availability. It is important to point out that to tribals forests are sacred and they never cut a tree entirely so follow practices that allows regeneration of forests.

The new forest policy was notified on 7 December 1988 in supersession of the one issued in 1952. The revised document was on the anvil for two decades, what emerged was a defensive document based on soft options. But the need of the hour is different.

An attempt to trace it historically.

FORESTS IN ANCIENT INDIA:

Vedas regarded as the fountain of all knowledge written about 1500 B.C. describe the forests. The saints and the Rishis possessed knowledge of the healing values of various trees, shrubs and herbs. The Ramayana and Mahabharata too give information of forests. The Abode of Indra, Indraprastha was an afforested area.

The golden period of Maurya too lends information on forests. Kautilya's Arthashastra (321 BC), Indica of Megasthenes (305 BC), Mudrarakshaka of Vishakdatta, inscriptions of Asoka (273-263 BC) etc. are other such sources. During Chandragupta Maurya's reign there was a regular Forest Department administered by Kupyadhyaksha (Superintendent of Forest products) whose main task was to increase productivity of the forests, sell trees on fixing their price and classify strong trees. Arthashastra mentions three classes of forests. These were.

- a) Reserved forests
- b) Forests adjoined to eminent Brahmins and
- c) Forests for public

The Gupta period has records for the collection of forest revenue. Forests were the chief sources of revenue during this period. Plantation of fruit trees was carried on in a large scale in the forests.

The Muslim rulers made little or no efforts towards conservation of forests and management of forests. However, in the region of the great Mughal Emperor Akbar different kinds of wood were weighed and classified as indicated in Ain-i-Akbari.

The Mughal period in comparison to British period was better because if they did not conserve, they did not even

destroy. British interests in forests lay in utilizing forests to secure big supplies of teak and other timber for the Royal Navy.

FORESTS IN BRITISH INDIA

The British administration for all their benevolence did not even regulate felling of forests, let alone make any efforts to conserve the resource.

"Till about the middle of the Nineteenth century the attitude of the British administrators, with some notable exception was --

- to obtain and export large quantities of Indian timber for use by the British Navy
- to extract timber for local construction
- to fell and export the scented sandalwood to various European countries
- to allow development of agriculture by clearing forests

It indeed is ironical that the first officer, Captain Watson of the Police, appointed Conservator of Forests, plundered rather than conserved the forests in Travancore and Malabar".⁶

6. J.B. Lal, op. cit., p.18.

"The first action to improve the forests in the country came in 1842, Cohen Conolly, the then Collector of Malabar, assisted by an Indian, Chatter Menon, sub-conservator of forests, raised the pioneer teak plantation at Coimbatore". The plantations were a great success. His efforts pointed out the need to conserve forests of South India.

"Gibson (Bombay), Eleghar (Madras) both conservators of forests followed Canolly's example and made rigorous though limited efforts in raising teak plantations. No steps were, however, taken to either regulate felling or to improve forests in Central and North India till a few years after the sovereignty of Queen Victoria as Empress of India in 1958, and in the densely populated region of Avadh clearance of forests for agriculture continued to be rapid and extensive".⁷

The following years witnessed massive felling of trees for timber for use in railway sleepers by the British.

FOREST MANAGEMENT: ITS INCEPTION:

The systematic management of forests introduced some discipline and control over the mindless and continuous exploitation of the wood resource. Appointment of Dietrich

7. V.P. Agarwal, Forests in India: Environmental Production Frontiers (New Delhi: Oxford and IBH Publishing Co., 1985), p.29.

Brandis, a trained German forester, as the first Inspector General of forests in 1864 marked the inception of the concept of 'systematic management' of forests in the country. Forests were now regarded as biological entity and not merely source of raw material and revenue. Almost simultaneously the government of India took the mammoth decision of treating forests as a state property. The immediate task Brandis set forth for Forest Department was:

1. exploration of resources
2. protection of forests from fire
3. control of shifting cultivation and
4. demarcation of resources
5. assessment of growing stock of valuable reserves by samples and enumerations of prescriptions of yield which could be sustained".

The year 1864 is significant in the history of forest management for legislation of forests began and the Indian Forest Act was enacted. The Act was revised in 1878 and extended to most territories under British rule. Prior to 1864, the forest dwellers had open access to exploit forest wealth but now the British government issued a memorandum providing guidelines restricting rights of forest dwellers. This was notified in 1894. It stated that:-

The sole object with which the state forests are administered is the public benefit... The regulations and restrictions are justified only when the advantage to be gained by the public is great and privileges of individuals must be limited otherwise than their own benefit, only in such a degree as is absolutely necessary to secure that advantage.

SCIENTIFIC FORESTRY:

'Scientific forestry' in its present form is a reductionist system of knowledge which ignores the vital relationship between the forest community and between plant life and other resources like soil and water. Forests which are a renewable resource have been treated as a non-renewable resource and have been destroyed without replacing the stock'. The tribals who depended on forest produce have been deprived of their means of survival. This has been argued by researchers like Gadgil, Prasad and Ali.⁹ The deterioration of the environment and the high human cost have been the result of the development pattern that paid attention only to immediate financial benefits and overlooked the social and ecological factors.

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8. J.B. Lal, op.cit, p.19.
 9. M. Gadgil, et.al., Forest Management in India: A Critical Review (Bangalore: Indian Institute of Science, 1982), mimeo. S.N. Prasad, and M. Gadgil, Conservation of Bamboo Resources of Karnataka (Bangalore: Karnataka State Council for Science and Technology, 1981).

The shift in the form of giving attention to scientific aspects of forestry came about towards the end of the nineteenth century. Methods of regenerating forests, silviculture systems to be applied to different kinds of forests were decided upon while also attempting to restrict felling of trees. Scientific progress implied quite a revolution politically, culturally and ethnically.

The World War I interrupted the march of the country towards scientific forestry. Large amounts of timber, firewood and other produce were required for the war which was being fought not on Indian but foreign soils.

In the intermediary phase between the two World Wars, the country did progress in scientific forestry. Working plans based on the principle of sustained yield were prepared for nearly all the areas declared as reserve forests. Important silviculture problems were resolved for instance the national regeneration of deodar in Himalayas.

In 1925 the subject of forest administration was transferred to the Principal Governments and in 1927 the Indian Forest Act was revised once again. Attention was given to conservation and a few pioneer sanctuaries (Nilray in Assam) were set up. The revised Act made provisions for regulation of felling in forests under private ownership. However, a sad aspect in forest management was not saving forests or even securing good regeneration but the vested

interest of the state received priority of seeking to obtain maximum earnings to state exchequer.

Thus, the concept of national interest has been applied in a narrow sense because in a welfare state there cannot be a basic contradiction between national and local interest. The World War II mercilessly consumed forests and all utilizable stock of standby timber in the country. During the years 1925-47 India made some progress in organized forestry, working plans were made and forest research made substantial progress.

FORESTRY IN INDEPENDENT INDIA:

Political change took place in India in August 1947. The Princely states, large and small, were either constituted into State of India or merged with adjoining provinces. Some problems that the country had to handle were:-

- 1) the forest departments managed on adhoc basis were now organized with a fair measure of regularity and trained foresters brought in.
- 2) with the abolition of zamindari practically in all states of India large areas of private forests were vested in the government. The legal status of these areas were nebulous. The local markets which have been starved of timber due to diversion of suppliers consequent of the war, greedily accepted everything

that came from rapid felling in private forests in the few years between independence and abolition of zamindari system.

- 3) solution of this problem of the growing rivalry for space between forest and agriculture, and of those of forests as grazing lands for the increasing number of cattle.
- 4) rationalisation of right and concessions of the local production on forests.
- 5) revision of the old forest policy to give adequate weightage to the protective and regulative aspect.
- 6) services produced by forests and to evolve a system of balanced and complementary land use.
- 7) creation of awareness in people that the forest produced not only tangible goods but also intangible services which were vital for environmental stability.

All the problems enumerated above, were in one or the way other way related to inadequacy of forest cover in the country both qualitatively and quantitatively.

FOREST AREA:

Prior to independence the recorded area of forests in the provinces of British India was 39.94 million hectare.

With the addition of ex-princely and ex-proprietary forests the recorded forest area in the country in 1990-91 is 75.15 million hectare, of which 66.65 million hectare is privately owned. The recorded forest areas have been subjected to much debate because legal status of some land is not known and the state officers were not aware if the land revenue code or the Forest Act applies to those land. In 1950 the national festival of distributing free planting was adopted and in 1952 a new forest policy was adopted.

NATIONAL FOREST POLICY 1952:

The 1952 Forest Policy is an important turning point in the evolution of forest management in India. Industries based on wood such as pulp, paper and plywood were well established and their demand for raw material became an important consideration in the management of the forests. Increasing demand from all sectors results in conflict.

'This policy was an extension of the unscrupulous demand of wood during World War I and II. The policy prescribed that the claims of communities near forests should not override national interest i.e. no forest dweller was permitted to use forest land... The tribals were to be weaned away from shifting cultivation'.¹⁰

10. Gopa Joshi, "Forest Policy and Tribal Developments: Problems of Implementation, Ecology, and Exploitation" (in) Walter Fernandes and Sharad Kulkarni, ed. Towards a New Forest Policy: People's, Rights and Environment Needs, (New Delhi: ISI, 1986), p.27.

The policy indicated a functional classification of forests into --

- protection forests (physical considerations)
- national forests (public importance)
- village forests and tree land (agriculture and local requirement)

DEVELOPMENTAL PLANS:

Development is not merely an economic activity but essentially a political activity too. The forest policy was well meaning, but the efforts proposed in forestry sector in successive five year plans reflects the approach followed by the state. The Indian state based on democratic socialism and being a 'welfare state' cannot merely perform 'sitting on the fence' role.

Forestry sector suffered at the hands of those who managed state finances. They employed a double edged sword against forests allowing little expenditure on their protection and conservation. Pressure of growing population (human and cattle) made things worse.

A look at the financial outlays in various plans - for the forestry sector.¹¹

11. J.B. Lal, op.cit.

FINANCIAL OUTLAYS OF FIVE YEAR PLANS FOR FORESTRY SECTOR
OUTLAY (MILLION RUPEES)

PLAN	TOTAL PUBLIC SECTOR	FORESTRY SECTOR	PERCENTAGE OF OUTLAY IN FORESTRY SECTOR TO TOTAL OUTLAY IN PUBLIC SECTOR
FIRST PLAN (1951-56)	19,600	76.4	0.39
SECOND PLAN (1956-61)	46,000	222.1	0.46
THIRD PLAN (1961-66)	85,760	458.5	0.53
FOURTH PLAN (1969-74)	157,780	844.2	0.59
FIFTH PLAN (1974-79)	406,500	2088.4	0.51
SIXTH PLAN (1980-85)	975,000	6924.9	0.71

Then coming to Plans and their emphasis;

THE FIRST AND SECOND FIVE YEAR PLANS¹²

During this decade, the focus of forest national planning was on the rehabilitation of the degraded private forests recently taken over by the government and the creation of plantations of economically important species. The second plan laid stress on the conservation of wild life and established wild life sanctuaries.

12. Planning Commission, _____ Five Year Plans, (New Delhi: Government of India). Plans have been referred to right from First Five Year Plan 1950-55 to the Draft Approach Paper of Eighth Five Year Plan. 1990-91.

THE THIRD FIVE YEAR PLAN:

The Third plan differed from the first two merely in the special emphasis laid on plantation of quick growing species to meet future requirements of industries especially those of paper and pulp. The species selected was eucalyptus and this tall species raised some real tall controversies. In retrospect this could be because of the fact that the plantations of this species were raised by clear felling of reasonably well-stocked forests.

FOURTH FIVE YEAR PLAN:

This plan stressed that the major problem of India's forests was their productivity which was a minimal low and it laid stress on increasing the growing stock by massive plantation schemes. The allocation made to the sector for forests, however, were wanting and too little to make a significant impact on density of forests.

THE NATIONAL COMMISSION ON AGRICULTURE:

The NCA was appointed in August 1970. Before the Fourth Five Year Plan took off this was a significant development relating to agriculture and allied sectors. The Commission's term of reference included a study and report on forestry in all its aspects.

Two major recommendations of the NCA were:

- 1) Institutional change should be brought about in the management for production forestry and man-made forests be raised on an extensive scale with the aid of institutional financing.
- 2) The existing system of harvesting of major and minor produce through the intermediary contractor must be replaced by taking it up either by the State forest department or by a network of forest labour cooperative societies or combination of both.

Both these recommendations were extremely significant as they were divorced from the traditions that had prevailed in the Indian Forestry for over a century.

THE FIFTH FIVE YEAR PLAN:

The recommendations of the NCA were the basis of the proposals made in the Fifth Five Year Plan document. The main theme was made out to be creation of large scale man-made forests through institutional financing schemes. It proposed to set up a network of State forest corporations for the establishment and management of man-made forests. The establishment of State forest corporations introduced a new phase in forestry in India. Economic considerations relegated silviculture and ecological consideration to the background. The corporations have come in for a great deal

of criticism especially by the green activists, i.e. the environmentalists.

But viewed objectively these corporations not as dismal a failure as they are made out to be by the activists. This period witnessed an amendment to the Constitution and the subject of forests was removed from the state list, to be included in the concurrent list. This provided the centre an opportunity to intervene on the subject of forests.

THE SIXTH FIVE YEAR PLAN:

The Sixth Plan highlighted the issue of ecological and social security. The major thrust of the plan was rescuing natural forests from mindless destruction. 'Development without destruction' was emphasized thus laying the foundation for development efforts to be channelised in a sustainable manner. The balance that had tipped in favour of economic aspects now shifted to the ecological aspect. Saving of natural forests and creating natural parks and wildlife sanctuaries was undertaken. What is important to highlight here is that it was stated that forest development was to be linked to the growth and development of tribal economy.

This period is marked by a spate of legislative and administrative developments. The Forest Conservation Act 1980 prohibited deconservation and diversion of forest land

to non-forest use without prior concurrence of the centre. The formation of a separate Ministry of Environment and Forests in December 1984 was yet another significant development in the efforts directed towards conservation of our natural wealth which had to be regenerated, and to be used in a sustainable manner.

SEVENTH FIVE YEAR PLAN:

The main theme of the Seventh Five Year Plan was 'forests for survival'. It aims at increasing biological diversity, undertaking afforestation and meeting the basic needs of the people.

The National Forest Policy of 1988 states that, "forest land or land with the green cover should not be treated merely as a resource readily available to be utilized for various projects and programmes, but as a natural asset which requires to be properly safeguarded for providing sustained benefits to the entire community. Diversion of land for any non-forest purpose should be subject to a more careful examination by specialists from the stand point of social and environmental costs and benefits."¹³

The conflict between the interest of forest dweller and of conservation activities for maintenance of ecological

13. Negi, Environmental Degradation and Crisis in India (New Delhi: Indus Publishing House, 1991), p.80.

balance has created a wall. Critically evaluated the difference between the British policy and the policy after independence is one of exploitation with a variance in degree alone. The Seventh Plan which tried to make up for the drawbacks came late along the line. Instead of implementing its suggestions, after a detailed survey the government resorted to a passive approach which alienated the forest dwellers from their very natural habitat.

GUIDELINES FOR A NEW FOREST POLICY:

It would be worthwhile to note some suggestions offered towards formulation of a new forest policy.

"The objectives of the forest policy should be:

- 1) protection of environment and ecological balance.
- 2) meeting the basic needs of forest dwellers, such as fruits, roots and flowers, fodder, fuel, fertilizers, etc. and
- 3) needs of industrial raw material and needs of urban population".¹⁴

From an ecological point of view it is necessary to maintain some portions of forests in their natural

14. Walter Fernandes, Towards a Forest Policy (in) Walter Fernandes and Sharad Kulkarni, ed., Towards a New Forest Policy: People's Rights and Environmental Needs, (New Delhi: ISI, 1986), p.26.

conditions. From the politico-social point of view one needs to go beyond the colonial mode and involve forest dwellers who alone can have a permanent vested interest in conservation of forests.

A CRITIQUE OF THE FOREST POLICY:

The Forest Policy during the British period evolved as a long process of step by step acquisition over forests.

The 1865 Act acquired control over forests as government property. The revised 1878 Act for the first time classified forests and the government took over forests from tribals and declared them as reserved, imposed levy on timber and forest officials acquired magisterial powers to arrest a person without a warrant if a reasonable suspicion exists. The 1894 forest policy used the term public benefits as a expression for commercial interests. Through the 1927 legislation the Government acquired more powers in classified reserve forests. The practice of shifting cultivation was brought under the perview of the state government, subject to its control, restriction and abolition. But the most notable change was the deletion of reference to rights of the communities.

The destruction of forests throughout the 19th century in India was rooted in British commercial interest, the reservation of forests, through the Forest Acts was

legitimised by blaming local people for destruction of forests and by denying their traditional forest rights.

As Pant observed for the Himalayan tract "the tale about the denudation of forests by the hill-man was repeated and nauseum in season and out of season by those in power so much so that it came to be regarded as an article of faith....

In sharp contrast is reality, the local people have construed their forests over generations. Almost every hill top is dedicated to some local diety, and a firm belief that every tree felled should be relocated".¹⁵

MINOR FOREST PRODUCE:

A discussion of minor forest produce will be enlightening and will enable us to understand the major role they play in the life of the tribals.

The minor forest produce represents the primary occupation and most important source of income of tribals and is mostly collected by women. A study conducted in West Bengal of the Purulia tribal women reveals that women could obtain upto Rs.2500-3500 per year or Rs.7-10 per day from one

15. Prof. Dixit, "Tribes and optimal utilization of land, a paper read at Gandhi Bhavan for the National Symposium on Environmental Ethic, Sponsored by Commonwealth Human Ecology Council, London; , New Delhi (March 2-3, 1992).

hectare of mixed sal forests after 3-4 years of regeneration. Beedi or tendu leaf collection is also a major occupation of tribal women. A Report that was prepared of the research on the experience of a few of the nearly 1300 Forest Protection Committees currently active in South West Bengal runs contrary to the Report of the Indian Commission on Forestry, 1976 which had stigmatized the forest dwellers for causing degradation. The West Bengal experience indicates that Forest Committees represent a key to resolving the forest management problems to a great extent.

THE NATIONAL FOREST POLICY 1988:

Coming to the National Forest Policy 1988, the comprehensive forest policy document states in its preamble the need for conservation and aims at resolving the ecological balance. The national goal is to maintain 1/3 per cent forest land in plain area and 2/3 per cent in hilly region of the total geographical area - which will enable maintainance of the ecological balance and preservation of the environment. For the first time it was prescribed that any programme of reducing the tree cover by clear felling and introducing new exotic species should be done away with. This followed the experiment of introducing eucalyptus tree plantations which had created a problem and a tall controversy.

The emphasis of the policy is to carry out forestry through three sources -- afforestation, social forestry and, farm forestry. These will serve the twin purpose of fulfilling ecological as well as and social needs. Privilege of customary rights and concessions should be granted to the forest dwellers but at the same time they must be made conscious of their duty towards preservation of the forest cover.

It is most logical for a developing nation to channelize developmental efforts and finances towards multipurpose projects, big dams and industries but this must not be at the cost of losing forest wealth, through diversification of forest land and wherever this is inevitable afforestation should follow mandatorily. Care has to be taken that species for this programme should be and indigenous local species of value to the natives. It also advocates substitution of wood in railway sleepers, construction, furniture and panelling, paper and paper board to reduce pressure over the forests.

Regarding the needs of tribals and the preservation of forests, Forest Labour Cooperative Societies have been established but these are dominated by tribal leaders and as a result the poor tribals are being exploited. To develop the forest village on par with the revenue village, change in the orientation of planning process is required. The tasks

of the forest policy are in nature contradictory and hence the document - too has a few contradictory propositions.¹⁶ They are, increasing the forest cover to achieve the noble target of 2/3 of geographical area, meeting the requirements of wood based industry and preserving the symbiotic relationship that tribals have with forests. The National Wasteland Development Board and Ministry of Forest and Environment have a bone of contention i.e. the land under forest which for all practical purposes is denuded the former wants it transferred for development of the same. The policy talks of amendment of land laws to enable the granting of 'tree pattas' to individual but it is silent on National Wasteland Development Boards proposals. The policy has contradictory strands in one major area i.e. on how to meet the requirements of tribal communities. It does recognize that the timber merchants and wood based industries rather than these communities are responsible for the increasing stretches of barren land and it does call for safeguarding "customary rights and interests of such people". Yet Parliament has enacted an amendment in December 1989 to Forest Conservation Act 1980 which contradicts the National Forest Policy, prohibiting among other things the planting of horticultural crops and medicinal plants on forest land.

16. Usha, Rai, 'Changes in Forest Policy, Times of India, (New Delhi), August 24, 1989.

Is this not minor produce cultivation and collection of which has always been the customary right of tribal communities.

Hence, it is important to recognise these contradictory stands in the policy for forests to grapple realistically with issue of deforestation.

BENEFICIARY SCHEMES FOR TRIBALS:

Development process for the tribal needs a very specific and different approach for it has to cater to dual needs of forest protection and the development of tribal economy.¹⁷ Government has paid scarce attention to the severity of the grazing problem. Grazing of cattle in the forest is proving to be a menace for the forest.

This needs immediate attention. The commercial and revenue needs have dominated our outlook towards forests - for forests are seen as wealth- 'green gold'. The policy document on forests, however, stresses on the conservation approach. It is advised in the forest policy that the forest industries should use raw materials other than forest produce, it gives more priority to meeting of local demand for forest produce.

The policy aims at forest extension programme with willing support and cooperation of the people. There has

17. Pushpa Indurkar, Forestry Environment And Economic Development, (New Delhi: Ashish Publishing House, 1992), p.46.

been reported a success in this where people have taken initiative and control of their resource. The recommendation regarding not treating forest as a source of revenue is really welcome as it emphasises the strategy of forest conservation, and sustainable use of forest wealth.

Coming back to the discussion on developmental plans, the Sixth Plan initiated the efforts at conservation. It marks the beginning of integrated and intensive efforts in conserving our natural assets. It marked the creation of the Ministry of Environment and Forests in the year 1985. The allocation of outlays in the Seventh Plan under different sectors are as under:

ALLOCATION OF OUTLAYS IN THE VII PLAN

(Rs. in Crores)

	Central Sector	State Sector	Total
Forests and Wildlife	446.71	1412.30	1859.10
Environment	110.10	77.91	188.01
Ganga	240.00	-	240.00
Total	796.81	1490.30	2287.11

Source: Ministry of Environment and Forests.

SECTOR-WISE BREAK-UP OF FINANCIAL POSITION

Sector	VII Plan Outlay	Expenditure During First Three years (1985-86 to 1987-88)	Outlay during the last two years (1988-89 to 1989-90)	
1	2	3	4	
Environment	110.00	60.66	30.00	33.79
Ganga Action Plan	240.00	75.33	57.00	64.00
Forests and Wildlife	155.00	48.97	28.00	31.75
National Waste Lands Development Board	292.00	124.26	66.10	72.25

Source: Ministry of Environment and Forests

ENVIRONMENT AND THE VII PLAN:

The Ministry of Environment and Forest have executed the programme on Environment, Ganga Action Plan, Forests and Water and National Wasteland Development in VII Plan. Principal thrust of these programmes has been to ensure environmental stability which is vital for ecological balance and conservation of forests. The programmes are being implemented by the states within the outlays provided.

FOREST CONSERVATION:

Forest conservation has been promoted by vigorous implementation of the Forest (Conservation) Act 1980. Forest

Conservation Amendment Act, 1986 introduced the schemes for protection of forests from the biotic interference. A pilot project for controlling forests fires is being implemented in Uttar Pradesh and Maharashtra (VII Plan).

It will be fruitful to list out some of the efforts made towards conserving our forest resources.

The National Wasteland Development Board was established in May 1985. Apart from regeneration through Plantation scheme, the board focuses on halting degradation of land and on improving the productivity of degraded lands.

Various schemes and projects were initiated by NWDB in addition to those being pursued in the name of Social forestry. Rural fuelwood plantations were introduced in the VI plan. It involves raising of fast growing species, fodder and small timber both in block plantation and farm forestry. Farm forestry scheme is centrally sponsored scheme with 50 per cent of the cost of plantation given as grant assistance to the States and 100 per cent to the Union territories.

Another scheme the grant-in-aid to voluntary agencies was initiated in 1985-86 with a view to involve non-governmental organisations in the process of development of wastelands with public participation.

Decentralized People's Nurseries scheme was another scheme initiated in the year 1986-87 to provide the planting

material to local people, agencies, farmers etc. for income generation of local people by selling production through farmers especially small and marginal and to establish nurseries.

Silvipasture farms were established to meet the problem of grazing and fodder line was introduced in 1987-88 to augment the induction of good quality forests on government community and marginal private lands. It is a simple scheme of regeneration of grass and planting fodder trees. Being a sponsored scheme 50 per cent assistance is provided to people subject to a maximum of Rs.1250 per hectare.

Externally aided social forestry projects have also been started. In 14 states these have started since 1981-82. This envisaged the planting and afforestation of 19,84,600 hectare of waste land with total investment of Rs.911.73 crores. Success achieved through this case is not satisfactory for though formulation is meaningful at the implementation level the schemes are a dismal failure. So well-meaning, and well intentional programmes fail to generate response and be effective in reality. This raises crucial point that until and unless the target group is involved in decision -making and implementation the chances of a success are narrowed greatly.¹⁸

Research of various case studies reveals that cooperative action between forest departments and forest

communities can most effectively protect degraded forest land allowing the degenerated land to regenerate and stepping productivity both for community and the government. The pilot project at Arabari¹⁹ in West Bengal demonstrated that villagers living on the edge of forested areas, could close them to grazing and felling, protecting over 600 hectares of land it also witnessed and the productivity of degraded forests increase. Throughout South-West Bengal over the next eight years more than 1250 villages formed Forest Protection Committees covering 152,000 hectares of degraded forest which is now regenerating. There is hope from the experience of West Bengal that forest depletion can be reversed. It requires transition from management practices developed during 19th century, to one that can respond to the social, economic, and ecological needs of the 21st century. From unsustainable development practices to sustainable ones.

Strategy of the Eight Plan for land regeneration has treated the dual problem of ecological and socio-economic crisis. Efforts in the forestry sector have however not achieved their targets. Thus inter-sectoral linkage among

18. For details of success through participation of people both at formulation and implementation refer to Forests Regeneration through community protection, Working Group meeting report on Forest Protection Committees, (Calcutta: June 21-22, 1989. Ford Foundation Funded).

19. *ibid.*

all departments (of development) is necessary to make economic development and conservation efforts of the government meaningful and successful. The strategy of the Eighth Plan is formulated to focus on

- (a) halting degradation
- (b) improving productivity on degraded lands.

PROGRAMMES PROPOSED UNDER THE EIGHT FIVE YEAR PLAN:

According to the draft proposal the main thrust of future programmes during the plan period would be to revitalize and strengthen the ongoing programmes and take up new programmes with regard to forests. Such as schemes for rehabilitating degraded forests, scheme for extensive management of potentially productive forest areas, schemes for logging of natural plantations and national forests. The first is 100 per cent centrally sponsored scheme while the later are 50 per cent centrally sponsored.

MINOR FOREST PRODUCE OF MAJOR IMPORTANCE:

Attention needs to be paid towards minor forest produce which are of major importance to tribals for they have been traditionally collecting them. If MFP are properly and systematically managed they would serve as an effective channel for socio-economic advancement of tribals and other rural people. So schemes related to increasing supply of MFP are to be followed. for eg. plantation for improvement of bamboo forests, fruit trees, tendu leaves, mahua, medicinal

plants; Marketing of MFP should be conducted through cooperatives. This will help villagers and tribals to improve efficiency and income.

Regarding the value of MFP may be if comparative data was available it is likely that income from 'minor' forest products in many forest districts would make timber revenues appear insignificant in comparison. But foresters have looked at forests for timber value and its indigenous people have suffered.

For a transition from management practices developed during 19th century to a management system that can respond to the social economic and ecological needs of the 21st century what is needed is effective political will.

The new approach of 'forests of the people', 'for the people' and 'by the people' questions the wisdom of the existing forest management through the imposition of a requirement of institutional rigidity, often assuming repressive dimensions in chilling isolation from the people who live around forests and who suffer from its loss. There is maturing a social consciousness about forest loss and all that it implies. This is a dual crisis situation, one of eroding resources and its larger socio-ecological implications, second is the crisis of confidence and the ever widening gap between the professional forester and the people.

An aspect that needs careful analysis is regarding the set of economic incentives that need to be created to facilitate participation of the community for only through participation the problem can be arrested. Thus, micro-level planning becomes an essential in forest - management for the following reasons:

- to ensure participation
- to identify and highlight needs of local populace
- to regulate the benefit flow to the participants in conservation

Conservation presupposes maintenance of diversity and diversity can only be maintained locally. This has to be imbibed by those who plan for policy upon natural resources.

Thus the systematic inability of forestry projects and schemes to meet ecological and social needs arises from wrong scientific and organisational assumptions.

The socio-ecological problems arising from deforestation can be solved only if the process of deforestation is reversed. Conservation has to be based not on commercial tree planting for saving the forests for ecological recovery but on respect for nature and people's survival needs. Nature is to be looked not as a "green gold".²⁰ Rather as a life system and one that must be

20. G.B. Singh, Forest Ecology of India, (Jaipur: Rawat Publication, 1983).

protected. Afforestation programmes based on profitability alone can become ecological hazards in themselves. Women, peasants and forest dwellers are the best inputs in forestry ecology and their knowledge and assistance is of vital importance and as yet remains an untapped resource.

So what is the social consequence of environmental degradation? Well it can be said that it builds on cultural factors and enhances inequalities. Forests are destroyed and immiserization and marginalization of women increases.²¹

Thus deforestation affects all forest dwellers but women in particular and in a more pronounced way. Their social standing in the tribal community has been affected by the 'conquering our nature' approach of development. Marginalization is accepted by them and this is true of almost all tribal belts in India.

Thus policies of development to alter the situation offered as the panacea for deforestation ills have to be carefully analysed because the culture of the tribal community in general and women in particular has deteriorated and it all began with the destruction of forests.

Thus in the final analysis in this chapter it would be worthwhile to quote Gopa Joshi, she says,

21. Vandana Shiva, Staying Alive Women and Ecology, (New Delhi: Kali for Women), 1989.

The contradiction between the interests of the forest dwellers and conservation of forest wealth and maintenance of ecological balance propounded by British rulers to facilitate their control over the forest wealth and its continuation after independence has created a wall between forest dwellers and forest wealth.²²

The tribal culture, an interwoven harmonious blend of human needs and ecological needs was disturbed and overt revenue needs upset the whole chain. We have to retrace our steps and make amends so that future may not be 'bleak' but 'green'. All efforts towards development and conservation should be tinted green.

The later part of a 'wise man's life', said Jonathan Swift, 'is taken up in curing the follies, prejudices and false opinions he had contracted in the former'. So it becomes imperative for social scientists to point out and for policy makers to practise out recognize that 'people' are the motive force of development and they can fuel development activity and propel it ahead, and they are not merely passive objects of development. If National Forest Policy is to truly serve the interests of the people, the forest resources and the fragile environment, then an overall socio-economic policy must be made to work in the same direction. There must be greater measure of social justice, more access to land and other resources, to enable the participation of people themselves in the development process of self and of the nation.

22. Gopa Joshi, op.cit, p.26.

Though we have listened for centuries to the voices of men and theories of development that their experience informs, we have come more recently to notice not only the silence of women, but the difficulty of hearing what they speak; Yet in the different voice of women lies the truth of an ethic of care, the tie between relationship and responsibility, and origin of aggression in the failure to connect.*

* Carol Gilligan, In a Different Voice, (Cambridge, Mass: Harvard University Press, 1984), pp.173-74.

CHAPTER III

TRIBAL WOMEN AND FOREST ECONOMY

1. Deforestation and Tribal Women.
2. Women and conservation

The preceding chapters have dealt with the general concept of development and the development approach adopted by the government after independence. The forest policy which reflects this approach has also been discussed. We have seen that the adoption of the technocratic developmental approach in formulating a policy for natural resources has resulted in breaking down the close relationship forest dwellers shared with their natural resources ie the forests. The focus of chapter would be the impact of deforestation on the lives of tribal women.

The tribals have suffered as a consequence of deterioration of their environment. Deforestation coupled with the technocratic developmental approach has had adverse impact on their lives. Conservation efforts of the depleting natural resources have isolated the tribals from their ecosystem because the philosophy underlying all conservation efforts has been one that calls for protection of forests from its peoples.¹

1. The report of the Indian Commission on Forestry, 1976, stigmatized the forest dweller for causing depletion of forest resources.

To understand the impact of shrinking resources and the lack of access to products of the forests it is imperative to first understand that forests are not merely a natural resource or a green cover but they are the eco-system of the tribal people. Deforestation affects the lives of the tribal women in a different way from that of men.

The problems that arise for tribal women as a consequence of deforestation are increased workload, the lack of access to health care, the drudgery of work, fewer means to meet daily needs of the family, since men migrate in search of employment and the burden of sustenance of the family shifts on the tribal women. So tribal women are the worst hit because of loss of forest cover as they are the major contributors to the forest dweller economy.

But before the study moves on to a discussion of specific case studies some points are stated here to clarify the issue Women and forest economy. Here an understanding of their role and relationship with the natural resources becomes important.

Forests have a special, stronger relationship with tribal women than with men. This is seen in terms of their responsibilities in providing food, fuel, water, fodder, medicines and other requirements for their households. The tradition of shifting cultivation has for instance, been

termed as 'female farming system' by Ester Boserup.² Owing to the important contribution made by them towards their economy.

Based on this it follows that any alteration of the natural environment has a much more direct impact on the economic role of women than it does on men. This change would manifest itself either in terms of an increase in their workload corresponding to the extent of deforestation or a modified division of labour. The later change would involve a fairly long time of transition that would result in adaptation process.

Assuming this it logically follows, deterioration of environmental conditions has led to a social and economic environment that is unfavourable to women. Deforestation has resulted in the deterioration of women's social, physical and economic status. It has weakened tribal communities and the social organisation of their women in particular. It is worthwhile to point out here that the close relationship between forests and forest dwelling makes them the most important agents for the regeneration of forests. This would be especially so in the case of forest dweller women since they are much more closely aligned with the forests than are the men. Women could, therefore be the focus of attention for

2. Ester Boserup, Women's role in Economic Development (London: George allen and Unwin Ltd., 1970).

the purpose of afforestation and reforestation activities. In the process they would be able to rebuild their identity and their community that has been weakened by the adverse effects of deforestation. Community of women weakened by deforestation could be rebuilt through forestry as a tool of development. Maria Mies³ stating the problems encountered on tackling the issues that plague women specifically opines:

The covert or overt biological determinism, paraphrased in Freud's statement that anatomy is destiny is perhaps the most deeply rooted obstacle to the analysis of the causes of women oppression and exploitation. One of the main problems is in fact that not only the analysis as such but also the tools of analysis, the basic definitions and concepts are affected (or rather infected by biological determinism).

This exposes the problems that one encounters during study of issues that plague women. Regarding the ecological deterioration and its effect on tribal women and the effect of deforestation that leads to impoverishment of lives of tribal women, studies of Fernandes, Menon, Viegas⁴ reveals that it has social consequences that are important, less access of the lower classes to good land and deterioration of their health and nutritional status.

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3. Maria Mies: Essay The Dynamics of Sexual Division of Labour and Integration of Rural Women into the World Market, p.1.
 4. Walter Fernandes, Verghese Menon, Philip Viegas, Forests, Environment and Forest Dweller Economy in Orissa (New Delhi: Indian Social Institute, 1984), pp.247-249.

It would be fruitful to look at the impact of deforestation on tribal women under specific headings, citing studies that have been conducted on various aspects that are a consequence of the problem of deforestation. following are the headings under which the studies will be collaborated:

- * Women and increase in work load,
- * Women and minor forest produce,
- * Women and firewood crisis,
- * Women and migration of men,
- * Women health and nutrition,
- * Women literacy and education.

Further the chapter will move on to a discussion of some of the significant efforts made by the government to deal with the problems that affect the tribal women's lives.

Women and Increase in Workload

Environmental deterioration leads to increased distances and the transtition from shifting to settled agriculture involves greater workload for women. Almas Ali⁵ in Orissa and Fernandes, Menon, Chandy⁶ in Chattisgarh and

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5. Almas Ali, Health and Nutritional Status of Pauri Bhuniyas of Jalidh Village in Sundergarh District, Orissa, The Newletter 13 (n.1, April) (New Delhi: Ministry of Home Affairs, Tribal Development Division, 1980), pp.115-130.
 6. Walter Fernandes, Geeta Menon, K. Chandy, Forest, Environment and Forest Dweller Economy in Chattisgarh (New Delhi: Indiansocial Institute, 1985), pp.197-199.

Agarwal, Chopra and Sharma⁷ elsewhere observe the above effect. So the consequences are:

- (1) additional workload and
- (2) adoption of work practises that discriminate against women.

During 1971-1981, participation of tribal women largely was in the rank of marginal workers. In rural areas this was largely due to increasing number of women being 'saddled with the responsibility of managing subsistence agriculture while men look for other opportunities and boys get trained for better skills.⁸

Women agricultural workers are engaged in most strenuous work such as paddy planting which requires long hours of bending in wet fields, carrying heavy loads and walking long distances.⁹

So the deterioration of their immediate environment-the forests affects their lives adversely to a great extent

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7. Anil Agarwal, R. Chopra, R. Sharma, State of India's Environment 1982: A Citizens' Report (New Delhi: Centre for Science and Environment, 1982).
 8. Nirmala Banerjee, Trends in Womens' employment 1971-81: Some Microlevel observations, Economic and Political Weekly, (Bombay), vol.24, no.17, pp.10-22.
 9. Shah and Shah, Trends and Structure of Female Labour Force Participation in Rural and Urban Pakistan in Alfred (ed) Women in Contemporary India and South East Asia (New Delhi, 1980), pp.97-110.

for e.g. Kond women put in an average of 14 working hours per day compared to 9 hours by their men.¹⁰ The work pattern among Pauri Bhuniyas presented in yet another study shows that attitude of men remains unchanged substantially and her workload is not shared by them.¹¹ In Uttar Pradesh, Himalayas pregnant women work till almost the last day because of the workload inflicted upon them due to deforestation.

So, logically it can be said that forest economy is to a great extent women's economy. On an average women and girls work in shifting cultivation for more than 200 days a year against 60 days work put in by men. Fodder, fuel and water collection is done by them as also collection of minor forest product. It is in this context that additional distance from forests and their shrinking needs to be understood.

The forest economy based on subsistence has been transformed to one based on competition, accumulation and profit.¹² This is because as the biomass decreased the

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10. Barbara Boal, The Konds: Human Sacrifice and Religious Change (Bhubaneswar: Modern Book, Depot, 1982), p.34.
 11. N. Patnaik, Ali Almas, S.P. Rout and K.B. Debi, Handbook on the Pauri Bhuniyas (Bhubaneswar: Tribal and Harijan Research cum Training Institute, 1980).
 12. Satyavati Mishra, "Potential of Forest Based Industries in Kalahandi District" Yojana (New Delhi: 28 (n.5), 1984, pp.25.26.

demand in the cash economy increases and the demand exceeds the supply, the pressures to exploit the remaining biomass increase enormously so biomass prices shoot up and destruction accelerates.

Women and Minor Forest Produce

Tribal women as a results of transformation of a subsistence economy to one based on competition, accumulation and profit are deprived of revenue earned through gathering of the minor forest produce.

Take the case of Gujarat, a family of five needs at least 20 kgs of firewood every four days and on an average 3.3 to 3.6 hours are spent on collection of fuel and 3-5 hours on cooking.¹³

The arid and semi arid regions have an even worse situation to reveal. Women from the poorer section spend average 6 hours just on collecting firewood and when none is available uprooting small plants and roadside weeds and sometimes even digging out roots of trees.¹⁴

A case study in Ranchi of over nine villages where head loading has become the major occupation of working women

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13. Foley, Gerald and Patricia Moss, Improved Cooking Stoves in Developing Countries (Technical Report, no.2) (London: Earthscan Rev, 1985).
 14. Naghrahman and Sambrani, "Women's Drudgery in Firewood collection" Economic and Political Weekly, (Bombay: 18, Jan 1-4 1983), pp.33-38.

reinforces the view that foresters alone could not be blamed for deforestation. They look towards the green cover for fuelwood, food and domestic needs.

Besides the firewood crisis yet another consequence that increases women's burden is the migration of men to other areas in search of lucrative jobs.

Women and Migration of Men

The men migrate to other areas and women have to look after land and home particularly in Uttar Pradesh, Bihar, Rajasthan, Tamil Nadu and Orissa. But studies on this crucial aspect are few and wanting. Women's work load increases further as they take up the work men did, they indulge in outside labour (wage labour) do household chores and rear children. To clarify this it is worthwhile to note findings of a study of Kumaon region¹⁵ of U.P. where an average of 0.8 persons (adult males) have migrated per household, work in agricultural fields and animal husbandry for as long as 7 hours during peak agricultural season.

The non-wood forest products important to the tribals are:

Mahua flowers and fruits (consumed and marketed)

Mushroom (consumed and marketed)

15. J.S. Singh, Uma Pandey and A.K. Tiwari, Man and Forests: A Central Himalayan Case Study (Ambio, Stockholm, vol.XIII, n.2, 1984).

Tendu leaves and fruits (consumed and marketed)

Basal (marketed)

Oil seeds (marketed and consumed)

Honey (marketed and consumed)

Medicinal plants (marketed and consumed)

Sutamuli (marketed and consumed)

Fruits (consumed)

Minor forest produce represent the primary occupation and the most important source of income.

Purulia's tribal women could obtain upto Rs. 2500-3500 per year from one hectare of mixed sal forest after 3-4 hours of regeneration. By contrast a 25 per cent share of current prices would generate an average daily income of Rs. 1.4 per hectare from pole sale if averaged over a 10 year period.¹⁶

May be if data was available it would be likely that income from 'minor' forest products in many forest district would make timber revenues appear insignificant by comparison and this could be used to set aside felling for timber value. Sustained, multipurpose forest management can promote genetic resources conservation and provide high yields of wood and non-wood products for local people. Cost of action may be high but cost of inaction may be even more.

16. Forest Regeneration through Community Protection, proceedings from the working group meeting on forest protection committee, Calcutta, June 21-22, 1989.

The previous chapter has highlighted the vital aspects of the forest policy and regarding 'conservation' how it began in the 19 century in total divorce of conservation needs and in total violation of people's traditional rights. This in a certain sense is true even today because the policy isolates the poor, tribals from their eco-system while it does not effectively counter the commercial felling of trees.

The case of Maharashtra and Karnataka offer a close understanding of this phenomenon. In the Bhandara and Chandrapur (Maharashtra) district nearly 70,000 mat and basket weavers protested against the discriminatory prices and small quota of bamboos given to them while big paper mills have been leased large bamboo forests. In Karnataka bamboos are available to paper mills at the rate of Rs. 50 per tonne, while to basket weavers and small basket makers at the rate of Rs.120 per tonne.

So tribal women engaged in this means of subsistence have been deprived of valuable means of subsistence in the wake of development.

More than any other factor the firewood crisis reflects the situation of deforestation and the impact on women.

Women and Firewood Crisis

In India 90 per cent working energy and 60 per cent of all domestic energy is derived from biomass primarily

firewood. 50 per cent of all fuel consumption in India is for cooking.¹⁷

The fuelwood requirements in India increased from 138 million tonnes in 1975-76 to 145 million tonnes in 1977-78 and is expected to rise to 365 million tonnes in 2000 AD.¹⁸

It is an estimate that 2-3 million headloaders families in the country depend on the sale of firewood for survival, thus making it the biggest commercial energy sector in the country. This double brunt of food and firewood shortage is borne by the tribal women.

In Ratnagiri district of Maharashtra, the consequence is shortage of agricultural labour and land alienation. women out number men by the ratio 1,24-1000 due to male migration, and this forces women to abandon cultivation of their own land.

Another consequence of the deforestation problem is deterioration of nutritional status of tribals and women in particular.

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17. Anil Agarwal, Ecological Destruction and Peoples Protests Social Action (New Delhi: 35, (n.I, January-March, 1985), p.61.
 18. V.K. Gupta, M.V.M. Desai and A.K. Ganguly, Fuel, Forest and Desert, Science and Culture, 47 (n.II, November 1981), pp.383-386.

Women Health and Nutrition

The problems arising as a consequence of deforestation on the lives of tribal women like additional distance of forests, increased workload, firewood crisis, have to be seen in the context of reduced supply of food and nutrition too. The labour that she puts in is far more than the food she intakes (ie., the energy produced by the amount of food she intakes is not commensurate to the labour she does. The problems of scarcity and poverty make it difficult to make both ends meet let alone be able to feed herself adequately. Deforestation has increased her mental as well as physical burden and this tell upon her health.

Fernandes, Menon and Viegas¹⁹ in Orissa, Fernandes, Menon and Chandy²⁰ in Chattisgarh, Almas Ali²¹ on Pauri Bhuniyas led to similar conclusions about deterioration of womens health and nutrition.

Another study reveals that caloric intake of an adult Kond²² in Orissa is only 1700, compared to the standard of

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19. Walter Fernandes, Geeta Menon and Philip Viegas, op.cit, pp.247-249.
 20. Walter Fernandes, Geeta Menon and Philip Viegas and K.T. Chandy, op.cit, pp.190-195.
 21. Almas Ali, op.cit, p.120.
 22. Krishnan Sharma, The Konds of Orissa, An Anthropometric Study (New Delhi: Concept Publishing co., 1979), p.44.

2400 caloric set by Indian Council of Medical Research.²³

These studies reveal that mal-nutrition and ill-health are common among forest dwellers and women. Literacy and ignorance prevents them from timely health care.

Women Literacy and Education:

The low literacy level among women is an indicator of her social position and could also be a consequence of deforestation because in face of extra workload, and difficult conditions to make both ends meet tribal women find little gain in educating themselves. Illiteracy and lack of education makes the tribal woman vulnerable in face of exploitation. For poor families more hand to work is of far greater importance than educating the same.

Women have at times little choice than to render themselves for exploitation to contribute to family subsistence. Conversion of women into unorganised invisible labour created new forms of bondage. They did not get the opportunity to conceive themselves as worker.²⁴

The real acid test of the female literacy is in rural areas. A look at Table A reveals the state of female

23. Calorie Standard was fixed by Indian Council of Social Science Research with Indian council of Medical Research, 1980.

24. Government of India, A report on Health prepared for the National Commission on Self Employed Women, New Delhi, Ministry of Human Resource Development

literacy in rural India and shows that universal literacy is an important pre-condition to the success of developmental programmes and policies. Planning for health also become a formidable task in face of India's massive illiteracy.

TABLE A

NUMBER OF LITERATE AND ILLITERATE FEMALE IN RURAL AREAS, 1991

State	Literate	Illiterate
Andhra Pradesh	4.99	19.02
Assam	3.06	6.53
Bihar	5.26	30.72
Gujrat	4.31	6.85
Haryana	1.55	4.18
Himachal Pradesh	0.99	1.36
Kerala	4.44	10.65
Madhya Pradesh	3.86	20.8
Maharashtra	8.06	15.76
Orissa	3.5	10.07
Punjab	2.47	4.23
Rajasthan	1.5	14.75
Tamil Nadu	6.67	11.48
Uttar Pradesh	8.37	43.96
West Bengal	7.51	16.42

Source: Census of India, 1991.

The dilemma facing rural, tribal women is that they find little meaning in being literate (as defined by census). It neither improves their work or home situation nor offers any new opportunities. But what goes unnoticed is that uneducated women are not suited for skilled work and so they are forced to offer their labour as Reja or Banihar (marginal workers) and are paid meagrely. Findings of Dr. Susheela Kaushik²⁵ are quite interesting to note here, because they reveal a different scenario. These findings show that women in Garhwal (a tribal region) were more open and had access to education rather than their counterparts from Bulandshar (a developed region). So this a pointer to the fact that profile of tribal India has greatly changed with changing times and changing environment.²⁶

Various studies have examined literacy and levels of educational attainment of tribals and they point out that tribals are a low level of education. Dr. Tara Patel, of SNDT University (Bombay) examines fifty published as well as unpublished socio-economic studies and surveys, directly or indirectly, dealing with education among tribals in Gujrat so

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25. Dr. Susheela Kaushik's Paper presented during Seminar on Environmental Ethic at Gandhi Bhavan, New Delhi, March 1-3, 1992. sponsored by Commonwealth Human Ecology Council, London.
26. Yogesh Atal, Tribal Women and Development an epilogue, in Singh, Vyas, Mann, Tribal Women and Development, (Jaipur: Rawat Publication, 1988).

as to obtain an additive picture of the educational development of tribal women and its associated variables. She has also analysed the census data regarding literacy and levels of educational attainment for the period 1964-80. The efforts of her research reveal vital gaps that need to be filled in the area of development and education of tribal women.

There is an imminent need to put findings of such studies together to examine the complexity of factors associated with the educational development of tribal women.

Having dealt with the crisis situation that tribal women face as a result of deforestation which is not caused by them but which marginalises them, makes living difficult and which reduces them to 'beasts of burden' we shall now finally proceed with a brief exposition of significant efforts made by the government to counter the situation.

Government Measures Undertaken to Ameliorate the Lot of Tribal Women

It is welcoming and encouraging to know that state governments have taken certain remedial steps to ameliorate the lot of tribal women. The firewood crisis has not been totally ignored by environmentalists and government. Search and availability of alternative resources of energy has been ensued and welcomed by rural women who are the worst victims of the crisis even though she is not the cause of it.

Scarcity of resources coupled with stringent forest laws renders her life pitiable and she suffers more due to socio-cultural constraints.

Kirk Smith²⁷ reveals the health hazards faced by women using firewood and dung fuels on traditional chullahs. It was found that the fuels biomass emit²⁸ give birth to fatal diseases like respiratory and eye disorders.

Some state governments have taken certain remedial steps the Dholadhar smokeless chulla has been successfully promoted in Kangra valley of Himachal Pradesh.

The gohar gas plants too have been set up by state governments through their agricultural almost free of charge to the poorest of poor and the scheduled caste and tribes whereas, the better off are motivated through 50-79 per cent subsidy on the cost of project. Gobar Gas plants are helpful for cooking but cannot be used for heating and so Pahari women despite sincere government efforts are facing shivering winters and scarcity due to shortage of firewood.

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27. Kirk Smith, Chief of Energy Programme, Resource System, Institute of East-West Centre, Honolulu with National Institute of Occupational Health and Jyoti Solar Institute, Jawaharlal Institute of Post Graduation.
28. Bio mass fuels emit more TSP benzo-a-pyrene, carbon monoxide and polycyclic organic pollutants than fossil stoves and poorly ventilated rural kitchen give birth to fatal respiratory diseases.

The tribal culture interwoven in a harmonious blend of human needs and ecological needs has been disturbed and it has upset the whole chain so alongwith alternatives to help sustenance needs of the tribals they should be given incentives to protect their forests too. New and Renewable sources of energy (NRSE) have to be exploited so that forests are saved from further depletion from tribals to fulfil their basic necessities and also to integrate them in the development process.

The NRSE programmes are implemented by the Department of Non-conventional Energy Sources (DNES) which formulates policies and programmes. In Kerala for eg. Agency for Non-Conventional Energy and Rural Technology (ANERT) implements NRSE programmes and it has installed 33,933 chullahs during 1990. It is estimated that it has saved 80,000 tonnes of firewood annually. what is significant is that besides saving Rs. 6 crores firewood, environment is being preserved and it is fostering healthy and hygenic surroundings. Employment for multitudes is created too. this is a step towards making development meaningful to those who have so far been overlooked and neglected by development planners.

So, there have been efforts made by government to provide alternative sources of energy to counter the firewood crisis and save forests from further depletion. This shows care and concern not for environment alone but for people

too. It would not be overstepping the mark to say that this reflects the 'development with a human face' approach.

Summing up the entire issue and coming back to the question of 'women and work' it would be useful to understand what Lourdes Beneria²⁹ has put forth in answering the question: What is the objective of looking at women's work as active labour? this will help in a critical understanding of the 'invisible' (so called) work women do in forests, farm land and home.

The objectives are,

First, to counteract the ideological undervaluation of women's work and give recognition to the long hours of labour women are engaged in, also the crucial function it plays within the larger economy framework.

Second, need for accurate information of women's activities and their role in economy.

Third, sensitizing the concept of labour to include active labour relating it to human welfare and not just capital accumulation.

This is important as the discussion and analysis of various studies so far covered during the course of this

29. Lourdes Beneria, Women and Development, (London: Allen and Unwin Ltd), p.134.

chapter reveals that women, their work and contribution to development lies unrealised and unrecognised. A developing nation cannot afford to under utilise available resources to the best of their capacity in general the people and the tribal women especially.

What is interesting and of great value for conservation needs is that there is growing a concern to use the potential of women in conservation of nature and to restore the ecological balance. Rosemary Radford Ruether³⁰ criticizes the western dualistic philosophy for women have paid a high price for the share of material improvements and technical advancements. Their work however has not decreased. They have not accrued the benefits of development but they have had to pay a price for it. There is an attempt in recent writings of ecology and women to strike a link between the two.

The common thread between ecophilosophy and feminism however is not generally recognised. Though both feminists and ecophilosophers relate social crisis to the ecological crisis. The common thread between them is to do away with the pervasive dualism, Hazel Handerson³¹ uses a term

30. R.R. Ruether, quoted in *The Daughters of Earth: Women's Culture as a Basis for Sustainable Development*, Hilka Pietila in Engles and Engles (ed) Ethics of Environment and Development (Belhaven Press, London, 1990, pp.235-242.

31. Hazel Handerson, Quoted in op.cit. pp. 242-243.

'ecofeminism'. This term is a tautology, a matured feminism is ecological. Both these approaches developed independently could be employed to conserve nature and strike a harmony between nature and the people. Of course utilization of feminine culture to reconstruct a sustainable way of life and economy (for future) needs more analysis and further research.

Thus, question of women's role in forest economy and in conservation of resources and that of the effect of forest based production on the status of women are larger questions of ecology, ethics and forms of property that exist in the forests. They also reveal the impact of the developmental approach reflected in the forest policy of the nation on the lives of tribal women.

Rational policies based on sound data and knowledge of the 'target group' with active participation of the target groups needs and priorities is most intrinsic for the success of developmental efforts along with conservation needs and priorities.

Ultimately its all a matter of values that we hold pristine in our society. Thus, there is urgent need to tackle the problem of marginalization of women vis-a-vis the forest policy and the developmental approach adopted (as we have already seen) by the government. The tribal women in the vicious circle of scarcity, poverty, illiteracy,

stringent laws and fewer resources are trapped. For conservation of the ecology and for development was to permeate to the lower rungs of society in order to be meaningful, the aforesaid factors have to be countered effectively. No conservation effort can be meaningful unless poverty, scarcity and illiteracy are taken care of for,

'forests cannot survive as conservation island amidst seas of hungry people'.³²

The potential of tribal women could be harnessed towards conservation of resources and they could be developed through using forestry as a tool for development.

32. Tropical Forestry Action Plan: A Report, prepared by FAO in collaboration with World Resource Institute World Bank, UNDP, 1990.

CONCLUSION

Tribals who are the main group of forest dwellers have maintained a harmonious balance between human and environmental needs. But the requirements of the consumptive society is threatening this balance. Basic needs of the forest dwellers seem difficult to be fulfilled, while needs of the industry which require raw material from the forests are met. This causes depletion of natural resources. Deforestation affects the environment which comprises of both the physical, as well as the human dimension.

In retrospect we can say that the tribals symbiotic relationship with their natural milieu is broken down as a result of the developmental approach that isolates the people's interests in favour of commercial revenue interest.

The tribal women are worst hit as a result of deforestation. For reduced food supply, increased distance from forests, deprival of forest produce and medicinal herbs, increase drudgery and workload for women.

Environmental deterioration has resulted in deterioration of women's social, physical and economic status. It has weakened tribal communities in general and the social organisation of their women in particular. Though tribal women contribute equally if not more than men in terms

of time spent in cultivation, collection and processing of forest produce they are often ignored or at the most given insufficient importance in the formulation of forest development projects. The perspective of the dominant becomes the dominant perspective.

Studies pertaining to women have emerged as a vital field of scholarly enquiry over the past few years. Prior to 60s social scientist emphasised the social and historical context of the position of women, but paid little or no thought to recognise their contribution to the material creativity and development of society. An important question for social scientists of third world should be and now is slowly assuming importance is to recognize and quantify women's contribution to economy and to develop their position to face future challenges.

In Chapter I the conceptual analysis of development reveals that the economic consideration have overridden the ecological and human considerations. The fruits of development have not trickled down to the poor. The top-to-down-philosophy of development does not cater realistically to the needs of the people at grassroot level. Local initiative should be utilized to meet local needs (bottom-to-top) and the development model should be oriented towards people's need.

In Chapter II we have analysed the official policy at some length and we have seen how rights of tribals over minor forest produce is taken away and forests are reserved from people. The commercial interest of the industry are met while basic needs of the tribals suffer. Though official policy statements emphasise the need to keep a balance between ecological, human and commercial need, the three sectors do not treat each other as equal. Even the afforestation and reforestation schemes whose declared objective is to cater to people's need does not do so as species planted so far have been oriented towards the monoculture of species beneficial to industry for eg. the eucalyptus plantation scheme. Most of these plantations have been of the economic and quick growing species, which benefit industry. Social forestry, farm forestry and mixed plantation get very low priority. In no way do they contribute to the food, fuel and fodder needs of the forest dwellers these schemes further destroy their fragile economy. These do not in any way ameliorate the lot of tribal women.

The Chapter III is an exposition of the impact of deforestation on the life of women inhabiting in the forests. They have to spend double of her energies for domestic labour as they utilize nearly six to nine hours in house drudgery for fetching water, firewood, collection of fodder etc from the forest. Deforestation and alienation from land, reduces the participation of women either to household work or to

primary sector and she has to spend more time and energy to meet daily needs of the family and to keep income flowing. We have also seen some steps the government has taken to change the situation. The introduction of smokeless chullahs is a significant development in improving the tribal women's situation.

The Forest Policy itself has undergone considerable change from 1952 to 1988 and has claimed to be more conservation oriented, but experience shows that such changes alone are not enough.

Participation of people is intrinsic part of the fulfilment of policy goals. The Forest Policy of 1988 rightly stressed on the need of protecting tribals customary rights and concession vis-a-vis forests lands its yield. But dearth of concrete action following the policy have been experienced. Examples of successful grassroot levels participation are those of sukhomarjara village in Haryana the Dashali in Himalya were aforestation invovlved women through gram swarajya Mandals, Bemru and Bached in Siwalik, Adgaon and Rahelgaonshindi in Deccan Plateau.

The problem of environmental management in rural India has little to do with environment, trees. It is more a problem of political nature. Representative democracy has to give way to participatory democracy. A major cause of rural poverty is lack of productive employment. A question that

rises is what policies does the state follow for strengthening the marginalised classes. Social Forestry has been offered as a solution to this improvement and for creating jobs. But people oriented schemes have left people behind. The fruits of development have not trickled down (official reaction) so they have target group oriented poverty alleviation programmes at the margin. Since poverty is the main cause why forest dwellers destroy forests, it becomes necessary to create vested interest for people to save forest.

The political and economic forces behind unsustained practice has been ignored in thinking of environment. May be we need to redirect the development process and give greater emphasis to indigenous knowledge and experience and to take effective political action on behalf of the environment. A question that becomes relevant is development for whom and at what cost? This dilemma sure needs careful handling. "Green - Politics" was regarded initially as a 'fringe movement but now has moved closer to mainstream thought. Between 1980-89 the government spent a total sum of Rs. 2,958 crores. The results have been mixed of greening of India. The 1980s revealed that tackling deforestation with afforestation schemes is not enough. In fact solution to counter the problem has been offered by people involved in various micro projects. The 1981 census defines working as participating in any economically productive activity and counts women at

least in the marginal category which is an improvement over 71 census. Lack of information on the incidence and nature of employment among women has clearly significant implication.

The development strategy that has been followed has hampered the life of rural women. The Forest Policy declared its goal to be more conservation oriented than revenue oriented. But practise has been quite to the contrary. Example in Karnataka and Tamil Nadu bamboo forests were mercilessly felled.

Questions and concerns raised by local people regarding the environment are questions of a political nature, questions of ownership, control and distribution of resources on which depends their livelihoods. The forest policy has ironically led to increasing drudgery for rural while corresponding policy for fuel supplies to rural poor families has been lacking. It is not just a narrow approach of looking at drudgery as the problem but going to the core it is inseparably linked to poverty. Ironically the process of development seems to have added to this rather than diffuse it or diminish it. It may seem that there are more urgent problems and priorities to be dealt with.

In case of an economic crisis, the crunch worst affects the poor and the fringe group. Even in industrialised country's women have not been spared the effects of this and

the economic burden has been for most part shifted on to their shoulders. Cut backs in social welfare spending and benefit and reductions on work force rendered technically redundant, especially women who are least qualified and lowest paid. A brief look at literature on this aspect points out that its removal of causes and not the consequences that have to be tackled. What is needed is political will and an integrated approach to womens problems and recognition of their role in the process of development.

It must be recognised that struggle for equality of women is linked with the struggle against poverty, unemployment, marginalization and exploitation and accumulation. Women have significant contribution to make in the promotion of economic activities in reality. Deforestation, development process, forest policy have had adversed effect on rural women and have increased hardship for them in their daily lives.

Development process has left behind the local people and enhanced others at the cost of increasing poverty unemployment and scarcity. Education an important factor that can make a difference to the lives of poor has ignored them just as they have ignored it. Logical conclusions need to be drawn from this and economic process requiring the mobilisation of available financial and human resources.

It is essential that priority be given to the community most directly affected by an ecosystem in the allocation of privileges to manage and benefit from, and corresponding responsibilities of protecting the ecosystem.

Women in particular and local people in general rather than outsiders are best situated to make correct decisions towards ecological stability and natural resource conservation because their own livelihoods, environments and life support systems are at stake.

In the final analysis, we can say that when we question the Forest Policy it is but one small step in questioning the present economic system that has led to accumulation at one level and scarcity at the other. Development for some and exploitation for the others. It is intrinsically a question of values that the society holds pristine. Recognising the rural and the tribal who has been left out of the process of development is needed. It is imperative to involve and take forestry to the grassroots to keep forests rooted to the soil.

Thus, we can say that 'just participatory' ecocodevelopment which gives highest priority not to economic growth, or even to 'growth with equity' but to a sustainable development whose intrinsic values are the satisfaction of basic human needs, participatory democracy, environmental

respect, and equal opportunity for development should be the main consideration of the development approach of the nation.

Development will then be meaningful for it will reach the poor and make a difference to their lives.

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