

**MASTER OF ARTS
SOCIOLOGY
CENTRE FOR OPEN AND
DISTANCE LEARNING
(CODL)**



**MSO 402: ENVIRONMENTAL SOCIOLOGY
BLOCK I**

**CENTRE FOR OPEN AND DISTANCE LEARNING
TEZPUR UNIVERSITY (A CENTRAL UNIVERSITY)
TEZPUR, ASSAM - 784028
INDIA**

Vision

To grow to be a leading centre for human resource development through distance, open and universal learning system.

Mission

To provide quality higher education at door step through barrierless, flexible and open learning mode in conformity with national priority and societal need.

Objective

- **To offer degree, diploma, certificate level programme of study through distance learning in various emerging subjects across the disciplines.**
- **To offer job oriented and vocational programmes in flexible terms in the line of the national and regional level demand of manpower.**
- **To offer various programmes under lifelong learning contributing to the local and regional level requirements and as per the need of the society at large.**
- **To undertake various research and academic activities for furtherance of distance education in the region.**
- **To contribute to conserve and promote cultural heritage, literature, traditional knowledge and environment conducting short programmes, workshops, seminars and research in interdisciplinary field.**

MSO 402: ENVIRONMENTAL SOCIOLOGY



CENTRE FOR OPEN AND DISTANCE LEARNING

TEZPUR UNIVERSITY (A CENTRAL UNIVERSITY)

TEZPUR, ASSAM-784028

INDIA

MSO-401: ENVIRONMENTAL SOCIOLOGY

ADVISORY COMMITTEE

Prof. Rabin Deka	Professor and Head, Department of Sociology, Tezpur University
Prof. Chandan Kumar Sharma	Professor, Department of Sociology, Tezpur University
Prof. Kedilezo Kikhi	Professor, Department of Sociology, Tezpur University
Dr Amiya Kumar Das	Associate Professor, Department of Sociology, Tezpur University
Ms Ankita Bhattacharyya	Assistant Professor, Centre for Open and Distance Learning, Tezpur University

CONTRIBUTORS

Module I	Ms Navarupa Bhuyan	Research Scholar, Department of Sociology, Tezpur University
	Mr Partha Pratim Baruah	Research Scholar, Dept of Sociology, Dibrugarh University
Module II	Ms Ankita Bhattacharyya	Assistant Professor, Centre for Open and Distance Learning, Tezpur University
	Ms Priyanka Borah	Lecturer, Department of Sociology, DHS Kanoi College, Dibrugarh

EDITOR

Dr A.S. Shimreiwung	Assistant Professor, Department of Sociology, Tezpur University
---------------------	---

Copyright © reserved with Centre for Open and Distance Learning (CODL), Tezpur University. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from CODL.

Any other information about CODL may be obtained from the Office of the CODL, Tezpur University, Tezpur-784028, Assam.

Published by the Director on behalf of the Centre for Open and Distance Learning, Tezpur University, Assam.

BLOCK I

MODULE I: INTRODUCTION TO ENVIRONMENTAL SOCIOLOGY

UNIT 1: ENVIRONMENTAL SOCIOLOGY: SCOPE AND SIGNIFICANCE

UNIT 2: THE HISTORY OF ENVIRONMENTAL SOCIOLOGY: THE RISE, DECLINE AND RESURGENCE OF ENVIRONMENTAL SOCIOLOGY

UNIT 3: NATURE-NURTURE DEBATE: SYNTHESIS OF SOCIETAL AND ENVIRONMENTAL DIALECT

MODULE II: SOCIOLOGY OF ENVIRONMENT

UNIT 4: CLASSICAL SOCIOLOGY AND ENVIRONMENT: MARX, WEBER AND DURKHEIM

UNIT 5: CONTEMPORARY THEORETICAL APPROACHES: ECOLOGICAL MODERNISATION, ECOFEMINISM, ECOLOGICAL MARXISM

UNIT 6: CONTEMPORARY THEORETICAL APPROACHES: RISK SOCIETY, ANTHROPOCENE

TABLE OF CONTENT

MODULE I: INTRODUCTION TO ENVIRONMENTAL SOCIOLOGY	
UNIT 1: ENVIRONMENTAL SOCIOLOGY: SCOPE AND SIGNIFICANCE	4-16
1.1 Introduction	
1.2 Objectives	
1.3 How Environmental Sociology Emerged	
1.4 Why Study the Environment?	
1.5 Emergence of Environmental Sociology in Different Countries	
1.6 Definition of Environmental Sociology	
1.7 Scope and Significance	
1.7.1 Environmental Change and Sociology	
1.7.2 The Shift from Traditional Sociology	
1.7.3 Environment and Its Prime Service	
1.8 Analysing the Impact on Different Sections of people	
1.9 Summing Up	
1.10 Questions	
1.11 Recommended Readings and References	
UNIT 2: THE HISTORY OF ENVIRONMENTAL SOCIOLOGY: THE RISE, DECLINE AND RESURGENCE OF ENVIRONMENTAL SOCIOLOGY	17-29
2.1 Introduction	
2.2 Objectives	
2.3 Rise and Emergence of Environmental Sociology- A Brief History	
2.4 Decline of Environmental Sociology	
2.5 Resurgence of Environmental Sociology	
2.6 Summing Up	
2.7 Questions	

2.8 Recommended Readings and References	
UNIT 3: NATURE-NURTURE DEBATE: SYNTHESIS OF SOCIETAL AND ENVIRONMENTAL DIALECT	
	30-40
3.1 Introduction	
3.2 Objectives	
3.3 Nature-Nurture Debate	
3.3.1 Nature	
3.3.1.1 Impact of Nature on Human Beings	
3.3.2 Nurture	
3.3.2.1 Impact of Nature on Human Beings	
3.4 The Puzzle of the Debate	
3.4.1 Interaction and Overlap	
3.5 A New Alternative	
3.6 Summing Up	
3.7 Questions	
3.8 Recommended Readings and References	
MODULE II: SOCIOLOGY OF ENVIRONMENT	
UNIT 4: CLASSICAL SOCIOLOGY AND ENVIRONMENT: MARX, WEBER AND DURKHEIM	
	42- 54
4.1 Introduction	
4.2 Objectives	
4.3 Environmental Sociology as Agnostic toward Conventional Sociological Theory	
4.4 Marx and Environmental Sociology	
4.5 Weber and Environmental Sociology	

4.6 Durkheim and Environmental Sociology	
4.7 Summing Up	
4.8 Questions	
4.9 Recommended Readings and References	
UNIT 5: CONTEMPORARY THEORETICAL APPROACHES: ECOLOGICAL MODERNISATION, ECOFEMINISM, ECOLOGICAL MARXISM	
	55-68
5.1 Introduction	
5.2 Objectives	
5.3 Ecological Modernisation Theory	
5.4 Understanding Ecofeminism	
5.4.1 Indian Ecofeminist Theories	
5.5 Ecological Marxism: Its Origin	
5.5.1 Understanding Ecological Marxism	
5.6 Summing Up	
5.7 Questions	
5.8 Recommended Readings and References	
UNIT 6: CONTEMPORARY THEORETICAL APPROACHES: RISK SOCIETY, ANTHROPOCENE	
	69-79
6.1 Introduction	
6.2 Objectives	
6.3 Understanding Risk Society	
6.3.1 Risks in Risk Society	
6.4 The Anthropocene	
6.5 Summing Up	
6.6 Questions	
6.7 Recommended Readings and References	

COURSE INTRODUCTION

This course introduces the learners to contemporary environmental issues from a sociological perspective. It explores the interconnectedness of human society and the natural environment. It will help the learners to understand the issues emerging out of the relationship between the social environment and the natural environment. The learner will also get familiarized with the various policy prescriptions and mobilizations on environmental issues in contemporary times.

The course is divided into five modules, each consisting of multiple units. This has been done to discuss the major concepts more elaborately and in a learner-friendly way.

Module I gives an introduction to environmental sociology. It consists of three units. **Unit 1** deals with the meaning, scope and significance of environmental sociology. **Unit 2** discusses the history of environmental sociology. The learner will get introduced to the emergence of environmental sociology, its subsequent decline and finally, the resurgence of environmental sociology. **Unit 3**, on the other hand, deals with the nature-nurture debate which is crucial to understanding the relationship between the social and natural worlds. The learner will get introduced to the meanings attached to 'nature' and 'nurture', the differences arising between the two concepts as well as the synthesis of societal and environmental dialect.

Module II is about the theoretical approaches to environmental sociology. **Unit 4** deals with the influence of classical sociology on environmental sociology. The learner will get introduced to the relationship of the classical trinity of Marx, Weber and Durkheim to environmental sociology. On the other hand, **Unit 5** and **Unit 6** deals with contemporary theoretical approaches. While Unit 5 covers ecological modernisation, ecofeminism and ecological Marxism, Unit 6 explores the concepts of risk society and the Anthropocene and their impact in the contemporary world.

Module III focuses on the emerging issues in environmental sociology. **Unit 7** explores the contributions of Zavestoskis, Dunlap, Catton and Allan Schnaiberg to the emerging theoretical parameters in environmental sociology. **Unit 8** deals with environmental disasters and hazards. The learner will be able to get a clear grasp of the causes and effects of environmental disasters and hazards. **Unit 9**, on the other hand, discusses the relationship between the environment, body and health.

Module IV explores some other emerging issues in environmental sociology. **Unit 10** explores the important topic of technology and the environment. **Unit 11** will help the learner to understand global environmentalism as a challenge to the post-materialism thesis. **Unit 12**, on the other hand, deals with the responses to environmental issues. The learner will get introduced to the concept of environmental justice in this unit.

Module V focuses on India. It explores the environmental policies and movements in India. **Unit 13** deals with India's National Environmental Policy. On the other hand, **Unit 14** deals with the different environmental movements in India and their impact on society.

The complete course is divided into two Blocks. **Block I** contains Module I and II. **Block II** will have Module III, IV and V.

MODULE I: INTRODUCTION TO ENVIRONMENTAL SOCIOLOGY

UNIT 1: ENVIRONMENTAL SOCIOLOGY: SCOPE AND SIGNIFICANCE

UNIT STRUCTURE

- 1.1 Introduction
- 1.2 Objectives
- 1.3 How Environmental Sociology Emerged
- 1.4 Why Study the Environment?
- 1.5 Emergence of Environmental Sociology in Different Countries
- 1.6 Definition of Environmental Sociology
- 1.7 Scope and Significance
 - 1.7.1 Environmental Change and Sociology
 - 1.7.2 The Shift from Traditional Sociology
 - 1.7.3 Environment and Its Prime Service
- 1.8 Analysing the Impact on Different Sections of people
- 1.9 Summing Up
- 1.10 Questions
- 1.11 Recommended Readings and References

1.1 INTRODUCTION

There is little doubt that environmental problems are one of humanity's major concern in the 21st century (Dunlap and Marshal, 1979). Global environmental change is a burning issue in the present times (Freudenburg and Gransling, 1989). With the increase in human intervention in the earth's ecosystem and the climate, the magnitude of risk associated with such environmental change becomes explicit and more clear. Climate change, biodiversity loss, natural resource degradation, air and water pollution and ecosystem collapse are all a consequence of the way the

human beings organise their societies and themselves – for instance, production system and consumption practices, settlement patterns and transport networks, political institutions and regulatory frameworks, etc. Environmental plays a major role as an impetus to social change. This change in the environment makes it impossible for any discipline of social science to ignore the relationship between the environment and society. This led Sociology to change its outlook too and to “ecologize” (Lockie, 2015). By the term “ecologize”, it is meant that sociology should take the concept of ecology on board through focusing on interactions between the social and ecological aspects. Since the early 1970s, this area of darkness was discovered and given importance to (Freudenburg and Gransling, 1989). It also became apparent that sociologist can play an important role in shedding light on these problems and the steps that need to be taken to cope with them (Dunlap and Marshal, 1979). Dunlap and Catton goes on to conceptualise environmental sociology as the study of the environment-society relations enable a shift of analytical focus from the symbolic construction of environmental problems to material explanations of their causes, consequences and potential solutions (Lockie, 2015).

Stop and Read

An ecosystem is a community of living organisms in conjunction with the non-living components of their environment, interacting as a system

1.2 OBJECTIVES

By the end of this chapter, you will be able to:

- Discuss emergence of environmental sociology;
- Analyse the scope and significance of environmental sociology;

- Discuss the impact of environmental sociology on different sections of people.

1.3 HOW ENVIRONMENTAL SOCIOLOGY EMERGED

Earth day 1970 marked the advent of the modern environmental movement. It symbolically claimed to be “day 1” of new environmentalism providing instant and widespread recognition to the issues of the environment. Before the inauguration of the earth day, Sociology in the form of discipline as environmental Sociology has not been evolved. Through traces of environmental dimension was found in the works of the three major classical sociological pioneers- Durkheim, Marx and Weber, as well. Yet it was social structural dimensions that were given importance to, keeping the environment or physical aspect in the sideline. Though from time to time, pieces of work concerning natural resource and environment appeared, yet they were never organised into a single entity (Hannigan, 2006).

Considering the importance of the sociological perspective, we can also know that our very response to this environmental change is in itself a social phenomenon. The generation and dissemination of knowledge regarding its effects, debates over its meaning and significance, and the multiple attempts to act on it are all guided by the scientific institutions and networks, government and non-government networks, citizen alliances, industry coalitions, media organisations and social media platforms (Lockie, 2015).

The International Sociological Association’s Research Committee for Environment and Society is one of the largest and active associations. Many works are simultaneously going on in various regional and national institutions and networks for environmental Sociology. The social dimensions of environmental change are widely recognised as

critical issues for global change research by many international scientific associations too, like the ISSC and UNESCO (Lockie, 2015).

Environmental sociology has been making inroads into publishing and teaching in mainstream sociology, although it is by no means influential as long-established specialities such as deviance, stratification and deviance. Non-academic environmental sociologists are also becoming popular and increasingly involved and influential in the research planning for and implementation of megaprojects. They can be found working for government agencies, large engineering and construction firms, consulting companies, architectural companies, local, regional, national and international NGOs (Hannigan, 2006).

1.4 WHY STUDY THE ENVIRONMENT?

In response to the atrocities that have been inflicted upon the environment, several actions were taken to tackle the environmental problems. Such as the 1969 National Environmental Policy Act, the celebration of ‘Earth day’ in 1970 and the 1972 United Nations Conference on the Human Environment. These concern for the environment drew the attention of many sociologists too which led to the emergence of a new sociological specialization – “Environmental Sociology.” (Dunlap and Catton, 1979). We can witness over the course of time that new field or discipline of study can emerge out of the intellectual and political ferment generated by movements for social reform and change. This is what describes the case for the growth of environmental sociology.

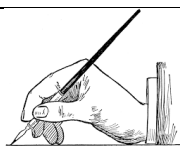
At its inception, researchers impressed with the attention that environmental sociology was receiving tried to apply the traditional sociological theories or perspectives on public opinion, social movements and formal organisations to topics such as social characteristics of environmental activists and the tactics and strategies employed by environmental groups. Gradually however with time, their interest shifted and they wanted to establish a discipline focused solely on environmental

sociology that might be distinctive enough to afford a field in its own right. There is a general agreement that the first explicit use of environmental sociology was by Samuel Klausner in his 1971 book *On men in his environment* (Hannigan, 2006).

Researchers thought that the best way for Sociology to deal with the change in the environment is by institutionalising its own separate distinct ‘environmental’ sub-discipline. Like any other critical problem, while understanding the issue of environmental change it is necessary to look at it from multiple dimensions closely and in detail from multiple perspectives. Environmental Sociology is thus needed as a body of vocation and knowledge to develop, apply and communicate insights unique to the sociological imagination (Lockie, 2015).

Studies of the impacts of energy shortages on society facilitated a transition from the early “sociology of environmental issues” – involving the application of standard sociological perspectives for analysing responses to environmental issues – to a distinctive “environmental sociology” focused explicitly on societal-environmental relations (Dunlap and Marshal, 1979).

CHECK YOUR PROGRESS



1. Fill up the gaps:

- a. _____ 1970 marked the advent of the modern environmental movement.
- b. The first explicit use of environmental sociology was by _____ in his 1971 book *On men in his environment*.

1.5 EMERGENCE OF ENVIRONMENTAL SOCIOLOGY IN DIFFERENT COUNTRIES

In Europe, the study was stimulated by the emergence of the ‘greens’ as a political force, and hence most of the early work in Europe centred on environmentalism and the environmental movement. In the Netherlands however, a variation can be seen in terms of research. Here studies were conducted looking at agriculture and risk assessment. In Britain, the study was based entirely and explicitly on theoretical grounds. The works that were done here focused on weighing the relationship between society and nature against classical sociological perspectives on social class and industrialism. However, by the impetus provided by the global environmental change programme in the 1980s, the focus of work shifted from theoretical to empirical-based studies. By the 1990s environmental sociology started and gained popularity in Japan and Korea. (Hannigan, 2006).

Major accidents such as the Chernobyl in the then USSR and Bhopal in India and growing evidence of global environmental problems led to the interest in environmental issues to grow (Dunlap and Marshal, 1979).

1.6 DEFINITION OF ENVIRONMENTAL SOCIOLOGY

By now, you have understood the importance of studying the environment through a sociological lens as well as the emergence and growing popularity of environmental sociology in different countries. Let us now look at the definition of environmental sociology. In simple words, environmental sociology may be defined as the study of societal-environmental interactions. In other words, environmental sociology studies how human beings influence the environment as well as how the environment influences human life.

Stewart Lockie (2015), on the other hand, has defined environmental sociology “as the application of our sociological imaginations to the

connections among people, institutions, technologies and ecosystems that make society possible”. This definition of environmental sociology treats the environment and society as analytically independent categories.

1.7 SCOPE AND SIGNIFICANCE

Environmental sociology involves recognising the fact that human societies and behaviour can be influenced by and also get influenced by the physical environment (Dunlap and Catton, 1989). The nature of the relationship between human beings and the environment is dualistic. Human beings are ‘a biological species in an ecosystem’ and are subject to limits and interdependencies, and at the same time they are the ‘creators of distinctly social environments’. The recognition of this dualistic nature is evident in various sociological theories since the inception of the discipline, even though in an implicit way. Sociology has been focusing on explicitly on the ‘distinctly social’ half of this dualism, which of course was an incomplete study (Freudenburg and Gransling, 1989).

This view lets environmental sociologists depart from the traditional insistence that believed in the theory that social facts can be explained only by other “social” facts. The acceptance of “environmental” variables as meaningful for sociological investigation sets environmental sociology apart as a distinguishable field of inquiry (Dunlap and Catton, 1979). Many concepts such as the risk society, mobility, hybridity, embodiment are under constant usage in Sociology to understand the environment better.

1.7.1 Environmental Change and Sociology

Three points need to be understood while understanding the exploration of the problem of environmental change through the lens of Sociology. Firstly, there are various types of environmental change whose answers

can be found through social explanations and can be investigated through well-established sociological theories and method. For example – how do economic and political processes bring about changes in the environment? Who are the people who participate in specific environmental programmes and who does not and why? etc. (Lockie, 2015).

Secondly, there is a connection between the traditional sociological topics that are based on sexuality, gender, class, etc. and the environmental change studies. What may seem like a clear case of social or local phenomena at first glance, may seem to reveal connections related to a plethora of ecosystem and climate processes playing out at greater spatial or temporal scales (Lockie, 2015).

Thirdly, the relationship between environment and social phenomena dates back to historical processes and events too, like the exploitative effects of colonialism, patriarchy, racism, etc (Lockie, 2015).

1.7.2 The Shift from Traditional Sociology

In the process of developing distinctively social explanations for societal phenomena, sociology replaced older determinisms with sociocultural determinism. Thus to establish environmental sociology as an area of inquiry included a critique of the larger discipline's blindness to environmental matters. This came first from Dunlap and Catton's criticism of the traditional sociology's "Human Exemptionalism Paradigm" (HEP). They did not disregard the fact that human beings are an exceptional species, yet they argued that human's skills and capabilities nonetheless failed to exempt the human species from the constraints of the biophysical environment. They suggested that this model should be replaced by the "New Ecological Paradigm" (NEP) that gives importance and focused on the ecosystem dependence of human societies (Dunlap and Marshal, 1979)

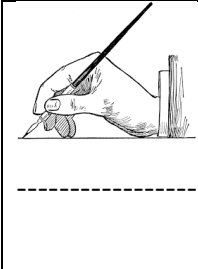
1.7.3 Environment and Its Prime Service

Whether defined narrowly as the study of societal-environmental relations or more broadly as covering all sociological works on environmental issues, the importance of environmental sociology lies in its focus on the interrelationship between the social world and biophysical environment. However, there is a multiple of the complex phenomenon in the environment which will lead to multiple foci in the work of an environmental sociologist. An environmental sociologist looks at those aspects of the biophysical environment that serve for human societies.

These numerous services can be divided into three general functions, namely, first, the “sustenance base” that provides human beings with the necessary resources for life, mostly clean air, water, food and shelter. Issues surrounding the extraction, transport, use and conservation of resources such as fossil fuels, forests and fisheries are studied. Second, human beings among others produce a lot of ‘waste’ products which the environment must absorb or recycle acting as a ‘waste repository’. When the waste products exceed the absorption capacity it results in pollution, which many sociologists study to understand the generation of pollution to its social impacts. Third, the environment provides with a “living space” for the human population to live, work, play and travel. These leads environmental sociologists to study a number of living space-related issues such as deforestation, desertification and climate change on human settlements and habitats. The impact on one functions simultaneously effects the other two. For instance, the use of an area as a waste site makes it unsuitable to stay, also it means that land can no longer function as a supply depot for food timber or habitat for wildlife. This model of looking at the three functions clarifies the characteristics

and sources of environmental problems and how they change over time (Dunlap and Marshal, 1979).

CHECK YOUR PROGRESS

	<p>1. Define environmental sociology.</p> <p>-----</p> <p>-----</p>
---	---

1.8 ANALYSING THE IMPACT ON DIFFERENT SECTIONS OF PEOPLE

The human population is severely affected by changes in the environment condition too. Humans built and organise their societies by modifying the ecosystem, through domestication of plants and animals and by extracting valuable resources to satisfy human needs and aspirations. However, the benefits generated from the environment nor the risk produced as a result of these changes are equally shared by all the sections of the society. It is to be noted that for many sections of the human population, the problems that they face in terms of food security, exposure to harmful pollutants or vulnerability to extreme weather events, are not as a result of their own doing or personal failings, but they are made to face all these because of persistent political, economic and legal marginalisation (Lockie, 2015).

1.9 SUMMING UP

Thus the need of Sociology as a discipline to look into the matter is extremely necessary, though it is not necessary or possible to completely separate itself from other disciplines of social sciences while looking into

it. What is crucial in terms of looking into it through sociological framework is the sociological imagination, and we can know it from the way C.W. Mills has put forward it as, “for insight into the relationships between personal biographies, social order, history and power; between private, localized practices and problems and social processes playing out at what appear to be altogether different spatial and temporal scales.” (Lockie, 2015).

As human beings are organically embedded and ecologically embedded, they are also culturally embodied and socially embedded. Much of the corpus that encompasses environmental sociology can be roughly divided into approaches that tend to favour one or the other of these two ‘realities’. Over time, people seem to favour both the realities and some even try to combine both of these. Ideas such as ‘coevolution’, ‘co-construction’, ‘conjoint constitution’ and ‘socio-ecological agency’ negate the idea that human society can be separated from its ecological context and provide ways into theorising the indivisibility of nature/society, while also keeps space for their analytical separation (Redclift and Woodgate, 2010).

Definition of the role of Sociology in relation to environmental change is not just to explain or point out what are the environmental phenomena that can be explained solely by human action. It is about applying our sociological imaginations to the connections among people, institutions, technologies and ecosystem that make society possible.

Thus both the social realm and the role of the non-human world in the constitution of the social must be taken into account. One cannot be studied without the other. “The proliferation of connections between ‘social’ and ‘environmental’ issues suggest sociological theory and practice must be more thoroughly ecologized both simply to account for key dimensions of change in human societies and to participate in genuine transitions to more sustainable human societies.” (Lockie, 2015).

As a conclusion, it can be said that sociologists can make a positive contribution to the environmental debate by both incorporating and engaging. The former, i.e. incorporating suggests that pockets or niches of environment research can enrich mainstream sociological theory even if they do not have the capacity to transform the discipline as a whole. The later, i.e., engaging recognises that there is much to gain in applying the sociological imagination to the extra-disciplinary study of contemporary environmental issues, for example through political economy models or via the sociology of science and knowledge (Hannigan, 2006)

1.10 QUESTIONS

1. What led to the growth of Environmental Sociology? Explain the scope and significance of Environmental Sociology.
2. How does Environmental Sociology make itself different from traditional/classical Sociology?
3. In what ways can we say that the environment offers its service to human beings?

1.11 RECOMMENDED READINGS AND REFERENCES

Dunlap, R. and Catton, W. (1979) Environmental Sociology. *Annual Review of Sociology*, 5.

Dunlap, R. and Marshal, B. (1979). Environmental Sociology. *Annual Review of Sociology*, 5.

Freudenburg, W. and Gransling, R. (1989). The emergence of environmental sociology: Contributions of Riley E. Dunlap and William R. Catton, *Sociological Enquiry*, 59(4).

Hannigan, J. (2006) *Environmental Sociology*. Routledge, New York.

Lockie, S. (2015). *What is Environmental Sociology?* James Cook University.

Lockie, S. (2015). *Why Environmental Sociology?* James Cook University.

Redclift, M.R. and Woodgate, G. (eds.) (2010). *The International Handbook of Environmental Sociology*. Edward Elgar Publishing Limited, Cheltenham.

UNIT 2: HISTORY OF ENVIRONMENTAL SOCIOLOGY: THE RISE, DECLINE AND RESURGENCE OF ENVIRONMENTAL SOCIOLOGY

UNIT STRUCTURE

2.1 Introduction

2.2 Objectives

2.3 Rise and Emergence of Environmental Sociology- A Brief History

2.4 Decline of Environmental Sociology

2.5 Resurgence of Environmental Sociology

2.6 Summing Up

2.7 Questions

2.8 Recommended Readings and References

2.1 INTRODUCTION

Sociology is a discipline that studies human society and its various forms of stratification. As human society is influenced by the natural environment, therefore it becomes inevitable for sociology to also study the environment. The settlement, livelihood, food habits, dress habits, the cultural festival of human society are largely influenced by the environment. Human civilization has been facing challenges from the natural environment and accordingly also have learned to face and overcome those environmental hazardous. However, with the increasing population and industrialization that took momentum in the 20th century, the natural environment also got affected. The pollution of groundwater, air and shrinking space for human habitat have begun to greatly concern the

environmentalists and the sociologists too. Thus, in response to the emergence of the environmental movement in the 1960s environment sociology emerged as a sub-field of sociology.

2.2 OBJECTIVES

Environmental sociology is a new and emerging concept in the domain of sociology and also in the policy-making of the government. The increasing menace of environmental degradation and its effects on the human society has to a great extent evolved the need for a specific sub-discipline, i.e. environmental sociology that would emphasize on the study of the relation between the natural environment and human society. By the end of this unit you will be able to:

- Explain the emergence of environmental sociology;
- Analyse the decline of environmental sociology;
- Explain the resurgence of environmental sociology.

2.3 EMERGENCE OF ENVIRONMENTAL SOCIOLOGY

The 20th century emerged as a millennium of many challenges to human civilization. On the one hand, although human civilization was developing and achieving the technological and industrial milestone, on the other hand, new challenges from the natural environment were disturbing human society. Since ages, human beings have been adopting various indigenous tactics to tackle environmental issues and have also been depending on the environment. The natural environment has always influenced the livelihood of human society, the process of agriculture, dressing attires, etc. For example, the people of the hilly region are dependent on shifting cultivation or terrace cultivation and they prefer to stock meat or fish by drying them, while people in the South Asia and South-east Asian countries are dependent on rice cultivation depending on the quality of land and

environmental setting. Likewise, the environment has also influenced the household structures of the people living in different environmental conditions. For example, it is seen that in the hilly region and also near the riverside area people traditionally built their houses above the ground i.e *Chang Ghar*. Therefore, the natural environment has always contributed to shaping the livelihood and economy of human society, cultural beliefs, folkways etc. The changes in the environment in recent times due to industrialization, pollution and other related factors have greatly affected human society too. The changes in the environment have led to less rainfall, drought, unseasonal flood, global warming etc. leading to change in the traditional way of living of the people and also their traditional approach to tackle such challenges. Thus, human society has been continuously interacting with the environment and therefore it became important for sociology to acknowledge the effects of the environment on human society.

The apprehension over protecting the physical environment i.e reduces pollution, the concept of sustainable development etc. has led to various environmental movements and there was societal concern over environmental problems in the 1970s. These developments led to the emergence of environmental sociology as a sub-discipline of sociology to study the interaction between human society and the physical environment, the impact of industrialization on the environment and human society and vice-versa. As compared to the past, natural resources and energies have been exploited by the technologies invented and discovered by human society for their interests. Environmental sociologists began to emphasize the resource scarcities and energy that became a subject of concern for a future human generation. They also gave due importance on the dependence of human society on the eco-system and whether all human beings had access to the resources provided by our eco-systems. This sociological interest on the access of resource and energies by the human society and dependence of them on the eco-system for their survival and livelihood has contributed to the emergence of environmental sociology.

Moreover, it was also seen by many as an attempt to raise awareness among the general public and also pressurize the Government around the world regarding the concern of resource limitation, ecological imbalances and their effects on the society.

Moreover, this revolutionary evolution of environmental sociology first began in the US and in its initial years of development in the 1970s it had emphasized on research related to natural and energy resources, sustainable development, the environmental movement and the attitude of human society about the environment. The exploitation of energy sources has been a prime contributor to the process of economic development in the US. However, in the process of exploiting the abundant energy supplies, the environmental cost of extracting and processing energy over the years was ignored, making the US one of the most wasteful societies.

Consequently, the US witnessed an energy crisis in the 1970s. Meanwhile, in the 1960s, the environmental movement emerged which gained significant momentum at the beginning of the 1970s in the US. The convergence the environmental movement and the energy crisis led to many debates and discussion among the scholars. Further, Earth Day 1970 provided a voice to the emerging environmental consciousness, thereby paving the way for a new environmentalism. With the inauguration of an environmental decade of the 1970s by Earth Day, sociologists began to focus on a distinctive understanding of the relationship between society and the environment. It may also be noted here that, prior to these developments, from time to time, isolated works on the environment had appeared within the field of rural sociology but had never been combined to form a cumulative body of work (Hannigan, 2007). In other words, rural sociology to some extent forms the background of environmental sociology.

Stop and Read

The increasing human activities have produced innumerable waste products that are disposed of in the eco-systems leading to pollution and ozone depletion. The eco-system has also reached its limits to absorb the waste products of industries and human activities. Under such circumstances, the relationship that has been continuing between humans and the environment got affected. The cultural and social practices that evolved over the long relationship between humans and the environment got affected. Therefore, in the 1970s environmentalists, sociologists and policymakers emphasized on the development of a specialized sub-discipline to study the environment from sociological perspectives.

CHECK YOUR PROGRESS



1. Give two reasons that contributed towards the development of environmental sociology.

2.4 DECLINE OF ENVIRONMENTAL SOCIOLOGY

However, in the 1980s the appeal for more industrialization and privatization in the United States had to some extent diminished the importance of the subject. Indeed, the era of Ronald Reagan in America in the early 1980s had begun the era of limitless use of natural resources, individualism and the free economy as principles of growth and prosperity.

Soon after Reagan became the President of USA markets were freed from Government control and corporate industries were given free hand to explore the markets leading to acute competitions among them. This competition among the corporate and industrialists without Government control had encouraged them to extract natural resources without limits. Gradually, the idea to save the environment and limited use of energy and natural resources ended leading also to a decline of concern for environmental issues and the subject that developed in the 1970s. Along with the change in the Government policies of the US Government after Reagan became the President of America, the attitude of the people had also changed and they began to take less concern of the negative impact of human activities on the eco-system. Simultaneously, the membership of the American Sociological Association section on Environmental Social Agency also decreased less than 300 by late 1980 to 274 by 1983. The decrease in the membership of ASA had also affected the academic journey of environmental sociology as enrolment in the subject decreased. This decrease in the academic scenario of environmental issues had also affected the attitude and behaviour of the people on environmental issues. Declining enrolment of students in the course of environmental sociology and decreasing jobs in the field had made it difficult for the subject to emerge as a new discipline in the 1980s.

Stop and Read

The era of Ronald Reagan as the President of USA in the early 1980s was an era of free economy and privatization. In fact, he appealed the people for limitless use of natural resources and energy to continue the pace of development and progress. This appeal had encouraged the industrialists to embark on more explorations and use of natural resources leading to less concern on the impact of human activities on the eco-system. Thus, in the early part of 1980s environmental

sociology declined due to the policy of the US Government for development and progress.

CHECK YOUR PROGRESS



1. During which period environmental sociology got declined?

2. Why did environmental sociology decline as a subject?

2.5 RESURGENCE OF ENVIRONMENTAL SOCIOLOGY

Major industrial accidents at Three Mile Island (1979), Bhopal, India (1984) and Chernobyl (1986) raised the importance of environmental problems. The negative impacts of technologies and industrialization on the human society had once again revived the importance of environmental sociology in the modern society to study the role of industries and their dependence on the eco-system and also the relation between the human society and nature. The concern over not only the effects of industrialization but also increased abuse of humans on the environment by disposing medical wastes on the Atlantic coast, deforestations, industrial pollution leading to acid rain, ozone depletion and global warming have led the environmental problems to be part of political economy. Meanwhile, environmental problems got more momentum and there was widespread public support for the 20th anniversary of Earth Day, 22nd April 1990. This event created a beginning universally for both the general public and the government to also frame policies for environmental protection. Following this event, the UN too had organized the UN Conference on

Environment and Development in June 1992, Earth Summit in Rio De Janeiro creating a wave of support among the people for environmental protection.

The nature of environmental problems over the years has changed compared to the period when environmental sociology had emerged as a discipline. Therefore, this problem has been viewed with scientific and policy strategy by scientists and policymakers. In the past environmental problems basically included air or water pollution, deforestation, water scarcity, shrinking of agricultural land and living spaces for humans. Moreover, these problems were specific to certain localities while the interior rural areas untouched by industrialization and modern developments did not face these problems. But gradually, these localized problems led to more hazardous environmental problems that needed international concerns and remedies. The concerns for ozone depletion, acid rain, ice meltdown of Antarctica and the increasing temperature has come to affect people from every corner of the world. In addition, it has come to affect the health of human and has even led to a risk in healthy birth of humans and the flora and fauna. Therefore, these problems that have erupted recently are detrimental not only to the environment but also to the very existence of human society because without healthy birth and healthy atmosphere human society would face the danger of extinction. Thus, such factors have contributed their part to the revival of environmental sociology again in the latter part of the 1980s.

The impact on human health and birth could also influence the behaviour and attitude of humans. In fact, changing environmental conditions have influenced the cultural and traditional norms and practices of human society. For example, many Indian traditions are related with seasons and rivers but now due to change in the seasons and changing course of many rivers, there has been a demand to change such practices including immersion of idols and goddesses in the water as it pollutes the water. Similarly, many festivals in the spring season around the world are

celebrated to commemorate the beginning of monsoon and new cultivation, but nowadays though festivals are celebrated, yet monsoon often comes very late in the summer leading to impact in the cultivation and the agrarian life. Thus, environmental change influences human society and their social behaviour. Indeed it is also the activities of human beings, their desires and explorations of natural resources that have negatively affected the conditions of the environment. As human beings are intimately connected with the environment for their social and economic survival, environmental deterioration of any sort is detrimental to human society.

The healthy functioning of ecosystem is indeed necessary for the survival of human society as the former has to balance different functions such as- ‘providing living space’, ‘providing resource and energy’ and also to ‘dispose of waste materials’ created by human society. The increasing abuse on the eco-system by human activities such as industrial pollution, disposing of industrial and hospital wastes in the oceans and rivers, deforestations, mining etc. have led to the loss of biodiversity, ozone depletion and global warming. Therefore, there have also been concerns worldwide to deal with such hazards through the scientific way by using alternative means or energy source. The concern for recycling has been emphasized more keeping in view the waste disposal and the pollution it is doing to our ecosystem. The limited capacity of the ecosystem to absorb industrial wastes and also domestic wastes is given more emphasized to maintain the above three functions of the eco-systems smoothly. The gradual change in the climatic condition, global warming and ozone depletion are the results of the ecosystem's inability to absorb industrial pollution. Furthermore, this change in the climatic condition may affect the living space of human and also their source of food. Thus, this relation between human society and the changing eco-system creates an opportunity for environmental sociology to look into.

As discussed above the societal importance of environmental issues have gradually increased as a result of increasing concern for deteriorating eco-

system and the limited capacity of the eco-system to absorb the abuse of human activities through industrial wastes and others. Therefore, since the late 1980s again environmental sociology had begun to revive after continuous concern by environmental activism and policymakers. The revitalization of environmental sociology as a sub-discipline can be evident from increasing membership in the American Sociological Association Section on Environment and Technology. Its membership has swelled to around 400 since the 1980s. There has also been an increase in the opening of graduate programs and enrolment of students in the subject. The discipline has swelled in various other countries as well as the UK, Brazil, Japan and in the Scandinavian countries. In these countries, the Environment Social Science Associations were formed and added various other organizations like the Working Group on Environment and Society formed under International Sociological Association, 1990 got promoted to the status of research committees within a very short time. Under such circumstances of global recognition of environmental issues, nations around the world have begun to give importance to environmental sociology to develop separately as a sub-discipline in the 1990s. The recent revitalization of the subject in the 1990s got a formidable shape with the development of methodology, concepts and theoretical perspectives ranging from symbolic interactionism to Marxism. The theoretical and conceptual perspectives that were developed relating to the subject have helped to understand the human-environment relationship. Thus revival of environmental sociology in the 1990s brought a new dimension to the field by merging theoretical and empirical efforts.

Stop and read

Though in the early part of 1980s environmental sociology declined, in the latter part of 1980s due to changing nature of environmental problems, environmental sociology re-emerged as a specialized discipline in the academic arena. The changing nature of environmental

problems from localized problems like pollution, flood, etc. to universal ones like the effects on health conditions and the birth of human beings revived the subject. The concern for change in the seasons, acid rainfall, global warming, ice-meltdown etc. has greatly affected the socio-cultural practices of human society. Thus, unlike the 1970s this time the sociologists have tried to emphasize both theoretical and empirical development of the subject.

CHECK YOUR PROGRESS



1. Name three industrial accidents that revived the importance of environmental sociology

2. When and where was the UN conference on Environment and Development organized?

2.6 SUMMING UP

The ecosystem runs in a cyclic manner and the increasing pollution and environmental degeneration stand as an obstruction to the natural cyclic process of the environment. This change in the ecosystem raised concern as it also affected human society. Since ages, human beings have developed their socio-cultural beliefs and practices based on the environment and the ecosystems they inhabit. Moreover, their livelihood is also largely dependent on the environment, especially the agrarian people. Thus, in a

way, environmental sociology evolved in the 1970s as a sub-discipline of sociology to study scientifically the relationship of environment and human society and also the changes in the human society as a result of the changes in the environment. It also evolved as a means to study how society has coped new strategies to deal with environmental changes. However, in the 1980s due to change in the Government policies of the US government the subject received a decline but later, the rising menace of environmental change have revived the subject more than before. At present, environmental sociology plays an important role in the light of more concern for our environment as it has also reached its limits to absorb the wastes of human activities.

Glossary:

ASA: The American Sociological Association was founded in the year 1905 as a non-profit organization for academic research on sociology. Similarly, the section on environmental sociology was formed in 1976 as an offshoot of the US environmental movement and the need to emphasize on sociologists' view on environmental issues.

The Three Mile Island: The Three Mile Island accident was a nuclear accident due to melting down at a nuclear power plant near Middle Town, Pennsylvania on March 28, 1979. It caused environmental and health effects in the region.

Chernobyl Accident: Similarly, in the Chernobyl Nuclear Plant, the world's worst nuclear accident happened on April 26, 1986. It was located near Pripyat, Ukraine, USSR. This accident too caused huge environmental and health hazards to the residents of the area.

Bhopal Gas Tragedy: On the night of 2nd and 3rd December 1984, the infamous Bhopal Gas Tragedy occurred due to gas leakage at Union

carbide India Limited pesticide plant in Bhopal, Madhya Pradesh, India. The leakage led to exposure of methyl isocyanate (MIC) gas to over 500,000 people causing immediate deaths and health hazards for many years even after the accidents.

2.7 QUESTIONS

1. Explain in brief about the rise and emergence of environmental sociology.
2. Give reasons regarding the decline of environmental sociology in the 1980s.
3. What reasons led to the resurgence of environmental sociology? Explain.

2.8 RECOMMENDED READINGS AND REFERENCES

Dunlap, R.E. and William, R.C. (1994): Struggling with Human Exemptionalism: The Rise, Decline and Revitalization of Environmental Sociology. *The American Sociologist*, 25 (1): 5-30. doi: <https://doi.org/10.1007/BF02691936>.

Hannigan, J. (2007). *Environmental Sociology*. Routledge, London.

Redclift, M.R. and Woodgate, G. (eds.) (2010). *The International Handbook of Environmental Sociology*. Edward Elgar Publishing Limited, Cheltenham.

UNIT 3: NATURE-NURTURE DEBATE: SYNTHESIS OF SOCIETAL AND ENVIRONMENTAL DIALECT

UNIT STRUCTURE

3.1 Introduction

3.2 Objectives

3.3 Nature-Nurture Debate

3.3.1 Nature

3.3.1.1 Impact of Nature on Human Beings

3.3.2 Nurture

3.3.2.1 Impact of Nature on Human Beings

3.4 The Puzzle of the Debate

3.4.1 Interaction and Overlap

3.5 A New Alternative

3.6 Summing Up

3.7 Questions

3.8 Recommended Readings and References

3.1 INTRODUCTION

There is a popular belief in the existence of nature/nurture debate. If we look at it from scholarly and popular discourse, then we often find that Sociology, which falls in the realm of Nurture, and Biology, which falls in the realm of Nature are pitted against each other. This difference is used to testify as well as justify the “nature vs. nurture debate”. If we look closely into this difference, we will find that it can be divided into four different concepts- ‘innate versus learned’, ‘biological versus socio-cultural’, ‘the animal in us versus the human in us’ and ‘genes versus environment’ (Macbeth, 1989). This belief in the difference is accentuated by the general

public's beliefs in our society and does makes the debate socially significant.

3.2 OBJECTIVES

By the end of this unit, you will be able to:

- Explain the concept of 'nature';
- Explain the concept of 'nurture';
- Analyse the differences arising between nature and nurture.

3.3 NATURE-NURTURE DEBATE

In this section of the unit, we will look into the debate that has gained significant importance among the academicians of all branches and which has contributed to developing the interest of the general public for centuries. There are two major positions held by scholars in regard to the debate, and it basically centres around the behavioural aspect of human beings — that what causes the change in behaviour, habits and traits among human beings; is it nature or nurture? It has remained under continuous intellectual scrutiny always as its core issue concerns around existential relevance of human behaviour. This debate is not a recent phenomenon rather it has its roots well in the nineteenth century and this debate is still sought as a crucial part of humankind, though there are many alternatives to it now. For centuries we can see how nature or genetic influence and nurture or social-environmental influences such as schools, parents, one's surrounding, played a viable position in the debate. In the debate, it is generally believed that some human behaviour can easily be changed because it is learned, whereas other behaviour resists modification because it is part of our biological heritage (Waal, 1999).

To begin with, this debate started with the great scientific discovery of Charles Darwin's evolution theory in his famous work *On the Origin of Species* published in 1859. This work once published led many to ponder about the significance of nature-nurture on human beings, ultimately opening up the grounds for nature-nurture debate. We can say that

officially the nature–nurture debate can trace its origin to 1874, even though it has been discussed or at least hinted at by philosophers in all ages.

In the following sections, we will discuss the role of nature as well as the role of nurture attributed to the growth of an individual. Firstly, the concept of nature and the reasons behind its acceptance, and secondly the concept of nurture and the reasons behind its acceptance will be discussed.

3.3.1 Nature

This section of the unit will majorly focus on the idea of what is considered as nature and how it is considered to play a role in the evolution of human behaviour. This nature, i.e. the biological viewpoint believes that the causes of behaviour are biological, and therefore are genetic and therefore irreversible (Macbeth, 1989). This concept of nature's impact was popularised and was founded as a result of the discovery of the theory of evolution by Charles Darwin. This theory of natural selection greatly impacted and influenced his cousin, Sir Francis Galton. Galton inferred that if all animals were evolving, this would mean that human beings were also evolving. This led him to develop his idea of the influence of nature on one's growth, which is discussed in the coming section (Miller, 2011).

3.3.1.1 Impact of Nature on Human Beings

As we have read above, Sir Francis Galton was led by the idea that human beings evolve too and it is the nature, i.e. genetic factors which decide the nature as well as behavioural patterns of the individual. Galton on the basis of his own life experience also believed that certain trait such as intelligence is not something that can be attained with time, but that is inherited from one's parents through genes. This development of Galton brought a completely new dimension to the understanding of mankind and this legacy of the importance of nature that he started continued until the 1920s. The followers of his original assertions defended the position that he laid the foundation of and believed that although the environment can play

a role in human development, still nature has the upper hand and larger influence.

Based on this understanding we can find out the stance of the advocates of the nature theory that they believed that people are “destined” to certain outcomes based on their biological histories. This acceptance of the supremacy of nature does not imply that there was no opposition to this position, but it was commonly accepted that intelligence and personal appearance were almost completely predetermined by one’s parents. This indirectly meant that even if an individual makes a personal effort to achieve something, that individual would not be able to do so if his/her genes did not permit the adequate potential.

This concept can be understood better if we look into certain examples. One such is the study by Charles Cooley where he held that criminal behaviour was influenced by the “inheritance of biological traits”. That means a person becomes a criminal and indulges in socially unacceptable criminal behaviour because he has those qualities or traits ingrained in him since birth. If we go back to Galton again, he considered the idea of “eugenics,” that is, improving the human race through selective breeding. This idea of eugenics of superiority of one over the other believes in the fact that if nature was the source of one’s intelligence, for example, it is considered a waste to invest money or other resources on teaching children who were genetically inferior. As according to this idea, it is believed that they were destined for scholastic failure and social debauchery. This idea of a particular breed considered to be superior and another considered to be inferior can be witnessed through an observation of a past event in history. The implications of this belief could be seen in the Nazi regime in Germany where the Nazis attempted to create a better world by eliminating those individuals whom they considered to be with perceived inferior genes (Miller, 2011).

CHECK YOUR PROGRESS



1. Who is the author of *On the Origin of Species*?

2. Fill up the gaps:

- a. Nature-nurture debate started with the great scientific discovery of Charles Darwin's _____.
- b. _____ held that criminal behaviour was influenced by the “inheritance of biological traits”.

3.3.2 Nurture

The implications of the nature-controlled behaviour, of its concept of unchanging, irreversible attributes led many to despair over the fact that it had a negative impact on those who were considered to be genetically poor. It posed upon as a concept that implies a bleak future, one void of freedom. This led many to turn to the influence of nurture and one's environment as a scientifically viable alternative. This arising thought ultimately in the 1920s led to the second part of our study in this unit, i.e. the aspect of nurture and its importance in developing an individual's behaviour as well as growth (Miller, 2011). If we look at it from a sociological viewpoint, the concept of nurture in the nature-nurture debate means that the causes of one's behaviour are socially induced (Macbeth, 1989).

3.3.2.1 Impact of Nurture on Human Beings

In the 1920s, the tables were turned and people started giving attention to nurture, i.e. the environment and how it can shape and change one's behaviour. The belief in nurture's crucial contributions to intelligence and

personality gained prominence. To disqualify the earlier held notion that it is gene only which is inherited that paved the path to one's intelligence, Alphonse de Candolle (1806-1893), published data that supported his claim that the environment was the major influence in a person's life. He in his study has shown how environment which comprises of the impacts of social forces on the development of one's ability. He documented the disproportionate number of famous scientists who came from "small to moderate-sized countries with moderate climates, democratic governments, tolerant religious establishments, and thriving commercial interests"—pieces of evidence of favourable environments.

CHECK YOUR PROGRESS



Activity:

Look around you to find a case where you can see the overlap of nature and nurture.

3.4 THE PUZZLE OF THE DEBATE

While observing the nature-nurture debate over time, of the importance of one over the other, it has led over the years to the understanding that one's social behaviour, as well as physical attributes, is influenced and guided both by nature as well as nurture. Though scholars over the years have been proving through various examples of how one surpasses the other yet further analysis over the years has shown something else. We have found studies that were conducted to support both the nature and nurture side of the conflict.

There are certain cases which were considered to be the ideal for the nature-nurture debate. We are going to look at them now to understand the

debate in detail. For example, one case that is considered to be one prime example of the importance of nature on the influence on one's behaviour is that of the "observation of identical twins". Advocates of the nature position insist that studies of monozygotic or identical twins are strongly supportive of nature. They through their experiments tried to prove that identical twins that are raised separately in two "different" environments have been demonstrated to exhibit similar preferences in professional careers (McCall, 1997, 60-77, as cited in Miller, 2011).

In another study, it was revealed that they displayed similarities in emotional tendencies. This proven fact of the advocates of nature theory was questioned and put under scrutiny by the advocates of nurture theory too. They contributed on their part that because identical twins have a highly similar appearance, they are treated similarly and thus receive similar nurturing despite early separation.

There was another case study based on the level of IQ of the individual. From the view of the advocates of the nature theory again it was suggested that an adopted child's IQ has a greater correlation with the biological parents' IQ than with the adoptive parents' IQ. This means that one's level of IQ depends on one's genes which one receives from one's mother at the time of birth. However, these studies are again countered by those that follow the nurture narrative that shows that the IQ of adopted children increases when they are placed with higher-IQ adoptive parents or in special education programmes (Miller, 2011).

Thus from the above cases, it becomes clear that nature and nurture by themselves are insufficient to explain the human differences.

3.4.1 Interaction and Overlap

In the starting of the unit, we have said that this debate is considered as one of the binary opposites. That there were clear distinctions between what

governs human actions and behaviours, whether nature or nurture. But by now, we have seen that an exact picture of nature-nurture distinction is impossible to make as a case might be said to be influenced by nature or nurture and sometimes both. In this section, we will see how there is an overlap of both through the help of certain examples. When we study the distinction between what we consider as biological and what we consider as social/cultural, it is obvious that in description both are different and this differentiation is valid. Nevertheless, when we look at it from the perspective of nature-culture debate we find that this difference is false. This is because the same occurrence when observed by a biologist it can be phrased in biological terms, and when observed by a social scientist can be observed in a social or cultural way. We can consider the case of the presence of amino acid. The lack of it in one's diet can be considered to be biological as well as social/cultural. Because the cause of this lack maybe some kind of 'social' deprivation or may be due to a 'biological' incapacity of the mother (e.g. illness). So, in this case, it may also be that the mother was ill because of 'social' problems. So in a case like this, even if the factors for the lack of amino acid is 'biological' or 'social', the child is still malnourished. Thus, we can see that occurrences are not of themselves always clearly social or biological.

Again coming to the topic of 'gene' that is considered to be something that is inherited from one's parents and hence biological, it is something that can be reversed or changed too. This we can understand again through an example. In case of impact on one's brain or mental stability, the immediate application of a phenylalanine free diet for an infant with phenylketonuria will prevent brain damage, thus providing a space for the nurture to come in the 'realm' of nature. Whereas in a different note, the effects of some socially triggered event might be quite irreversible. For example, if an individual witnesses some kind of tragic event, that individual might go through a 'psychological trauma' from which he/she may not be able to overcome.

Thus there is both interaction and overlap between things ‘sociological’ and things ‘biological’ (Macbeth,1989).

3.5 A NEW ALTERNATIVE

Each of the traditional perspectives (nature and nurture) offers a unique view on the factors that shape the development of personality. However, these perspectives, taken individually, do not adequately explain how or why people develop differences in behaviour and personality. So as a response to it, with the modern age, a new dimension of human development has emerged, specifically, the noetic. The term comes from the Greek word for mind and refers to a person’s individual agency and freedom, but more specifically the ability to think. Agency refers to the capacity of an individual to choose and carry out any course in the presence of several options. It would seem unwise to attribute too much strength to nature or nurture alone. It is equally important to consider one’s personal capacity for choice-making as a free agent. The notion of free agency provides a more fulfilling lifestyle by providing the possibility of change and control over one’s outcome in life. The noetic preserves moral responsibility by declaring that despite the influences in our lives, we ultimately have the ability to choose (Miller, 2011).

3.6 SUMMING UP

In this unit, we learnt about the nature versus nurture debate and understood how a binary between the two cannot be drawn. At last, we can summarize that the sources of phenomena we are interested in can be fully biological and fully sociological; that there is a deep and crucial sociological analysis that can be applied to the current obsession with biological understandings of the world; and that causes are also about socially constructed and prescribed meanings, including the meanings we attach to biological “facts”. Thus as students of Sociology, we need a

sociologically informed approach to Biology that enables us to examine these experiences as an integration of body and culture (Bryant,2014).

Glossary:

- Charles Darwin - He was an English naturalist, geologist and biologist. He is best known for his contribution to the science of evolution. One of his famous work is the *On the Origins of Species*.
- IQ - The full form of IQ is Intelligence Quotient. It is basically a number used to express the apparent relative intelligence of a person.
- Gene- A gene is the basic physical and functional unit of heredity. Genes are made up of DNA.

3.7 QUESTIONS

1. What do you understand by nurture?
2. How do the proponents of the Nature-Nurture debate differentiate their ideas?
3. How can we show that nature-nurture cannot be isolated from each other? Explain.
4. Do you think in the contemporary times we can show any case as purely influenced by either nature or nurture?

3.8 RECOMMENDED READINGS AND REFERNCES

- Bryant, K. (2014). Teaching the nature-nurture debate. *Contexts*. Sage Publications, 13(4).
- Macbeth, H. (1989). Nature-nurture: The false dichotomies. *Anthropology today*, 5(4).

Miller, A. (2011). An overview of the nature-nurture debate and a proposed new paradigm. *Intuition: the BYU Undergraduate Journal In Psychology*, 7(1).

Waal, de F. (1999). The End of Nature versus Nurture. *Scientific American, a division of Nature America, Inc.*, 281(6).

Yee, A. (1995). Evolution of the Nature-Nurture Controversy: Response to J. Philippe Rushton. *Educational Psychology Review*, 7(4).

MODULE II: SOCIOLOGY OF ENVIRONMENT

UNIT 4: CLASSICAL SOCIOLOGY AND ENVIRONMENT: MARX, WEBER AND DURKHEIM

UNIT STRUCTURE

- 4.1 Introduction
- 4.2 Objectives
- 4.3 Environmental Sociology as Agnostic toward Conventional Sociological Theory
- 4.4 Marx and Environmental Sociology
- 4.5 Weber and Environmental Sociology
- 4.6 Durkheim and Environmental Sociology
- 4.7 Summing Up
- 4.8 Questions
- 4.9 Recommended Readings and References

4.1 INTRODUCTION

You have already learnt in detail about classical sociology in the first semester. Karl Marx, Max Weber and Emile Durkheim are considered among the chief founding fathers of sociology and are indeed indispensable for the understanding of sociological theory. By now, you are already familiar with their works. In this unit, we are going to explore the influence of classical sociological tradition on environmental sociology. To begin with, classical sociological theorists of the nineteenth and the twentieth centuries, in their attempt to make sociology a discipline distinct from other disciplines like psychology, biology, economics, etc., focused mainly on the social causes of social phenomena. In the process, the classical trinity paid little attention to the biophysical environment. Now, this may lead you to the question: does this mean that classical sociology has had no

influence on environmental sociology? The answer is no. The classical sociological theorists indeed had something significant to say about societal-environmental relations even though it was more implied than direct.

4.2 OBJECTIVES

After going through this unit you will be able to:

- Discuss the influence of classical sociology on environmental sociology;
- Analyse the relationship of the classical trinity of Marx, Weber and Durkheim to environmental sociology.

4.3 ENVIRONMENTAL SOCIOLOGY AS AGNOSTIC TOWARD CONVENTIONAL SOCIOLOGICAL THEORY

Environmental sociology by nature has been somewhat sceptical toward mainstream sociological theory. The reason behind this has been the socio-cultural determinism of conventional sociological theory, with little attention to the environmental issues. In fact, it was not until the late 1960s and early 1970s that environmental sociology emerged. Prior to that, the sociological significance of environmental issues did not receive the recognition it deserved. The classical theorists in their attempt to distinguish sociology from other disciplines, be it biology or other social sciences, began to emphasize the social aspect focusing on the social causes of the social phenomena. Therefore, social concepts like culture, power, social classes, etc. began to occupy the central place in sociological theory. In the process, the inter-relationship between society and the biophysical environment did not receive the needed emphasis in classical sociology.

However, at the same time, it may also be noted that environmental sociology cannot afford to insulate itself from classical sociological theory. Most of the eminent scholars of environmental sociology were, in fact, greatly influenced by the classical theorists. In the subsequent sections, we are going to understand what the classical trinity of Marx, Weber and Durkheim had to say about the environment and societal-environmental relations.

4.4 MARX AND ENVIRONMENTAL SOCIOLOGY

Among the classical theorists, Karl Marx seems to have the most influence on environmental sociology. However, the ideas and works of Marx are often considered as Promethean in nature. For him, explaining and understanding the dynamic of capitalism and its consequences was considered more important than focusing on the biophysical environment. For that matter, the ecological contributions of Marx are often considered marginal. Even though the works of Marx and his collaborator Friedrich Engels were marginally concerned about environmental issues, their analysis of the social structure and social change has served as the starting point for many theories of environmental sociology (Hannigan, 2007). According to Marx, the root cause of all social ills like overpopulation, depletion of natural resources, etc. was capitalism. Even the theory of alienation as given by Marx also talks about the alienation or estrangement of the working population from nature.

Stop and Read

The term 'Prometheanism' is used to refer to an extreme commitment to industrialisation (Redclift and Woodgate, eds. 2010). Etymologically, this term is derived from Greek mythology, God Prometheus who is believed to have created human beings from clay and taught them agriculture and other aspects of civilisation.

Prometheanism, therefore, alludes to inventive and innovative nature and in the context of environmental issues, it prioritises human needs and interests over that of the ecological environment. Marx's undue emphasis on the economic conditions as opposed to the natural conditions of human existence is considered as a typical feature of his Prometheanism.

Thus, we can see that both Marxism and Environmental Sociology are critical to the existing social structures, especially capitalism. It may also be noted that there are also commonalities between neo-Marxism and Environmental Sociology in that sense that both regard environmental degradation as a contradiction of the development of modern societies (Dunlap, Buttel, et. al., Eds. 2017). Moreover, the affinity between Marxism and Environmental Sociology has also led to the emergence of eco-socialism. Marxists have also played a crucial role in the field of critical realism which has also come to influence the approaches to environmental issues. In this sense too, Marxism is exercising an influence on environmental sociology. (Hannigan, 2007).

John Bellamy Foster is of the view that Marx has given enough emphasis to the environmental crisis of his time. According to him, Marx analysed the major ecological crisis, i.e. degradation of soil fertility within capitalist agriculture along with a host of other problems like depletion of natural resources, pollution, overpopulation, etc. He was one of the earliest advocates of organic farming methods. (ibid.).

The Labour Process and Nature:

According to Marx, the labour process plays a crucial role in transforming nature or the biophysical environment into what human beings need. This process also leads to a transformation of people's own nature. Through labour, human beings act upon the external nature and change it, thereby exploiting the potentialities lying within nature. The

labour process acts as a two-way interaction between human beings and nature. The process includes three principal elements- the work itself, the instruments and technology needed for it, and finally and most importantly, the objects of the natural world on which the labour is exercised (Dunlap, Buttel, et. al., Eds. 2017). Though working upon the objects of nature for fulfilling human needs may seem empowering to human beings yet it must be noted that there are limits to which people can exercise control over the objects of nature. The crossing of these limits results in the havoc of nature. This aspect has many implications for environmental sociology.

It may be noted here that the labour process on the objects of nature remains a conspicuous feature of every society and it is central to human existence. However, the degree, nature and the impact of this process vary according to the different forms of society that we are dealing with. Therefore, it is important to identify the type of society we are dealing with so as to understand the implications the labour process has for the natural world as well as human beings.

If we take into consideration the capitalistic society, human labour power, the means of production as well as the raw materials from nature that are necessary for the creation of commodities are all purchased through capital. All these become a part of the market where these can be sold and purchased. These are then combined through the labour process under the supervision and control of managers, to create products. These products belong to the owners of the means of production and those who have created them are alienated from them. The products thus created become commodities, their value being more than the values of the human labour and the means of production required in the production process.

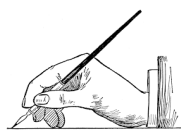
Therefore, though we cannot establish a direct link of conceptual framework between Marxism and environmental sociology, nevertheless, the former significantly influenced the latter. The commonality between the two is more evident in both being critical perspectives that advocated a change in the existing social structure.

Stop and Read

Even though Marxism has played a significant role in the development of environmental sociology, there are also certain reasons for which many environmental sociologists wanted to maintain a distance from Marxism. The major among them are:

1. Some of them had a general disdain for classical sociological thought and therefore, they distanced themselves from Marxism
2. Other environmental sociologists gave the reason of the ecological problems of the socialist countries during the 1950s through the 1980s, thereby emphasising that Marxism has the least regard for the environment
3. Some of them were critical of Marx's Prometheanism
4. Some others had a concern that emphasis on Marxism may divert scholars from the environmental agenda. (Dunlap, Buttel, et. al., Eds. 2017)

CHECK YOUR PROGRESS



1. What is Prometheanism?

2. What according to Marx is the root cause of all social ills like overpopulation, depletion of natural resources, etc.?

3. How does the labour process transform nature?

4.5 WEBER AND ENVIRONMENTAL SOCIOLOGY

If we look at the works of Max Weber, we will find that his major themes like capitalism, bureaucracy and rationalism concentrate mainly on human beings and the institutions that they have created. It may, therefore, appear to us as though his works have little to do with the connection between the ecological environment and society. Does this mean that Weber's works do not have any implications for environmental issues? The answer can be found in the fact that sociologists have begun to re-examine Weber's works keeping in view the environmental perspective and have identified the role played by Weberian scholarship in the shaping of environmental sociology. In this context, mention needs to be made of Patrick C. West and Raymond Murphy.

West basically focuses on Weber's historical sociology of religion and his empirical research on ancient societies from which one can derive at a human ecology, influential for environmental sociology. Weber's comparative-historical human ecology covers the causally important role played at times in history by environmental factors. Another important aspect of it consists of the struggles of the social classes and groups over natural resources (Dunlap, Buttel, et. al., Eds. 2017).

On the other hand, Murphy's discussion is based primarily on Weber's concept of rationalisation and rationality, with emphasis on Weber's

Economy and Society. Murphy has analysed that rationalisation consists in increased scientific and technical knowledge, driving humans to master and manipulate nature with the side-lining of the threats posed by humans to the environment (ibid.). The bureaucratic apparatus leads to the creation of a social structure where efficiency reigns supreme. In the process, ecological aspects are given the least importance. In other words, rationalisation leads to ecological irrationality which results in consequences like pollution and technological disasters (Hannigan, 2007).

Interaction between Social Action and Nature:

Weber's concept of social action also has implications in the field of environmental sociology. People's actions lead to changes in the structure which are often in an unpredictable manner. Social actions inspired by rationalization lead to the danger of the creation of a world that controls human beings and not the other way around, thereby making them prisoners of the cage of their own making. (Dunlap, Buttel, et. al., Eds. 2017). Further, it may also be noted that though Weber's works emphasize more on subjectivism, that is how people interpret their circumstances, he did not undermine the objective reality of nature or the biophysical environment.

The tension between the social and natural can be perceived implicitly from Weber's works. Social reality is, of course, different from the reality of nature. However, both are intimately related. Attempts of human beings to control and remake the natural world have resulted in the catastrophic effects of nature. And in this regard, it is also important to note that human beings shape nature more through the unintended consequences of their actions than by their intended consequences. Further, human beings are also shaped by nature. In other words, human beings become a bridge between the social and the natural world.

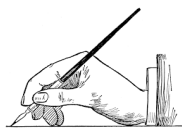
Human history is, therefore, a result of the tension between the social and the natural world.

Thus, it can be observed that Weber did not merely focus on the social factors, rather he also took into consideration the non-social factors like the environmental factors along with the material aspects of technology. This leads us to have a Weberian approach to study environmental issues.

Stop and Read

It may be noted that Murphy is also critical of Weber on certain points. Firstly, Weber considers technology in terms of the machine as merely a product of the mind. To the contrary, Murphy considers this as inadequate as he believes that machine is a product of the interaction between both human mind and nature. Similarly, Weber is of the view that rationalisation results in creation of self-contained separate sphere like economic, political, scientific, etc. to which Murphy opposes by arguing that there is a tendency towards reintegration of formerly separate spheres, for instance, the tendency of the scientific sphere becoming political (Dunlap, Buttel, et. al., Eds. 2017).

CHECK YOUR PROGRESS



1. Fill up the gaps:

- a. Murphy's discussion is based primarily on Weber's concept of _____ and rationality.
- b. Weber's works emphasizes more on _____, that is how people interpret their circumstances.

4.6 DURKHEIM AND ENVIRONMENTAL SOCIOLOGY

Emile Durkheim is well known for his resistance to biological explanations and his model of social change based on the transition from mechanical solidarity to organic solidarity. His emphasis on social facts that gave sociology a more positivist nature often seems like an antithesis of environmental sociology. The study of social facts may seem to have sidelined the ecological environment, focusing more on socio-cultural determinism. In other words, among the three classical sociologists, Durkheim appears to have the least influence on environmental sociology. However, this does not at all imply that we need to rule out Durkheim's works as being relevant to environmental sociology. Durkheim did not give much emphasis on the term 'nature' or the ecological environment. Nor was he much interested in considering its meaning. However, at the same time, he did recognise society as a part of nature which is a reality of its own. According to him, the social realm is marked by greater complexity which makes it different from the other realms.

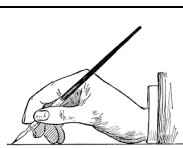
Durkheim's *Division of Labour in Society* gives us basic ideas that serve as the base for the analysis of the relationship between societies and their resources. In his work on the division of labour, Durkheim talks about two types of solidarity—mechanical and organic. Mechanical solidarity can be described as cultural as it is based on the identification of the members of a human society with each other based on commonalities and shared traits. On the other hand, organic solidarity can be described as ecological as it is based on the interdependence of the members of a society based on the diversity in the roles of various members in achieving collective adaptation to the circumstances in which they live (ibid.). He describes the transition of society from a state of mechanical solidarity to organic solidarity, leading to an increased division of labour. Such a transition also leads to rising population and scarce resources. In other words, the members of any society have to rely on limited resources and with the rise in population

density, the competition among the members becomes unabated and destructive. To counter this increased competition, specialisation is a must. Thus, as the society began to be denser and more complex from being simple, there would have been problems and chaos had everyone engaged in agriculture. Therefore, the specialisation of labour brought in by the transition from simple to complex society (in other words, the shift from mechanical to organic solidarity) indeed leads to decrease in the competition over limited arable land. The intervention of technological innovation also makes the land more productive (Hannigan, 2007).

Another way to look at the idea of the interrelationship between the physical environment and the social realm through Durkheim's works is by taking into consideration Durkheim's view that culture influences the conceptions people have about the physical environment or nature. This can be identified as a social constructionist approach of Durkheim which has its relevance in the study of environmental issues.

Therefore, it can be observed that Durkheim's attempt to establish sociology as a new science of society led him to demonstrate the social as a separate entity of reality, distinct from the biological or the psychological. Such a view actually distances the works of Durkheim from the interrelationships between the social and the biological. However, it may also be noted that his ideas on changing forms of social solidarity lead us to believe that a Durkheimian approach to environmental issues is also possible to some extent if not to a great extent.

CHECK YOUR PROGRESS



1. Fill up the gaps:

a. Mechanical solidarity can be described as

_____ as it is based on the _____ of the members of a human society with each other.

b. According to Durkheim, to counter this increased competition, _____ is a must.

4.7 SUMMING UP

In this unit, we learned about how classical sociological theory has influenced environmental sociology. We have covered Marx, Weber and Durkheim who are considered the founding fathers of sociological theory. Among the three of them, Marx seems to have the most influence whereas Durkheim seems to have the least influence on environmental sociology. Though it may appear to us that the classical theorists in their attempt to create a science of society based on social determinism had somewhat sidelined the biophysical environment yet a deeper examination of their works help us understand their implications on environmental issues which are more implied than direct.

4.8 QUESTIONS

1. Environmental sociology by nature has been somewhat sceptical toward mainstream sociological theory—Explain. What role did classical sociological theory play in the development of environmental sociology?
2. What are the implications of Marxist social theory for understanding environment-society relations?
3. Explain how Weber's work can be seen to accommodate an environmental dimension.
4. Analyse the ecological implications of Durkheim's work on the division of labour.

4.9 RECOMMENDED READINGS AND REFERENCES

Dunlap, R.E. and Michelson, W. (eds.) (2002). *Handbook of Environmental Sociology*. Greenwood Press, London

Dunlap, R.E., Buttel, F.H., Dickens, P. and Gijswijt, A. (eds.) (2017). *Environmental Sociology: Classical Foundations, Contemporary Insights*. Rawat Publications, Jaipur.

Hannigan, J. (2007). *Environmental Sociology*. Routledge, London.

Redclift, M.R. and Woodgate, G. (eds.) (2010). *The International Handbook of Environmental Sociology*. Edward Elgar Publishing Limited, Cheltenham.

UNIT 5: CONTEMPORARY THEORETICAL APPROACHES: ECOLOGICAL MODERNISATION, ECOFEMINISM, ECOLOGICAL MARXISM

UNIT STRUCTURE

- 5.1 Introduction
- 5.2 Objectives
- 5.3 Ecological Modernisation Theory
- 5.4 Understanding Ecofeminism
 - 5.4.1 Indian Ecofeminist Theories
- 5.5 Ecological Marxism: Its Origin
 - 5.5.1 Understanding Ecological Marxism
- 5.6 Summing Up
- 5.7 Questions
- 5.8 Recommended Readings and References

5.1 INTRODUCTION

The various contemporary theoretical approaches provide a broad critical picture to look into the various areas of society in a theoretically multi-paradigmatic way. These theories focus on the increasing human interactions, innovations, globalization, etc. that have emerged in the past few decades criticizing the older standardized theories and assumptions giving way to new sociological established perspectives and theories. The theory is one of the broadest areas of sociological enquiry. It serves as the foundation or as a framework for more specialized and specific studies. The environment is an inevitable part of any given society. Therefore, it is obvious that any changes in the environment would affect other aspects of society. So, till now it is well understood that environmental sociology is an important sub-discipline of sociology. The classical theory includes the European founding figures of the discipline whose works were produced during the latter part of the 19th century and the beginning of the 20th

century, plus early American theorists. It includes the works of Marx, Weber, Durkheim and others. But in the more recent years, various additional theoretical perspectives including structuration theory, neo-functionalism, ecofeminism, etc. have given new insights into the changing contemporary society both at its micro and macro levels. In this Unit, we shall discuss the ecological modernisation, eco-feminism, ecological-Marxism and its related aspects which are among the contemporary theoretical approaches.

5.2 OBJECTIVES

After going through this unit, you will be able to:

- Discuss ecological modernisation theory and its critique;
- Explain ecofeminism and its related aspects;
- Discuss ecological Marxism and its relevance to environmental sociology.

5.3 ECOLOGICAL MODERNISATION THEORY

In recent years, environmental change has become a serious issue. Many debates have emerged in this context. There is a widespread concern that industrialization has brought about drastic consequences affecting societies and the environment at large and that proper remedies should be undertaken to tackle such problems. Sustainability has increasingly become a central theme in development policy at all spatial scales. The United Nations Agenda 21 has provided a framework for sustainable development to be placed at the heart of national, regional and local policymaking. In general terms, the concept of sustainable development requires that human activities take place within the ecological limits of the planet. It is generally accepted that this requires consideration of inter- and intra-generational equity, greater democratic involvement in decision-making and, perhaps most importantly, the integration of environmental, economic and social decision-making (Gibbs, 1998). The perspective of ecological

modernisation offers a constructive approach to deal with environmental problems, with a central role assigned to science and technology. This concept was developed in the 1980s, through the work of the German social scientists Joseph Huber (1982) and Martin Janicke (1985). Various others too followed the same ideas like Udo E. Simonis, Amory Lovins and others. The main argument is that the central institutions of modern society can be transformed to avoid an ecological crisis. Huber (1982), for example, has argued the need for an “ecological switchover” - a transition of industrial society towards an ecologically rational organization of production, based upon the theory of a changed relationship between the economy and ecology. Rather than the deep ecological position of the radical restructuring of society, Ecological modernization has more in common with “strong” versions of sustainability. It proposes that structural change must occur at the macro-economic level through broad sectoral shifts in the economy and at the microeconomic level, through the use of new and clean technologies by individual firms. Both Hajer (1995) and Harvey (1996) link ecological modernisation to sustainable development such that the latter is the “central storyline” of the policy discourse of ecological modernisation. However, ecological modernisation has much more analytical rigour than sustainable development. It “has a much sharper focus than does sustainable development on exactly what needs to be done with the capitalist political economy, especially within the confines of the developed nation-state” (Gibbs, 1998).

To be precise, ecological modernisation is a school of thought that states that economy can also be benefitted by moving towards environmentalism that is, through the protection, preservation, restoration and improvement of the earth system or green ideology, the economy can be sustained. It is a school of thought in social sciences that has gained much popularity among the policymakers and scholar’s worldwide. It is both an environmental discourse and an analytical approach. It is related to environmental re-adaptation of economic growth and industrial developments. The basic

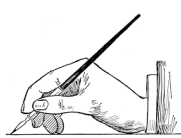
premise of ecological modernisation theory is the centripetal movement of ecological interests, ideas and considerations in social practices and institutional developments (Mol, 2002). There are different understandings of the scope of ecological modernisation theory. There are several debates, whether it is just about technological and industrial progress or its related aspects on economy and polity or to what extent it includes cultural aspects like lifestyles, attitudes, values etc. However, ecological modernisation must end in innovative structural changes. This approach also shares several features and the major ones are-

- Sustainable development- it is the development that meets the needs and requirements of the present generation without compromising the needs and requirements of future generations. It is an organizing principle also known as the 'Global Goals', which was adopted by all United Nations Member States in 2015. It has altogether 17 SDGs.
- Industrial metabolism- this concept was first used by Robert U. Ayres in 1988 during the International Geosphere-Biosphere Programme, Tokyo. This concept describes the material and energy turnover of industrial systems that, presupposes a connection between different industrial activities and viewing them as a part of a larger system.
- Industrial ecology- it is the study of industrial systems that works and operates like natural ecosystems. It is a young science that has emerged recently intending to find ways to lessen their environmental impact.

We have till now understood the concept of ecological modernization but, this concept is central to various controversies and debates. Critiques have argued that this concept of economic modernization will fail in this contemporary industrial society where the capitalistic mode of production prevails leaving us with no alternatives. They also question its reliability and whether industrial changes and technological development can alone

conserve resources. Likewise, there are various arguments that various critics from different fields have put forward.

CHECK YOUR PROGRESS



1. What is sustainable development?

5.4 UNDERSTANDING ECOFEMINISM

Ecofeminism began in the 1970s which in general means linking feminism to ecology. However, being ecofeminist does not imply that women are innately more linked to nature and life than men. There are men who devote themselves to defending the environment and/or animals and women who are indifferent or hostile to these new forms of awareness. However, it is true that, statistically, at an international level, women are the majority in the environmental movements and the defence of animals. From a constructivist perspective of gender subjectivity, we can consider that women's interest in caring for nature is not an automatic mechanism related to gender. But in general, women have not historically had access to weapons and have traditionally been responsible for taking care of the most vulnerable (children, the elderly and the sick) and maintaining the domestic material infrastructure (kitchen, clothes, etc.), developing, in statistical terms, a "relational" subjectivity, attentive to others and expressing greater affection (Puleo, 2017). Women have actively taken steps to control the full-blown impact of climatic change over nature. Nature is feminized because it possesses the qualities of women. The crusade of Ecofeminism links the philosophy of feminism with ecology. The term 'Ecofeminism'

was coined by the French writer Francoise d'Eaubonne in the year 1974. This philosophy intertwines the abuse and dominance over women with that over the environment (Sivaranjani & Rajarajan, 2016).

In the 21st century, environmental and social conditions require feminism and environmentalism to play a significant role. On the one hand, women have attained self-awareness and have set about overcoming the barriers that for centuries have been raised against their full inclusion in the field of paid work, culture and politics. On the other, the unsustainability of the techno-economic development model is becoming increasingly clear, as it has a destructive nature that compromises the future of humankind (Puleo, 2017). Though eco-feminism is a broad category and considers several theoretical positions like liberal, radical, socialist, etc., most ecofeminists would agree on several core assumptions like-

- There are significant connections between the oppression of women and the oppression of nature.
- Feminist theory and practice must consider environmental and ecological perspectives.

Some ecofeminists give importance to historical or conceptual explanations for the oppression of women and nature. They have also explored linguistic interconnections between the oppression of women and nature where sexist-naturist language represents women and nature as inferior to the men identified culture. Vandana Shiva, Maria Mies and others also examine empirical evidence linking women, children and people of colour with various health and risk factors linked to environmental degradation as a result of pesticides and other pollutants or big agro-industries. Shiva argues, in favour of the feminine as an ecological conservation principle, in contrast to the Western agricultural development strategies that she called as 'maldevelopment'- a reductionist vision of the relationship between man and woman and between man and nature. In sync with Shiva's criticisms of Western models of development, ecofeminists and post-structural

philosophers of science criticize Western views of knowledge production and notions as objective. Sandra Hardings emphasizes on the 'knower' as essential for evaluating knowledge. Likewise, Donna Haraway's notion argues that knowledge formulates the study of nature as an exchange between active subjects, or a form of conversation.

So, to be precise, Ecofeminism is an attempt to outline a new utopian horizon, addressing the environmental issue from the categories of patriarchy, androcentrism, care, sexism and gender (Puleo, 2017).

5.4.1 Indian Ecofeminist Theorists

After the Independence in 1947, several non-violent action movements emerged in different regions of India. These movements aimed at preserving traditional lifestyles, natural environment, resources for subsistence. All of them followed the path of democracy, decentralization of power, and non-violent actions, focusing on the most disadvantaged groups: the poor, women, tribal communities, and peasants. During the 1950s and 1960s, the development of capitalism and the modernization theory were established as they were considered as the remedy to Third World poverty. However, the simplistic dichotomy between traditional societies (rural, underdeveloped) and non-traditional societies (urban, progressive) on the base of which development projects were implemented, resulted in the continuation of the colonial project, this time carried out by internal actors instead of colonial masters. Ecofeminist movements and ecological movements involving women's participation based their struggle on the recovery of feminine principles of connectedness, wholeness, interdependence as opposed to the reductionism of patriarchal science. Proponents of massive development projects in the South of the world focused on bringing wealth and prosperity to beneficiaries' countries and communities but they did not realize that their vision does not necessarily match that of other cultures, for example the rural and tribal Indian ones. Thus, there were critiques to such "partial" view. Among the critics was the

Indian activist Vandana Shiva, who became the spokesperson of Indian ecofeminism. Her environmental activism and disapproval of Western development theories were born from personal experience in one the leading environmental movements in postcolonial India, the Chipko Movement (1974). Her work aimed at going beyond prejudices that relegate tribal knowledge to mystical and supernatural spheres, and gives new dignity to those who have been able to protect their natural environment with sustainable production practices.

Shiva's criticism of development pattern originated from her personal experience in Chipko movement (1974), thus in 1988, she wrote *Staying Alive: Women, Ecology, and Development*, where she insisted on how development is the translation of corporate interests and national enterprises, which undertook in India a process of modernization implying deforestation and the replanting of species intended for export, in complete disregard for local ecosystems. In 1991, Shiva founded *Navdanya* ("nine seeds" in Hindi), movement aimed at the protection of biodiversity and combating biopiracy. She showed how environmental destruction and women marginalization are not inevitable processes as Western development patterns might entail. She claimed how the process triggered by economic globalization, capitalism, caused serious levels on inequality, exploitation, and injustices, which put at risk human's life. India has been a recipient of such development policies since 1947, but the beneficiaries have been a small part of Indian society which does not extend to the already disadvantaged segments of population, especially rural women, the poorest of the poor. In *Staying Alive* (1989), Shiva uses the categories of (a) development and (b) science, to explain how they have been modelled on exclusively patriarchal vision, but nevertheless, women managed not to be passive agents at the mercy of such phenomenon, rather an essential guide in the struggle for survival.

The West undertook its development projects in the Third World, starting from the idea of progress. However, two essential concepts lie behind the progress intended by the West:

1. Scientific Knowledge; 2. Economic Development. According to this construction, there is no space for environmental evaluation and as a consequence, for evaluation of the impact of progress on human beings. The death of nature is a violence perpetuated on men and women who draw sustenance from it. Modern science giving justification of such progress has transformed economy through scientific revolution aimed at profits and capital accumulation. Man's supremacy over nature has been translated in man's supremacy over woman, the latter being strongly tied to sustenance economy in countries like India. Western development is thus based on sexist metaphors, which contributed to the creation of a hierarchy between the productive men in the capitalistic system (at the peak), and women with nature (at the bottom), as inert subjects to be exploited. In the capitalistic economy, reproduction is not productive. Ecological destruction and women marginalization resulting from such vision led to the emergence of rural women in the form of organized resistance who opposed the Western concepts of science and development that do not respect nature's needs. Ecofeminist struggle in India aim at halting both endless exploitation of natural resources and total disregard for women's conditions. The feminist ideology resulting from the struggle goes beyond the gender itself, yet it creates a comprehensive policy which opposes humankind as a whole to the patriarchal universalism. Women's marginalization worsened during colonial government. Current development project has merely replaced the same models of subjugation and for this reason, Vandana defines it a "post-colonial project", based on the Western idea of progress. According to Vandana, the mistake underlying the patriarchal vision of progress is to perceive the environmental destruction as *productive*, while the reproduction of life as *inert* material. It creates new forms of inequalities. Vandana Shiva's activism takes place in this theoretical framework. A new subsistence perspective is proposed, whose logic is those of

interdependence, which could solve crisis due to exploitation and destructive principles of Western capitalistic system. The purpose of economy must not be the production for market and growth in profit but the creation and reproduction of life.

CHECK YOUR PROGRESS



1. Name two ecofeminists.

2. Who is the author of *Staying Alive: Women, Ecology, and Development*?

5.5 ECOLOGICAL MARXISM: ITS ORIGIN

The origin of ecological Marxism can be traced back to O' Connor's (1988) article, "Capitalism, Nature, Socialism: A Theoretical Introduction" which he wrote as an introduction to a new journal he founded, *Capitalism, Nature, Socialism*. In setting up this argument, O' Connor's referred to the book, *The Great Transformation* by Karl Polanyi which examines how capitalism destroys nature. Polanyi's work depicts that there are limits to economic growth based on ecological factors, an idea that popped up in the 1970s. Those ecological limits to growth are the factors that impede the relentless efforts of capitalism to grow and present a barrier to the ideological claim of capitalism regarding limitless growth potential. While proposing Ecological Marxism, O' Connor sought to move beyond the traditional crisis of the theories of capitalism. These issues remained significant and useful to ecological Marxism which directs attention to the "capitalization of nature". This view partly relates to the distribution of ownership in a capitalist society that affects access to nature and raw

materials to become class linked. Another argument is that this also involves the consequences of adverse environmental conditions that impact on nature. And therefore adversity in nature is the result of how capitalism organizes production. Another important dimension of this contradiction is between capitalism and nature, which is a metabolic rift. This metabolic rift examines the transfer of energy and the unequal distribution of energy that results from capitalism's effort to control the flow of energy. There is also another contradiction, between the forces and relations of production taken as a whole and an ecosystem which leads capitalism to destroy the basis of its potential wealth by destroying the ecology and producing the second contradiction of capitalism. Foster in 1992 states that the first contradiction as "the absolute general law of capitalist accumulation" and, the second contradiction as "the absolute general law of environmental degradation under capitalism" (*Extracted from: Michael J. Lynch (2014) - Ecological Marxism <https://greencriminology.org>*).

5.5.1 Understanding Ecological Marxism

Ecological Marxism links Marxist ideas to ecology. To link Marxism and ecological transition may seem at first like trying to bridge two entirely different movements and discourses, each with its own history and logic: one having mainly to do with class relations, and the other, the relation between humans and the environment. Historically, however, socialism has influenced the development of ecological thought and practice, while ecology has informed socialist thought and practice. Since the nineteenth century, the relationship between the two has been complex, interdependent, and dialectical (Foster, 2015). According to ecological Marxism, the origin of environmental problems is located in the political economy of advanced capitalist societies. Capitalist economies behave like a "treadmill of production" that continuously creates ecological harm through a self-reinforcing mechanism of increasing rates of production and consumption. The "treadmill of production" theory was introduced by Allan Schnaiberg. This concept holds that modern capitalism and the

modern state display a fundamental logic of promoting economic growth and private capital accumulation. The imperatives of a capitalist economic system (i.e. profit maximization and competition) push human societies to increasingly extract resources (withdrawals) and to deposit wastes and by-products (additions). State agencies and officials prefer economic growth both to ensure tax revenues and enhance officials' likelihood of re-election. Thus, the role of the state in capitalist society is to facilitate the conditions for capital growth.

The treadmill of production is directly linked to the ecological crisis since economic growth and accumulation require natural resource extraction which contributes to pollution. The key claim is that capital-intensive economic expansion is intrinsic to capitalist market societies because of the structure of the economy and the role of the state. Furthermore, capital-intensive economic expansion has an intrinsic tendency toward environmental degradation (Konak, 2008). According to ecological Marxism, the logic of capitalist production inevitably results in environmental degradation, since production necessitates the appropriation of nature. At the same time, the unchecked use of raw materials and resultant pollution can undermine the biophysical basis of production itself as capitalism treats nature as a free good. Ecological Marxism also doubts if technology and science can solve environmental problems in the long run. O'Connor points out that the history of industrial capitalism shows that "technologies have been chosen on the basis of their effects on costs and sales, not on the environment" (Konak, 2008).

CHECK YOUR PROGRESS



1. Who is the author of *The Great Transformation*?

2. How do the capitalist economies behave like a “treadmill of production”?

5.6 SUMMING UP

In this Unit, we have explored some major contemporary theoretical approaches that are very significant. These theories provide us with a theoretical framework to look in the broader picture of society. At the very beginning, we have discussed how society and environment are interrelated and therefore, any changes in one inevitably lead to changes in the other.

5.7 QUESTIONS

1. Write a note on ecological modernization theory.
2. What is ecofeminism? Discuss the ecofeminist theoretical framework in the context of India.
3. Write a note on ecological Marxism. Illustrate with examples.

5.8 RECOMMENDED READINGS AND REFERENCES

Foster, J.B. (2015). Marxism and Ecology: Common Fonts of a Great Transition. *The Great Transition Initiative*. DOI: <http://www.greattransition.org/publication/marxism-and-ecology>.

Gibbs. D (1998). Ecological Modernisation: A Basis for Regional Development?. Paper presented to the Seventh International Conference of the Greening of Industry Network ‘Partnership and Leadership: Building Alliances for a Sustainable Future’, 15-18 November, Rome.

Konak, N (2008). Ecological Modernization and Eco-Marxist Perspectives: Globalization and Gold Mining Development in Turkey. *Capitalism Nature Socialism*, 9 (4): 107-130.

Mol, A.P.J. (2002). Ecological Modernization and the Global Economy. *Global Environmental Politics*, 2 (2): 92-115.

Puleo, A. H. (2017). What is eco-feminism. *Quaderns de la Mediterrània*: 27-34. Retrieved from https://www.iemed.org/observatori/arees-danalisi/arxiu-adjunts/quaderns-de-la-mediterrania/qm25/what_is_ecofeminism_Alicia_H_Puleo_QM25_en.pdf

Redclift, M.R. and Woodgate, G. (eds.) (2010). *The International Handbook of Environmental Sociology*. Edward Elgar Publishing Limited, Cheltenham.

UNIT 6: CONTEMPORARY THEORETICAL APPROACHES: RISK SOCIETY, ANTHROPOCENE

UNIT STRUCTURE

- 6.1 Introduction
- 6.2 Objectives
- 6.3 Understanding Risk Society
 - 6.3.1 Risks in Risk Society
- 6.4 The Anthropocene
- 6.5 Summing Up
- 6.6 Questions
- 6.7 Recommended Readings and References

6.1 INTRODUCTION

In the previous unit, we covered three contemporary theoretical approaches to environmental sociology. This unit is going to deal with two more contemporary theoretical approaches, i.e. the Risk Society and the Anthropocene. With the influence of several factors, globalization has somehow impacted in all the areas of our life and the world at large. Introduction of information and technology, trade and transport or to be precise, with the emergence of neoliberal institutions of global power, the world is witnessing a strong process of globalization which is reflected in all the spheres of our lives.

Globalization has indeed turned the world into a 'global village' but with it, it has also welcomed many unwanted problems or 'risks', that not only calls for danger for mankind but also the entire environment. At some point, with more innovations and technological production and its application, human activities have become dominant which has started influencing on climate and the environment. Globalization is a phenomenon that has been taking place on neo-liberal economic doctrine and practice. Neoliberalism disintegrated the policy of the welfare state, and countries and their economies are pushed to the market that brought the profit and greater wealth to the rich, and the poor are impoverished. What neoliberals hypocritically and perfidiously recommend to the world brings damage and poverty. In this way, neoliberal globalization has led not only to the impoverishment of the poor but also to the devastation and degradation of their natural environment. That has created serious environmental problems and ecological crisis manifested in the depletion of natural resources and pollution of the environment. Intense industrial activity causes many negative changes that threaten human and natural environment. Human activities on nature produce a range of risks and dangers that have created a risk society about which many sociologists and environmentalist warn. Today, beliefs and concepts like anthropocentrism or 'human-centred' point of views are paving the way. Amidst such beliefs, many environmentally concerned authors have argued that anthropocentrism is ethically wrong and is the core of all ecological crises taking place.

Therefore, to look into these contemporary risks and beliefs, theoretical understandings are necessary. So, in this Unit, we will be discussing both the risk society and Anthropocene in detail along with the related aspects.

Stop and Read

Global Village- this means that the world is getting more interconnected as a result of media technologies and communication. This term was coined by Marshall McLuhan which was popularized by him in two of his books *The Gutenberg Galaxy: The Making of Typographic Man* (1962) and *Understanding Media* (1964).

6.2 OBJECTIVES

By the end of this Unit, you will be able to:

- Explain the risk society;
- Discuss the meaning of the Anthropocene and its related aspects;
- Analyse the impact of the risk society and Anthropocene in the contemporary world.

6.3 UNDERSTANDING RISK SOCIETY

In this section, we will learn what a ‘risk society’ is. We have already got to know that human activities have created a range of risks and dangers that have led to the creation of a risk society about which many sociologists warn, eminent among them are Ulrich Beck and Anthony Giddens, who have extensively put forward strong theoretical bases on the concept of risk society.

Beck is a contemporary theorist on modernity and a German sociologist who has written extensively on risk and globalization. He strongly argues that in modern society there is technological change and other risks which are inherent in a modern society which contributes to the formation of a global risk society. The growth of technology produces various forms of risks that we have to respond and adjust to. According to Beck, the process

of modernisation have resulted in the formation of the risk society, which he considers to have emerged in the late twentieth century. Before the twentieth century, the risks that society witnessed (e.g. workplace accidents) could be easily controlled and prevented. On the other hand, the new risks (e.g. pollution) created by the process of modernisation in the twentieth century can hardly be controlled, thereby causing irreversible damages. The consequences of such new risks are not limited in time and space and their impact can be perceived in all the areas of contemporary social life, and not merely in the context of the environment or health. Thus, these risks assume a global character, cutting across all social classes.

British sociologist, Anthony Giddens, also perceives risk society as an outcome of modern industrial society. According to him, modernity is oriented toward the future. Unlike the traditional societies that examine the past to explain present events and developments, modern societies believe in the capability to create their own future. In the process, taking risks become a part and parcel of modern society, even though such risks come with the possibility of negative consequences.

The emergence of the term 'risk society' can be traced back to publication in Germany of Ulrich Beck's *Risikogesellschaft* in 1986 which was translated as *Risk Society: Towards a New Modernity* in 1992. Thus, the term gained popularity in the 1990s. The term risk society as perceived by Ulrich Beck does not merely translate into an industrial society. A higher level of modernity is needed to create this risk society which is global, in other words, it can be termed a global risk society. In such a society, the production of goods leads to the production of risks. In the process, environmental problems do not remain merely the problems of surroundings, rather they become social problems, covering all the spheres of the social world.

Giddens points out two risks: global warming and genetically modified organisms. And Beck, on the other hand, believes that unwanted consequences of human activities create a new global order where there is global ecological threats. These threats include a *consequence of wealth* (ozone holes, the glass garden effect, genetic engineering), the *consequence of poverty* (deforestation, bad storage of poison, “bypassing” of ecological right and low standards of ecological protection), as well as *weapons of mass destruction* which can be used by members of different radical, fundamentalist movements and terrorist groups. The process of modernisation has led to the transitioning of *class society* into a *risk society*, as believed by Beck.

Beck has also highlighted how the concept of social distribution has undergone changes over the decades. In the first industrial modernity, there was the dissemination of ‘social goods’ like healthcare and employment. On the other hand, in the second modernity, which Beck refers to as the risk society, distribution of ‘social goods’ got replaced by ‘social bads’ like environmental degradation, terrorism and nuclear accidents. Here, it is to be noted that while the distribution of social goods is sectoral, i.e. while some are at gain and others at loss, social bads are universal in nature, i.e. these threaten both the rich and the poor alike.

6.3.1 Risks in a Risk Society

The contemporary world is marked by globalization which is one of the fundamental consequences of modernity. It has created new forms of interdependence in the world, and therefore, new forms of risks and dangers have emerged. No matter which part of the world we are located in, the consequences are the same. Since time immemorial, people have been living with some sort of risks, even though the risks of the modern world are quite different from the ones that were there before the twentieth century. Besides, the emergence of ‘risk’ as a concept is attributed to the late modern industrial society. Giddens has used the term in the context of

a society that is future-oriented - which sees the future precisely as a territory to be conquered or colonised. Risk is present in a society that actively tries to break away from its past, which is the overriding characteristic of modern industrial civilization. Risks occur as a result of the existence and development of scientific, technological and economic rationality that create environmental problems. Thus, one can see a transition from the domination of *external risks* to the dominance of *manufactured risks*. Gaining of global character by the risks of the contemporary world makes them more dangerous, thereby, posing a big threat to life on earth.

Giddens talks about two types of risks: external and manufactured. External risks are the risks from the outside. Such risks happen regularly and quite often in a population of people and therefore, these are somewhat predictable and hence, insurable. These risks belong to the natural world. Examples of external risks include flood, soil erosion, drought, etc. As we have already learnt that late modernity has brought in new global risks which have challenged the prior notion of predictability of risks and have generated uncertainty over future outcomes. These new risks are not the products of the natural world, rather these are internally produced or manufactured risks. These risks are produced as unintended consequences by the advances of modern science and technology. Examples of manufactured risks include global warming, genetically modified food, etc.

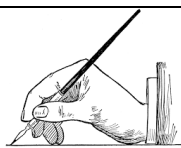
There are numerous risks of a risk society which we face. Some serious ones are listed below-

- Population growth
- Food and genetically modified organisms
- Pollution
- The destruction and devastation of the soil
- Deforestation

- Endangering survival and disappearance of plant and animal species
- Waste
- Climate changes
- Social inequalities and Poverty
- Crime
- Terrorism

Environmental problems are also social problems. What human beings do to nature is returned to them which is called as the *boomerang-effect*. This affects all the aspects of human life. Thus, it is important to examine the environmental problems from a sociological lens.

CHECK YOUR PROGRESS



1. Who is the author of *Risikogesellschaft*?

2. How are external risks different from manufactured risks?

6.4 THE ANTHROPOCENE

By now, you are familiar with the concept of how human activities and the advances of science and technology of the late modernity have led to the creation of new global risks, thereby shaping a risk society. Human activities have been exercising such a dominant impact on the environment that it is now widely accepted that humanly induced environmental change is taking place. Such impact of humanity on the environment and geology

has led to several debates among scientists and geologists and out of these debates the concept of the Anthropocene has emerged. As we know that the earth's 4.5 billion-year history has been divided into eons, eras, epochs and ages. The epoch that emerged at the end of the last Ice Age is called the Holocene. The Holocene is an epoch favourable for human societies to develop and flourish. During this epoch, human beings might have exploited nature for their own interests but then there was a belief that natural processes and ecosystems could somehow resist the human intervention and therefore could continue. Since human intervention has now led to drastic changes in the ecosystems and natural processes, it is therefore accepted that Holocene no longer fit in to describe the changed world. Thus, the Anthropocene has emerged as a new epoch in the Geological Time Scale.

Thus, the Anthropocene is defined as an epoch, which is the successor to the Holocene, during which activities of human beings have a dominant impact on the environment creating many man-made problems. However, the starting date of the Anthropocene is still a debatable issue. While Noble laureate atmospheric chemist Paul J. Crutzen, who coined the term, and some other scientists trace back the origin of this epoch to the beginning of the industrial revolution at the end of the eighteenth century, others claim that it began with the development of agriculture. However, the evidence shows that human impact on the environment to change and destabilise it began only with the beginning of burning fossil fuels. Recent views seem to point to the year 1945 which is considered as the onset of the 'Great Acceleration' (Hamilton, Bonneuil and Gemenne, 2015).

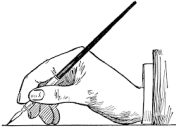
The concept of Anthropocene has been explored by various disciplines and is not confined merely to the natural sciences. In fact, this concept has made the notion of nature as an entity largely external to humanity as something outdated. Conversely, it has led to the growing importance of a perspective that focuses on the ecological and the social as intertwined. You have already learnt about the nature-nurture debate in Unit 3 of this

paper. Here, you also need to understand that the concept of Anthropocene has also challenged some boundaries pertaining to nature-nurture (or culture) dichotomy. It has highlighted the interconnectedness between the history of the earth and human history, thereby bringing the social world closer to the natural world.

Now let us understand some of the key features of the Anthropocene. The Anthropocene often includes emphasis on (a) the global and pervasive nature of the change; (b) the multifaceted nature of global change beyond just climate change, including biodiversity decline and species mixing across continents, alteration of global biogeochemical cycles and large-scale resource extraction and waste production; (c) the two-way interactions between humans and the rest of the natural world such that there can be feedbacks at a planetary scale such as climate change; and (d) a sense of a current or imminent fundamental shift in the functioning of our planet as a whole (Malhi, 2017).

From the above four points, we get to know that the concept of the Anthropocene has assumed much significance in contemporary times because the changes in the ecosystems and natural processes are global in nature. Further, the impact of such changes is profound to the extent that they have altered not just the climate but the environment at large. In other words, the planet earth as a whole is witnessing changes in its functioning. So, the main concept that the Anthropocene is trying to produce is that human activities have a dominating presence on multiple aspects of the natural world and the functioning of the earth system and that this has consequences for how we view and interact with the natural world and perceive our place in it.

CHECK YOUR PROGRESS

	1. Who has coined the term 'the Anthropocene'?
	2. What are some of the key features of the Anthropocene?

6.5 SUMMING UP

In this Unit, we have discussed two important contemporary approaches firstly, risk society and secondly, the Anthropocene. These two approaches are very significant in the modern industrial world or we can say the post-modern world. The acknowledgement of human responsibility in the creation of a global risk society, as well as the expectation of the human ability to influence the future for the better, have opened up new avenues for discussion. The nature-culture dichotomy has been challenged and the link between the social and the natural has been given much emphasis.

6.6 QUESTIONS

1. What is meant by the risk society? Discuss the theoretical ideas on risk society given by Ulrich Beck and Anthony Giddens.
2. Discuss the different risks in a risk society. Illustrate with examples.
3. What is the Anthropocene? Discuss how the concept of Anthropocene create a perspective the frames the dynamics of the natural and social worlds in an intertwined relationship.

6.7 RECOMMENDED READINGS AND REFERENCES

Beck, U. (1992). *Risk Society: Towards a New Modernity*. Sage Publications, London.

Hamilton, C., Bonneuil, C. and Gemenne, F. (eds.) (2015). *The Anthropocene and the Global Environmental Crisis: Rethinking modernity in a new epoch*. Routledge, New York.

Malhi, Y. (2017). The Concept of the Anthropocene. *Annual Reviews of Environment and Resources*, 42: 77-104. Doi: <https://doi.org/10.1146/annurev-environ-102016-060854>

Programme	Eligibility	Programme Coordinator
MA in Mass Communication	Bachelor's Degree in any discipline	Ms. Madhusmita Boruah madhu@tezu.ernet.in 03712-275359 Dr. Uttam Kr. Pegu uttamkp@tezu.ernet.in 03712-275455
MA in English	Bachelor's Degree in any discipline	Dr. Suchibrata Goswami suchitu@tezu.ernet.in 03712-275358 Dr. Pallavi Jha pjefl@tezu.ernet.in 03712-275215
MA in Sociology	Bachelor's Degree in any discipline	Ms. Ankita Bhattacharyya ankita@tezu.ernet.in 03712-275359 Dr. Amiya Kr. Das amiyadas@tezu.ernet.in 03712-275805
PG Diploma in Human Resource Management	Bachelor's Degree in any discipline	Dr. Runumi Das runumi@tezu.ernet.in 03712-275015
PG Diploma in Environmental & Disaster Management	Bachelor's Degree in any discipline	Dr. N. Gogoi nirmali@tezu.ernet.in 03712-275609 Dr. Dipak Nath dipak@tezu.ernet.in 03712-275306
PG Diploma in Renewable Energy and Energy Management	BE/B.Tech or M.Sc in Physics or Chemistry	Dr. S. Mahapatra sadhan@tezu.ernet.in 03712-275306
PG Diploma in Child Rights and Governance**	Bachelor's Degree in any discipline	Dr. Subhrangshu Dhar sdhar@tezu.ernet.in



The Centre for Open and Distance Learning (earlier Directorate of Distance Education) was established in 2011 with the aim of disseminating knowledge and imparting quality education through open and distance learning mode. The Centre offers various post-graduate, undergraduate, diploma and certificate programmes in emerging areas of science & technology, social sciences, management and humanities with flexible system to cater to the needs of the learners who otherwise cannot avail the regular mode of education. The basic focus of the Centre is to prepare human resources of the region and the country by making them skilled and employable.

Centre for Open and Distance Learning
Tezpur University (A Central University)
Tezpur, Assam -784028
India

Visit us at: http://www.tezu.ernet.in/tu_codl