

Ecological Approach in Contemporary Sociological Research

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Abstract:

Ecological Approach as a recent trend, new unifying paradigm approach could be seen in twenty-first century sociological research. Global initiatives in recent decades towards environmental issues led to inquiry in the field of social science research in general and also in sociology. In the last few centuries technological innovations, rapid growth of population and standard of living in terms of human development and social development gave rise to emergence of 'human exemptionalism' (a technical term given by Dunlop in 1980, means 'a way of perceiving human relations with nature, stressing human dominance over nature'). Otis Dudley Duncan and Leo Schnore are two of the most articulate spokesmen of the ecological approach in contemporary sociology. They are of the opinion that ecology deals with society as the functional organization of a population in the process of achieving and maintaining an adaptation to its environment. Based on Empiricism and Pragmatism, this approach stresses the reciprocal functional relationship among organisms and their physical environment. Ecology as a theoretical perspective in recent social sciences research stresses theories that attempt to explain how human beings individually and collectively behave, in relation to nature or other human beings in the ecosystem and nature-society interface. The central concern of the ecological approach in sociological research is the analysis of the problems of cultural diversity, climate and social change in terms of the interaction between social organization and environment. Hence, Ecological perspective/approach is the scientific study of the interactions between organisms and its environment. It is a multidisciplinary/interdisciplinary field that combines biology, geology, geography and sociology etc. So, in this research paper an attempt is made to understand the nature of ecological perspective and also to know the key principles associated with this. In this descriptive study of content analysis of available literature on ecology I have given an account of scholars western (Dunlop and Catton) and Indian (Ramchandra Guha and Radha kamal Mukerjee), who contributed to the development of ecological perspective in social science and sociological research.

Keywords: Ecological approach, Human Exemptionalism, Social ecology, Human ecology, Deep ecology, Cultural ecology and etc.

INTRODUCTION:

Ecological approach first, was introduced by Harold and Margaret Sprout to the study of International Relations with the publication of 'Towards a Politics of the Planet Earth' in 1971. Although, the term 'Ecology' was coined in 1869 by a German biologist E. Haeckel, 'Human Ecology' as a social system approach was developed in 1921 by Park and Burgess, whose research interests centred around the growth of city and its four dimensions; Geographical, Economic, Cultural and Political. Radhakamal Mukerjee (1926) in his book 'Regional Sociology' explained the scope of human ecology as a synoptic

study of the balance of plant, animal and human communities which are systems of correlated working parts in the organization of the region. Mukerjee argued that in the formation of an ecological unit or 'region' social habits, social values and traditions become very important. 'Cultural ecology' developed by Julian Steward defines "the study of processes by which a society adapts to its environment." When ecology is considered as a general theory or paradigm, it is not limited to nature or the natural sciences. It can also be applied in relation to culture. Cultural ecology is the science that deals with the complex interactions between various cultural elements and various natural features. In order to understand the cultural ecology of a community or place, several disciplines need to be involved. This allows for the exploration of different cultural and natural habitats. 'Social ecology' was pioneered by Murray Bookchin to portray ecological issues as stemming primarily from social problem, particularly various forms of hierarchy and dominance. 'Deep ecology' is an environmental philosophy that emphasizes the inherent worth of all living things and reorganization of modern human communities. It also asserts that non-essential human activity that exploits the biological and ecological jeopardizes all micro-organisms to reconstruct a rational and ecological society. The concern of the Ecological perspective is the analysis of the problems of Cultural Diversity and social change in terms of the interaction between social organization and environment. Ecological paradigm or perspective is the scientific study of the interactions between organisms and its environment. It is a multidisciplinary field that combines biology, geology, sociology and etc. When ecology is considered as a general theory or paradigm, it is not limited to nature or the natural sciences. It can also be applied in relation to culture. Cultural ecology is the science that deals with the complex interactions between various cultural elements and various natural features. In order to understand the cultural ecology of a community or place, several disciplines need to be involved. This allows for the exploration of different cultural and natural habitats. For example, in the ecosystem of the Nainital lake in Nainital District, geology, geography, geomorphology, hydrology and various other factors interact.

Ecological Approach in Sociological Research: From the ecological point of view, the elementary unit of analysis is the pattern of activity or simply activity. For ecologists 'system' is an organization of activities, arranged in overlapping and interpenetrating series of activity constellations, or groups. Duncan and Schnore, a well known sociologists consider the ecologists primary concern to be the pattern of observable physical activity itself, not the individual's feelings of obligation concerning their roles. (Duncan, 1959) The ecological approach is a holistic approach and multi-disciplinary frame of reference. The Ecological Approach in Sociological Research has a strong empirical base. Unlike the other general sociological theories such as symbolic interactionism, functionalism or system theory ecology has a strong empirical base or Empiricism. Indeed, it is more empirically grounded than theoretically sound i.e. the theoretical framework of ecology is weak. Although, the sociologists like Park and Burgess, R.K. Mukerjee, R.E. Dunlop, W. R. Catton and Ramchandra Guha have done a great amount of research ecology and environment. Ramchandra Guha in his book 'The Unquiet Woods: Ecological change and Peasant resistance in Himalaya' talked about different aspect of ecology of Himalayan region of Uttarakhand and given a descriptive sociological account of Himalayan region of Uttarakhand. It is well known that the ecological perspective evolved out of a series of community studies, particularly studies of urban growth and settlement patterns. The social ecologists have contributed substantially, to our understanding of the dynamics of land use, settlement patterns, population density, migration patterns, forest conservation and trends of community growth.

Sociologist's contribution on Social Ecological Research: Robert Park and Ernest Burgess, the Chicago University Sociologists have done Research Project work on Urban Ecology Studies, during 1925 and gave his well known 'concentric zone theory'. Park and Burgess along with their students, used concentric zone theory extensively to explain the existence of social problems such as unemployment and crime in certain districts of Chicago. Innovation Concentric zone theory was one of the earliest models developed by Park and Burgess to explain the spatial organization of urban areas.

Park and his colleague's in his numerous research projects focused on the city of Chicago and elaborated a theory of urban ecology which proposed that cities were environments like those found in nature, governed by many of the same forces of Darwinian evolution that affected natural ecosystems. Park and Burgess suggested that the struggle for scarce urban resources, especially land, led to competition between groups and ultimately to the division of the urban space into distinctive ecological areas in which people shared similar social characteristics because they were subject to the same ecological pressures. Competition for land and resources ultimately led to the spatial differentiation of urban space into zones, with more desirable areas commanding higher rents. As they became more prosperous, people and businesses moved outward from the city center in a process Park and Burgess called succession, a term borrowed from plant ecology. Their model, known as concentric zone theory and first published in 'The City' predicted that cities would take the form of five concentric rings with areas of social and physical deterioration concentrated near the city center and more prosperous areas located near the city's edge. These five concentric rings are: (1) The central business district or CBD (2) The transitional zone (3) Working class residential zone (4) Middle class homes and (5) the commuter zone.

Radha Kamal Mukherjee developed the concept of social ecology in his book 'Regional Sociology' examined the reciprocal relationships between humans and their environment from various perspectives. According to him Social ecology requires an interdisciplinary approach and recognizes that cultural factors strongly influence human-environment interactions. Mukherjee argued for a balanced approach between economic growth and environmental protection. Activities like deforestation, overgrazing, and unsustainable cultivation methods can degrade the environment and harm communities' relationships with their surroundings.

US environmental sociologists Riley Dunlap and his colleague's ecological perspective focus on at first, the concern that the 'Human Exemptionalist paradigm (HEP)' underlies traditional sociological theory secondly, making an attention to understand POET (Population, Social-Organization, Environment and Technology) and thirdly, using a 'realist' perspective to analyze environmental issues. They developed Dominant Social Paradigm (DSP) to reflect greater environmental concern and after criticism by many they again developed New Ecological Paradigm (NEP). Dunlap and Catton surveyed to measure environmental concern of groups of people and constructed fifteen statements on Likert scale as New Ecological Paradigm (NEP) concerning people agreement and disagreement. The NEP scale is a measure of endorsement of a pro-ecological world view. It is used extensively in environmental education, outdoor recreation, and other realms where differences in behavior or attitudes are explained. The revised NEP has fifteen statements, called items. Eight of the items, if agreed to by a respondent, are meant to reflect endorsement of the new paradigm, while agreement with the other seven items represents endorsement of the DSP. Using a Likert scale, a commonly used rating scale, respondents are asked to indicate their strength of agreement with each statement (strongly agree, agree, unsure, disagree, and strongly disagree). These statements are given as follows.

1. We are approaching the limit of the number of people the Earth can support.
2. Humans have the right to modify the natural environment to suit their needs.
3. When humans interfere with nature it often produces disastrous consequences.
4. Human ingenuity will insure that we do not make the Earth unlivable.
5. Humans are seriously abusing the environment.
6. The Earth has plenty of natural resources if we just learn how to develop them.
7. Plants and animals have as much right as humans to exist.
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.
9. Despite our special abilities, humans are still subject to the laws of nature.
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.
11. The Earth is like a spaceship with very limited room and resources.
12. Humans were meant to rule over the rest of nature.
13. The balance of nature is very delicate and easily upset.
14. Humans will eventually learn enough about how nature works to be able to control it.
15. If things continue on their present course, we will soon experience a major ecological catastrophe.

Ramchandra Guha, a well known sociologist in his book 'The Unquiet Woods: Ecological change and Peasant resistance in Himalaya' talked about different aspect of ecology of Himalayan region of Uttarakhand and given a descriptive sociological account of Himalayan region of Uttarakhand. He also talked about the history of 'Chipko Andolan' initiated by lower class people or villager's in both kumaun and Tihri Garhwal (Chamoli) region. Ramchandra Guha's study of peasant movements against the depletion of their social rights (rights of ownership of forest) and its relationship with the ecological decline of Himalayas, is the main theme of his book 'The Unquiet Woods'. It talks about one of the most celebrated environmental movements of the world i.e. "The Chipko Movement" not just in the light of its importance at the time of occurrence and it's then contemporary relevance but also traces its history and sociology in accordance to the area where it happened and why it happened uniquely in hill geography and not in plains. Guha's analysis is streamered by a conscious understanding of hill villager's traditional beliefs and attitudes towards its immediate nature. This book is the subaltern history of the Uttarakhand, an area situated at the western part of the Himalayas which was divided into two kingdoms in the past, Garhwal and Kumaon. Guha narrates the story of this region from the colonial times and setups an analogy of the colonial time peasant's movements and the post-independence movements against the repressive forest policies of the administration. Guha states that before any type of commercialization of forestry and any foreign intrusion in the socio-politico dynamics of this region, the people lived in a utopian society of the egalitarian, homogeneous and collaborative features.

Conclusion:

This research paper, based on content analysis of few literatures reviewed describes the conceptual framework of ecology and its theoretical basis. Ecology is a branch of science that concerns with interrelationship of organisms and their environment. Ecological Approach is the scientific study of Interactions among Organisms, people, and their physical/natural environment. It is a new paradigm which provides new understanding or knowledge of these vital systems as they are now, and how they may change in the future. It also provides the new knowledge of the interdependence between people and natural world that is vital for food production, maintaining clean air, water and sustaining

biodiversity in a changing climate. After discussion on ecological Approach and its various branches like Human Ecology, Social Ecology, Cultural Ecology and Deep Ecology, it can be summarized that the ecological approach is a holistic approach and interdisciplinary frame of reference. The Ecological Approach in Sociological Research has a strong empirical base. The sociologists like Park and Burgess, R.K. Mukerjee, R.E. Dunlop, W. R. Catton, Ramchandra Guha and others have done a great amount of research on social ecology and environment.

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