Chapter-3

Society and Environment through the Lens of Environmental Sociology

This chapter explores the interfaces and interconnections between environment and society. Implicit is phenomenon of development. Here we have made an attempt to explore studies on environment and development. Review articles are of two types: they can be critical or encyclopedic [Orlove S. Benjamin, 1980:1]. Present chapter adopts the former approach and is a review of literature on focused issues organized here into sections. The structure of this chapter is divided into three themes. In first section, an attempt is made to understand the origin and development of environmental sociology and tries to understand the meaning and different implications of concepts such as environment, nature and ecology. Second section of the chapter tries to understand how environment, ecology and nature are reflected in classical sociological theories. In last, third section, an attempt is made to understand the environmental philosophies in present days.

3.1 origin and development of environmental sociology

Human beings have in comparison to other living creatures been bestowed with the capability to reflect on themselves. They have always thought about their lives and conditions of their existence. Such thoughts, served as lifeblood of religion, philosophy, ideology and other reflexive thoughts. [Turner, Jonathan et.al, 1998:1]

Development and environment represents two major systems of relationship. Economic activities and development represent one of the major subsystems of social system. Ecosystem and social system always mutually interacts. What we call nature or environment is perceived and constructed one by human beings [Smart, Barry, 1979:74-79]. Our consciousness of nature is intention.
mediated by our belief systems, knowledge and value of social organization. [Macnaghten, Phil and Urry, John, 1995:218]

Both ecosystem and social system exchange energy, information and material. Without manipulation in these terms human social system cannot survive. But a question is to what extent environment can absorb the manipulation? Intensity of demands on ecosystem depends upon population, level of consumption and technology which is a part of wider process of development.

The emergence of Environmental sociology has its roots in the area of human ecology which was central within urban sociology from 1920s to 1960s [Hannigan, John, 2006:16-18]. Human ecology defined as “the study of structure and change in sustenance organizations or resource groups which support human populations within dynamic and constraining environments” [Buttel H.Fredrick and Humphrey R. Craig, 2002:37].

We can find the strains of environmental sociology in Robert Ezra Park’s Human ecology as the investigation of how biotic balance and social equilibrium are preserved by the interaction of three important variables: population, technological culture and non material culture which he calls as ‘cultural complex’ and he also adds fourth, the natural resources of the habitat. Robert E. Park has been criticized that though he sets out the task of human ecology as the study of how the interaction of these elements helps in maintaining biotic balance and social equilibrium, human agency and cultural factors are completely left out in consideration [Bharadwaj. Lakshmi K. 2000:1209-1233].

Though Park identified the interconnection and interrelations between human beings, other fauna species and flora, he might have realized that
human intervention in the form of urban development and industrial pollution has broken this interconnected chain and biotic balance. [Hannigan, John, 2006:16-18].

Human ecology has the dual legacy of Thomas Malthus and Durkheimian social thought. As we have already noted that both environment and human society represents the systems of interrelationship and how nature influences and poses constraints on humans' society and how human beings are able to overcome them and transform the nature. Therefore understanding nature, environment from social organizational and cultural variable framework assumes importance.

O.D. Duncan, human ecologist, apparently adopted the above framework which is called POET model [Population- organization-Environment -Technology]. This model is referred as 'Cultural complex' in which each is interrelated with other three and therefore, change in each can affect other three. Change or increase in population creates pressure on technological change, as well as increased urbanization leading to creation of more environmental pollution. Duncan's POET model with all its limitations has, according to environmental sociologists, represented the nascent form of environmental sociology [John Hannigan, 2006:P18-19, Op.cit].

There are heated debates and controversies in using the term nature, environment and ecology in social theory. When sociology was at its budding stage striving to establish itself as an independent science and demarcating its subject-matter i.e. society, social structure, institutions, interplay between individual and society and to find them in everyday interactions, it yearned to prove that society and its properties could not be explained to other factors such as biological, economical, environmental, biological, psychological and others [Jarvikoski, Timo, 1996:79-80].
When sociology emerged as an independent discipline to study society, deterministic theories such as geographical and biological school of social development and social change were at their zenith by reducing the entire structure of society to single particular factor. Henry Thomas Buckle a leading geographical determinist persuasively argued that geographical factors play a formidable role on society and people. His main thesis was that society is a product of natural forces and hence it is subject to natural explanation. Another leading geographical determinist Ellsworth Huntington in his works such as civilization and climate, world power and evolution and The character of Human Races tried to found correlations between climate and society in terms of health, mental processes such as intelligence, genius and will power. Evaluating the worth of the geographical school, Sorokin scanned and ridiculed its fallacious theoretical premise, fictitious correlations and overestimation of the role of geographical factors, but at the same time he warned any social theory which does not take into account geographical aspects in analysis of social factors is incomplete. [Hannigan, John, 2006:1-3].

Natural factors also cast heavy influence on sociological discourse in the early stages of the development of the discipline through Darwinian concepts such as evolution, natural selection and survival of the fittest. Darwinism was implanted in sociology mainly by Herbert Spencer who extended the concept of natural selection to the human realm and he was of the firm belief that society should be left alone to evolve in a gradual fashion and rejected societal transformation through any deliberate actions such as social reforms or education.

William Graham Sumner, Spencer’s disciple in America accepted the social Darwinism which he attempted to correlate it to capitalism oriented laisser-faire policy and capitalists of America, who for him were the products of natural selection and would take society towards progress. Lester Ward was very much
critical about social Darwinism and launched a vigorous attack on social Darwinism disposition to legitimize the exploitation and poverty.

Changes in ideas, material forces and social structure also change the discourse. Great depression in US vindicated the stance of Lester ward and other critics. During the early decades of twentieth century all single factor theories of social change and society were rejected by main stream sociology. Changes in ideas and social structure also change the discourse. Evolutionary development of laisser-faire doctrine led to the ideas of social planning and social reform which focused on deliberate measures to improve the well-being of people called 'Meliorism'. This has manifested in such ontological debates as nature vs. nurture. While establishing the sovereignty of the 'Social' in explaining the formation and functioning of society, personality, interaction between individual and society, environment or nature's role in explaining the same was glossed over. Environment as an aspect of influence on human life and human society was not at all given systematic attention by sociological theory and research [Dunlap. R.E. and Michelson, William: 2008:2-3]. Following words portray the anguish over neglection of environment by main stream sociology:

"We discovered that an aspect of the environment which we thought had a real or potential significance for human life was simply not dealt with in any systematic way by then current sociological knowledge and research. Not only was there a paucity of satisfactory sociological explanation regarding environmental phenomena, but there was a corresponding shortage of perspectives and conceptual schemes needed for investigating such phenomena. Without shared beliefs and intellectual perspectives, it is even more difficult to establish unique methodological tools for empirical investigation [Barry, John, 1998:12-13]."
Just like other branches of sociology, environmental sociology also did not develop in vacuum. Studies of Rural sociologists in US in fact have embodied environmental aspects in terms of natural resources, agriculture, forestry, mining and etc. Pitrim A. Sorokin and W.F. Ogburn put their own efforts in understanding the environment as a factor in their works. In US though Ecology grew from scientific enterprise to a sphere of even presidential candidate had to be aware of it, within social sciences anthropology, psychology economics and political science had developed sub-disciplines on ecology and environment, Sociology has responded very late to this significant development and absence of environmental sociology was very much conspicuous [Freudenburg W.R, 2008:451]. William R Freudenburg found following aspects responsible for the late emergence of environmental sociology:

"The views of then-leading sociologists had of course been shaped by a variety of factors, but two of them, in particular, are worthy of emphasis today. One was the ghost of "determinism."

The other was the continued dominance, at least within "mainstream" sociology at that time, of an approach to "human ecology" that often seems unusual from the perspective of the 21st century" [Freudenburg W.R, 2008:452].

There is a general consensus among environmental sociologists that Samuel Klaussner, a sociologist and clinical psychologist, was the first use to use environmental sociology in explicit sense [Dunlap. R.E, 2002:11-12] Klaussner work 'On man in His Environment' was in structural-functional framework and
was of the view that sociological theories were established readily applicable to environmental problems, particularly Parsonian action theory.

W.R. Burch who shared certain theoretical and empirical grounds with Klaussner in his work 'Daydreams and Nightmares' stressed the role of values and norms in shaping societal resource use which is clearly Durkheimian in its framework.

Fredrick H. Buttel and Humphrey R. Craig laid out the distinctive aspect of environmental social theory:

a. Double determination in terms of general social theory
b. Meta theoretical postures toward society and nature on the other

Environmental sociology which wanted to recognize and analyze the vital interlinks between society and environment emerged in US in 1970s decade. Apparently the dawn of environmental sociology was due to the environmental problems caused by energy crisis in US.

Riley E. Dunlap and Eugene A. Rosa defined Environmental sociology as the 'study of relations between human societies and their physical environments or, more simply, "societal- environmental interactions" [Dunlap. R.E. and Rosa.E.A, 2000:82]. They made it apparent that the scope of environmental sociology is taking account of way in which human beings influence environment and how environment after modified by humans influence human affairs plus how social meanings are attached to such interactions and acted upon

Environment which is the base and bedrock for all living beings including human beings served three important essential functions for human beings and all other species. Environment provides us resources necessary for sustaining
our lives which range from air and water to food and shelter and other essential aspects. Hence environment first serves the function of 'supply Depot'. Humans and other living beings produce wastes while consuming resources. Humans produce wastes of greater quantity and variety of types. Environment has to serve the function of 'waste repository' for wastes generated by humans either in the form of absorbing or recycling them into either useful or at least harmless substances. Humans exist on planet earth which provides us shelter that is home where we exist, play, travel, etc. thus environment provides us 'habitat', that is third function 'Living space'. Each function requires space impinging restrictions upon other functions and hence they are referred to as competing functions.

Crux of the agenda was the application of ecological perspective to the project of environmental sociology. It wants to bring into light the biological underpinnings of society and the enmeshment of social activities in nature i.e., embeddedness [Lutzenhiser, Loren, 2002:7]

Alan Schnaiberg's one of the most influential environmental sociologists has propounded two important concepts in his work 'The environment: from Surplus to Scarcity':

a. Societal-Environmental Dialectic
b. The treadmill of production

Societal-environmental dialectic explains the ecological problem embedded in capitalist economy. Drawing on the lines of Marxism, Neo-Marxism and Neo-Weberian perspectives, Schnaiberg draws attention to the fact that economic growth requires an increase in resource extraction which is source of ecological problem and will restrict the economic growth. Resolutions to this dialectic have been provided by Schnaiberg in three different syntheses [Buttel
H. Fredrick and Humphrey R. Craig (2002:52-53) argue that the first antithetical relations between economy and ecology may simply be disregarded, maximizing economic growth without attention to ecological problems. However, this will only be a short-term strategy, as ecological problems will accumulate over time, giving rise to a 'scarcity synthesis' which witness environmental policies being implemented to manage burgeoning ecological problems. The ultimate resolution of this synthesis addresses the basic problem of curtailting the level of economic expansion and levels of production and consumption.

Schnaiberg in 'the treadmill of production' has provided an accurate analytical aperture on the capitalist-monopoly sector, state and ecology and a vantage point of political economy perspective. The crux of the treadmill lies in the dominant monopolies and their criteria of consequences from their investment and relations with the state. This monopoly comprises several multinational companies which are heavily capital-intensive, tending to displace labour which later exerts demand on state for welfare measures and to solve related social problems on the one hand, and on the other these monopoly sector's investment demand from state substantial public expenditure for infrastructure, research and other expenses which would potentially unleash consequences on environment. This necessitates further expenditure from state to restore ecological balance. Then the question arises why state is not able to change its decision? Answers lie in the role of state in capitalist society: creating conditions for capitalist accumulation and to promote legitimation or social order (Hannigan, John 2006:20-21).

Beck's work 'World Risk Society' has several implications for society and environment through the lens of risk. Beck distinguished between first modernity and second modernity. First modernity is based on nation-state, where society and social relations are understood in territorial sense. Whereas second modernity is termed as 'reflexive modernization'. Beck theorizes that first
modernity based on collective life, progress and controllability, full employment and exploitation of nature has now been weakened by five interrelated processes: globalization, individualization, gender revolution, underemployment and global risks such as ecological crisis and the collapse of global financial markets [Beck, Ulrich, 1999:1-2, italics are added].

These interrelated processes are all unforeseen consequences of first simple, linear modernization which were reflected in classical sociological works from Durkheim to Weber and Marx to Parsons and Luhmann. Second modernity, according to Beck, is characterized by accelerated transnational interdependence -globalization and the world of risks. The concept of risk includes unintended consequences of radicalized modernization. The notion of risk and risk society brings together once mutually exclusive society and nature, social sciences. Structure of risk society established connection between nature, democracy and the state. Beck sees cosmopolitan manifesto as an essential panacea for addressing the problems of world risk. Instead of society and societal relations, non-territorial global society and global cosmopolitan political parties are seen as communities of risk sharing it across the borders. [Beck, Ulrich, 1999:2-17]. Beck uses the concept of 'methodological nationalism' to imply an idea that our major social science disciplines are prisoners of nation-state. Major sociological concepts such as family, state, power and identities are territorial stricken. Nations have come to be interpreted as units of society and thus if there are 198 countries, there are 198 sociologies [Gane, Nicholas, 2007:142-143, italics are added]

Anthony Elliot criticized Beck's model of risk for having ignored the hermeneutic, aesthetic, psychological and culturally bounded forms of subjectivity and inter subjectivity in and through which risk is perceived and constructed. He limits the applicability of theory of risk by calling it as sign post which points to specific kind of probabilities, avoidances and unanticipated
consequences, but fails to understand the social structuring of the perception of risk [Elliot, Anthony, 2002:9-10]. He chides further Beck's risk theory for its dependence upon rationalistic and instrumental modes of uncertainty and unpredictability in social relations and for its failure to grasp the relations between institutional dynamism and social reflexes and self referntiality and critical reflection on the other [Ibid: 21]

Anthony Giddens explores the concept of risk and searches its roots in Spanish and Portuguese origin which had initially space dimension to refer to sail into uncharted waters. With a passage of time, concept acquired the 'time dimension' rooted in banking and investment [Giddens, Anthony: 2004:21-22]. Inseparable from the risk are 'uncertainty' and 'probability' and risk is not synonymous with hazard and danger [italics are added]]. But risk refers to hazards which are assessed in relation to future possibilities. To put in other words risk emerged as conspicuous reality only in future-oriented society. Risk is a core fact of modern industrial civilization where society always strives to break way from its past. Giddens classified risks into types: positive and negative. Here Giddens distinguishes external risk from manufactured risks. External risk refers to risks experienced from outsides from ether tradition or nature. Whereas manufactured risks refer to situations to which we have not confronted historically and are anew. Manufactured risks are manifested in the form of global warming and such other environmental risks. Following chart illustrated the thrust of the Glidden's argument.
Glidden writes:

"At a certain point, however-very recently in historical terms-we started worrying less about what nature can do to us, and more about what we have done to nature. This marks the transition from the predominance of external risk to that of manufactured risk” (Giddens: 2004:26-27)

The above words clearly show the ecological crisis rooted in human actions. Echoing the views of Ulrich Beck, Giddens articulates that nature is not nature any more and our society lives after the end of nature. This does not mean the end of the material world but there are few aspects of nature or environment which has not been affected by human intervention
Niklas Luhmann observes the history of reflection on ecology is not as old as history of humanity and society. Only during last decades of twentieth century and twenty first century awareness and discourses about ecology and the mutual relation between ecology and society has dawned. He mentions the following aspects to deem society is alarmed about the increasing environmental problems: rapid consumption of non-renewable resources, increasing dependence on self-produced substitutes, extinction of various species foundational for further biological evolution-implies bio-diversity concerns, development of viruses which have acquired resistance to medicine, burgeoning population problem and environmental pollution [Luhmann, Niklas, 2002:326].

Luhmann places importance on social communication in the context of ecological crisis which plays an important role in defining, redefining and demarcating the boundaries of society. Societies not equipped with proper know-how, say cognitive means, according to Luhmann, is at precarious state as its action not only threatens the environment but also shakes its foundations for its perpetuation. His tone also resembles that of Dunlap and Catton in reflecting why sociology has woken up late in responding to environmental problems of our days. Sociology was bogged down in the ideological controversy of correct social order as a central theoretical problem. Sociology has carried with it since its inception, according to Luhmann, implicit idea that study of society means studying internal aspects of society. This has been reflected in our founding fathers works such as Durkheim's social facts, Weber's social action or Simel's social forms and relations. He also criticizes the way Darwin's principle was carried over into Sociology and he termed it 'Tainted Darwinism' [Luhmann, Niklas, 2002:328].

Joseph Huber viewing from German context has discussed the role of sociology in understanding the environment i.e. through environmental sociology. It is pretty well known that sociology has made late entry into
research on environmental problems. He attempts to uncover the profile of environmental sociology in terms of sociology’s late entry, why this discipline was reluctant in adopting ecological questions, resolving the theory and theoretical problems, situating environmental sociology within sociology and interdisciplinary cooperation in research on environmental aspects and range of topics on environmental research [Huber, Joseph, 2001:1-19]. Huber pertinently questions the role of industrial sociology though it has a parallel vantage point to understand the interactions between environment and society; it failed to take account of this vital nexus.

Huber takes cudgel seriously in dubbing Luhmann's concept of 'ecological communication as rather useless and mired full with meandering words and phrases. Why Sociology neglected environment? Huber gives following reasons:

a. Sociology's increasing specialization in social structure and function during post-war time.

b. Separation of sociology from anthropology; it no longer wanted to be anthropology in the sense of science of human beings and philosophical anthropology. He explains;

"As a result, sociology stopped asking fundamental questions about the nature of humans, and the nature of Nature, and the nature of the interrelatedness and co-evolution"

c. Sociology also stopped seeing itself as a population science.

d. Green movement and activities of 70s and 80s was suspected by left wing sociologists as being right-wing.
On theoretical status of environmental sociology we come across the application of the controversial and disputed general sociological theories into environmental sociology, problems are bound to emerge. The most raging controversy is between 'realism and constructionsim'. Realists argue that constructionist involve in ontological gerrymandering that is denying the existence of objective reality-nature. This will, according to realists lead to political quietism and serve interests who are involved in environmental degradation. Constructionists, without denying the existence of environmental problems such as pollution, energy crisis, global warming, assert that the central task of environmental sociologists is not to document these problems but to explain how environmental problems are the products of dynamic social process of definition, negotiation and legitimation [Hannigan, John, 2006:30-31].

K. Burningham and G. Cooper have strongly defended the constructionsim in the way of raging controversy between constructionsim and realism in environmental sociology from. constructionsim has been subject to several severe objections raised by realists such as ontological gerrymandering, interpretive flexibility, extreme constructionsim, denial of objective existence of nature and environmental problem, ignoring moral interpretative of protecting environment. [Burningham K. and Cooper G, 1999:297-302, all italics are added]. They rebutted these claims on following premises: first, in a strict sense, sociologist should remain agnostic about existence and conditions of the reality which is environment here. Second, there is no doubt regarding the existence of reality: point is what the reality is and what it means is socially constructed. This does not mean the denial of the existence. But they are tilted more favourable towards constructionist approach as a viable approach in dealing with environmental phenomena.

Jonathan Murdoch advocates and infact echoes Bruno Latour's need for adopting actor-network theory [emphasis added] to over come the duality of
social and nature. He underlines the troubled relationship of sociology with environment and source of trouble since classical sociologists, he traced to historical context.

Bruno Latour advocates actor-network theory in overcoming the dualism between nature and social through emphasis of co-construction, the pursuit of symmetry between actor and network, the detailed study of how heterogeneous entities are enrolled into networks, the bundling of these networks into stable 'actor-like' configurations [Murdoch, John, 2001:111-120]. Here Network and Collectivity is used in different sense to imply combination of social and natural. Collectivity not only includes human actors but also non-humans also. John Murdoch reflects the thought of M.Callon and J Law:

"Action will be the result of network construction and networks are constructed out of all kinds of bits and pieces, some of which we might label 'social', others 'natural', others 'technical' and so on" [Murdoch, John, 2001:120]

Sociology by studying the social processes can understand how they have given rise to environmental issues. In contrast to realist perspective on environmental issues which assumes that environmental aspects came into light through the extension of scientific understanding, sociological perspective sheds light on how environmental issues emerge out of cultural and political conditions and thereby much informed explanation of the social consequences [Macnaghten, Phil and Urry, John, 1995:210]

Sociologists have attempted to show the constructionist strains in the works of one of the classical trinity Durkheim. Durkheim drew distinction between views held by civilized people and savages about nature. Even to understand the nature and its intricacies, culture is needed and how nature is seen through culture [Jarvikoski, Timo, 1996:81]
Perhaps staunch criticism on constructionist perspective in environmental sociology stems from Raymond Murphy. He chides the constructionists for internal contradictions in terms of local contingencies, methodological double standard and ambiguity. Murphy stresses the embeddedness of scientific constructions in nature. He raises serious methodological objection: do constructivist sociologists, as name indicates, construct their accounts according to their own local contingencies and interests? They are substituting their interpretive work based on their own materials and ideal interests for that of participants. By claiming the suspension of meaning, as a part of their ontological gerrymandering, to ensure greater objectivity, they are keeping in suspension the meaning of other groups. This is not according to framework of any logical argument or impressive documentation, but to local contingencies in their own life. Therefore, what is vantage point for the constructivist critic of science on environmental issues is also the same for the critic of constructivists [Murphy, Raymond, 1994:962-964, italics are added]. Murphy attacks ruthlessly at the constructivism in the following words:

"However, if constructivists can set themselves above the scientists they study by claiming a higher level of awareness, then by a similar logic those studying constructivism can set themselves above constructivists by claiming a still higher level of awareness" [Murphy, Raymond, 1994:966].

According to John Bellamy Foster the raging controversy between realism and constructivism is due to two variants of environmental sociology developed in US and Europe which have different philosophical orientations and geographical locations. Environmental sociology in Europe is couched to a great extent by postmodern theory and taken more cultural/constructionist direction which resembles Human Exemptionalism. This environmental sociology in US with realist background resented strongly [Foster J.B, 2002:57].
Rolf Lidskog while evaluating both the realism and constructionism as approaches in environmental sociology has advocated for 'Meta theoretical Status' and 'Stratified Ontology' [Italics are added]. According to him, a general approach for environmental sociology should take into consideration social reality is not only constituted through discourses but also discursively and materially constituted [Lidskog, Rolf, 2001:124-125]. The essence of Stratified Ontology refers is that reality is stratified and different disciplines have engaged with specific levels. Each layer of reality is not reducible to another. In the natural world, levels are hierarchically ordered whereas in social world different levels influence or affect each other. In terms of relationship between natural and social world, social life and human societies are dependent on the processes in natural world but at the same time social life is irreducible to processes studied by natural science [Ibid, 127]

Exploring the divergent meanings of and between environment and nature John Barry admits that the concept of environment has different meanings just like other concepts such as equality and democracy have. It can be room we are sitting in, chair, desk, other people, organisms and air around us. Notions of Nature, environment have occupied an important place in human thought i.e. what is the place of human society in nature has always been fascinating and significant aspect in philosophy and hence the way in which ideas such as nature, natural and environment are employed and reflected in social theory are not only important but also crucial [Barry, John, 1998:6-7]. The most significant transformation was in using the word nature: early usage of an array of singular natures and how the concept of nature became separated from wider multiplicity of things. Hence, goddess, a divine mother, an absolute monarch etc. represented the nature with juxtaposition of complex metaphors and personifications. What was nature at one historical point of time may not mean nature in present day [Macnaghten, Phil and Urry, John, 1995:205]
What is environment then? How are the concepts of environment and nature used in social theory and sociology? John Barry examines the literal meaning of environment from computer synonymous, thesaurus and dictionaries. Meanings obtained are 'surroundings, milieu, atmosphere, climate, situation, position, locality, attitude, place, site, neighborhood and conditions of life or growth'. The word environment has its roots in French word 'environ' which implies 'to surround', 'to enclose', to enclose. According to Cooper "an environment as milieu is not something a creature is merely in, but something it has'. What it intends to convey is that environment is not just a passive setting in which some thing exists or lives instead environment is possessed in the sense that it is a part of what the creature or entity is. But the problem of notion and implications of environment does not stop here. Understanding environment as just what surrounds us has little to inform us.

Equating nature with environment is opposed. When we use the word environment in social theory, it is defined in relation to ourselves and other organisms. To put in other words, environment refers to interconnections and interdependence between living organisms and entities. While nature implies the world of neutral objects setting conditions of life for both the human and non-human species. He examines the meaning of nature and environment through the binary oppositions such as nature as an opposite to human society/culture, artificial and nurture.

Ulrich Beck has put the concept of nature into critical litmus test: the concept of nature, according to him, deserved to be needled by several questions: "which nature? Naturally Fertilized cabbage? Nature as it is, i.e. industrially lacerated? Nature as conceived by natural science? Nature without

Quite sensitively he inquires the ontological connotations of the notion of 'Nature':

“Every human being is a part of nature too: yet where does nature begin? When a babe is first suckled? Or as soon as a woman goes off the pill? In Intercourse (where and how)? Of the homosexual or heterosexual variety? Polygamously, perhaps, in selective diversity? Or in extra marital fidelity to permanent change?

[Beck, Ulrich, 2002:342]

Beck clearly brings the principles of constructionism in analyzing nature ontologically. Nature as an idea, notion and concept, as Beck has observed, is obsessed with green flavour. Today what is called nature is devoid of nature and socially internalized furniture of the civilized world. It is production, government and science reconstructs the nature and envisages the norms to device yardsticks to assess for adjudging whether nature is endangered or not. In the process of interaction between humans and nature has put an end to the notion of pure nature per se and has infact transformed nature into meta-reality that which cannot rid itself of the attributes of humans co-creation. ‘Social consumption of nature’, Beck precisely articulates, philosophically turns into invalid proposition all concepts and theories which reflects nature as an counter image of human activity and power, to which it must be subjugated. Speaking about global ecological movements of today, Beck cautions that nature more than ever no longer exists. Nature is being re-discovered, mollycoddled, pampered and ecological movements have fallen prey to fallacious and naturalistic conception of itself. He declares that Ecology is guilty of forgetting
about society, just as social science and social theory are predicated on the forgetting of ecology. Reality is sketched by the concepts and theories of both the domain and people's awareness of environment are selected by the historical blend of nature and society internalized, therefore, ecological hazards are always systemic hazards. [Italics are added]

3.2 Reflection of Environment in classical sociological theories.

What is the role of environment in constitution and functioning of human societies? Have our classical sociologists been aware of this interconnection and inter linkages? Have they turned blind eye towards environmental factors in shaping and influencing Human societies? We shall here make quite a serious attempt in exploring the recognition of environment as a factor in explaining human societies in our founding fathers theoretical views. Riley E. Dunlap and William J. Catton, pioneers in environmental sociology, heaped a scorn on classical sociologists in general and Emile Durkheim in particular for being responsible in making large stream of sociology blind on environment as a factor in explaining the human society and human actions [Dunlap. R.E and Catton. W.R., Jr. 1979, 243-73]. They argued that Durkheim's methodological dictum that "social facts have to be explained in terms of other social facts has this methodological chauvinism has, according to them, made larger stream of sociology blind towards environmental factors in explaining social facts. Following lines will expose their opposition to Durkheim's methodological excess:

Thus, the core task of sociology was to examine the uniquely social determinants of contemporary human life (Dunlap and Catton 1979, 1983). In short, mainstream sociology offered infertile ground for planting sustained interest in the relations between societies and their biophysical environments [Dunlap. R.E. and Rosa.E.A, 2000:82, italics are added]
But Rosa.E.A and Lauren Richter have questioned the tendency of pointing out at Durkheim for environmental blindness of mainstream sociology [Rosa.E.A and Lauren Richter, 2008:182-87]. They also questioned accusing Durkheim as a source of 'anthropocentric bias' that humans are exceptional to the influences of nature, its constraints and humans have capability to overcome the impact of nature. This line of thinking has been termed 'Human Exemptionalist Paradigm' [HEP]. They argued on three premises to show that Durkheim's was not blind to environmental factors. First we need to ask whether the idea of social facts in sociology is as prevalent and practiced as Durkheim thought. Second, Durkheim extensively dealt with metamorphosis of society from simpler to complex one. Durkheim was, according to them, very much clear about the nexus between Humans, Nature and Society. According to Durkheim man depends on three kinds of environment organism, external world, and society. Growth in population for Durkheim was main factor in the transition of society. Sheer growth of population will lead to competition for scarce ecological resources. What drove specialization and division of labour? It was growth of population. Third, Durkheim wanted to carve out an independent and scientific status for sociology similar to already established biological science and idea that society or social facts could be studied scientifically and sociology is capable of establishing law-like relationships.

Rejecting the view that Durkheim's methodological orientation and his works inhibited environment as a factor in the structure and functioning of human societies, Tim Jarvikoski examined how the relationship between nature and society is reflected in Durkheim's work. Durkheim asserted that the aim of sociology is to investigate social facts which can be described and explained scientifically just like other aspects in nature. Durkheim did not refute the influence of physical environment on social life but he made it clear that social causes are more important. Society is a part of nature and at the same time has
its own reality. Society is higher in hierarchy than the rest of nature. [Jarvikoski, Tim, 1996:79-81]

Catton W.R. Jr argues that Durkheim was doubly crippled by narrowly selective reading of Charles Darwin and unavailability in 1880s of sophisticated knowledge of interconnections between ecology and evolution [Hannigan, John 2006:6-7].

Dominant Western World view [DWW] is seen as responsible for naturalizing notion that there are no limits to growth, technological development and humans are distinct, unique and superior from others which together produced shared image of subject matter of sociology [Jermier J.M, 2008:463]

Phil Macnaghten and John Urry have admitted that juxtaposition of nature and society reached its zenith in west in 19 the century. Nature was reduced and degraded to a sphere of unfreedom and hostility which should be subdued and mastered. The concept of Modernity has much in contributing to the doctrine of Human Exceptionalism: domination of nature by humans has come to be interpreted as measuring rod of human progress and humans are superior to all other species [Macnaghten, Phil and Urry, John, 1995:204-205]

Karl Marx one of the classical trinity in sociology has been a source of stimulation of ideas across the globe. Though both Marx and Engel’s works are marginally concerned with environmental degradation per se but their analysis of social structure and social change has become starting point for the formation of many radical environmental theories [Hannigan, John, 2006:8-9]. Marx and Engel’s works have been interpreted from two extremes. Some scholars view that Marx and Engels were the predecessors of human, political and social ecology and others have looked upon them as too positive on industrialism and attendant socio-economic progress [Jarvikoski, Timo, 1996:74]. Marx’s musings
about nature is more reflected in his *Economic and Philosophical Manuscripts*. Marx clearly articulates about the dimension of nature/ecology while dealing on sources of alienation or estrangement. For Marx, nature is man’s inorganic body and for his survival and manifestation of his all activities nature is source. Hence, a constant dialogue must be maintained between man and nature. Man lives from inorganic nature. Marx draws our attention to the reality of human action embedded in nature. Nature found expression not only in air, animals, stones, shelter, clothing and nourishment but also forms his spiritual inorganic nature and means of life which he has to prepare before he can enjoy and digest [Marx, Karl, 1993:41]. Marx underlines the import of nature and how estrangement of labour also leads to estrangement of humans from nature.

“Nature is man’s inorganic body -- that is to say, nature insofar as it is not the human body. Man lives from nature -- *i.e.*, nature is his body -- and he must maintain a continuing dialogue with it is he is not to die. To say that man's physical and mental life is linked to nature simply means that nature is linked to itself, for man is a part of nature. Estranged labor not only (1) estranges nature from man and (2) estranges man from himself, from his own function, from his vital activity; because of this, it also estranges man from his species. It turns his species-life into a means for his individual life. Firstly, it estranges species-life and individual life, and, secondly, it turns the latter, in its abstract form, into the purpose of the former, also in its abstract and estranged form” [Marx, Karl, 1993:41-42]

Marx employed, as opined by John Bellamy Foster, the concept of ‘*Social Metabolism*’[Foster, J.B,2008:2, Clark, Brett *et al* 2008:1-20, italics are added] to indicate complex dynamic interchange of energy and matter between nature and humans, nature imposes conditions on humans and human actions change these conditions. Transition of human relations to earth was an essential presupposition for transition from feudalism to capitalism. Each mode of
production establishes a form of social metabolic order which determines the structure of society and nature and reproduction of both the domains. The German chemist ‘Justus von liebig’ employed the concept of metabolism in studying the soil nutrients. He observed that British agriculture by adopting intensive method of agriculture to cater the needs of market acted as a system of robbery and destroying the vitality of soil nutrients. Nitrogen, Phosphate and potassium are specific nutrients necessary for its ability to produce the crops. Development of capitalist agriculture and accumulation of capital has vanished these nutrients. Marx having observed ‘Justus von liebig’s insights about soil nutrients, explained that soil condition and nature are bound to the historical development of social relations. He had taken note of how intensive-capitalist operation of agriculture has robbed soil nutrients and people and created ‘Metabolic Rift”. Rational regulation of metabolic relation to nature was thought be an essential condition for transition from capitalism to socialism.

For Max Weber, social changes are rooted in ideas and their impact on development and social change diametrically opposed to Marx. The concept of rationality and rational action was central to Weber in explaining social change. Possibility of calculation facilitated by introduction of money with its impersonal nature helped in the development of rationality of human actors. Weber was interested in institutional variation and economic change. According to Buttel F.H. and Humphrey C.R. admitted ecological implications of Weber works in following words:

“Weber treated environmental/resource factors as interacting with social factors [such as class, status, power relations, material and ideal interests, religious ethics and so on] in complex casual models”. [Buttel F.H. et.al.2002:35]

West drawing from the Weber’s historical sociology of religion and his comparative studies on ancient societies emphasized that Weber analyzed the

Raymond Murphy has rather attempted to develop new 'neo-weberian environmental sociology' which is radically different from the Weber as portrayed in west. Murphy encounters the concept of rationality with nature. Drawing from the Ideal-types of rationality Murphy portrayed how formal and instrumental rationality, which try to use efficient, means to determine the successful outcome of action in terms of ends with the intention of achieving mastery over the nature, and rationalization, may become ecological irrationalization. Development and expansion in science and technology diffuses views that nature exists only to be controlled, mastered and manipulated by nature. [John Hannigan, 2006:P7-8 op.cit].

Expansion of capitalist economy enshrouded by calculation and domination of market forces, industry and government controlled by bureaucracy and legal system functioning as technical rational machine all contribute to pervasive logic where efficiency rides over sensible alternative choices. As a corollary, therefore, destruction of evergreen forest and dismantling existing harmonious ecological-societal interface for new industrial plants which consists of calculated advantages and unmindful to this prior ecological interface becomes viable and upheld widely. Murphy identified, according to Hannigan, two interrelated process which have, in Weber's view, become distinctive features of our time from twentieth century. They are:

a. Intensification of rationality

and

b. The magnification of rationality
It is observed that instrumental rationality becoming ecological irrationality can stimulate social movements which aim at derationalization or re-rationalization of modernization [Buttel H.Fredrick and Humphrey R. Craig, 2002:36 op.cit

3.3 Environment Philosophies and Environmental Sociology

How far sociology is able to provide an understanding about the formation of new structures and cultural transformation of present societies assumes importance in the back drop of environmental agendas. With the globalization of environmental issues, destruction of ozone layer, global warming and with surfacing of radical environmentalism, environmental justice movement, eco-feminism and eco-socialism, second wave of environmental sociology emerged with new responsibility. But second wave of environmental sociology has not been able to establish stably [Foster J.B, 200255-57]. The Risk Society Thesis as a part of heightened reflexive modernization and sustainable development assumed new significance. With the science loosing the social authority, identification of risk and other environmental damage which are based on science are at stake [Macnaghten, Phil and Urry, John, 1995:214-215]

After the publication of Brundtland report there has been a significant shift in the definition of the concept of security where environment is considered as a starting point. Environmental destruction will lead to stress, conflict and can be a cause of political tensions. Hence preservation and protection of environment and remedying environmental destruction through the path of sustainable development is more and more felt imperative [Mackenzie M.B, 2001:181-182]. There are certain barriers which hamper the efforts to reach sustainable development and resolutions adopted at Rio summit held in 1992. They are listed as: lack of peace and security, lack of resources and lack of public involvement and access to information [Elias, Victor,2001:31]
Environmental problems mankind is facing in present time both quantitatively and qualitatively at global level such as global warming, deforestation, desertification, loss of biodiversity and genetic engineering seriously draw and force our attention in rethinking the relations between nature, environment and society which has both academic and practical significance. John Barry generates the fourfold classification of social theory in relation to nature and environment while grounding social theory on two premises. They are

A. Descriptive
B. Prescriptive

While descriptive dimension of social theory describes and explains about society, social phenomena, social problems and changes within society. Whereas prescriptive dimension not only portrays what society is but also how society should be i.e. normative and value based judgments and arguments to structure, restructure and to bring desired social order. Based on the above premises, we get four fold schema of social theoretical approaches to environment.

**Social Theory and the environmental Schema**

<table>
<thead>
<tr>
<th>Critical Naturalist e.g. anarchism</th>
<th>Conservative/Mainstream m e.g. Malthusianism/ sociobiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Constructionist e.g. Marxism</td>
<td>e.g. neoclassical economics</td>
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Emergence of environmental ideology and environmental activism mark significant shift in human reflexivity towards his own foundational base of existence that is Earth. Perspectives on the present environment and environmental crisis can be roughly divided into three camps, though within each camp we come across lot of variations: Social Ecology, Deep Ecology, and Ecofeminism [Italics are added]. Social Ecology is a political movement which tries to understand the environmental problems interms of the human social structure and hierarchy. Theoretical underpinnings of Social ecology rest on the premise that human domination of nature is a secondary phenomenon, derived from the domination of humans by humans [Rowlands, Mark, 2000:162-163].

Within social ecology, following are the main theses: Historical thesis argues that domination of humans by humans is antecedent to the domination of nature by humans. Second is causal dependence thesis [italics are in original], according to which it is not mere domination of humans by humans antecedent to domination of nature by humans; instead domination of nature by humans is causally dependent on domination of humans by humans [Rowlands, Mark, 2000:162-163].

Third refers to notion that our idea of domination of nature by humans is dependent on prior possession of idea that we are dominating humans. This is again subdivided into two theses. Weak conceptual priority thesis and strong conceptual priority thesis. Former maintains that we have acquired the notion of domination of nature in human-human interaction and later was extended to the domain of nature: whereas later argues that the conception of domination lies in the domain of human-human interaction and the idea of domination of nature is in fact a derivative and metaphorical. Fourth is strategic priority thesis which argues cogently that liberation of nature should be preceded by human liberation as domination of nature is derived from domination of humans by humans. Roots of ecological crisis are embedded in human social hierarchy and
market driven society. Problem can be resolved by decentralization, non-hierarchical structures which are ecologically sound. Mark Rowlands quotes the Murray Bookchin, one of the chief proponents of social ecology:

"Ecology alone, firmly rooted in social criticism and a vision of social reconstruction, can provide us with the means for remaking society in a way that will benefit nature and humanity" [Rowlands, Mark, 2000:164, Italics are in original]

Deep Ecology makes its perspective clear that human beings have dominated the nature and therefore domination of humans by humans is a derivative of domination and exploitation of nature by humans. Remedy for this trap is to rethink our relationship with nature and the concept of Cartesian self should be rejected. Instead in its place 'expanded self should be substituted which is part of nature and not opposed to it [Rowlands, Mark, 2000:161, italics are in original]. Aarne Naess has distinguished environmental philosophy into two streams: shallow and deep or put in other words, they are referred to as Deep, long range ecology movement and shallow environmentalism [Devall, Bill, 2001:1-2, emphases are added]. Paul Shepard gives call for a faith and force to consider the metabolism of earth as our own metabolism and change in our whole frame of reference and attitude towards life. Without loosing or surrendering our unique capabilities we must affirm that world is being, a part of our body [Ibid: 1]. Premises of deep ecology are based on such aspects as both human and non-human life on earth have value in themselves, richness and diversity of life forms as realizing the values, refuting humans right to interfere in ecological functioning by reducing its richness and diversity except for meeting vital needs, decrease in human population for flourishing life and culture, present human interference with non human world has exceeded the limit with worsening situation, there should, hence, be a policy change affecting economic, ideological and technological structures, appreciating quality of life
rather than adhering to higher standard of living and hence awareness between big and great and last those who adhere to these above points have an obligation to bring changes deemed necessary [Devall, Bill, 2001:23]. Deep ecology advocates "simple in means and rich in ends" [emphasis is added] and change in both individuals and community life styles [Ibid: 24]

Eco feminism refers to synthesis between environmentalism and feminism. There are many variants within ecofeminism which are influenced by different streams of feminism such as liberal, marxist, radical, social, anarcha, existentialist, psychoanalytic and postmodernist feminism. The term ecofeminism was coined by Francois d Eaubonne in 1974. The word ecofeminism later came to be employed in denoting grassroots movements such as Chipko movement in India and women's Pentagon action in the US [emphases are added]. Interconnection between domination and exploitation of nature and oppression of women is an underlying premise of philosophy of Ecofeminism. Ecofeminism argues that it is domination of women by men. Androcentricism is prior to anthropocentrism. [Rowlands, Mark, 2000:162]. Ecofeminism is also seen as an activist and academic movement that find a link between domination of nature and exploitation of women. According to Karen Warren, ecofeminism is an umbrella term for a variety of approaches: one may be socialist ecofeminist, cultural ecofeminist [Lorenzen L.A. and Eaton Heather, 2002:1].

Main premises of ecofeminism which are of conceptual, empirical and epistemological significance are as follows

a. Through out the world environmental problems disproportionately affect women and it is not due to environmental problems per se but from sexual division of labour in family

b. There is a symbolic or cultural relationship between nature and women as exemplified in our lore, traditions and knowledge.

c. Epistemological claim such as made by Indian ecofeminist Vandana Shiva.
How far sociology has given due attention and integrated into sociological framework the rising environmental ideologies/environmentalism and their ramifications on sociological knowledge is a debatable matter. But it is undoubtedly agreed that mainstream sociology has largely neglected the domain of environment as a variable in constitution and understanding the interfaces of society. This has roots in European enlightenment and positivistic orientation of sociology. Everything which exists in the world can be understood objectively and quantified indicates the erroneous assumptions made in the construction of sociological knowledge. This methodological and ontological indifference has led to crisis regarding the status of sociology as a science [Smart, Barry, 1976:1-7]. But though late, Riley Dunlap and William Catton Junior succeeded to draw home the neglected environmental component into social theory. Frederick H. Buttel questions 'Has environmental Sociology arrived? By drawing our attention to some what marginal status of the sub-discipline in US [Buttel F.H., 2002:42-43] American Sociological Review celebrated 30th anniversary of the emergence of environmental sociology in June 2008. According to William R. Freudenburg gives due credits to Dunlap and Catton for the present successful state of this sub-discipline and it is due to three factors: a. the way in which they legitimated the field b. the way in which they defined ecology within sociology c. the way in which they welcomed diverse views in environmental sociology [Freudenburg W.R, 2008:456-457]

We try to understand the relation between environment and society through three sections. This chapter demands that in understanding the society or any aspect of society as a reality, we have to take into consideration of environment in terms of its role in composition and functioning. Based on the premise of this chapter we shall switch over to next chapter to explore more pronounced relationship between society and environment in recent days through the lens of state and society relations.