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## 13. SOCIAL ECOLOGY PART-I

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### Objectives

By the end of this lesson, you will be able to understand and learn about:

- Concept of Ecology, Scope of Ecology
- Social Ecology and Its Relevance

### 13.1 Introduction

Ecology is a branch of biology. It is the study or relations between organisms and their environment. It emphasizes the idea that every living organism is constantly trying to adjust itself to its environment. The term environment includes climate, topography and other organisms as well. Thus, an organism tries to adjust itself not only to the climate but also to the other organisms. The study of the relations between organisms and their environment is the subject matter of ecology.

The term 'Social Ecology' is referring it is the study between human inter relationships with physical environment. Human beings are constantly adjusting to their environments. Human ecology is the study or how people and institutions are located in space and how do they adjust themselves to their environments. An ecologist is interested in the social and cultural phenomena associated with various localities. He focuses his attention upon the social effects of locality. Social ecology includes the study of community and population.

### 13.2 Meaning and Definition of Ecology

The term "ecology" was coined by the 19<sup>th</sup> century German biologist **Ernst Haeckl**. He used the term to refer to the study of the influence of the environment upon animals. As a branch of biology ecology studies the relation between organism or group of organisms and their environment.

Ecology is the study of plants or animals or of peoples and institution in relation to their environment. Zoologist and biologist started using the term ecology in their researches. Sociologist have borrowed this ecological approaching of these natural scientists and applied the same way in the studies of communities, this is called human ecology or socio



ecology. The ecological point of view is that every living organism, human and non-human is incessantly making adjustment to the environmental condition.

**A.H. Hawley-** The life of an organism is inescapably bound up with the conditions of environment, which comprise not only topography, climate, drainage etc. but their organisms and their activities as well.

Ecology is the scientific study of the relationship of living organisms with each other and with their environment.

**Ogburn** and **Nimkoff** say that ecology is the study of groups in relation to their environment.

As sociologist we are interested in inter relationship between human beings and their environment.

### 13.3 Characteristics of Ecology

There are several characteristics of ecology-

- i) Ecology is the scientific study of relationship between organism and their environment.
- ii) Ecology is a science that studies relations in totality.
- iii) It is a science of eco system i.e. part of ecology.
- iv) It is a philosophy in which we study social world through natural process.
- v) It is a study of internal relations among human beings with environment.
- vi) It is a branch (special) of biology.

### 13.4 Scope of Ecology

Initially, ecology was considered to be a branch of biology that deals with the relation of organisms and group of organisms to their environment. Later on, it was realized that ecology is not only concerned with the organisms, plants and animals but with the energy flows and material cycles on the lands, in the ocean, in the air and in fresh water. So, keeping this modern emphasis, ecology is defined as the study of structure and function of nature considering that mankind is the part of the nature.

The study of ecology begins with the understanding of the interaction of various biological units with their environment for the production of a series of living system i.e. ecosystem. After getting a clear picture of overall structure and function of an ecosystem, the emphasis on various important aspects such as food chains, primary productivity and food for man.

- i) Human environment – whole environment and its component.
- ii) Climate and natural resources.
- iii) Study of ecosystem.
- iv) Relation between population and whole environment.
- v) Human influence on environment.



- vi) Effect of maximum use of biological resources on environment.
- vii) Impact of agriculture and farming on environment.
- viii) Effect of urbanization, industrialization and modern activities on environment.
- ix) All type of pollution.
- x) Study of land degradation and hazardous waste chemicals.
- xi) Environment and human health.
- xii) Study of social impact of development project.
- xiii) Study of economic effects of improved environment.
- xiv) Study of environmental management.
- xv) Study of environment and development.
- xvi) Environmental conservation.
- xvii) Study of acts/laws related to environment.
- xviii) Social consciousness study.

An understanding of how biodiversity affects ecological function is an important focus area in ecological studies. Ecologists seek to explain:

- Life process, interaction and adaptation.
- The movement of materials and energy through living communities.
- The successional development of ecosystem.
- The abundance and distribution of organisms and biodiversity in the content of the environment.

## 13.5 Meaning and Definition of Social Ecology

**Social Ecology:** It is developed by Murray Bookchin. That study of social ecology is nothing but the logical extension of the ecological point of view. Social ecology is an approach to society that embraces an ecological, reconstructive, and communitarian view on society. This ideology looks to reconstruct and transform current outlooks on both social issues and environmental factors while promoting direct democracy. It looks to do away with scarcity and hierarchy in the economy in favour of a world in which human communities work together in harmony with nature to accept and promote diversity as well as creativity and freedom. In social ecology, the idea that many must control nature is looked on as espousing an authoritarian mentality that is at the root of our society's structure. This ideology is, according to the approach, viewed as a root cause of environmental problems. Rather than being looked on as a hierarchy, life and the environment should instead be looked on as a complex system in which all lifeforms are interrelated and of equal importance to a healthy and sustainable environment. In social ecology, the idea that many must control nature is looked on as espousing an authoritarian mentality that is at the root of our society's structure. This ideology is, according to the approach, viewed as a root cause of environmental problems. Rather than being looked on as a hierarchy, life and the environment should instead be looked on as a complex system in which all life forms are interrelated and of equal importance to



a healthy and sustainable environment. Social ecology is that part of sociology which studies human beings adjustment to their environment which includes not only the physical condition of their geographic environment but also other organisms such as the fellow human beings, plants and animals.

**Ogburn and Nimkoff** define social ecology as a study of relationships between communities and environment. The inter relationship of physical, biological and cultural features of a region is the subject matter of social ecology.

**According to Fairchild:** Social ecology is a branch of knowledge, which deals with the study of human habitat composition and the phenomenon that is result from the process of interaction of both social and ecological.

In sociology, the field of study of human ecology (social ecology) is centred on man and his environment. To **Park** and **Burgers** goes the credit of beginning the study of human ecology in the field of sociology. Lastly, human ecology is the study of the mutual relationship of environment, community and human action. The five aspect of human ecology are environment, population, settlement technology and social organization.

### R. K. Mukerjee on Social Ecology

Harmonious development of man requires that he should live with other members of the community and also with nature or environment or ecology. Radhakamal Mukerjee's contribution to the studies of what is called 'social ecology' is unparalleled. Social ecology, as a discipline, requires the cooperation of a member of sciences including social sciences.

The geological, geographical and biological factors work together to produce an ecological zone. Ecological conditions also conditioned by social, economic and political factors. Indeed, human or social ecology is the study of all aspects of reciprocal relations between man and his environment.

In his book, *Regional Sociology* (1926), Mukerjee explains 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". American pioneers in ecological studies did not give adequate attention to the factor of culture in their conception of ecological relations.

They viewed such relations as similar to those which take place among plants and animals. Mukerjee argued that ecological relations among human beings are largely similar with those among lower organisms. But, in case of human beings, cultural norms have a very important role. Human ecology highlights this fact.

In the formation of an ecologic unit like 'region' social habits, values and traditions become very important. Individuals having the same or similar values possess solidarity. The ecological standpoint explains that in which man's constant strivings, aspirations and



ideals mingle silently with the ecological forces and processes. Social ecology stresses the ever complex give-and-take relationship between man and the region.

There is a definite link between ecology and society. The development of ecological zones is the outcome of a dynamic process that is the challenge of the environment and the response of the people who establish a settlement. Ecological balance is not achieved by a mechanical carving out of a territory and setting people therein.

Such an attempt weakens or destroys the social fabric. For example, in building industrial plants or constructing irrigation plants or constricting irrigation dams in India, very often, people of the concerned locations are moved to new settlements. It seriously affects community's life of the people. As a people lives in an area, it develops a symbiotic relationship with the ecology or environment of the area. In the new situation it may fail to develop that kind of relationship with the surrounding.

Mukerjee's ideas about social ecology advocated regional development. He stood for a balance between economic growth and ecological fitness. Traditional crafts and skills like weaving or engraving should be revamped for attaining economic growth of a region without any great damage to its ecology. Deforestation has created havoc. Long back Mukerjee cautioned his countrymen against it. He strongly advocated for conservation of forests and protection of ecological balance.

Mindless urbanization was also lamented by Mukerjee. From the ecological point of view he upheld the idea and process of urbanization. Urban development at the expense of the countryside should be kept in check. Agriculture should be diversified and industries should be decentralized.

Mukerjee notices with concern that (i) overgrazing, (ii) improvident destruction of trees and scrubs, and (iii) faulty method of cultivation brings about a serious imbalance in the biophysical constitution of the entire region. It seriously impairs nature's cycle.

### 13.7 Characteristics of Social Ecology

The Basic feature of social ecology as below:

- It is study of relationship between human society and environment.
- Urban and rural and tribal community comes under social ecological studies.
- It studies the effect of geographical and socio- cultural disparities on human societies.
- Social ecological study includes process related to competition, cooperation, concentration of population, decentralization.
- It also studies the structure of community and dynamic aspect of community, which is related to out and inner environment.
- It studies interrelation between culture and environment.



## Conclusion

Initially, ecology emerged as a biological science, coined by Ernst Haeckel, to study the relationship between organisms and their environment. This foundational understanding sees all living beings as constantly adjusting to their surroundings, which include not just physical elements like climate and topography, but also other organisms and their activities, as defined by A.H. Hawley. Its core characteristics emphasize it as a scientific study of relationships in totality, viewing nature as an ecosystem and offering a philosophical lens to understand the social world through natural processes.

The scope of ecology has broadened considerably from its biological roots. It now encompasses the intricate flow of energy and material cycles across all natural systems – land, ocean, air, and freshwater. Crucially, it recognizes mankind as an integral part of nature, not separate from it. This expanded scope includes critical areas like:

The interaction between human populations and the entire environment. The profound human influence on environment through activities like agriculture, urbanization, industrialization, and resource exploitation. The study of various forms of pollution, land degradation, hazardous waste, and their impact on human health. The social and economic impacts of development projects and the critical need for environmental management, conservation, and relevant legislation. It highlights the importance of understanding biodiversity's role in ecological function and explaining life processes, adaptations, material/energy movement, ecosystem development, and the distribution of organisms. The transition to social ecology marks a crucial sociological application of these ecological principles to human communities.

Pioneered by thinkers like Murray Bookchin (though the text also credits Park and Burgess for its sociological beginnings), social ecology extends the ecological viewpoint to society, focusing on human adjustment to their environment. Bookchin's perspective, particularly, critiques authoritarian mindsets that seek to control nature, viewing this as a root cause of environmental problems. Instead, social ecology champions a view of life and environment as an interconnected system where all lifeforms are equally important. It advocates for direct democracy, promoting diversity, creativity, and freedom, aiming to overcome scarcity and hierarchy for harmonious human communities living in balance with nature.

Radhakamal Mukerjee's contribution to social ecology stands out, particularly for his early and profound insights into the interdependence of man, community, and nature. Long before American ecologists fully integrated culture into their models, Mukerjee emphasized that while humans share ecological relations with lower organisms, cultural norms, social habits, values, and traditions play a paramount role in shaping human-environment interactions and forming ecological units like



'regions'.

This field, particularly through Mukerjee's lens, highlights that environmental well-being is intrinsically tied to social equity, cultural practices, and balanced development, asserting that true ecological balance cannot be achieved by merely physical interventions but requires a deep understanding of the social, economic, and cultural dynamics at play.

## References and Suggested Reading

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