

ENVIRONMENT, FOREST AND CLIMATE CHANGE: SOME ISSUES

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Abstract

From time immemorial human beings have been sustained by the forest resources its produce and the environment. The forest has served as the livelihood resources for many not only in the past but also in the contemporary times. However, increasing population led to decreasing forest resources became the demand for various consummable items produced from the forests went up. In addition to that creation of large-scale infrastructure including river dam projects, hydroelectric projects, heavy industries, chemical factories, road and transport network required large scale felling of trees, weakening the forest land and displacement of its inhabitants. In light of this the present paper would analyze various factors causing deforestation and ecological imbalance leading to global warming and climate change mainly from second resources.

Keywords: Ecology, Deforestation, Global Warming, Greenhouse Gas

Introduction:

Environment has been an integral part of human life. These days it is of more concern for the existence of human society because of lot of destruction of the environment. Julian Steward(1955, cf. Chaudhury 2006) had rightly said that with less technology mankind is less harmful to the environment and with advanced technology mankind becomes very aggressive towards the environment.

Today we witness large scale destruction of forest resources, wastage of water resources and unnecessary/ irrational carbon emission as well as excessive heating. Further large-scale construction of projects including heavy industries, river dam projects, highways, express ways etc. have damaged the social fabric of many and also left no room to recover. In light of this the present paper on environment, forest and climate change becomes more relevant. It would provide idea on cause and effect of global warming and climate change and awareness of people on it. Besides, it may also provide explanations on the gaps between principle and practice among people. For example, in principle people say something and in practice do something else. Everyone agrees to the fact that there has

to be proper garbage disposal, use of plastic should be banned or for that matter water should be judiciously used; however, in practice most of them do not adhere to the above.

Industrial revolution started in mid 18th century in Europe. For close to 100 years human civilization used coal to power its ships, trains, power plants to produce electricity, stoves at home to cook food and keep themselves warm from biting cold during winters. Since the dawn of 20th century another fire option was added to it that had equal ability to pollute our environment. It was petroleum, overnight all the ships started running on new fuel. A new medium of transport airplane used it in ever increasing quantity. After the second world war ended in 1945 and many nations in Asia and Africa came out of colonial rule, their aspiration for good living led to rapid increase in the use of public transport, mechanization of agriculture, air travel and industrialization. Smoke and smog filled cities and dock areas, stench of diesel and petrol fumes in the air, skin and other health disorders, respiratory problems, all of them were considered proper, if you were on the path of development.

The first theory of global warming and climate change came in 1824 when French mathematician Jean Baptiste Joseph Fourier discovered that the earth's temperature was slowly warming atmosphere traps solar radiation and reflects it back toward the earth. In the late 19th century Fourier's theory was labeled as the "greenhouse effect" when Swedish scientist Svante Arrhenius coined the term to explain how carbon dioxide traps heat in the Earth's atmosphere. He was the first one to come with a hypothesis that carbon dioxide and water vapor absorbed sun's heat and maintained earth's average surface temperature at 15 degree Celsius. Till the second half of the 20th century scientist didn't take this theory seriously.

However, in the 1950s, amateur scientist G.S. Callendar warned that the greenhouse effect was true and dramatically impacting the atmosphere of the earth. Callendar's claims were termed the "Callendar effect" and led to increased research on global warming and climate change with in two decades scientist developed many models to measure how climate was behaving and how various gases were impacting it. Also, they tried to figure out how much of it was man made. While the research was on the scientific community was divided over their own finding. Some were of the opinion that the globe was cooling while others argued that the rise and so eventually it would lead to an increase in the temperature worldwide.

Finally, in the 1980s the global annual mean temperature curve started to rise. By late 1980s the rising trend was so steep that the global warming theory gained currency among the educated elite of the world. Scientist Stephen Schneider had first predicted global warming in 1976.

Chaudhury (2019) says that to tackle this problem our leaders have met several times, they met at Rio de Janeiro in 1992, Kyoto in 1997, Bali in 2007 and Paris in 2015. These climate conferences were wonderfully setting the goals to limit the temperature by taking multidimensional steps. But things were not good at the level of implementation. On 2nd December 2018 about 28,000 representatives from 200 countries met at Katowice in Poland. The main objective was to determine how to implement the Paris agreement which committed all countries to reduce greenhouse emission and limit global temperature to rise below 1.5 degree Celsius above pre industrial levels by 2030. Further the Intergovernmental Panel on Climate Change (IPCC) report of 2015 predicted that if global warming continues at the current rate then it may rise by 14 to 26 degree Celsius between 2046 and 2065. (Chaudhury 2019:304)

Radha Kamal Mukherjee (1930, cf. Guha 1994) tried to develop an ecological approach to Sociology. He said that there is a balance between the natural and the vegetable and the animal environment, including the human, in which nature delights. However, the balance is upset both by natural fluctuations such as are caused by cycles of rainfall or changes of landscape and river or by long. Continued human actions such as the destructions of forest, non-conservative agriculture, and artificial interference with natural drainage.

He focused on the interaction between human beings, their culture and nature. Population increase leads to environment problems in the sense natural resources are heavily plundered. These are cultivation, felling of trees, forest clearing, indiscriminate stock-grazing and intensive farming. Further, artificially improved plants are more useful to human beings, to which Mukherjee says that they are fitted to survive particular conditions of climate and soil. Men destroy those plants which they do not tolerate. Men continuously expanded the yield of crops and cereals. This led to over exploitation of the natural resources and which forced to bring a type of ecological disequilibrium. Further Mukherjee says that

“Increasing population will bring in more significance of relationship between human beings and the entire range of ecological forces”.

Guha (1994: 6-7) has raised four important problems out of ecological research.

- Class and the use and abuse of natural resources: here the analysis is to examine class influences on natural resources use and abuse: of how rich farmers, industrialists and bureaucrats selectively channelize water, forest and other natural resources for their own benefits.
- Social structure and natural resources
- Conflict and natural resources
- Culture and environment

Following Raymond Dassman, Gadgil and Guha (2004) in their book *Ecology and Equity*, spoke about three categories of people concerned with ecology of environment-

1. Ecosystem people are those who depend on the natural environment of their own locality to meet their materials needs. They are India's poor masses numbering about four-fifth of India's rural people and over half of the total population.
2. Ecological refugees are those who are the victims of shrinking capacity of ecosystem. They are the displaced millions of India's peasants and tribes constituting about one-third of the population.
3. Omnivores are the remaining one-sixth of India's population who are the real beneficiaries of economic development. They include rich landowners, entrepreneurs, urban professionals, government and semi-government employees. They enjoy the produce of the entire biosphere.

James Hanson (2007) said that the earth's climate is very sensitive to global forcing. Positive feedback predominates. This allows the entire planet to be whipsawed between climate status. Recent greenhouse gas emissions place the earth preciously close to dramatic climate change that could run out of our control with great dangers for human other animals. Thus, it is clear that climate has been changing faster than any previous estimate. Thus, both publicans and people do not gorge the alarming danger ahead. The last time the world's temperature rose by 6 degrees Celsius 95 per cent will is required to rise to the challenge posed by the climate science.

Chaudhury (2006) said that there is an intimate link between ecology and culture in human societies in general and small-scale societies in particular. Economy forming the cultural core is conditioned by changes in ecology cycle for small scale societies as people mainly depend on nature and its products. Hence, only any attempt to control externally the ecological system culminates in a disastrous situation. Such a situation has come in our country because of two chief reasons (a) large scale destruction of environmental due to construction of river dam projects, heavy industries and other development activities and (b) maddening consumerism for instance, the Bhutias of Chamoli use the stem of freshly cut mid-sized tree for the Devi worship every month. Large-scale shifting cultivation, use of minor forest produce among other things are only a few instances of such consumption. For instance, among Kondhs, shifting cultivation still continues.

Chaudhury (2006) said that no doubt unscrupulous consumption is only by the civilized modern people. Hence, the concept of sustainable development pertaining to ecology becomes supreme.

Norwegian philosopher Arne Naess gave the concept of Deep ecology. It recognized human beings with their all values and wellbeing as essential part of ecology non-human lie also have similar value. There is a diversity and richness of life forms. Human beings have no right to reduce this richness and diversity except to satisfy their vital needs. However, at present and adverse situation is found. Where human beings are interfering excessively must be protected though the policy change. It will result in change in economic, technological and ideological structure. Those who agree to the above ideas should have an obligation directly or indirectly to try to implement the necessary change. (Devell and Session 2002)

Anthony Giddens in his book *The Politics of Climate Change* (2008) comprehensively dealt with the environment problem, particularly leading to global warming and climate change. The green thinkers have been lamenting on excessive growth model, resources, depletion and dumping toxicity. They disagree with the notion of gross national product (GNP) as an indicator of welfare, particularly in the developed countries. On the one hand, oil and gas prices are growing up and, on the other global warming and climate change are intensifying, hence attention should be given to increasingly screen factors. It is a question of responsibility and accountability which lies with the politicians. Giddens supports the idea of 'Limits to growth' and 'polluter pay'.

Brian Davey (cf. Chaudhury 2014) said that Giddens does not like risk management approaches and green emphasis on localism, decentralization and participated democracy. Further he does not like a typically green distrust of corporate interest. He provides a list of new ideas for an establishment of real politic approach to climate change. In fact, the then President of USA, Bill Clinton, hailed the book as a landmark. Giddens wants both public and business to change and adopt a lower carbon way of doing things. However, this is not an alarming vision because the climate scientists speak about radical majors, which requires tougher targets: Giddens is interested to change the public policy climate scientist.

Fred Pearce said that there will be alarming scenarios concerning environmental degradation and climate change. Adding to that he also said that nature may take revenge and there may be violent and sudden changes. In fact, the recent flood in Uttarakhand Valley in India has been totally violent and changes were sudden. Giddens questions that now days one knows 'Nature will take revenge' over our influence.

Giddens (1990) and Beck (1992) said that question of cause and consequences of the present ecological crisis, a more recent concern, is significant to modern social theory. The modern society is seen to be characterized by large-scale environmental degradation. Through an extensive discussion on risk, for example, several scholars.

Green party (Chaudhury 2014) has come up recently, and it's an urbanized political party based on principles of green policies such as social justice, grass-roots democracy, non-violence and environmentalism. Greens believe that for establishing world piece, the above issues are interracially linked with each other. Greens party exist in about 90 countries. Green Party is a party which emphasizes on environmental causes, whereas formally organized green parties follow a convenient ideology which includes not only environmentalism but also other factors such as social justice, consensus decision making and non-violence. The Global Green chapter has six girding principles: ecological wisdom, social justice participatory democracy, non-violence, sustainability and diversity. The world's first political parties to campaign on predominantly environmental platform were the United Tasmania group which consisted the April 1972 state election in Tasmania, Australia, and the values party of New Zealand, which contested the November 1972 New Zealand general election The name 'Green' derives from the 'Greens bans' : an Australian movements of building workers who refused to build on sites of cultural and

environmental significance. The first Green party in Europe was the popular movements for the Environment, founded in 1972 on the swiss canton of Neuchatel. The first national Green Party in Europe was PEOPLE, founded in Britain in February 1973, which turned eventually into the Ecology party and then the Green party. The first Green party to achieve national prominence was the German Green party, famous for their opposition to nuclear power, as well as an expression of anti-centralist and pacific values traditional to greens.

David Pepper (cf. Munshi 2014) said that Man-Nature dialectic is central to Marxism. Man (read human being) transforms nature by means of labour. Because this process of transformation is a social one, human beings shape their own society and their relations with their fellow-beings by shaping nature. In the process of knowing nature in order to transform it, human beings transform themselves to a higher intellectual plane.

Murphy (1997) said that the theme of the embeddedness of social action in the process of nature is still poorly integrated into main stream sociology. The research on this theme has not yet influenced general sociological theory, which continues to proceed 'as if nature did not matter'.

Malinowski (1944) said that the social evolution suggests that the modification in the culture over a period of time has taken place in interaction with the environment. In this interaction the culture of societies got evolved from simple to complex. The complexity has grown in the process of modification of and control over the environmental by human beings. The goods and things available in natural environment are being used by the human beings in the process of satisfaction of their needs. Beyond evolutionary theories, the functionalist theorist in sociology and anthropology have also acknowledged the theory of needs: basic needs and derived needs.

Parsons (1952) said that the very first functionalist prerequisite of social system, 'adoption', refers to the adjustment of human beings with the environment.

Aurora (1991) said that while environmental sociologists in India have largely ignored in macro frame work of development in the form of industrialization and urbanization, they have produced several studies on the impact of these development projects. The impetus for these came, as mentioned above, from popular resistance in the form of movements like 'Chipko' and 'Narmada Bachao Andolan', 'Agriculture lake of chilka' and so on and in part from aid giving international organizations like the World

Bank. Further, the fact of common knowledge which appear to have been changing the scenario of ecological balance and effecting the society, have also given rise to the concerns of study of environment and society interactions.

Milton (1996) has pointed out, environmentalism is also an aspect of culture, product of a certain way of looking at the world. It need not be an essential part of the cultural repertoire of any culture, irrespective of its situation with respect to the habitat and its actual dependence on it.

UNEP (1991) stated that in developing countries indoor pollution is also a serious health problem, caused mainly by dependence on wood and animal residues for fuel. These are often burnt in confined and unventilated spaces, where they give off large amounts of harmful substances.

Undoubtedly climate change has become very detrimental for the human societies particularly for their existence. Forests are an integral part of maintaining the climate condition in the sense they help in establishing the climate. Forests regulate the ecosystem, protects the biodiversity, play a crucial part in the carbon cycle. In this manner forests support the livelihood of many and also produces sustainable growth. Therefore, to maximize the climate benefits of forests one must keep more forests land scape intact. They must be managed sustainably and we must try to restore the lost forest resources. It would definitely lead to a halt in the loss and degradation of the natural system of environment.

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