

**JOURNEY OF THE ANTHROPOCENE: A STUDY OF
THE SELECTED NOVELS FROM 1876 TO 2019**

Thesis Submitted for the Award of the Degree of

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in

English

By

Savita

Registration Number: 41900024

Supervised By

Dr. Sandeep Kumar Sharma

UID 12800

Associate Professor

Department of English

Lovely Professional University,

Punjab



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DECLARATION

I, hereby declared that the presented work in the thesis entitled “Journey of the Anthropocene: A Study of the Selected Novels from 1876 to 2019” in fulfilment of degree of **Doctor of Philosophy (Ph. D.)** is outcome of research work carried out by me under the supervision __Dr. Sandeep Kumar Sharma_____, working as _Associate Professor_____, in the ___Department of English_____of Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

**(Signature of the Scholar)**

Name of the scholar: Savita
Registration No.: 41900024
Department/school: Dept. of English
Lovely Professional University,
Punjab, India

CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled “Journey of the Anthropocene: A Study of the Selected Novels from 1876 to 2019” submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy (Ph.D.)** in the ___Dept. of English____, is a research work carried out by __Savita_(Registration No.)_41900024, is bonafide record of his/her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

Dr Sandeep Kumar Sharma

(Signature of Supervisor)

Name of supervisor: Dr. Sandeep Kumar Sharma

Designation: Associate Professor

Department/school: Dept. of English

University: Lovely Professional University

Punjab

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Abstract

It is noteworthy that the contemporary writing raises awareness of the climate catastrophe that human beings are causing through their selfish exploitation of the earth's resources. The current study examines the aspects that reflect the bleak condition that has resulted from man-made climate change in the novels selected by the researcher. The anthropocentric way of life has wreaked such havoc on the planet that scientists are working to discover other planets to live. Human beings' collective greed has led to some of the most horrific and irreversible devastation of the planet's natural ecosystem. Because of the nature-human relationship and because of nature's finite resources and man's frantic need to milk them without giving them time to regenerate and recover, the anthropogenic ecological apocalypse has evolved as a concern. Furthermore, ambitions to achieve monopolies at regional, national, and international levels distort resource usage. At its worst, this attempt of monopolisation devolves into a nasty scramble motivated by the fear that others might take the crumbs while one would be left without. Cultural and psychological transformation are the true solutions. Human material must adapt in order to be more accommodating of others' requirements. Insecurity should be replaced with a sense of belongingness. Short-sighted selfishness should be developed into a larger human vision that extends beyond one's lifetime to one's children and grandchildren's generations. The fight for domination among nation-states makes political policies unlikely to bring about change. Only cross-national mass movements can bring about the required cultural and socio-psychological changes.

Human greed has shown itself in numerous forms throughout the history of human society. Imperialism and colonialism arose in the Occidental world as a result of Industrial Revolution and Individualism. In political spheres, European nations began early colonial efforts, legitimising the authority of the mighty to dominate what is the shared home for all living and non-living things. Furthermore, the colonial powers began to adhere to the 'white

man's burden' ideology, which encouraged their pillage of the biosphere, resulting in the extinction of countless bio-species.

Literature has traditionally responded to such concerns as a prism through which one can examine life and society more closely. As has been widely documented, human greed purified in the form of civilizing missions resulted in not only social, political, and economic injustices, but also environmental injustices. Since the previous two decades, literary artists have been creating dystopian narratives to make the human world more aware of environmental disasters. This isn't to say that the creative voices, earlier, were not reacting to the calamities. They were. There is a massive amount of literature that can be re-examined, re-scanned, and reviewed. One such exercise has been undertaken by the researcher. The goal of this research is to dissect some of the most notable works of English literature in order to determine how their writers have reacted to anthropogenic actions that resulted in major reshaping of the planet. The research is focused on revealing how literature maps the historical trends that have led to the planet's entry into the Anthropocene epoch. Thus, the research will give a sort of historian's perspective on the causes and phases of climate change and support the argument by providing suitable evidence from the chosen texts.

To validate the inquiry, five literary texts are carefully chosen to comprehend the human plunder of the planet under the pretence of economic, political-military, cultural, and psychological colonialism. These selected texts are *The Manchester Man* (1876) by Isabella Banks; *The River Between* (1965) by Kenyan author Ngugi wa Thiong'o; *Surfacing* (1972) by Margaret Atwood; *The Age of Magic* (2014) by Ben Okri, and *The Gun Island* (2019) by Amitav Ghosh. One of the main reasons for selecting these novels is that they deal with different stages of ecological plunder, which actually started with the Industrial Revolution in Britain, got worse under territorial colonialism, and has reached a nascent stage during the Postcolonial age. It is also worth mentioning that all the five novels are written by authors

belonging to different continents (Isabella Banks is a European, Ngugi and Okri are Africans, Atwood is a Canadian, and Ghosh is an Asian). Thus, attempts have been made to portray various locations and periods in the Anthropocene so that the research mirrors the climate conditions of a large area of the globe. All five works have been taken as a consolidated, unified literary whole to aid the researcher in tracing the unbroken chain of human activities that have contributed to the planet's degeneration.

In order to explore the origins and evolution of anthropogenic plunder, the texts have been arranged purposefully in such a manner that they trace the chronological phases by which human beings ushered in the era of the Anthropocene. The research begins with the Victorian novel entitled *The Manchester Man*. Isabella Banks shows a period in British history when the country's face was changing and industrial facilities were mass-producing items. These economic gains fuelled European governments' desire to acquire African, American, and Asian territories to seize their natural resources. Ngugi wa Thiong'o's novel *The River Between* depicts such a pre-colonial African setting. It paints an era when human existence in African countries was organised into tribes. Human beings not only revered nature and lived according to natural cycles, but they also saw nature as a living thing. The Europeans started political, cultural and administrative intrusions into the peaceful lives of the communities. They captured the indigenous people's natural resources and ecosystems in addition to oppressing them.

The texts Surfacing and *The Age of Magic*, by Margaret Atwood and Ben Okri, respectively, juxtapose life in the postcolonial world, when human beings have already wrecked thick forests, poisoned water resources, and transformed the surface of the planet under the pretext of modernisation. The colonial rulers used human agency to slaughter the non-human, the animals in the forests and sell their valuable organic components to the newly developed Western leisure class. Due to European dominance, Africa became a wholly different planet, bereft of human and animal freedom.

Currently, since the human civilization has entered the Postcolonial age, the hegemonic forces are relentlessly plundering the natural spaces. Although political power has transferred from Europe to America, the ruthless exploration of the planet has continued. Colonizers have departed, leaving these lands as 'unclean objects', but they continue to exploit their natural and other riches under the guise of liberalization, privatization, and globalization. *The Gun Island* by Amitav Ghosh delves into how affluent nations build their dominance and affect the mentality of locals and governments in other countries, turning them into their agents. In an age where advanced technology is required to enhance one's life, man is wreaking havoc on the lives of others. Legalized safeguards for the perpetrators of slow violence include free commerce, licensed seizures of water and tree reservoirs. Climate change is causing socio-economic inequities. Ghosh's novel spans three continents and fights for the rights of migrants fleeing due to rising sea levels to safer shores. When political regimes are confronted with challenges from the most marginalised sections of human society, a new set of sociocultural orders emerges. Anthropogenic disasters are becoming impossibly huge, putting all forms of life in jeopardy. Hence, the five novels selected for the systematic study trace the Anthropocene's journey across time and place. To put it another way, the study demonstrates how literary writings created at various phases may be used to chart the chronological details of climate change and the Anthropocene.

The Manchester Man is a well-known novel about Manchester's industrial revolution. It documents the developments that occurred in the world's first industrial city. Ngugi wa Thiong'o's novel describes the cultural disputes and the desire of indigenous people to maintain their rites and practices. The new religious apparatus forbids its followers from viewing nature as divine. As more people embrace Christianity, their tight relationship with hills, vales, rivers, and ceremonies changes. Imperialism is an infectious worldview that makes people doubt themselves, and it's evident in the neo-colonial corporate-driven governmental apparatus. In

The Age of Magic, Ben Okri presents a vision of Arcadia, a mysterious and awe-inspiring utopia on earth. Attempts are made by human beings to preserve a contingent relationship with nature. While tolerating and appreciating city life, they linger to take delight in breath-taking views. This civilization's covetousness and hedonism are inflicting irreversible harm on the ecosystem. In *Surfacing*, Atwood criticises the imperialistic inclinations of the world's superpowers, which are willing to exploit the last natural water and mineral reserve. Modern technology is being utilised to alter the planet's appearance. Cultural imperialism creates a competitive advantage over indigenous populations, who then make their natural resources accessible to power centres. *The Gun Island* by Amitav Ghosh reveals several tiers of global concerns that are a result of global warming. The narrative begins at the India-Bangladesh border, proceeds through the United States and Europe, and throughout the voyage presents the stark facts that are the direct results of the anthropogenic ecological apocalypse. The research employs Ecocriticism as the theoretical framework for the content analysis.

Ecocriticism explores environmental challenges in literature and culture. It refers to intellectual and political advances that prioritise the environment. It is therefore more than simply a literary critique; it calls for a protective barrier to be constructed around the earth. Both patriarchy and sexism are connected to anthropocentrism and speciesism. In ecocriticism, literature is seen through the prism of environmental ethics and policy. It examines literary representations of catastrophic environmental changes. It makes it easier to examine literary and cultural materials to comprehend their environmental imagination. It focuses on human history and the psychological impact of geography on the characters. This research examines how land and resource owners discuss and treat disadvantaged people. In oppressed nations, the authorities mistreat and exploit their populace.

Divided into six chapters, namely: Brief Candle, The Geo-historical Roots of the Anthropocene, Anthropogenic Ecological Apocalypse, Ecocritical Perspectives, The

Anthropocene: A Comparative Approach, and Conclusion, the study has met its research objectives, which are mentioned in the first chapter. The researcher has taken help from various experts who have practical knowledge of the field and who are actually serving in various capacities to deal with the issues.

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Chapter 1

Brief Candle

Anthropogenic ecological apocalypse has emerged as an issue because of nature-human interaction and because of nature's limited resources and man's desperate greed to milk them without giving them time for their regeneration and resurgence. Also, the exploitation of resources gets skewed because of attempts to attain monopolies at regional, national, and international levels. At its worst, this attempt at monopolizing acquires an ugly scramble driven by the insecurity that the others might grab more and one might be left without the crumbs. Development through the technology of renewable resources, especially in the field of energy, brings hope, but the progress in innovations and inventions is too slow to give the optimism that the entire gamut of human needs could in the foreseeable future be met with the help of renewable and re-generable resources. The real solution lies in cultural and psycho-social changes. Human material must change to become more accommodative of the needs of others. Insecurity should be replaced by fellow-feeling. Short-sighted selfishness should be expanded into a broader human vision that goes beyond one's lifespan to the generations of one's children and grandchildren. The struggle for supremacy among nation-states gives little hope of a change through governmental decisions. Only mass movements that go beyond national boundaries can bring about the necessary cultural and socio-psychological transformations.

Understandably, as the human species is entering the new decade, the issues regarding human survival in the age of the Anthropocene are becoming central to the academic and scientific discourse. Human activities over the years have led to hitherto unprecedented ecological changes. Literature of the present day creates an awareness of the climatic destruction human beings are affecting through the greedy exploitation of the earth's resources, as it has dealt with several other cultural issues in the past. While leaders of the nation, on the

one hand, deliver exalted speeches on the need for restraining nature-destructive activities, they also allow pollutants to enter the atmosphere. But a person of literature seldom has any personal axe to grind. He/she paints reality in all its shadowy hues.

The present study digs out, in the novels undertaken by the researcher, the elements that depict the grim situation emerging out of man-induced climate change. The anthropocentric approach to living has ruined the earth so much that the scientific community nowadays is engaged in finding new spaces for living. The collective greed of human beings has resulted in some of the most unimaginable and irrecoverable debasement of the natural environment of the planet

The Beginning of the Crisis

At various phases of the development of human society, human greed has manifested itself in multiple forms. The Industrial Revolution, coupled with Individualism in the West, gave rise to Imperialism and Colonialism. In political spheres, European nations began early colonial activities by legitimizing that the powerful can control what is the common habitat for the living and non-living. What is more, the colonizers started upholding the philosophy of 'white man's burden' and bolstered their plunder of the biosphere, leading to the extinction of many bio-species.

This research investigates the multi-faceted issues concerning the Anthropocene in order to bridge gaps in various spheres of knowledge and to make even the layman value the bounty of gifts that nature has bestowed upon human beings. Experts do underline an unbroken chain of activities and events leading to the environmental change, in which human beings have involved themselves consciously or unconsciously, and which have now left them on waterless and sterile pathways. The term 'the Anthropocene' is undeniably in much circulation even

though the geologists and climate scientists have hitherto not fixed the time as to when human beings entered this new epoch or when the Anthropocene became a part of the scientific community's regular discourse. The Anthropocene can be defined as "the time from the 18th century until now, in which it is possible to see the effect that people have had on the environment and climate" (*dictionary.cambridge.org*). Jonathan Bate, one of the profoundest ecocritics, holds the view that colonialism and the destruction of the forest cover of the planet have been two parallel activities occurring simultaneously, and both of these systems have damaged the planet nastily.

Owing to multiple cultural belief systems and ideological paradigms, human beings weigh themselves far higher than other beings and have continued to emancipate their prowess. Industrial and colonial powers have played a big role in changing the value systems and legitimizing 'greed' as the innate driving force. Having gained enormous wealth, the European colonizers set out in search of a way to win over and gain from other territories. The official and historical records limit themselves to showcasing how the dominating powers ruled over the human resources of the colonies. Seldom do such records focus on the fact that the ecosystems of these areas were being simultaneously targeted by them. It is noteworthy that the havoc has continued in the neo-colonial world too. The economic giants believe in clenching the natural plenitude of the rest of the world.

Many climate historians hold that the human-induced ecological imbalances are as old as human beings themselves, through the steep changes that have occurred in the recent past. Human beings came out of their forest habitats, domesticated animals, tilled land, and created a human-centred culture. Greed had not been a driving force for human beings till agriculture remained a manual job. Lynn White delineates the idea that the advent of Christianity and the Church had tried to thwart all the voices that were supposed to come from nature__may it be a snake talking to human beings or the conception of rivers, trees, hills, etc. as living entities.

The Bible itself establishes the sole supremacy of man over the land and sea. Reactions to such a premise were inevitable, and institutionalized scholars firmly established that Christianity appoints man as a steward of nature rather than an exploiter. Historic preservation and regard for nature have been a vital characteristic of animistic societies notwithstanding. Historical evidence, too, supports that the gradual transition of the projection of man as a controlling authority to alter, shift, and use nature is an outcome of an innumerable series of complex cultural and “institutional mutations” (White 32). Deep ecologists challenge the entire treaties of Humanism and its philosophies, which intentionally silence the natural world and seize for man an unqualified regime to master all resources and fuel his individualistic ambitions coupled with unchecked greed to use and consume the once silenced enormous and vast group of non-human species, including lands and seas. Man has behaved as the supreme creature. Significantly, he has become successful in sustaining the tradition of his sovereignty. In all the areas of human knowledge, the notion of nature has been constructed, manipulated, and altered with effortless ease. Science and technological development have given human beings certain spaces where they might soothe themselves and remain unaffected by natural vagaries. Such development has taken place in many phases, and man has accumulated relatively quicker means to cover distances, mechanical tools to procure food and stay away from starvation, preferred conditioned air through heating and cooling systems, and so forth. The life that went along with hunting, struggling with land and animals, rough weather, and other hardships was well replaced by a comfortable life. The social, political, and philosophical demands for liberation from all shackles, as well as the laissez-faire economic paradigm, elevated the status of human beings as a race that lured for achieving ambitions while putting nature and all other species at risk. Human life, which was inextricably linked to the natural world, discovered a new culture that was synonymous with human interrelationships, ignoring all other forms of life on earth. The process was slow and gradual (seemingly ‘natural’), and thus went unnoticed

until the planet entered a new epoch in which the scars left by the supreme being on the earth's surface became very visible.

Understandably, not many voices clamoured that every human activity was adding to the defiling of the environment and climate. It is only recently, when a huge loss has already occurred, that a systematic approach is being sought to make repairs, amends, and reforms. To put it straight, it means that the history of global climate change doesn't help much to give details about the beginnings of the anthropogenic crisis:

There are few or no detailed accounts of particular weather phenomena or their effects on crops and animals, nor records of harvests, taxes, and tribute. In all of these cases, it is very likely that local conditions, contingent factors, and human decisions played a key role in the chain of events leading from climate to crisis—but these can be difficult to reconstruct without more evidence and detailed examination. (Chakrabarty 23)

However, there are two well-supported theories to establish the advent of the Anthropocene. The traditional views support the idea that Colonialism has a major part to play. As more and more industrial activities required a massive amount of energy, the Industrial Revolution may have been the tipping point, resulting in the burning of more coal. The colonizers not only established political and economic supremacy over the dominated colonies but also controlled the lands and natural resources and got involved in the trafficking of ivory and other expensive materials obtained through animal killings.

The alternative view identifies that the Colombian discovery of America needs to be seen as the beginning of the Anthropocene as the face of the planet, for the first time, witnessed a visible change:

We argue, in a new paper in *Nature*, that the Anthropocene began with the irreversible exchange of species between the New and Old Worlds following the 1492 arrival of Europeans in the Americas. The resulting global networks of trade led to a rapid,

repeated, cross-ocean exchange of species, which is without precedent in Earth's history. It provides an unambiguous event after which the impacts of human activity became global and set Earth on a new trajectory. (Lewis and Maslin)

It is, thereby, evident that immense individualistic ambitions and relentless grabbing of others' vast lands by powerful European forces sowed the early seeds of destruction. Adam Trexler attempts to create a reconciliation amongst these views by adding that:

at the turn of the last century, even the choice between the terms global warming and climate change was politically contentious, and debate over scientific certainty became a favoured strategy for deferring action. The framework of the "Anthropocene" helpfully moves beyond the dead-end debate that dominated environmental politics in that period. Anthropocene indicates that atmospheric warming is not merely a theory, but a phenomenon that has already been measured and verified across scientific disciplines and conclusively linked to human emissions of fossil fuels. Thus, productively shifts the emphasis from individual thoughts, beliefs, and choices to a human process that has occurred across distinct social groups, countries, economies, and generations: the wholesale emission of fossil fuels that began in the Victorian period and has intensified through the present day. Both climate change and global warming are easily bracketed as prognostications that might yet be deferred, but the Anthropocene names a world-historical phenomenon that has arrived. Despite talk of tipping points, we are in the midst of a historical process of fossil fuel consumption that began before our parents and will continue long after us. Moreover, the effects of these events are super historical, affecting the Earth on a geological timescale. Of course, the rate of change may well increase, but later disasters are contiguous with our moment, not events that we can wholly defer. The Anthropocene is also a truly global event, even as it affects local climates and ecosystems in different ways. Too often, climate rhetoric

has focused on the power of individual choice: that consuming or voting or communing differently might allow us to avoid the whole problem, like prodigal children. (107)

The colonial self has defined progress and development in parochial terms and made material accumulation the touchstone to judge the parameters of growth. More GDP, more industrial output, more budget for infrastructural proliferation, more mining and extraction from nature, and many more such easily perceivable parameters have weighed very heavily on the planet. Based on these arguments, it is established that there is an immediate need to address all these critical issues, failing which, a large section of species, including human beings, will have to face the dangers of mass extinction.

The Manifestations Observed Worldwide

Anthropogenic climate change affects every geographical location around the globe. The interplay between ecological and human conflicts is characterized by intricate dynamics, involving several stakeholders with different and frequently opposing interests. Anthropogenic climatic changes not only affect the planetary systems, but also give rise to significant cultural challenges. In previous eras, a significant portion of the world's natural resources were used without restraint to advance colonial objectives. However, in the subsequent neo-colonial epochs, a distinct form of power dynamics has surfaced. The acquisition and management of important natural resources, such as minerals, oil, lumber, fertile pastures, and agricultural land, have played a pivotal role in the emergence of violent conflicts throughout several continents. The use and management of natural resources as factors contributing to conflicts have been instigated by both discontent and greed in its broadest interpretation. In several countries of Africa and Latin America, military conflicts have often been driven by complaints

pertaining to the unfair and inequitable allocation of land and natural resources, as well as the pursuit of rich natural reserves.

Countries that are particularly vulnerable to anthropogenic climate change have experienced prolonged histories of violent conflicts, resulting in a significant increase in the number of refugees seeking shelter in neighbouring countries. A notable example is Bangladesh, where a substantial stretch of land has been submerged due to rising sea levels, leading to a crisis in India as it grapples with an influx of refugees from these affected regions. The migration and crisis related to refugees are elaborated upon in the subsequent chapters of the thesis. Another such example is the country of Rwanda, where the natives are exceeding the limits of their national borders, resulting in Uganda and Tanzania becoming significant recipients of the refugee population. The presence of a refugee population in Rwanda has had a destabilising impact on the broader Great Lakes area, including Rwanda itself. In Rwanda, the expansion of cultivation into wetlands, national parks, and forest reserve areas is occurring as a result of the limited availability of agricultural land. This encroachment is driven by the need to meet the unfulfilled land demands of some groups, primarily those who are socio-economically disadvantaged. In many parts of the world, the presence of a significant population of internally displaced individuals has led to heightened levels of stress in some environmentally vulnerable regions. Consequently, this has resulted in a localised deterioration of forest resources. The end consequence is a significant degree of food insecurity, which could be attributed to the adoption of environmentally unsustainable practices and the overexploitation of natural resources. (Bigagaza et. al. 50-82)

Migration is a common strategy for coping with and adapting to climatic and environmental changes. In many regions of the world, migration to urban areas, and particularly to the interiors of continents, is much more likely than migration to rural areas. Many studies have inferred that the natives of ecologically vulnerable regions perceive

significant negative climate changes, such as more frequent droughts and erratic precipitation. Although many residents claim to be affected by extreme weather events, with resultant losses in income, crops, livestock, and fish catches, the poor appear to be the ones who endure the most. Again, the impoverished tend to have fewer options in terms of coping mechanisms than better-off groups. Extreme weather events that are likely to become more frequent as a result of climate change disproportionately affect the impoverished, who also have fewer resources to deal with such occurrences. It must also be acknowledged that it is challenging to distinguish between the short-term and long-term effects of climate change, environmental change, and weather disruptions on global populations.

How does Literature Help?

Literature, as a lens, through which one may see minutely through life and culture, has always responded to all such issues. Human greed purged in the form of civilizing missions has already resulted in not only social, political, and economic injustices, but also injustices to the planet. Literary artists, for the last two decades, have been coming up with narratives and dystopian novels to make the human world sensitive to ecological catastrophes. It does not imply that the creative voices were not responding to these disasters earlier. Certainly, they were. There is a huge body of literature that can be researched, scanned, and revisited to explore the aforementioned issues.

This research is one such exercise. This study aims to unravel some of the important works of English literature and bring out how their authors have responded to anthropogenic activities resulting in the massive misshaping of the planet. The focus of the research is to reveal how literature maps the historical developments by which the earth has entered into the geological epoch, the Anthropocene. Thus, on one hand, the research will present a historian's

point of view of the causes and phases of climate change, and on the other hand, it will provide appropriate evidence from the selected texts concerning the climate issues.

To concretize the investigation, five literary texts have been carefully selected, which decipher the human plunder of the earth in the guise of economic, political-military, cultural, and psychological colonialism. *The Manchester Man* (1876) by British author Isabella Banks; *The River Between* (1965) by Kenyan author Ngugi wa Thiong'o; *Surfacing* (1972) by Canadian author Margaret Atwood; *The Age of Magic* (2014) by Ben Okri, and *The Gun Island* (2019) by Indian fiction and non-fiction writer Amitav Ghosh are among the selected texts. The reason for such a choice is manifold. One major reason has already been mentioned: they deal with various stages of ecological plundering, which begins with the Industrial Revolution in Britain, worsens during territorial colonialism, and reaches its climax during the postcolonial period. The other reasons, too, are highly valid. All these five texts come from the minds of authors who belong to different continents (Isabella is a European; Ngugi and Okri are Africans; Atwood is a Canadian; and Ghosh is an Asian). All have different political, economic, cultural, and psychological bearings. In this manner, an attempt has been made to represent different spaces and time periods in the age of the Anthropocene. All these five texts are taken as one literary whole, which helps the researcher to trace the chain of human actions responsible for decaying the planet. The proposed research will present a pan-global view as it will showcase human activities leading to anthropogenic climate change both time-wise and space-wise.

The creative word-artists put forth the image of such a planet where human beings, before imperial power became the game-changer, used to live in tribes and nature was a living entity for them. As time rolled on, the industrial revolution and mass production started their nasty work of exploitation of natural resources. Thus, the imperial powers redefined the man-nature bond. After the political and territorial freedom of the colonies, the neo-colonial giants

established their hegemony, and the policies of LPG furthered the damage. And now, a situation has arisen when the most vulnerable sections of human beings are facing challenges for their bare survival due to culture-borne, seemingly ‘natural’ catastrophes.

Therefore, it is corroborated that the ecological problems during the Anthropocene require a much larger analysis in scientific as well as cultural terms. Greg Garrard states:

...environmental problems require analysis in cultural as well as scientific terms because they are the outcome of an interaction between ecological knowledge of nature and its cultural inflection. This will involve interdisciplinary scholarship that draws on literary and cultural theory, philosophy, sociology, psychology, and environmental history, as well as ecology. (14)

Coming down to the ecological statements provided by the selected novelists, the selected texts do justify the claim for them to be called affluent discourses on environmental issues. To understand the beginning and development of anthropogenic plunder, the research purposefully commences with the study of the Victorian text entitled *The Manchester Man*. It depicts the time when the face of Britain was changing and industrial establishments were mass-producing commodities. These economic developments stimulated the European countries to conquer African, American, and Asian territories. A pre-colonial African locale is depicted in *The River Between* by Ngugi wa Thiong’o. The novel begins at a time when human life in the African countries existed in the form of tribes. Human beings not only respected nature and lived their lives according to the natural cycles, but nature was also a living entity for them. The colonial rulers invaded their lands and began to build their headquarters, missionary schools, and hospitals in the open spaces. Both ways, the havoc began. Along with dominating the indigenous people, they seized their natural resources and habitats. The human agency—the colonial rulers, killed non-human species in the forests and sold their precious organic parts to the newly formed leisured class of the West. This passage reminds one of

Conrad, who in his famous work *Heart of Darkness* echoes, “The word ‘ivory’ rang in the air, was whispered, was sighed. You would think they were praying to it. A taint of imbecile rapacity blew through it all, like a whiff from some corpse” (Conrad 15). Africa becomes an altogether different world due to European domination.

The third and fourth texts, *Surfacing* and *The Age of Magic*, by Margaret Atwood and Ben Okri, respectively, juxtapose life in the postcolonial world when man, in the guise of modernization, has ruined the dense forests, polluted the water resources, and has changed the surface of the earth. Even after the world entered the postcolonial era, the hegemonic forces could not be stopped. The political powers shifted from Europe to America, but the relentless exploration of the planet has been a continuous phenomenon. Colonizers moved away, leaving these territories; they lost their political grip but continued to play with their natural and other resources in the garb of economic policies of liberalization, privatization, and globalization. Atwood, in *Surfacing*, digs deep into how wealthy nations establish their supremacy and manipulate the psyche of natives and regimes of other countries to make them their agents. In this age, human beings' quest to develop sophisticated technology to beautify life is causing regrettable damage to the entire eco-system. Free trade, licensed seizures of water, and tree reservoirs are legalized protections for the killers and perpetrators of slow violence.

Amitav Ghosh in *The Gun Island* discusses the socio-economic injustices that stem from climate change. Running across three continents, the narrative clamours for the rights of the refugees who are migrating to safer places because of the increase in sea levels. A new set of sociocultural orders is being ushered in when the political regimes are dealing with the challenges coming from the most subaltern sections of human society. Anthropogenic disasters are unimaginably larger, and life of all sorts is in danger. As discussed earlier, literature sharpens and provides mature edges to issues. The five texts selected for research analysis trace the journey of the Anthropocene through various times and spaces. In other words, the research

highlights that the literary texts written at different phases are potent records to trace the chronological journey of climate change and the Anthropocene.

Since human beings are sharing their habitat with a wide variety of species, there is a need to have a post-humanism worldview. Human beings since the last couple of centuries have misshaped the earth, and this danger is not socially constructed. Rather, it is real and is getting articulated in multiple forms. As established earlier, climate change during the Anthropocene is the result of the slow violence which human civilization has perpetrated. The research is going to deal with real threats to life on the earth, and so it becomes all the more relevant. All nations have on their priority agenda 'the green issues' and policies are being formed globally to make the planet safe for all living beings. In a way, understanding this global problem through literature is, in a way, broadening the horizons of climate change-related issues.

The proposed research begins with understanding the concepts given by environmental scientists and geologists about the Anthropocene. The study focuses on how these scientific concepts are constructed through culture and literature (with the specific context of the pre-colonial, colonial and post-colonial periods). Thus, this research aims to contribute to the existing repository of knowledge related to the above-mentioned issues. Also, it will help to create ecological literacy.

Objectives of the Research

This research is undertaken to attain the following **objectives**:

- To trace the concept and historical roots of the Anthropocene.
- To study the development of the engagement with the Anthropocene in the selected works.

- To apply the chosen theoretical approach to the texts.
- To consider the texts under study from a comparative viewpoint.

It is well established that presently, literature is trying to spread eco-consciousness in the same manner as it has unfailingly helped human civilizations to find solutions for many other problems earlier as well. Novelists of the present day are coming up with texts (popularly known as Cli-fi) which have anthropogenic climate change at their center, and so all the narrative orbits around the theme. Or, in other words, the entire narrative canvas is optimally utilized to fill up with maximum knowledge about the crisis. Nevertheless, the conventional literary pieces must not be underestimated as they too, in their specific ways, deal with human-nature relationships.

Research Questions

The research focuses on finding out a series of research questions. These are:

1. How do the selected novels deal with the entanglement of literature and the Anthropocene?
2. Do the selected novels engage with the factors which have been responsible for the cultural change leading to the Anthropocene?
3. Does Ecocriticism help to study the changing nature of nature-human relationship in the selected texts?
4. How do the positions and roles of characters change if the selected novels are compared?
5. Does the language of the selected novels unfold the issue of the Anthropocene and do the variations in the language of the texts contribute to establish human beings' key role in the mis-shaping of the earth?

Review of Literature

Jonathan Bate in his famous book *The Romantic Ecology*, which was first published in 1991, re-visits the enduring pastoral tradition which has persisted in English literature. The notable author evaluates the politics of poetry and infers that Wordsworth's politics and positions were inherently 'green'. This statement is in contrast to detractors and critics who claim that the poet was a conservative who was unable to capture the grim struggles and economic realities of Lake District. Wordsworth has been, according to Bate, the very first true and sage ecological poet who expressed a vision of human oneness and man's integration with nature. This position is still highly relevant and is in line with the major environmental movements of the present day. Wordsworth's vision has an enduring and lasting influence on the subsequent conservation campaigns. Jonathan Bate affirms for the setting up of a new agenda for the study of Romanticism in the 1990s by questioning the principles and dogmas of new historicist critique.

The ecological catastrophe has been the root cause for an unprecedented human imagination crisis, necessitating the quest for finding out novel perspectives on nature and how human beings fit within and cope with it. In *The Environmental Imagination* (1995), Lawrence Buell gives a very unconventional and comprehensive overview of environmental perception_ the significance of nature in the evolution of Western thinking, and the ramifications for literary studies to seek for alternative perspectives, and to envisage a more eco-centric way of being, using Thoreau's significant book *Walden* as a touchstone. Buell offers a significantly new interpretation of Thoreau's accomplishment and, simultaneously, prompts a fundamental re-evaluation of contemporary literary and cultural interpretations and meditations on nature. He asks the reader to pay a very keen attention to the green studies/tradition in American literature,

particularly environmental non-fiction and other types of prose from colonial times to the present day. In works by authors such as Rachel Carson, Crèvecoeur, John Muir, Wendell Berry, Aldo Leopold, Mary Austin, Leslie Silko, Edward Abbey and so forth, Buell has examined profound ecological themes such as the construct of relinquishment, the personification and presentation of the nonhuman, an attentiveness to natural and environmental cycles, a devotion to space, and a futuristic awareness of the possibility of an ecocatastrophe. At the center of this research, is an image of Walden and its surroundings as a space for greater eco-consciousness, that serves as a motivation and guide for Buell. He brings to the light, a new vision of environmental literary writing and looks for a new way of constructing and conceptualizing the link between human imagination and environmental reality in the age of industrialization.

Pieter Vermeulen's notable work entitled *Literature and the Anthropocene* (2020) lays out significant concerns to represent the entwining of human and animal existence. By addressing topics like life of human and the non-human, genre, memory, zeal, mass-extinction, infrastructural development, and the insecurity about future, the work makes a formidable case for the immense and highly unique contribution of the present-day environmental philosophy. It takes into account the literary work's narrative and creative potential as well as its use of language, sensory appeal, and connection to reality. By switching between concise readings of important Anthropocene literature and accessible assessments of well-known theories, the author shows how the new epoch serves as a new domain for academics.

The book *Soil not Oil, Climate Change, Peak Oil and Food Insecurity* (2017) by Vandana Shiva provides a strong and compelling defense of a new worldview. According to Shiva, the three crises, the contemporary civilizations are currently facing—climate, energy, and food—make it necessary to “reinvent society, technology, and economics” (1) in order to rescue mankind. But she discerns that many of the proposed solutions, such as those involving

renewable energy and various “technological fixes” (31), are fallacious because they are based on the same materialist mindset that caused the problem and are supported by corporate power, which stands to gain from them. She argues that the big companies that rule the world now are mostly accountable for crimes against nature and mankind. The industrialization of food production and agriculture has led to the extinction and self-destruction of the human species. Climate, energy, and food challenges are simultaneously addressed by the movement for biodiverse, ecological, and local food systems. Most importantly, it encourages people to return to farming and reclaims food as the most fundamental source of nutrition and energy.

Ramchandra Guha’s *How Much Should A Person Consume?* (2006) is a history of environmental movements and environmentalism. It does not include any historical events or scientific evaluations of the changing global climate or its surroundings. Rather, the book collects and dissects evolving notions about nature and human relationships, using the personal narratives of numerous persons who have voiced and impacted such concepts. Guha claims that conservationists and ecologists have always approached the problem of environmental deterioration from an individualistic standpoint. Social elements and subjective circumstances are often ignored in such a system. Guha’s basic concept of social ecology provides a simple yet vast set of ideas on how to steer ecological literacy in order to develop more sustainable global solutions to environmental concerns that can be adapted to any social setting.

Timothy Clark, in his theoretical work *Ecocriticism on the Edge* (2015), discusses scale framing while dealing with the texts from an Anthropocene standpoint. This theory centers on a close study of one American short story by the renowned author Raymond Carver (at times the text is compared briefly to a similar narrative by the Nigerian author Ben Okri). Clark considers how the close reading of a text at various scales or contexts is chiefly a practice that brings out contradictory understandings, appraisals, and evaluations at the same time. This issue of scales does not allow one type of reading to trump the others as the solely ‘correct’

one. Rather, it reflects those quandaries of judgement that seem set to characterize and operate at all kinds of personal, ideological, cultural, and socio-political decision-making in the new geological human epoch. The most significant contribution to Anthropocene research by this author is that he has mentioned different scales for measuring various levels of analysis. Primarily, he has rested his discourse on Level 1, Level 2 and Level 3 scales for analysis. Level one is chiefly concerned with the representation of issues as they are perceived within a cultural context. Level 2 heightens the magnitude by doing a background check of the texts to see what they state in regard to the changes that have come with the progression of cultural codes. Level 3 judges the texts as documentation of the ecological changes.

A very prominent climate historian, Dr. Dipesh Chakrabarty, in his work *Climate and Capital: On Conjoined Histories* (2014), states that anthropogenic climate change brings into view the collisions and tussles related to the existence of three different forms of histories. From the standpoint of human history, the other histories are usually assumed to be functioning at such distinct and unequal paces that they are generally taken as processes separate from one another for all practical reasons: the history of the earth as a system, the history of life on the earth, including that of human evolution, and the more recent history of industry-centered civilization (for many sections, capitalism). Human beings, currently, purposefully straddle these three histories, which operate at various scales and at varied speeds. The language through which human beings speak about the climate crisis is shot through with this issue of human or beyond human scales of time.

Dipesh Chakrabarty in *Whose Anthropocene? A Response* (2017), deduces that one principal approach to evaluate the Anthropocene phenomenon as a unidimensional challenge is: how do human beings propose to acquire a reduction in the emissions of greenhouse gases (GHGs) in the upcoming decades? The climate related issue is seen in this approach, as a potent challenge of how to source the required amount of energy for human pursuits related

to a set of universally accepted targets of economic growth, so that a large section of human beings is brought out of poverty. The other accompanying issues are relations between underdeveloped and rich nations and between present and future generations, coupled with justice concerns. The study deals with vital issues like what would be a judicious distribution of the right to emit greenhouse gases—since GHGs are looked at as limited resources—between countries in the process of this transition to renewable energy resources? To ensure that future human beings inherit a world that ensures better quality eco-system for survival remains another key issue which is discussed in detail.

The same researcher, in *The Climate of History: Four Theses* (2008), puts forth that climate catastrophe requires international bodies, nations as well as regions to make plans for at least half a century, something that the majority of political institutions are unable to do owing to the very short-term nature of political goals themselves. This is the time when society must prepare for the worst to occur. The geological hypothesis concerning the Anthropocene demands the human beings to look at global histories of capitalism in conjunction with the species history of human beings.

As per the research of James R. Fleming (2014), climate has to be the keyword in the fundamental vocabulary of human cultures. Nature, human history and vicissitudes in relation to human-centered affairs are the key notions which organize new ideas of the aerial environment and human beings' linkages with them. During the nineteenth century, the growth, proliferation and expansion of observational networks led the scientific community to define climate as the sum total of indices of average weather conditions. Climates have been seen as more or less stable, are described by geographers and researched by statisticians. In the last decade of the nineteenth century, Cleveland Abbe, the American meteorologist, stated that the real issue for the climatologist to settle is not whether the climate has altered lately, but

what the present climate is, what its well-observed characteristics are and how these can be most simply expressed in the form of numerals.

Noah Heringman in *Deep Time at the Dawn of the Anthropocene* (2015), re-evaluates the link between deep time and the beginnings of geology in light of ongoing geological and environmental arguments that the early industrial decades mark the emergence of the Anthropocene. The Anthropocene, on the other side, is a proposed geological epoch that is singularly recognizable to hypothetical observers up to 5 million years now from the marks left by human beings on the planet, for example; a reef gap in the underwater fossil records caused by acidification of the waters of the oceans.

Christopher Oscarson in *Dominion in the Anthropocene* (2019), records that the concept of planetary boundaries, though arguable in several of its specific connotations, is however very impactful for illustrating some of the basic constructs of the Anthropocene: it recognizes that one cannot deny that human beings, historically, have had and will continue to have massive impact on the system of the planet. The scientific data also supports that planetary systems have been, to a greater or lesser degree, affected by human activity. The planetary boundaries' framework offers how one should think about these systems and recognize human impact on them by formulating ideas about what are the safe operating spaces regarding bio and genetic diversity land-system change, freshwater use, climate change, bio-geochemical (primarily nitrogen and phosphorus) flows, acidification of ocean water and so on. The earth has far past the crucial point of taking into consideration how these systems function outside the human world.

Julia Adeney Thomas, Prasannan Parth Asarathi, Rob Linrothe, Fati Fan, Kenneth Pomeranz and Amitav Ghosh during JAS Round Table on Amitav Ghosh, "*Climate the Great Derangement Change and the Unthinkable*" (2016), put on record that mapping the arc of *The Great Derangement* through the prism of literature, human history, and the politics of global

climate catastrophe focuses on the interlinks between economic disparities and environmental destruction. ‘The Anthropocene’ implies instead not altering specific environments, landscapes, or ecosystems, but a rupture of the planet’s system itself. It is the overshoot of the planetary boundaries that had offered a secure dwelling for humanity. The sense in which the Indian author, Amitav Ghosh, following the geo-stratigraphers, makes use of the term, which requires not just local and temporary adjustments to the human hierarchy of power, representation, and production but also their robust and permanent rethinking, with the Asian continent at the core.

Astrida Neimanis, Cecilia Åsberg and Johan Hedrén in *Four Problems, Four Directions for Environmental Humanities: Toward Critical Posthumanities for the Anthropocene* (2018), deduce that cultural studies, gender-centered studies in the post-constructionist vein, science and literature studies, human-animal studies, evolutionary ecology in the evaluative vein, and ecocriticism serve as examples of groundbreaking methods of inquiry for finding composite and innovative ways to deal with the most pressing social and political challenges. A critical post-humanities approach thwarts the elitism of classical Arts and Humanities disciplines, it also demands a firm commitment to citizen humanities that may incorporate broad-based publics not solely as consumers of research but as active observers and participants in the creation of environmental knowledge as well.

The statistical findings presented in the book entitled *Scarcity and Surfeit: The Ecology of Africa's Conflicts* (2002), edited by Jeremy Lind and Kathryn Sturman, are of significant importance in comprehending the various elements that influence the likelihood of armed conflicts arising from climate change. Various factors, including income, natural resource endowment, demographic characteristics, ethnic and religious fractionalization, education levels, location, and historical conflict, exert influence on the probability of engaging in warfare, either as desires or limitations. The influence of natural resources on armed conflicts,

including their likelihood, duration, trajectory, and consequences, is significant. The historical trend of reduced foreign aid to governments and rebel groups has gained special relevance in the contemporary context, mostly attributed to the conclusion of the Cold War. There has been an increased reliance among belligerents on the mobilisation of marketable commodities, such as minerals, lumber, or narcotics, in order to support their military and political endeavours.

Research Gap

Environmental catastrophe is the primary issue which humanity is contemplating currently. Literature has the potential to contribute significantly to the development of ecological literacy. The purpose of this study is to examine five literary texts in order to demonstrate how the nature-human relationship has shifted dramatically over the last couple of centuries, resulting in an unprecedented anthropogenic global warming problem. The texts have been arranged and sequenced in such a way that they trace the phases by which the human civilization has entered what is termed as the Anthropocene epoch in which the entire human activities are affecting the eco-balance in a terrible manner. Examining the selected literary texts with an ecocritical theoretical framework will contribute meaningfully to the existing body of knowledge.

Scheme of the Subdivision of the Research Report

1. Brief Candle
2. The Geo-historical Roots of the Anthropocene
3. Anthropogenic Ecological Apocalypse

4. Ecocritical Perspectives
5. The Anthropocene: A Comparative Approach
6. Conclusion

Overview of the Selected Novels

The genre 'novel' has an organic relationship with the Anthropocene as both emerged almost together during the Industrial Revolution. Their development became possible because the very bond between human beings and nature was redefined during this period. People preferred reading novels since such reading could be done in their private spaces. Mass publication of literature played an instrumental role in the evolution and popularity of the nameless genre. It is worth noting that the emphasis on private spaces and rooms increased energy consumption. Needless to say, these were just a few of the many factors that contributed to the ferocious ecological disasters. Thus, the novelists must be revisited and re-examined, since their potential came to light alongside the transformation of human culture and value systems.

Another related reason worth mentioning is that the novel, since its inception, has, in a very minute manner, traced the journey of the Anthropocene. Authors might have constructed the texts for aesthetic or other purposes, yet they have a lot to say about the set of rules that underwent a gradual transformation. The selected five novels also document the different phases of human-nature relationship. *The Manchester Man* by Mrs. Isabella Banks was well received by readers in 1876. This period is important as it witnessed a progression from an agrarian society to an industry-driven economy. The protagonist, Jabez Clegg, climbs up a steep social ladder with his sage efforts. The novel begins with the depiction of the life and surroundings of the poverty-ridden population of the industrial town of Manchester. Despite

the economic marginalization, the characters show bonds of friendship among one another. Living in small spaces, they are involved in their struggle to earn their livelihood. Their everyday life is mauled by industrialization as the process of urbanization has badly affected the self-sufficient life of certainties and turned it into a continuous struggle. Such human agonies find ample articulation in many novels written during these 'hard times'. However, the narrative projects the culture of celebrating the human agency "as an inventor and entrepreneur in a plot of capitalist expansion" (Vermeulen 21).

Human beings' relationship with nature didn't change simply because of the passage of time. It has changed since the ideology of Individualism charged the European continent with the desire to compete and throw away others. Personal achievements were looked upon with awe and reverence, and the prime parameter of success became the wealth collected in terms of materials. The Industrial Revolution supplied the British with more wealth to put in their coffers and accentuated their greed to squeeze whatever material they considered 'useful' from nature. *The Manchester Man* is purposefully selected for the analysis as it is a British text written when the Industrial Revolution was at its peak. The study of the British author, showcasing British land, situations, and viewpoints, is vital in understanding the journey of the Anthropocene.

The African novel *The River Between* by Ngugi wa Thiong'o focuses on the struggle of tribal communities in Kenya to keep the imperial impressions at length. The river Honia bears witness to the cultural differences between the European forces and the indigenous people. The clear waters of the river are much revered by the local people, and their cultural heritage cannot be separated from this natural body. The Europeans, in the guise of spreading their religion and civilization, discourage the tribal communities from participating in their age-old rituals like circumcision. These rituals are observed on the banks of Honia. Discarding the traditional systems of belief means going away from the sacred waters, trees, mountains, and other natural

bodies, and therefore the cultural crisis is primarily the crisis of separating human beings from the environment, which not only protects but gives identity to the indigenous civilization. Ngugi's text has been interpreted from political, military, socio-cultural, and economic perspectives. An ecocritical analysis showcases how the indigenous identity takes shape and is integrated into the particular space. Europeans' attempts to dominate the 'other' world actually quickened the processes of control over earth since they subjugated the tribes which were passionately co-existing with the local flora and fauna. The inclusion of these tribes into mainstream Christianity distanced a majority of the world's population from their close and healthy contact with nature.

The beginning of the text paints a graphic picture of indigenous communities living in the countryside of Kenya. They lead a life of self-sufficiency where all their needs are met locally and the feeling of brotherhood is the strongest. While observing age-old rituals, the inhabitants live in physical and emotional proximity to nature. The novelist doesn't imply that society is without any evil. But, at the same time, it is worth noticing that the conflicts among human groups don't put an onslaught on natural resources. Communities may have rivalries, but all communities revere life-giving entities such as water, forests, and mountains. With the coming of the foreign masters, these life-sustaining support systems are treated as 'natural resources' that could be used as raw materials for industries in Europe. Nature-human relationship existing among the African indigenous people gets redefined with the coming of the new dispensation.

The Age of Magic by Ben Okri is a sort of sequel to *Arcadia* by the same novelist as it opens with the same group of filmmakers who are on a train journey moving from Paris to Basel in Switzerland. They attempt to escape from the dreary urban existence to a world where nature still offers serenity to the soul. The characters do exhibit certain psychological cravings to move forward to an Arcadian life. "They were making journey to a place, but in truth, they

were making a journey to an idea” (Okri 13). While they go away from the city via a train, they see the onslaught of urbanization. Lao, one of the principal characters wonders why the worst aspects of cities are always visible from trains. He finds himself paying more attention to the ugly sites they are passing through. He finds himself “eviling, reinventing the world in malice. He liked nothing that he saw” (Okri 31).

The journey from the city to the natural world starts bringing about the metamorphosis of all the characters. The characters board the compartment with the burdens of a life away from nature. Lao sees “imps of regret, goblins of worry, red-eyed monsters of nasty thoughts, giants of deeds done, hybrid creatures of fear, ghommids of envy, bats of guilt, cloven-hoofed figures of lust, beings of terrible aspect” (Okri 34).

Arcadia is akin to a personal paradise and an inner solace. Throughout the text, the physical journey corresponds to the emotional journey, and it is evident from the narrative that the inner world and the material world interact. The visit to the countryside brings about a transformation in the very being of the characters; they seem to have been transported to an ideal and sinless world:

As they sat on their balcony they realized they had forgotten what it was like to stare in uncomplicated wonder, at a lake in the dark, at lights on a mountainside, at a calm sky. Distant bells sounded on the breeze. There was laughter down below. They felt as if they had been transported from their bodies by a god and delivered to a realm of pure delight.....(Okri,71)

Lao becomes so obsessed with the power of the Divine in nature that he “felt he had entered an invisible temple that drifts through time. He could feel the earth revolving” (17). The novel's axis shifts between opposing images, attitudes, value systems, and relationships to the natural world. There coexist two different world views: one which believes in synthesizing one's self with the divine nature and the other which considers consumption and greed to be

the driving forces. The latter stance, accepted by the contemporary generation, is becoming hazardous for the ecosystem. Remote places have been plundered and converted into destinations to attract tourists.

And so with fame, with money, with neuroses, they ruined the town. More people came than ever. It was like a stampede. The roads and lanes were crowded with cars. You couldn't move. There were beautiful women in furs everywhere, money splashed all over the place, opera stars, screen idols, high society women, shipping magnets, they all flocked to our little town by the lake. (251)

Some allegorical characters have a role to play, and thus the novel becomes closer to the Allegories of the Middle Ages. The novel questions the world of logic and doesn't move in an orderly progression. Anthropocentric reading transcends its magnitude as it is centred on the idea of nature's might, which empowers and symbolizes real freedom. Consumer interests exploiting the hills and valleys by joining them with railroads and tracks are referred to as acts that are ruining the surface of the planet.

Surfacing, by Margaret Atwood (1972) is a stark commentary on the neo-colonial forces that are depleting the planet's green bounty. Atwood's popularity grows in strength as she compares the actions and psyche of a consumerist culture with traditional life structures that respect not only resource protection and reuse but also contentment in simple living. While retaining a steady diegetic flow, the plot brings crucial arguments to the forefront, such as the need for societal reforms if the human race wants to have any chance of survival in the future.

The story of the nameless female narrator starts with a search for her father, who has been missing for a long time. She is joined by three companions during the course: Joe, her close friend; David, another friend who wants to utilize this time to shoot what he calls 'Random Samples', and Anna, David's wife. The four members set out on a journey to a remote village in Quebec, Canada, where the writer had spent her childhood in the company of her

parents and family friends. When they get closer to Quebec, they find a lot of work being done to construct carefully-planned highways to draw visitors to this area. Previously, such projects were limited to the city or its outskirts, but dynamites have swept away even the remotest areas which are full of “cow-sprinkled hills and leaf trees” (Atwood 5). People are enticed to call the city their home by its temptations, but they prefer to live for brief periods amid natural beauty. They continue to defile the pure spaces as they have become accustomed to the modern lifestyle.

The narrator keeps track of the American neo-imperialists' brutal and catastrophic environmental destruction. The most powerful tactic used by power-mongering nations is to target and condition the psychology of people in other countries. The consumerist economic system, which is driven by envy, places their self-sufficient lifestyle in jeopardy. “.....my father would be giving Paul the cabbages or the string beans he had brought from his garden and Paul would be replying with tomatoes or lettuces from his” (Atwood 22). Newer ways of living have distanced man organically from nature. Faster and technology-driven ways lead people not to keep “hens or cows or pigs anymore, it’s all imported from more fertile districts. The bread is in wax paper wrappers, tranche” (29).

The threat of greed conjures up bizarre theories about aesthetics and architecture. The generation yearns for ornately decorated homes with lots of heavy woodwork. Increased demand for timber is visible on the surface of the earth as the narrator notices “gigantic stumps, level, and saw-cut, remnants of the trees that were here before the district was logged out. The trees will never be allowed to grow that tall again, they’re killed as soon as they’re valuable, big trees are scarce as whales” (Atwood 55).

Through the character of the narrator’s mother, Atwood projects the vitality of living with frugal means, as excessive use of factory-produced goods is catastrophic for the environment. Increased demand necessitates increased production, which in turn necessitates

further pressing of natural resources in the form of raw materials. The need to collect more and more commodities, goods, and consumer durables is weighing heavily on the eco-system. Materialism and individualism have brought with them unlimited independence and the social order in which private life has become increasingly necessary. Personal rooms, personal vehicles, personal computers, and so forth cannot be possessed or put to function without energy consumption.

Nature is incapable of fulfilling unreasonable and unregulated desires. The powerful countries are navigating to places where they can find ample water resources, and they are conspiring with their governments to sign treaties that enable them (the powerful) to legally capture their natural resources. When someone buys someone else's stock, they aren't as concerned with its proper management, protection, renewal, rejuvenation, and regeneration as they are with their own. These attitudes on the part of nations in hegemonic positions reveal some of the crudest realities. Unheeded pursuits of global development are pressuring world leaders to avoid formulating strategies for environmental protection and revival. "My country, sold or drowned, a reservoir; the people were sold along with the land and the animals, a bargain, sale, solde. Les soldes called them, sellouts, the flood would depend on who got elected, not here but somewhere else" (169).

The human desire to go down new roads has always tempted him. The industry and corporations are taking advantage of this need in a big way. They recruit people to sell permits to cut down trees, hunt birds, and fish as much as one desires. They declare themselves to be the masters of flora, fauna, water, and open spaces, littering everything in their way. Atwood refers to psychological and cultural hegemony as "Americanism", a pan-global mannerism, as this superpower, with its unbridled need to rule, is giving rise to a generation that is unconcerned about anything other than its material possessions and promotes unrestricted consumption.

It doesn't matter what country they're from, my head said, they're still Americans, they're what's in store for us, what we are turning into. They spread themselves like a virus, they get into the brain and take over the cells and the cells change from inside and the ones that have the disease can't tell the difference. (165)

The Gun Island is purposefully and tactfully constructed around the issue of ecological crisis. It deals with the problems of climate change in very impactful manner. The novel presents the odyssey of the protagonist, Deenanath Datta, who comes across the power that nature has taken to swipe away the human race as the temperature of the earth's surface is rising. The central character, Dinanath Datta (Deen), is born and raised in Kolkata and is settled in Brooklyn through his occupation as a rare book dealer, which requires him to visit many places and stay connected with his birthplace. At the beginning of the narrative, he is shown as a middle-aged, hard-working person who has not yet found his life partner and experiences inner loneliness despite having a multitude of friends and relatives. Dame fortune makes him begin his journey, and he visits the shrine of Manasa Devi, the goddess of snakes, in the delta of the Sunderbans.

The novel is engineered in such a way that the empirical evidence-based facts about climate change are allowed to take up the largest space. Like Cli-Fi texts, this novel also has characters who are scientists, biologists, historians and environmental or social activists. Piya, a marine biologist, is engaged to discover the behavioural change patterns of marine life, particularly of the Irrawaddy dolphins (*Orcaella brevirostris*). Deen is informed by Piya that during the early years of her research, the pattern of movement and migration of river dolphins had been regular and predictable.

But then the tracks had begun to vary, becoming increasingly erratic; this was due.....to changes in the composition of the waters of the Sunderbans. As sea level

rose, and the flow of freshwater diminished, saltwater had begun to intrude deeper upstream, making certain stretches too saline for the dolphins. (Ghosh 92)

Through the character of Piya, some of the vital symptoms and warnings about the anthropogenic ecological crisis are given. She points to the fact that people who are working to save the variety of marine life are trolled by the nexus of industrialists and political lords and are called terrorists.

On one hand, global warming is disturbing the world of animals, and on the other hand, it is affecting the lives of millions of vulnerable communities. In the novel, Nilima is a social worker with a mission whose charitable trust along with offering many other types of services, works to rehabilitate women who have lost their families and households due to the frequent cyclones. Earlier, the outbreak of cyclones used to be natural disasters, but due to the rise in the temperature of the planet, they have become recurrent events, destroying the life of a large number of people. If they survive, the men of such families have to migrate to other places to earn their daily bread, and the women have to undergo many ordeals. Some have to prostitute their bodies to provide food for their children. Human trafficking is becoming increasingly common. Ghosh rips out layer after layer, how the coming future is not offering any respite from such social damage.

The narrative is replete with immense anecdotes, references, and incidents showcasing the challenges posed by the changed conditions of the earth, which have hitherto remained unimaginable and about which no species is prepared. Tipu and Rafi are two teenagers who know that someday their land will be swallowed by the rising waters, and so they undertake a journey towards Europe without assessing the difficulties that they might encounter during their ordeal. Both of them are associated with illegal agents and manage to cross the borders of many countries. They come across many such woe-begotten men and women who are racing towards the interiors of the continents because of the swelling seas. Civil administrators are

depicted as being least concerned about their lot as they have other vital issues like race, creed, nationality, and gender to discuss. The political discourse seldom centres around the injustices suffered because of nature's fury, as even the most powerful nations don't have the will to accept the havoc that they are wreaking on the environment. Nor are they serious about the lives of other creatures_human or animal.

Deen's association with Cinta uplifts the textual discourse to an epic scale. She is presented as a well-read historian who has published "an authoritative study of the Inquisition in Venice" (26). Structurally, without this character, it would not have been possible to trace the roots of the Anthropocene from a historian's perspective. Deen can attend many conferences with the help of Cinta, and these conference discussions provide an appropriate platform for the readers to decipher the width and volume of the ecological catastrophe. Cinta assists Deen to find an occupation in Brooklyn and then accompanies him to Venice. Deen's odyssey to Asia, North America, and Europe; Tipu's ordeals through many countries to meet Rafi at Venice; all these incidents collaborate to make *The Gun Island* a thickly factual document showing multiple facets of the Anthropocene.

Lubna, an inhabitant of Bangladesh, has set up a small office which is a refuge for helpless youngsters like Rafi. Lubna and her husband move to Europe after the sea gobbles up their prosperous premises and agricultural holdings in Madaripur district in Bangladesh. She tells Deen that people who are living close to the watercourses will have to undergo a forced migration very shortly as every year the sea is maximizing its limits. Her husband has died, and she assists Bengali migrants in Venice to find ways by which they can sustain their lives. Her character is a sort of testimony to bring forth that nearly half of the world's population is living in danger zones and if they migrate, which they will do to save their lives, they will change the social, cultural, economic, domestic and demographic make-up worldwide. Scarcity

will largely prevail in the richest nations as well, and the plight of the inhabitants of the poorer countries will deteriorate even more.

Literary Profiles of the Authors of the Selected Novels

Isabella Banks has provided a detailed account of the first industrial urban space of the planet known as Manchester. The famous Victorian author was born in Oldham Street, Manchester in March 1821. She got married to a journalist named George Banks in December 1846, and helped him in his work. According to the convention of the day, she published her novels under her husband's name. Of her eight children, five died in childhood, and her husband developed alcoholism and depression. So, it wasn't until the age of forty-three that she took her pen and decided to write. From 1865 until 1894, she composed twelve novels, three collections of short stories and three volumes of poetry.

Isabella Banks had a strong sense of history and was fond of acquiring things that had associations with significant figures or events. Out of her keen interest, she started developing Cabinets of Curiosities, which had been a fashionable way of displaying notable objects in the 16th–17th century. These projects were often undertaken by aristocrats and the merchant class. Even today, all of these items are carefully labelled and stored. The handwritten notes in Isabella's handwriting, describing what they are and where they came from, are adulated by many. These items also tell the stories of her family, the people she knew, and their wider relationships. Isabella Banks' collection is a smaller, more personal one. George Banks died of cancer on May 3, 1881, and Isabella remained in their suburban London home with an unmarried daughter. Isabella became frail as she battled bronchitis more often, and she passed away on May 5, 1887, at the age of sixty-six.

Mrs. Isabella Banks published more than fifty books in her twenty-five years of life as a writer. Some of her significant works are *Ivy Leaves: A Collection of Poems* (1844), *God's Providence House* (1865), *Daisies in the Grass* (1865), *The Manchester Man* (1876), *Caleb Booth's Clerk* (1878), *Wooers and Winners* (1880), *Geoffrey Oliphant's Folly* (1886) and *The Bridge of Beauty* (1894).

In 1876, Cassell published *The Manchester Man* in serial form, which focused primarily on her knowledge of Manchester. Her account of the first industrial town in the world is accepted as one that is profound, genuine, and lifelike. *Caleb Booth's Clerk and Wooers and Winners*, her next two novels, cemented her status as the 'Lancashire novelist'.

The Manchester Man is a very popular and widely read account of Manchester's industrial revolution. It was republished in 1991 and again in 1998. One of Manchester's most iconic pubs, the Jabez Clegg, takes its name from the hero of the book. Banks gives a realistic depiction of the transformations which came to the town during the Industrial Revolution.

Ngugi wa Thiong'o has been considered East Africa's leading novelist. Ngugi got bachelor's degrees from Makerere University, Kampala, Uganda, in 1963, and from Leeds University, England, in 1964. *Weep Not, Child* (1964) got international acclaim and was considered the first major novel in English by an East African. It is the story of a Kikuyu family drawn into the struggle for Kenyan independence during the Mau Mau rebellion and the state of emergency. *A Grain of Wheat* (1967), generally described as artistically very mature, focuses on political, social, domestic, moral, and racial concerns of the struggle. His *Petals of Blood* (1977) depicts the social and economic problems in East Africa after independence. *The Trial of Dedan Kimathi*, co-written with Micere Githae Mugo, is considered by a number of critics to be his best play. Its performance led to his detention for a year without trial by the Kenyan government. The play is a grim attack on capitalism, religious hypocrisy, and corruption among the new economic elite of Kenya. Ngugi has been one of Africa's most articulate social critics.

He argued for African-language literature as the only genuine and authentic voice for Africans. After a long exile from Kenya, Ngugi came back to the country in 2004 with his wife to promote Mrogi wa Kagogo. Several weeks later, they were brutally tortured and assaulted in their house; the attack was believed by some to be politically conspired. Ngugi later published the memoirs *Dreams in a Time of War* (2010) and *In the House of the Interpreter* (2012). *Decolonising the Mind* is a collection of essays about language and its constructive role in national culture, history, and identity. The text advocates linguistic decolonization. It is Ngugi's best-known and often-quoted non-fiction publications.

Ngugi's novel *The River Between* opens in an environment of uncertainties among indigenous communities living in Kenya's rural spaces, as the colonial rule is proliferating its control, first politically and administratively, and then culturally and psychologically. While delineating the cultural conflicts, the author reflects on the longings of the people of the soil to stick to their indigenous rituals and customs. The new religious apparatus does not allow its followers to look at nature as the seat of some divine power. The monotheistic Western establishments instil reverence for the Church in ordinary minds, and as more and more human groups cling to Christianity, their close relationship with the hills, valleys, rivers, and the rituals associated with them change. Neither does Ngugi blame the European missionaries, as many do, for the shaking of socio-cultural settings, nor does he think that the solutions to the problems of Africa lie in making the imperial forces perish. His full-throated statements are weaved around the idea that conflicts have been a part of human culture and that change should come from within. Imperialism is an infectious mindset which doesn't allow people to believe in themselves and it is continuously present in the disguised creed of neo-colonial corporate-driven state machinery. The study of human fallout regarding the plunder of the planet cannot be done in a vacuum. Diverse social, economic, and ideological viewpoints need to be taken

into consideration, as these changing ideas determine how human beings look at their surroundings.

Ben Okri, a Nigerian novelist, poet, and short-story writer, was born on March 15, 1959, in Minna, Nigeria, and employed magic realism to depict the social and political unrest in his home country. Okri went to Warri, Nigeria's Urhobo College, and Colchester, University of Essex, in England. *Flowers and Shadows* (1980) and *The Landscapes Inside* (1981), his first two novels, use surrealistic imagery to portray the corruption and lunacy of a politically troubled world. *Incidents at the Shrine* (1986) and *Stars of the New Curfew* (1988), two collections of short stories, depict the crucial connection between the real world and the world of the supernatural. Okri's novel *The Famished Path* (1991), about an *abiku* (spirit child) named Azaro and his quest for identity, won the Booker Prize. *The Famished Road's* themes are continued in the novels *Songs of Enchantment* (1993) and *Endless Wealth* (1998), which tell tales of adventurous quests and the search for equanimity in a violence-ridden country. Okri's other works include *Arcadia* (2002); *Starbook* (2007); *The Age of Magic* (2014); and *The Freedom Artist* (2019). *Mental Flight* (1999) is a long poem, and *An African Elegy* (1992) is a collection of poems encouraging Africans to conquer the forces of anarchy within their nations. Okri's essays are collected in *A Way of Being Open* (1997) and *A Time for Fresh Visions* (2011). Despite not being overtly partisan, Okri's works express explicit and urgent statements about the need for Africans to re-imagine themselves. In *The Age of Magic*, Ben Okri paints the picture of the mysterious and awe-inspiring Arcadia—a paradise on earth to long for.

Margaret Atwood (full name, Margaret Eleanor Atwood), is a Canadian writer well known for her prose fiction and feminist viewpoint. She was born on November 18, 1939, in Ottawa, Ontario, Canada. Atwood spent her time as a child in two places: Toronto, where her family lived, and the sparsely populated bush country of northern Canada, where her father, an entomologist, performed research. She started writing when she was only five years old and

revived her hidden talent more seriously a decade later. Atwood received a master's degree in English literature from Radcliffe College in Cambridge, Massachusetts, in 1962, after completing her undergraduate studies at Victoria College at the University of Toronto. Atwood reconsiders human nature, praises the natural world, and rejects commercialism in her early poetry books, *Double Persephone* (1961), *The Circle Game* (1964, restructured in 1966), and *The Animals in That Country* (1968). Power dynamics and new experiences are common topics in her texts, which are mostly about women looking for their place in the world. *The Handmaid's Tale* (1985; film 1990; opera 2000) is based on the written account of a woman raised in sexual bondage in a repressive Christian theocracy in the future that has taken power in the aftermath of an ecological upheaval; a TV series based on the novel debuted in 2017 with Atwood co-writing it. *The Blind Assassin* (2000), which won the Booker Prize, is an intricately crafted plot based on the memoir of an elderly Canadian woman who is presumably writing to clear up a mystery over both her sister's suicide and her involvement in the posthumous publication of a novel allegedly published by her sister. *Surfacing* (1972), an investigation of the bond between nature and society, centres on a woman's return to her native village in the northern wilderness of Quebec.

Atwood's other works include *Lady Oracle* (1976), *Cat's Eye* (1988), *The Robber Bride* (1993); and *The Edible Woman* (1969). A fictionalized version of a real-life Canadian girl accused of twin murders in a sensationalist 1843 court trial; a TV documentary series based on the latter novel, produced by Atwood and Sarah Polley, screened in 2017. The *Penelopiad: The Story of Penelope and Odysseus*, a 2005 novel by Margaret Atwood, was inspired by Homer's *Odyssey*. In *Oryx and Crake* (2003), Atwood portrayed a plague-induced apocalypse through the perceptions and reflections of a protagonist who may be the event's sole survivor. In *The Year of the Flood* (2009), the supporting characters from the text retell the apocalyptic tale from their viewpoint. The novel *The Heart Goes Last* (2015), which was first released as a

series of e-books (2012–13), depicts a dystopian America in which one couple is forced to join a society that acts like a prison. For the Hogarth Shakespeare anthology, *Hag-Seed* (2016), a reimagining of William Shakespeare's *The Tempest*, was published. *The Testaments*, a continuation to *The Handmaid's Tale*, was set to release to critical acclaim in 2019 and was a Booker Prize co-winner (along with *Bernardine Evaristo's Girl, Woman, Other*). *Negotiating with the Dead: A Writer on Writing* (2002), which grew out of a lecture series she delivered at the University of Cambridge, is one of Atwood's nonfiction texts. *Payback* (2008; film 2012) is an eloquent essay that views personal and institutional debt as a cultural issue as opposed to an economic or political one.

Amitav Ghosh grew up in India, Bangladesh, Sri Lanka, and Iran, where his father was a diplomat. He completed his M.A. from the University of Delhi in 1978 and worked as a newspaper correspondent and editor at the same time. He joined the University of Oxford, where he obtained a Ph.D. in Social Anthropology in 1982. Ghosh went on to teach at universities such as the University of Delhi, the American University in Cairo, Columbia University in New York City, and Queens College of the City University of New York, among others. Ghosh started writing full-time in 2004 at Harvard University. He currently divides his time between the US and India. His first book, *The Circle of Reason* (1986), follows an Indian protagonist who flees from India for northern Africa and the Middle East after being accused of being a terrorist. It is postcolonial in its marginalization of Europe, postmodern in its nonlinear form and possesses thick intertextuality and the blending of elements of fable and picaresque literature. *The Shadow Lines* (1988) is a sprawling portrait of two families (one Indian, the other English) whose lives were profoundly influenced by events that occurred since the British left India in 1947. Both *The Circle of Reason* and *The Shadow Lines* have been extensively translated, bringing Ghosh international acclaim. Ghosh's first foray into science fiction, *The Calcutta Chromosome: A Novel of Fevers, Delirium, and Exploration* (1995), is a

tightly layered novel that presents an alternate history of the exploration of the parasite that causes malaria. *The Glass Palace* (2000), a family history set in Burma (Myanmar) between the British conquest in 1885 and its independence after World War II and into the late twentieth century, and *The Hungry Tide* (2004), set in Bengal and featuring American and Indian protagonists, were his subsequent novels. Ghosh stepped away from his earlier novels' formal experiments and initiated a more conventional mode of storytelling with *Sea of Poppies* (2009), a novel about people on the Ibis, a ship on the seas of Southeast Asia transporting coolies (indentured manual workers) and opium. The first novel in the Ibis series, *Sea of Poppies*, is set shortly before and after the First Opium War. *The River of Smoke* (2011) and *Flood of Fire* (2012) were both part of the historical collection. Ghosh wrote *The Gun Island* (2019), based on a myth about the snake goddess Manasa Devi. It is about a rare-book dealer who embarks on a quest through which he must confront problems from human history. *The Gun Island* by Amitav Ghosh underpins layers and layers of problems that are being witnessed globally and which are the consequences of global warming.

The Ecocritical Framework

The ecocritical theory offers a consistent framework for elucidating the topic of this research. Ecocriticism is a relatively recent idea that emerged in the United States in the late 1980s and in the United Kingdom during the early 1990s as Green Studies. This movement's foremost proponent, Cheryll Glotfelty, characterised ecocriticism as follows:

Ecocriticism is the study of the relationship between literature and the physical environment. Just as feminist criticism examines language and literature from a gender-conscious perspective, and Marxist critique brings an awareness of modes of production

and economic class to its reading of texts, ecocriticism takes an earth-centered approach to literary studies. (Glotfelty 18)

She has been credited as the movement's originator. She along with Harold Fromm edited *The Ecocriticism Reader: Landmarks in Literary Ecology*, a compilation of papers that provides the core tenets of the movement. Thereafter, the Association for the Study of Literature and the Environment (ASLE) was established by her. In 1993, the association started its own in-house journal, entitled *Interdisciplinary Studies in Literature and Environment* (ISLE). The concept of ecocriticism first appeared in the late 1970s. The phrase was first used in 1978 by William Rueckert in his essay entitled *Literature and Ecology: An Experiment in Ecocriticism*. Until Cheryll Glotfelty emphasised the acceptance of the concept to apply to a larger field of 'the study of nature writing', the term remained dormant.

Three significant American authors from the nineteenth century, Henry David Thoreau, Ralph Waldo Emerson, and Margaret Fuller, are credited with the movement's beginnings. Their creations celebrate American wilderness, vitality, and the natural world. Emerson chronicles the effects of nature on him and the world in this passage. "in Nature: Crossing a bare common, in snow puddles, at twilight under a cloudy sky, without having in my thoughts my occurrence of special good fortune, I have enjoyed a perfect exhilaration" (qtd. in Barry 241). *Summer on the Lakes* (1843), the first book written by Fuller, chronicles her experiences in the Niagara region of the United States. She writes:

For here there is no escape from the weight of a perpetual creation; ... here is really an incessant, an indefatigable notion. Awake or asleep, there is no escape, still this rushing round you through you. It is in this way I have most felt the grandeur- somewhat eternal, if not infinite. (qtd. in Barry 241)

Thoreau's *Walden* is a first-hand account of his two-year settlement at Walden, Massachusetts, from 1845 to 1847, when he erected a cabin on the edge of Walden Pond, a few

miles from Concord, his hometown. There, he was totally cut off from contemporary life and turned to nature for rejuvenation. The British Romanticism (particularly Wordsworth's tradition) of the 1790s is where the Green Studies of the UK get their inspiration. With his book *Romantic Ecology: Wordsworth and the Environmental Tradition* (1991), Jonathan Bate established the field of 'Green Studies'. Greg Garrard, Terry Gifford, Laurence Coupe, and Richard Kerridge are the other British proponents. The classic British collection of writings on ecocriticism is *The Green Studies Reader: From Romanticism to Ecocriticism* (2000) by Laurence Coupe. The two distinct ecological approach types are evidently connected to their goals and approaches despite having different ancestries and focuses. American writing has a celebratory tone, whilst British writing has a minatory one; both strive to alert readers to the environmental hazards posed by many sources, including neo-colonial movements, industrialization, and governments.

Ecocriticism is a critical and pedagogical expansion of literary texts / studies and evaluates literature dealing with the interplay between human beings and nature. Ecosystems in literary works require an interdisciplinary approach in order to grasp not just human interactions with the text but also the physical world in which the text exists. In contrast to earlier literary critics who focused more on the author, reader, and language of the text, ecocritics' aim is to analyse human and nonhuman relationships in conjunction with evolution and the development of nature politics. Ecocritics play an important role in fostering eco-awareness by providing readers with a unique perspective on the natural world. As a result, the ecocritical perspective persuades individuals to restore the broken relationship between human beings and the environment. Nevertheless, due to its interdisciplinary nature, ecocriticism has a greater scope. It derives its fundamentals from the existing ideas and contributions from other sciences, which eventually have led to the development of new theories such as Deep Ecology,

Ecofeminism, Social Ecology, Postcolonial Ecocriticism, Apocalypticism, Ecological Imperialism, Wilderness, Ecocide, and Ecophilosophy.

In the 1970s, four radical forms of environmentalism emerged: Deep ecology, Social Ecology, Ecofeminism, and Ecophilosophy. Deep ecology is the most popular of these four varieties which has motivated many activists in organizations like Earth First, Friends of the Earth, and Sea Shepherd. Arne Naess, Gary Snyder, Bill Devall, George Sessions, and Warwick Fox are among the Deep Ecology thinkers. Gary Snyder is the poet laureate of Deep Ecology, and the Norwegian philosopher Arne Naess is his intellectual mentor. Deep ecologists refer to themselves as “deep” because they feel their approach is not as superficial as that of modern environmentalists. This viewpoint holds Europeans accountable for the devastation of nature. In George Sessions's seminal collection *Deep Ecology for the Twenty-First Century* (1995), Naess outlines eight key principles of the deep ecology position. According to deep ecologists, nature has the same moral standing and intrinsic rights as human beings. They promote respect for all forms of life as well as for inanimate objects like mountains, rivers, and landscapes. They advocate for human population decline as well. Critics of this concept contend that they have failed to consider societal issues that have a disproportionate impact on the environment. These concepts are summed up in three simple points: wilderness, basic living, and connection with nature.

Murray Bookchin, the founder of Social Ecology, investigates the social roots of the ecological problem. It implies that environmental and social issues are intertwined. Social Ecology's core tenet is that it investigates human and non-human ecosystems, taking into account the interaction between nature and culture. Social ecologists believe that social problems have a direct negative impact on the current ecology. They believe that the environment is affected by political, social, and economic decisions made by society. They feel that these ecological issues are the result of an anthropocentric perspective. It adheres to the

philosophy of dominance and the exploitation of people by humans. In his 1982 book, *The Ecology of Freedom*, Bookchin eloquently explains that human dominance over nature stems directly from human dominance over humankind. A hierarchical system is nothing more than a systematised classification of exploitation in which one person abuses another. These socio-ecologists advocate for the decentralisation of the social class structure. The central tenet of Social Ecology is that ecological problems arise from deeply rooted social problems. Its advocates feel that environmental challenges cannot be comprehended and remedied without addressing social issues. They believe that societal issues such as poverty, the caste and class system, profit, self-development, and industrial expansion have a negative impact on the environment. Consequently, they propose an ecological society to replace the present hierarchical order.

Ecological Imperialism focuses on the disruptive and negative impacts of colonisation on colonised ecologies, as a result of the introduction of new species on foreign territory and the importation of native, uncommon plants for financial gain. Alfred Crosby coined this phrase, which involves the introduction of non-domestic animals, livestock, and foreign agricultural practises in the colonies. Bio-colonization is the second type of ecological imperialism. Multinational corporations and developed nations use sophisticated equipment and technology for genetic modification in order to meet the commercial and political needs of western nations. The genetically modified crop is promoted and used in several nations. These newly developed crops are patented by corporations, preventing others from benefiting from them. The third type of ecological imperialism is environmental racism. Here, developed countries dump enormous amounts of garbage into economically disadvantaged nations, which has a direct impact on the environment of these nations. On the basis of race and ethnicity, these powerful countries subjugate inferior nations.

Ecocide is a prevalent term for ecological destruction, which is one of the primary concerns of ecocriticism. In 1970, Arthur W. Galeston coined this word for the first time at the "War and National Responsibility" conference in Washington. He coined the word to describe the damage to the environment caused by the military, such as the use of chemical defoliants in Vietnam. Nowadays, equivalent levels of damage are initiated more frequently in the name of growth, development, and the search for low-cost resources. All nature writers, academics, and ecocritics are vehemently opposed to ecocide. In her book *Eradicating Ecocide*, Polly Higgins, a legal scholar and international environmental activist, defines ecocide as "the extensive destruction, damage, or loss of ecosystem(s) of a given territory, whether by human agency or other causes, to the extent that the peaceful enjoyment of the inhabitants of that territory has been significantly diminished" (63). She considers ecocide a possible fifth international crime, following genocide, aggression, crimes against humanity, and severe war crimes. Ecocritical authors may use ecocide interchangeably with genocide in their fiction. Destruction of the environment on a massive scale would have catastrophic results. For such authors, the destruction of a thousand trees is equivalent to the murder of a thousand people.

Arne Naess, a Norwegian philosopher, defined Ecophilosophy as an organised inquiry that investigates nature and human relationships. He characterises it as a discipline focused on analytical thinking, rational reasoning, and thoroughly evaluated assumptions, similar to philosophy itself. Naess contrasted Ecosophy with Ecophilosophy, describing it as a 'personal philosophy' that directs human behaviour towards the environment rather than a discipline. He describes Ecosophy as a system of views about nature and other people that differ from person to person. In other words, everyone has their own ecosophy, and while personal philosophies may share key parts, they are founded on conventions and assumptions unique to each one. Naess suggested his own ecophilosophy as a paradigm for individual ecophilosophies, emphasising nature's inherent value and the significance of cultural and ecological variety.

Many environmental philosophers argue that all life has intrinsic worth that is independent of human viewpoints and uses, and that it should not be messed with unless it is necessary for survival. Human population expansion endangers the integrity of other living systems, they claim, and drastic adjustments in human values and actions are necessary to incorporate people more harmoniously into the overall system.

Ecofeminism combines feminism with ecology, asserts that patriarchy and capitalism are responsible for the enslavement of women and environmental damage. Ecofeminism is one of the most inventive ecological philosophies. Occasionally, ecofeminist thought, or at least the Anglo-American variants have attracted the most attention and has been regarded as a big influence on personal lives, morals, and the spirituality of human society. Nonetheless, ecofeminist philosophers have made substantial contributions to social and political theory, most notably with the introduction of a materialist ecofeminism concerned with the global social order and the status of women in the global economy.

Vandana Shiva, an ecofeminist, is one of the world's most well-known theoretical opponents of the dominant forms of growth and globalisation. She considers this a continuation of patriarchal, hierarchical society's purpose to dominate the 'other' (nature, women, indigenous peoples, and lesser classes) throughout its whole history. She explicitly regards development as the transformation of colonialism. Through national elites and more advanced technology, neo-colonial development seeks many of the same goals as conventional territorial colonialism. Despite utilising nationalist ideology, it continues to pursue the imperialist goal of eliminating traditional cultures and production practises.

Chapter 2

The Geo-historical Roots of the Anthropocene

Even literary works that do not formally and overtly focus on environmental concerns nonetheless offer valuable insights about the emerging geological period. Literature serves as a medium for documenting the intricacies of imaginary realms inhabited by human protagonists, transforming the act of storytelling into a means of examining the transformations occurring within the global landscape. Given the amalgamation of literary and scientific discourse, it is useful to approach the subject from a scientific perspective. Environmental social scientists research and analyse the intricate and multidimensional relationship that exists between human beings and their natural environments, particularly the topic of why social systems routinely exceed their ecological carrying capacities. Environmental and social scientists have studied the social and political dynamics of environmentalism since its inception, looking into how people organized around, reacted to, and adjusted to air and water pollution, technological consequences, land use conflicts, and environmental justice issues. By the 1980s, literature had also broadened its scope by elucidating the underlying organizational, economic, institutional, and psychological needs of human beings that have influenced modern industrial society's relationship with the biophysical world, particularly the environmental implications of various economic development models. In the four decades since its beginning, experts have produced a large corpus of research demonstrating the motivations, behaviours, and organizational processes that drive society's interaction with nature and the physical world. The field has yielded important insights into comparative public opinion on the environment, the global spread of environmental institutions, the impact of values on individual environmental behaviour, the role of culture in shaping environmental exploitation and regulation, social interests driving consumerism and high resource utilization production systems, and societies' capacity to learn. Despite their primary focus on human-nature

interaction, creative authors have recently focused their research on global climate change. Nevertheless, it has been shown that literature can provide insight into the factors that contribute to global warming and climate change, including which populations are most susceptible to its effects and resilient to them, as well as how the competition among states in the international system affects the rate at which these factors are accelerating.

On the planet, the trees, the animal world, and the ecosystem have not been able to establish any hegemony; only one species, the homo-sapiens, has gained so much prowess that they have transformed the fundamental functioning of the natural cycles and systems with their collective force. The Anthropocene period has been largely acknowledged by the scientific community, in which human beings, with their massive potential, have begun to act as a full planetary force. The planet has become hotter during the past one hundred and fifty years, notably over the last six decades, and this warming has resulted in a multitude of other climatic changes. There are signs of climate change everywhere, from the stratosphere to the depths of the seas. Large numbers of scientific researches conducted globally have recorded temperature changes at the surface, in the atmosphere, as well as in oceans. Melting glaciers, the loss of glaciers and snow covers, melting sea ice, rising sea levels, and an increase in atmospheric water vapour are all its contributing causes. Changes are occurring in rainfall patterns, storms, and the frequency of droughts. Numerous lines of evidence indicate that human activities, specifically greenhouse gas emissions, are substantially responsible for the monitored climate shifts in the industrial period, especially during the previous six decades.

As stated in the preceding paragraph, the structure of the globe has experienced irreversible changes, and environmental scientists believe that there is an organic link between human activity and climate change. Droughts, floods, tsunamis, wildfires, biosphere compositional changes, and so on are all caused by human activities. Studies are being

conducted to investigate, observe, measure, monitor, access, and infer the short, medium, and long-term effects of human activity on the earth.

The geologic time scale divides the earth's history into hierarchical blocks of time. In decreasing order of length of time, these classes are named as eons, centuries, cycles, epochs, and eras. These groups are classified by the earth's rock formations, or strata, and the fossils discovered inside them. By examining these fossils, scientists may determine which creatures are characteristic of various parts of the geologic record. The Anthropocene Epoch is the geologic time unit that corresponds to the most recent epoch in the planet's history, when human actions began to have a significant impact on the planet's atmosphere and ecosystems. When has the Anthropocene epoch begun is a complicated question. The basic transformation of the planet's surfaces, which is still visible now, is the result of thousands of years of collective human activity. Previously, however, the changes were too gradual to be dealt with any deliberate gravity, and as a result, there are few studies in which any dedicated scientific endeavour is made to examine and assess the anthropogenic ecological catastrophe.

The concept 'Anthropocene' is being rapidly used to describe the recent global period in which human beings have emerged as the primary force transforming the earth's biogeophysical composition and processes. While it has its origins in the Earth Sciences, it has since gained widespread acceptance in academia and the public domain as a catch-all term for human activity's overwhelming effect on the globe. This research looks at how literature documents the Anthropocene as a collection of events (such as climate change and mass extinction). It takes help from other spheres of knowledge to understand the issue in complete detail. According to *The Encyclopedia of Anthropology*, there are four main anthropological approaches to the Anthropocene. 1) "the use of the Anthropocene as a context for or backdrop for ethnographic inquiry"; 2) "the Anthropocene as a socially and politically constructed

concept”; 3) “the Anthropocene as a source of creativity and hopeful speculation”; and 4) “the Anthropocene as a result of long-standing global policies.” (*Encyclopedia of Anthropology*).

Since the previous decade, the Anthropocene has been regarded as the backdrop to all human activity, which has resulted in its enormous popularity in literary and cultural studies. Science alone is not able to disseminate the concepts it infers, hence, there is an urgent need to connect all academic fields in order to effect meaningful change in the existing condition of things. Pieter Vermeulean, in his latest book *Literature and the Anthropocene*, states:

So how do we begin to understand those entanglements? How do we approach a reality in which traditional divisions no longer hold? What happens to the scientific disciplines through which we customarily study the world? In this new dispensation, the neat division between the sciences (which study nature in splendid isolation from human intervention) and the humanities (traditionally dedicated to the study of society and culture) becomes an obstacle in the effort to come to terms with a new reality in which the human and nonhuman realm are deeply entwined. Neither the sciences nor the humanities are particularly well equipped to capture that entanglement on their own.

(2-3)

Academic interest in the Anthropocene has been matched by a greater public awareness of its presence. For example, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) dedicated a special journal issue to the Anthropocene (UNESCO 2018), and many of the UN Development Programme's (UNDP) Sustainable Development Goals (2016 to the present) are based on fundamental anthropogenic issues such as habitat destruction, global emissions, and reliance on petroleum products. Simultaneously, many documentaries such as Edward Burtynsky's *Anthropocene: The Human Epoch* (2018) bring the idea and the issues to the fore in the current world. As a result, the Anthropocene has evolved

into a “charismatic mega-concept” (Turpin & Davis 6) that cuts across the scientific, literary, and social sciences, academia, and the public sphere, generating heated arguments in each.

The word “Anthropocene” was coined by Crutzen and Stoermer in 2000 to describe the current geological period in which human beings have caused some of the most apparent and irreparable harm to the earth's natural system, and it has since become a part of cultural and scientific discourse. It is said to have started in the 1800s, with the start of the Industrial Revolution, when human activities had a significant impact on carbon and methane levels in the atmosphere. Another group of scientists feel that the Anthropocene began in 1945. This is the year that mankind performed the first nuclear test and dropped atomic bombs on the Japanese cities of Hiroshima and Nagasaki. The resulting radioactive particles were found in soil samples from all around the world. However, in order to comprehend this human epoch, experts have developed three key recommendations to highlight the probable stages of its beginnings.

The first stage of climate change is referred to as the Pre-industrial Phase or the recent Holocene Age. The recent Holocene refers to an era when human dominance increased significantly and human beings began to dominate natural processes and hence natural systems. “Human-caused mammoth extinction 13,800 years ago” (Doughty et al. 10) as well as “forest clearance and rice production 5,000–8,000 years ago” (Ruddiman 479–490) have been proposed as “the Anthropocene boundary” sites. Though Paul Crutzen along with other working group members earlier supported “the Industrial Revolution and the development of the steam engine as the origins of the Anthropocene” (Crutzen 2002; Zalasiewicz et al. 835-841), “the working group's members currently support the 'Great Acceleration'” (Zalasiewicz et al. 456)—a period of rapid demographic, economic, technological, and resource use expansion. Scientists state that “the Great Acceleration was a worldwide synchronous event”

(a major need for selecting a stratigraphic marker), as opposed to earlier premise, which they allege were either confined or did not occur at the same time throughout the world.

Simon Lewis and Mark Maslin (71), on the other hand, propose the year 1610 as its beginning date, noting the Colombian Discovery of America's enormous impacts on ecosystems as well as the reduction in CO₂ concentrations most likely induced by deforestation throughout America, owing to the great loss of indigenous life. In addition to acknowledging a stratigraphically significant event, Lewis and Maslin highlight colonial violence as a pillar of the Anthropocene. Feminist scholars Heather Davis and Zoe Todd agree with this viewpoint, saying that "selecting this starting date will allow aboriginal perspectives to be heard in the Anthropocene discussion" (217).

The recent Holocene was distinct from earlier inter-glacial eras on the earth because the notion of property was prevalent throughout this time period. Human beings left the jungle and began to cultivate land. They tamed animals in order to obtain meat and dairy products. Years of such initiatives planted the seeds of a human-centred society. Control of water sources for irrigation as well as deforestation of land are examples of such activities by which human beings have progressively established their legitimate ownership over enormous portions of the planet.

The climate changes throughout time as a consequence of the interaction between rapidly changing weather and regional as well as global factors, for example, the distribution of heat in the seas, the amount of solar energy coming to the earth, and the composition of the atmosphere. Because the world is one united system, it is definitely deduced that even seemingly tiny alterations in the environment have a big impact on the whole climate. Climate change became increasingly evident throughout the Industrial Revolution, although it was not yet regarded as a threat. European industries required fossil fuels as well as labour to maintain and construct infrastructure. Thus, the Industrial Revolution led to rapid urbanization, changes

in land usage, and the extraction of more and more natural resources from the earth's womb. The new system necessitated rapid cultural and psychological adjustments as well as a shift in economic and political structures. Individualism after the Enlightenment suited the interests of businesses. Greed was viewed as a driving force and something extremely sacred. Europeans set out to take additional areas to pillage, and thus the imperial powers arrived, colonized, and gained control of the remaining territories.

The Great Acceleration, the subsequent phase, began after World War II and is characterized by an increased use of fossil fuels. Because industries were producing a large number of finished products to meet the needs of customers, there was an increase in the demand for private cars, and massive infrastructures were built, resulting in the widespread use of concrete, iron, and steel. As mentioned earlier, the planet is a single system with specific fundamental features pertaining to its composition, it is not possible to withhold or sustain the pressures generated by collective human activity for an extended length of time. This explains why, since World War II, human civilization has witnessed some of nature's most ferocious features, the majority of which are manmade. Human fallout has resulted in massive floods, tsunamis, cyclones, and unanticipated shifts in climatic patterns. Wildfires have become a routine occurrence. Human beings and animal creatures are migrating in vast numbers to ensure their safety.

During the last seventy years, the socio-political fabric of human civilisation has undergone a fast shift. The process of urbanization has become a necessity as civilizations seek steady sources of subsistence. The establishment of capitalist economies has had significant long-term effects on the biosphere, thereby removing the planet from the Holocene epoch. Constant increases in consumer demand drive up greenhouse gas production and emissions at an alarming rate. As a result of this state of affairs, the human race has established an order in which it has authority over all other species, including the environment. Human dominance is

spreading as a result of wider clearance of hills using dynamites, deforestation, legal changes in land usage, and so on. The expansion of medical facilities has aided in the immense growth of the human population. Thus, climate historians have demonstrated that the climate has been under human-caused hazard since human beings began the process of community formation by leaving their forest homes. Cultivation, land, and domestication of other species have all been added to this control. However, until society entered the Industrial Phase, the process was very slow, gradual, and almost imperceptible to many.

Paleoclimatologists have created a mechanism to highlight and explain climatic changes. They create a database to study how the climate has changed over thousands of years as a result of human activity. Eunice Foote, a scientist, published a study in 1856 on the "circumstances determining the heat of the sun's beams." She talked about the "warming effect of carbon dioxide in the atmosphere" (105–118). She is regarded as the first scientist, having been born three years before John Tyndall. Scientists such as Perlin now say that Foote pioneered studies in this area and "established the foundation for our knowledge of climate change" (111). Her research was based on the concept that carbonic gases have the potential to alter the earth's ecosystem since their significant rise is bound to raise the planet's temperature. According to Perlin:

the strongest influence of the sun's rays I have discovered to be in carbonic acid gas. An atmosphere of that gas would give the earth a high temperature; and if, as some believe, at one time in its history, the air had mingled with it in a greater proportion than it does now, an increased temperature from its action, as well as an increased weight, would have to have followed. (111)

For the last century, climatologists have been trying to collect data of the transformation of the planet's ecosystem. For millennia, human beings have been engaged in large-scale modification of natural systems. Stone Age hunting technologies resulted in the extinction of

large mammals; “agricultural revolutions converted forests into farmlands; mineral exploration re-carved the earth's surface; dams and reservoirs now control the flow of almost all rivers; and synthetic fertilizers now flood the nitrogen cycle” (Economic Guide 3).

The atmosphere may be described as a combined probability distribution that describes the condition of the air, sea, as well as freshwater systems (including ice). Because each is a multidimensional system, summary data such as global average surface temperature or temperature distribution in key cities is useful. Indeed, in the global energy balance, the underlying physics that characterizes global warming is strongly connected to the mean global surface temperature. However, users of climate science should be aware that, while beneficial, such simplification does not represent the entire issue. Human actions have “a lengthy history of influencing the climate, dating back nearly two centuries” (Weart 506). However, it took a comprehensive investigation “in the second part of the twentieth century to determine that human activity is changing the planet” (Stocker et al. 666; US Global Change Research Program 2017). Several lines of evidence, including “global and ocean-wide measurements; geological reconstructions of previous climates; and a two-hundred-year-old physics theory” (Hegerl et al. 207), have led to this view. Given the evidence, “the zero premise that human beings have no impact on the global climate has been simply disproved” (Hegerl et al. 207).

Thus, the long-held conviction that human beings are the masters of the universe has now been challenged. Inherently, the literary works produced over this expansive timeframe have the potential to map all these changing ideas. One of the often-quoted stances is that the mundane lives of the characters described in the fictional worlds cannot be disturbed by the weather conditions around them. But the reality is that the planet, which is the common locale of all the novels under study, is facing a common crisis due to its plunder. All the specific locales of the selected works, namely Manchester, the ridges of Kenya, Switzerland, Quebec,

and Indo-Bangladesh, are described as spaces under pressure and stress. Amitav Ghosh, in his book *The Great Derangement: Climate Change and the Unthinkable* (2016), very aptly states:

The earth of the Anthropocene is precisely a world of insistent, inescapable continuities, animated by forces that are nothing if not inconceivably vast. The waters that are invading the Sunderbans are also swamping Miami Beach; deserts are advancing in China as well as Peru; wildfires are intensifying in Australia as well as Texas and Canada. (Ghosh 62)

The novels under study shape and create the current geological epoch through the collective efforts and actions of their characters. Tobias Boes and Kate Marshall (2014) underline, "Human actions do not function as denotative speech acts but are performative interventions in which humankind functions as both subject and object" (64). In order to comprehend the patterns and orders of an alarming reality, such as the reality of the earth spinning out of human control, it is significant to understand how scientists perceive this concept. It is appropriate to first make reference to reliable scientific facts on climate change in order to comprehend the claims made in the selected works.

The Scientific Evidence of Anthropogenic Climate Change

Energy and GHG balance is a significant concept for understanding the scientific evidence of anthropogenic climate change. Globally, sunlight continually reaches the earth's atmosphere. To keep the surface temperature constant, the incoming energy must be balanced by the energy exiting the atmosphere. Around a third of the sunlight that hits the earth's surface or clouds is reflected. That means high-temperature infrared radiation leaking from the planet must catch, stabilize and magnify the remaining 70% of its crust and atmosphere. The average worldwide surface temperature would be -18°C (about 0°F) if the Sun's temperature, remote

terrestrial distance from the Sun, and Earth's reflectance were not used (also called the "albedo"). The planet would attain equilibrium if the energy flow into the atmosphere increased, for example, if the Sun's brightness rose or the earth's albedo decreased. Unlike visible and ultraviolet light, greenhouse gases trap infrared radiation, preventing energy from exiting the earth's lower atmosphere into space. It re-transmits the expended energy back into the earth's surface, avoiding the infrared roof radiation from the greenhouse gas molecule. The surface and lower atmosphere warm somewhat, increasing infrared radiation emissions. Equilibrium is restored when increased thermal radiation offsets the effects of greenhouse gases. Carbon dioxide concentrations are measured in the atmosphere at the average height from which IR may go into space and contribute to the energy budget. There is an "effective radiation norm" in the atmosphere. The earth's effective radiation level currently occurs at 5.5 km altitude, with an air temperature of -18°C , close to that of the earth without greenhouse gases. With a temperature-altitude ratio of roughly 6°C per kilometre, the soil is around 33°C (59°F) colder. When greenhouse gases are released into the atmosphere, they raise the effective radiation level. However, energy storage needs the surface to be warmed up to a -18°C balance, which demands a higher (initially colder) efficient radiation intensity. Doubling CO_2 levels will result in a 200-meter radiation rise and a 1.2-degree surface temperature increase (Hansen et al. 1981). A change in greenhouse gas concentration affects the shift in effective radiation and surface temperature linked with the warming region and atmosphere. The equilibrated reaction to temperature (the long-term response to CO_2 level duplication) is " $2.0\text{--}4.5^{\circ}\text{C}$ ($3.6\text{--}8.1^{\circ}\text{F}$)" (Collins, Knutti et al. 2013). When the temperature decreases, the relative humidity rises, and water vapour is the most effective natural absorber of longwave radiation. Sea ice (which reflects incoming solar energy), clouds (which can absorb heat and represent incoming solar energy), and the response to ocean and land warming are all significant externalities (which drive most of the flow of CO_2 out of the atmosphere and can also affect albedo). They

are measured in “radiative force” which is the average change in net radiation flow through the system as compared to pre-industrial levels (incoming minus outgoing). Radiative force is the change in the amount of energy that is emitted by a system over time (as of 2018). The Sun's energy reaching the earth's surface is 342 W/m², and the centre estimates of the balance of warming associated with increasing radiative forcing are about 0,8°C per W/m². Because deep-sea ice takes years to melt and heat exchange with surface water slows overall warming, greenhouse gas emissions do not instantly contribute to surface warming. Nonetheless, modelling studies show that most of the warming related to marginal CO₂ emissions happens within a few decades (Joos et al. 13). Thus, present temperature trends are a product of contemporary pollution as well as past emissions from fossil fuel burning and deforestation.

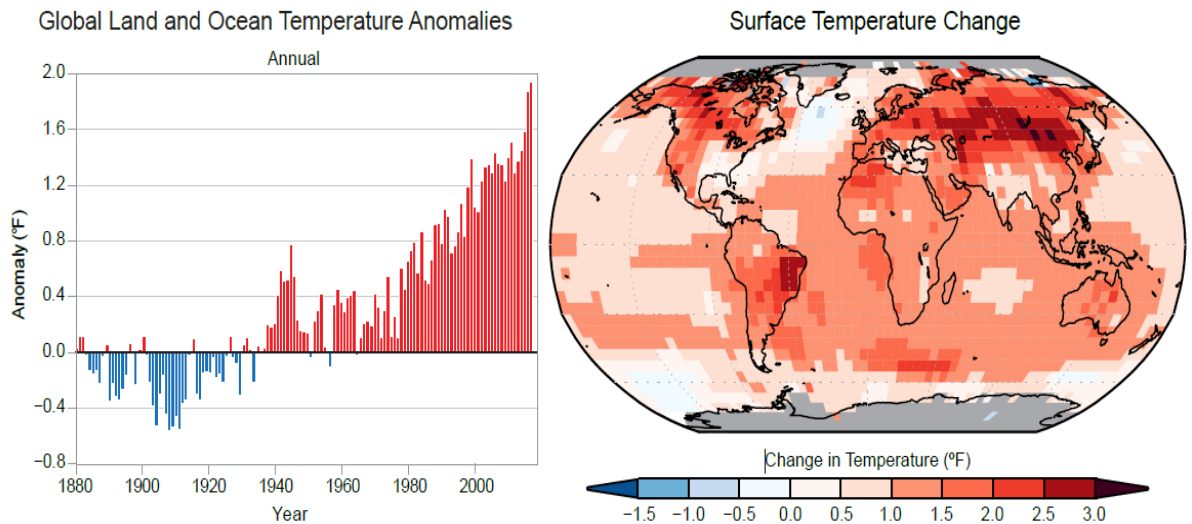
Creating a baseline climate, therefore, becomes very important to measure the damage done by human intervention. Paleoclimatology is a well-established branch of climate research that reconstructs previous climates and hence helps comprehend climate change. For example, tiny fossils in saline strata indicate changes in sea salinity and hence locally frozen atmospheric chemistry (Luthi et al. 20), while tree ring widths are represented by increasing seasonal temperatures and rainfall (Jones et al. 109). In certain cases, such as cyclone shipwreck records, physical evidence can be backed up by historical record observations. Local statistical evidence may be used to calculate global average values for variables like land and sea level, although most proxies and historical observations are local.

In the atmosphere, as water warms and spreads, and in the Arctic, as ice melts on land, both processes contribute to global mean sea level rise. Since 1900, the worldwide mean sea level has risen 18–21 inches, twice as rapidly as the previous nine decades. A large part of this expansion is due to global climate change (Sweet et al. 1015). A worldwide trend regulated by changes in currents and winds may differ considerably from regional changes in the earth's gravity region, rotation, crusts, and mantle produced by changes in land ice (Kopp, Hay,

Little, and Mitrovica 205). Coastal flooding has increased by an order of magnitude due to past sea level rises (Sweet and Park 579-600). Because the sea and ice sheets respond slowly, alternative emission scenarios cannot account for the rise in sea level over the first half of the century. From 2000 to 2050, all surveys predict a 20-30 cm increase in global mean sea level (Review by Horton et al. 41-56). After 2050, “both human pollution and the polar ice sheets' unexpected reaction are increasingly unclear” (Kopp et al. 1017). Medium and high emission scenarios include estimates ranging from 40–80 cm to 70–150 cm for 2000–2100. A worldwide mean sea level increase of up to 250 cm by 2100 is not excluded. The populations living in coastal areas are under massive threat. Coastal regions will be permanently inundated, and others will be compensated by higher taxes. Increasing tides and floods have rendered several lower island nations uninhabitable (Storlazzi et al. 9741).

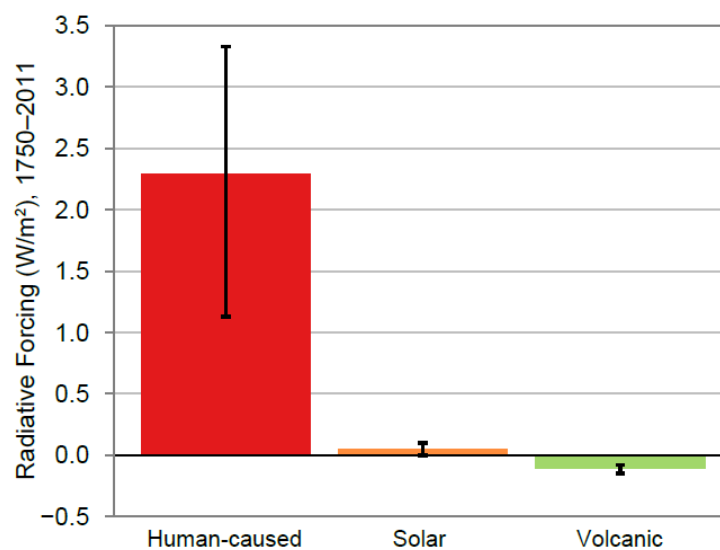
Since 1950, the Mediterranean and West Africa have become drier, whereas Central and Northwestern Australia have become wetter (Hartmann et al. 413). Some drought regions in the US have been increased by warming, which increases evaporation (Wehner et. al. 17). Models suggest that droughts will become increasingly prevalent in arid places (Colins et al. 4013). Over time, many poor agricultural productivity grazing regions will become more dependent on animal production and hence hotter and dryer (Hsiang et. al. 3-32). Wildfires (Abatzoglou, Williams 11770-75.) are likely to increase in regions with more vegetation during periods of excessive rainfall or drought. High precipitation variations contribute to increased devastation from rainfall floods (Jiménez et al. 229-269.). Rainfall and snowpack loss are expected to increase the danger of floods. In response to changing precipitation patterns, increasing coastal flooding frequency is necessary (Buchanan, Oppenheimer, and Kopp, Environment Research Letter). Floods are one of the world's most costly hazards. Affected structures' size and populations are often more relevant variables in flood devastation than flood magnitude.

Global Temperatures Continue to Rise



ES.1: ES.1: ES.1: ES.1 (left) In comparison to 1901–1960, the global annual surface temperature rose by more than 1.2°F (0.7°C) from 1986 to 2016. Temperatures above the 1901–1960 average are shown in red, while temperatures below the average are shown in blue. (on the right) Ground temperature transition (in degrees Fahrenheit) from 1901 to 1960 for the years 1986–2016. (Wuebbles et al. 13)

Human Activities Are the Primary Driver of Recent Global Temperature Rise

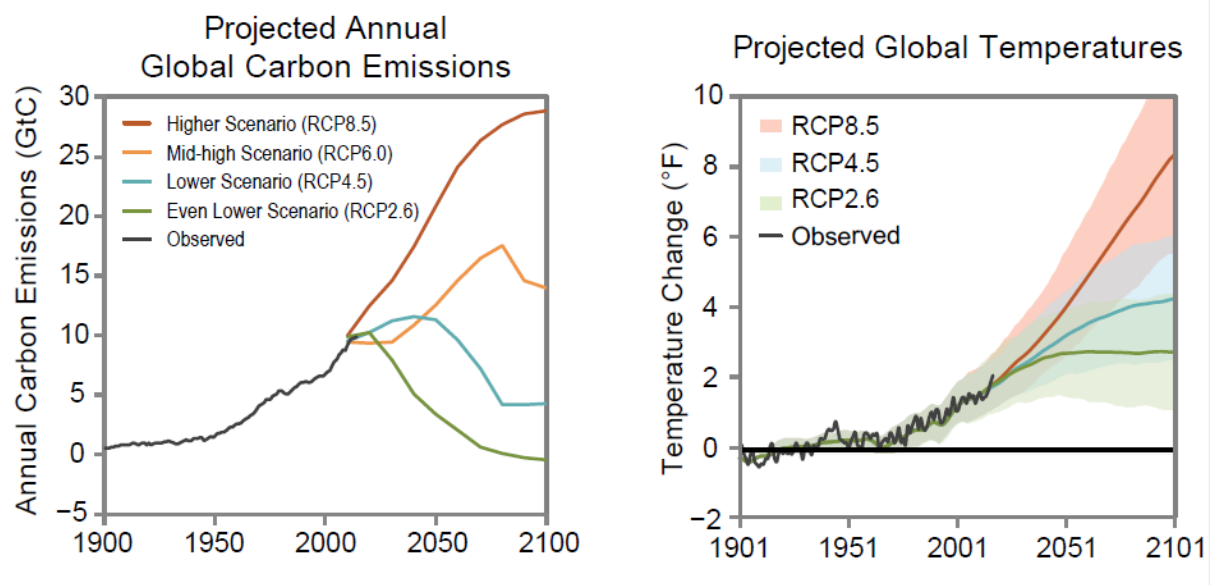


The global radiative effect due to human activity, and, increases in overall solar irradiance and volcanic pollution This indicates the doubt about each. The radiative forcing calculation is the impact a component (such as CO₂) has on global energy balance. When volcanic emissions rise, radiative forcing is negative (cooling) and greater in magnitude.

Eruptions are high but brief; the biggest volcanic eruptions occurred during Mt. Tambora at 1.8°C (1.80°F), this decreased to -5W/m¹⁸, and has dropped to -4.2 W/m¹⁸ caused by human activity or has been steadily colder since 1870-1976 There are also climate variables that work on a yearly and decadal cycles.

The natural variance has a minor impact on longer-term climate change. (Wuebbles et al.14)

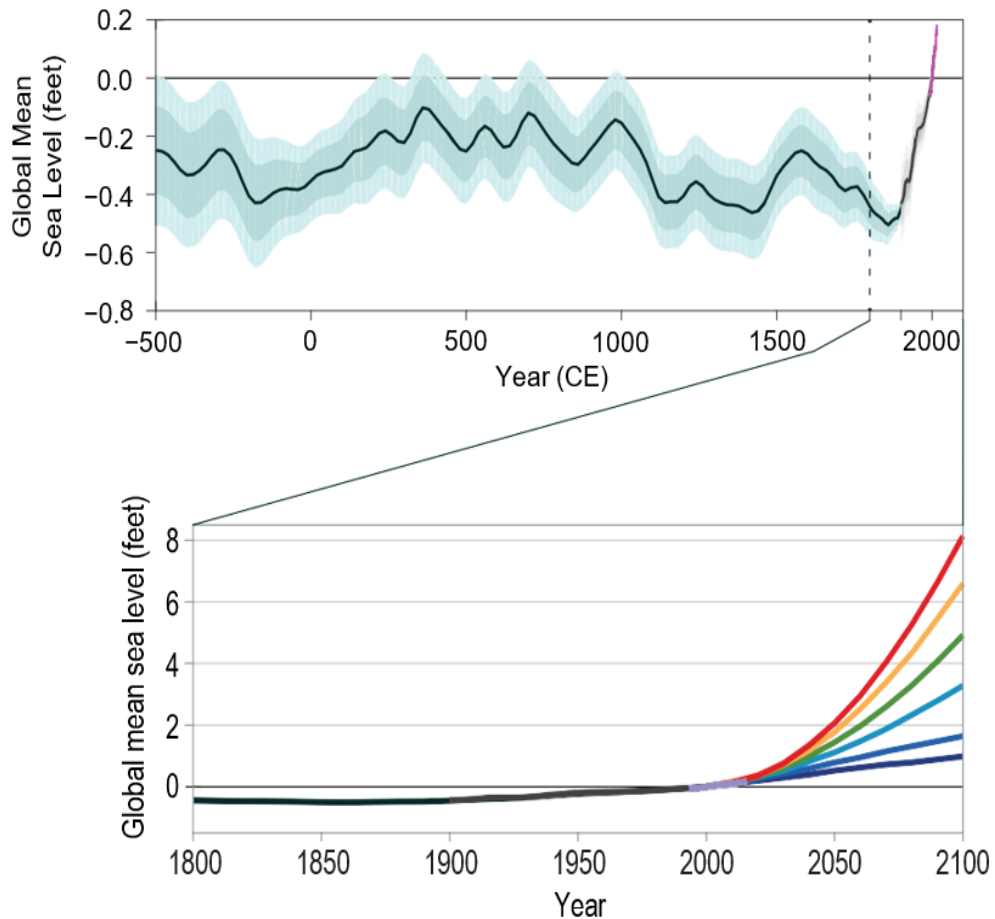
Greater Emissions Lead to Significantly More Warming



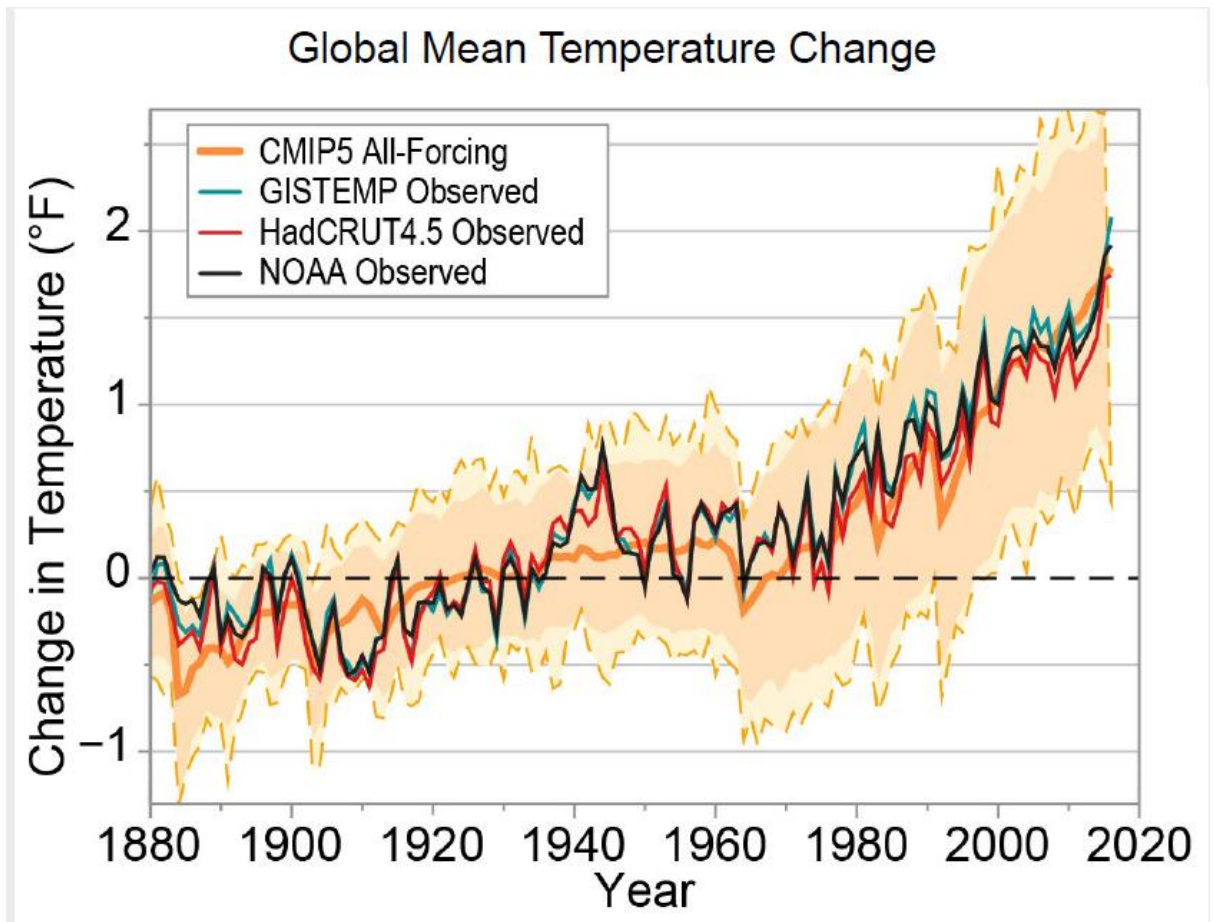
The above-mentioned two panels show annual historical carbon release in gigatons of carbon (GtC) and a range of plausible upcoming carbon emissions in gigatons of carbon (GtC) every year (left), as well as historically observed and future temperature change relative to the 1901-1960 average, founded on the central estimate (lines) and a range (shaded areas, two standard deviations) as simulated by the fCO₂ model (right). The estimated range of global mean temperature rise between 2081 and 2100 is 1.1°–4.3°F for the even lower scenario (RCP2.6; 0.6°–2.4°C, green), 2.4°–5.9°F for the lower scenario (RCP4.5; 1.3°–3.3°C, blue), 3.0°–6.8°F

for the mid-high scenario (RCP6.0; 1.6°–3.8°C, not shown), and 5.0°–10.2°F for the higher scenario. (Wuebbles et al. 16)

Recent Sea Level Rise Fastest for Over 2,000 Years

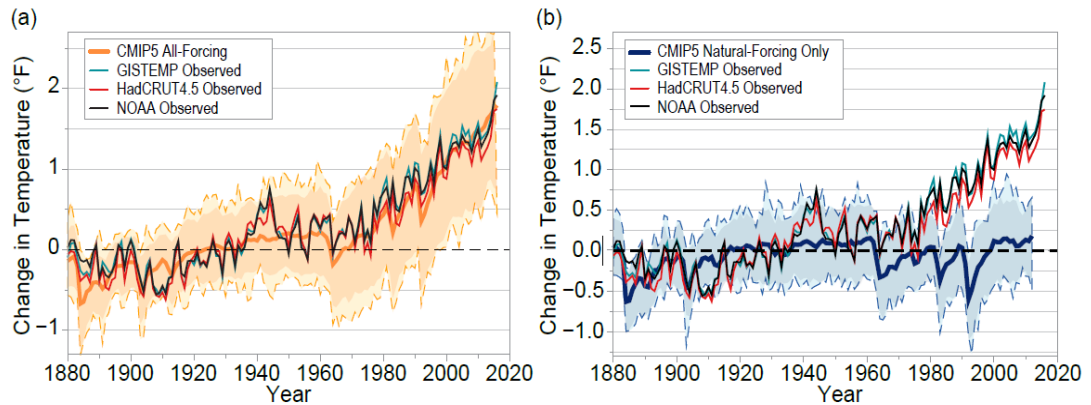


The top panel depicts measured as well as reconstructed mean sea level data over the last 2,500 years. The forecasts for the mean sea level for six different scenarios are shown in the bottom panel. The six scenarios vary from the most conservative, which assumes no improvement in the pace of sea level rise during the past 25 years, to the most optimistic, which assumes considerable mass removal from the Antarctic ice sheet. In comparison to the top graph, the vertical axis length of the lower graph is around tenfold greater. (Wuebbles et al. 26)



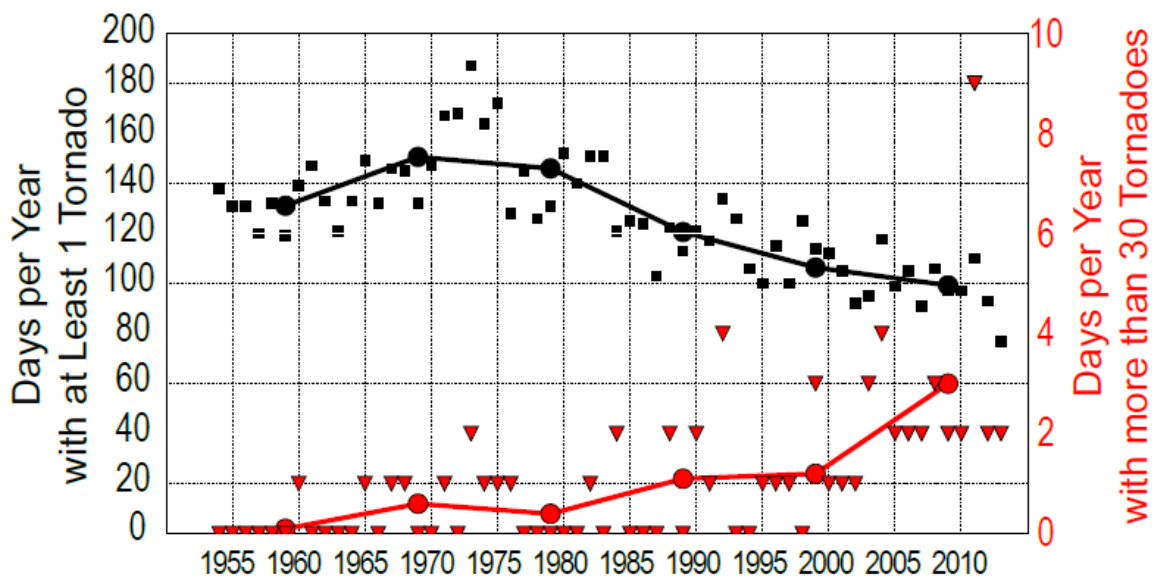
Using the comparison interval 1901–1960, compare global mean temperature fluctuations ($^{\circ}\text{F}$) from measurements (through 2016) and the CMIP5 multi-model ensemble (through 2016). The CMIP5 multi-model ensemble (orange range) is made up of combined surface temperature (ocean regions) and surface air temperature (land regions) data from the simulations, with observations masked where they aren't available in the GISTEMP data collection. Richardson et al. highlight the significance of using blended model evidence. The model ensemble mean, which is constructed from the ensemble of 36 models of individual model ensemble means, is the thick solid orange curve. The shaded area depicts the annual means of individual ensemble members from the 36 CMIP5 models within a \pm two standard deviation band. (Wuebbles et al. 45)

Global Mean Temperature Change



Comparison of observed global mean variations to CMIP5/6 historical climate model forcings in the thick orange curve is the model average CM5 for all 36 simulations, while the orange plus dotted lines stand for all the ranges from each individual simulation. Regional modelling relies on land and sea surface air temperature data that are mixed together to provide a better match to the observations. (Wuebbles et al. 116)

Annual Tornado Activity in the U.S. (1955–2013)



Tornado occurrence in the United States annually from 1955 to 2013. The dark black squares denote the number of days a year that at least one tornado graded (E)F1 or higher happens, while the dark black circles and line represent the decadal mean line of those tornado days. The red triangles denote the number of days a year that there are more than thirty tornadoes rated

(E) F1 or higher, while the red circles as well as the line represent the decadal mean of tornado outbreaks. (Wuebbles et al. 263)

The Cultural Evidence of The Anthropogenic Climate Change

For a long time, social scientists have tried to explain how climate change affects individuals in specific locations (Crate & Nuttall 200-203). Rather than being considered purely as a geophysical occurrence, the Anthropocene is investigated in this study as a background to modern life or a key factor impacting social relations. Since human groups have adapted their existence and occupations to the current environment over millennia, most climatic changes will have a negative impact. If the changes happen quickly, the impacted population will have to adjust to a new environment quickly and perhaps at a high cost. Another option for the afflicted group is to relocate to an area where less adaptation is required—a solution that has proven more difficult, if not impossible, in today's congested globe. An example, which will be supported with evidence from literature in the following chapter, can be cited here. Bangladesh is a highly populated country of over 120 million people situated in the complicated delta area of the Ganges, Brahmaputra, and Meghna Rivers. With a half-meter increase in sea level, around 10% of the country's habitable land (with a population of approximately six million) would be destroyed, and approximately 20% (with a population of approximately fifteen million) would be eliminated. Estimates of sea level rise range from around 1 m by 2050 (due to subsidence caused by land changes and groundwater loss, and 30 cm from the effects of global warming) to over 2 m by 2100. (1.2 m due to subsidence and 70 cm from global warming). It is worth mentioning that these estimations are subject to significant uncertainty. However, land loss is not the sole impact of sea level rise. Bangladesh is particularly vulnerable to storm surge damage. Every year, at least one significant storm

strikes Bangladesh. There have been two major catastrophes with severe floods and loss of life in the last twenty-five years. The storm surge in November 1970 was perhaps the greatest of the world's natural disasters in modern history, killing nearly a quarter of a million people. A comparable storm in April 1991 is estimated to have killed over 100,000 people. Even minor changes in sea level increase the region's vulnerability to severe storms.

Another consequence of sea level rise on agricultural land productivity is the intrusion of saltwater into fresh groundwater, which complicates Bangladesh's coastline due to sea level rise. As a result, the most visible consequence is the loss of significant quantities of productive agricultural land. This is serious: resources account for half of the country's GDP. At the moment, it is believed that saltwater reaches seasonally inland over 150 kilometres in some regions of Bangladesh. With a 1-m rise in sea level, the area impacted by saline intrusion might expand significantly. However, as climate change is also projected to enhance monsoon rainfall, part of the incursion of saltwater could be mitigated. There are very limited options for Bangladesh to deal with these potential future issues. It may be assumed that the fishing sector will be able to move and react to shifting fishing grounds. What will the afflicted agricultural areas' populations do to migrate or adapt? There are no substantial tracts of agricultural land accessible elsewhere in Bangladesh to replace those lost to the sea, nor is the population of the delta region easily accessed elsewhere in Bangladesh. It is obvious that a thorough examination and handling of all elements of the situation are necessary. The silt carried down by the rivers into the delta region is very significant. The amount of sediment and how it is handled can have a significant impact on the land level impacted by sea level rise. Careful management is thus necessary both upstream and downstream of the delta; groundwater and sea defences must also be properly maintained if some relief from the consequences of sea level rise is to be obtained.

Using Bangladesh as an example, it is demonstrated that in a future impacted by global warming, the world's fresh water supply would be drastically reduced. Precipitation changes are predicted by models with varying degrees of confidence. Winter precipitation is anticipated to increase in the northern high latitudes, and summer monsoon rainfall is expected to increase in south-east Asia. More water will evaporate as the temperature rises. Some or all of the evaporation loss may be made up in areas with higher precipitation. However, places with little precipitation will have far less surface water. Soil moisture loss due to reduced rainfall and increased evaporation is significant in areas with low rainfall. That which remains after evaporation and transpiration from plants has been used by human beings is known as runoff in rivers and streams. It is sensitive to variations in precipitation and temperature, even minor changes in either. The summer runoff remained below average. So, it is difficult to predict annual runoff in dry or semi-arid locations. In the Northern Hemisphere, certain watersheds where snowmelt is a major source of runoff can be severely impacted. Winter runoff will increase in certain areas as temperatures rise, but high water levels in spring will decrease. The melting of mountain glaciers and tiny ice caps may also alter seasonal river flow patterns and water availability for hydroelectric power and agriculture.

Tourism is considered as one of the world's greatest economic sectors, accounting for 10.4% of worldwide GDP and employment and 6.5% of global exports in 2018 (WTTC,19). "Tourism is seen as an effective strategy for promoting quick economic growth" (Marsiglio 945-962) and as "a catalyst for job creation and socio-economic development" (Bianchi 31-46). However, "its environmental consequences cannot be ignored" (Khan et al. 727). Expanding tourism is related to depletion of natural resources, "deterioration of landscapes, coastal erosion, loss of biodiversity and disturbance of ecosystems, introduction of non-native species, poisons, and pollutants, destruction of wildlife habitats, and a larger carbon footprint" (Briassoulis 13). Steffen et al. used international tourism as one of twelve significant socio-

economic trends to highlight the “tremendous acceleration of mankind since 1950” (244-245). “The number of foreign visitors surged from 25 million in 1950 to 1.4 billion in 2018 and is anticipated to reach 1.8 billion in 2030” (Kongbuamai et al. 19251). The numbers engaged in domestic tourism are far greater. Thus, tourism is a significant contributor to the “tremendous acceleration of the impending danger and is a strong signal of humanity's emergence as a dominant force that transforms and shapes the globe” (Moore 2-8).

Indeed, a significant rift has emerged over the last two decades between biological and socio-cultural approaches to conservation, a schism that has some similarities to the cleavage famously articulated by C.P. Snow between the “two cultures” of science and the arts. On the one hand, environmentalists have been criticized by social scientists for associating ‘pristine ecosystems’ and ‘wildernesses’ with cultural landscapes. Conservationists, on the other hand, have labelled social scientists as delusory believers in the notion of the ‘ecologically noble savage’ living in perfect peace. Nonetheless, many governments throughout the world have continued to turn a blind eye and deaf ear to environmental and cultural issues. Based on the growing dominance of wealthy and over-consumptive societal paradigms, industrialists and developers have continued to push unsustainable land and resource use practices. And international institutions and non-governmental organizations have worked to maintain the early 1990s ideals of sustainable development—the pursuit of balance among the three ‘pillars’ of the environment, society, and economy, as well as the concern for meeting current generations' needs without jeopardizing future generations' prospects. Global pressure, on the other hand, has targeted and rattled the sustainable development agenda's underpinnings. Instead of relying equally on the three pillars, that aim has been pushed dangerously close to relying solely on one, the economy, which will lead to top-down, short-term, unsustainable ‘development as usual’. As a result, the destruction of ecosystems and their life-sustaining processes has accelerated. Parallel to the ecological extinction crisis, the world has witnessed

a significant erosion of the diversity of human cultures and languages, thereby diminishing the pool of knowledge, behaviours, and values from which individual communities and humanity as a whole can draw in response to social and environmental stresses. The loss of ‘vital signals’ at the ecological level has a negative impact on human group vitality (and vice versa), spiralling into dysfunction and suffering. In such a situation, the merger of literary, cultural, and scientific discourse may significantly contribute to the development of ecological literacy so that life on the planet might survive and pressure can be built to formulate policies in adherence to anthropogenic climate change. The upcoming chapters will provide evidence from literary texts to support these arguments. Human beings have emerged as “a geological force in their own right, propelling global change at an unprecedented speed” (Edgeman 469-482), prompting Nobel laureate Paul Crutzen to propose a new geological epoch: the Anthropocene.

Chapter 3

Anthropogenic Ecological Apocalypse

In the preceding chapter, it has been demonstrated that both scientific and cultural data concur that human beings are responsible for the alteration of the earth's ecosystem. This chapter focuses on the fact that the selected body of literature chronicles these changes and, as such, provides actual proof of man-made climate change. The concept that the physical environment, particularly the climate, impacts human civilization may be traced back to Aristotle's time (Livingstone 369). Although the advancement of human civilization has made it so that very few societies or communities in this era are solely subject to the direct influence of the physical environment, the fact remains that man's attempts to change the environment have had serious negative effects on the environment and its inhabitants on both the micro (local) and macro (global) levels. This is reflected in obvious changes in climate patterns as well as an increase in the frequency of a range of cataclysmic occurrences classified under the umbrella term 'anthropogenic climate catastrophe'.

The Machinery and *The Manchester Man*

The author of *The Manchester Man* (1876) creates a realistic fictional universe without sentimentalizing with its characters. Her account is objective, and therefore her writing may be regarded as a crucial source that truly reveals the impacts enthralled by the entrance of vast wealth in Manchester's industrial metropolis. This chapter aims to rely significantly on the text-based account to illustrate the journey of the Anthropocene by emphasizing the characters' relationships with their natural environment. Banks' text explains how these ties experienced a cultural shift as the mechanical existence took its toll on the simple-hearted. The human heart,

which was a seat of holistic and organic instinct for nature, paid little attention to the actions that began polluting the world with the tools of civilization.

In *The Manchester Man*, the British author Isabella Banks unfolds the pictorial details of the first industrial town on the earth, Manchester. The beginning of the narrative sketches the birth of this industrial town, which in a very short span of time has started competing with the greatest cities in the world.

The city is peopled with the owners of mills, tanneries, and manufacturing units and a whole host of men working in these units along with their families residing in low-lying areas near the rivers Irk and Irwell, which whenever get flooded make their lives hazardous and weary. The town is recorded to have taken the current shape rather quickly, as there are only some buildings and a church which belong to the previous century. It is only very recently, outlines the novelist, that the city has taken a new form. “Where now rise forest of tall chimneys, and the hum of whirling spindles, spread the dense woods of Arden.....” (Banks 1). Many wooden bridges are situated, which provide pathways for going to various slender areas of the town where many tanneries are popping up at breath-neck speed. Various dams have grown up alongside the rivers and it is but obvious that the waste vomited out by the processing units is being thrown into the rivers. The British text commences by highlighting the changing landscape of this small town and its rather swift transformation into a hub of manufacturing and trading activity. The truthful description of Isabella Banks is strongly seconded by a host of historians and cultural and social scientists. Emma Griffin states that Manchester was a small market town at the beginning of the eighteenth century, inhabiting a small population of ten thousand people; it grew into a big trading hub towards the end of the same century and its population grew ten-fold. By 1801, its population was 700,00 as an enormous population from all parts of the country was migrating there in search of livelihood. (Griffin) In the novel also, Banks provides a vivid account of small slender streets where a lot

of people could be seen and poverty was largely writ on their faces as they were offering labour at meagre wages.

The narrative confirms that till 1799, the living structures of Manchester were within the angle of its rivers, but as more and more migrants were arriving here, many decisions taken summarily and without any careful planning yielded catastrophic consequences, and people witnessed more frequent floods. The natural current of the river Irk, being forceful, flushed a lot of water “thick with sand and water and discoloured with dye stuffs” (10) at intervals, which used to enter unplanned dwellings. During one of these floods, Old Simon saves an infant around whose life the novel revolves.

Matthew White puts up that life in the streets of England “provoked a dazzling mixture of sensations; terror and exhilaration, menace and bliss, awe and pity.” (*British Library*) These industrial towns were accepted by the people as their new homes since there was poverty in the villages. The bargain was an unhealthy one as the cities could only offer them insanitary dwelling spaces and took them away from the sylvan surroundings of the countryside. Children, adolescents, men and women of all age groups were working to earn their daily bread. They did not have spaces to grow their own food and the prices of basic commodities arose considerably. A girl merely of twenty years named Bess Clegg in the novel (who accepts the responsibility of the rescued infant) is shown spending her days in such dingy environs.

These were not times for idleness. There had been bread riots the previous winter; food still was at famine prices; and it was all a poor man could do, with the strictest industry and economy, to obtain a bare subsistence. So, Bess worked away all the harder, because there were times when babydom was imperative, and would be nursed. (13)

As the narrative moves on, it offers a multitude of events, descriptions, and nuances which hint at the gradual change in the value systems, perspectives, and viewpoints in contemporary society. People were giving central space to the families that had gained a lot

economically, and, of course, the number of such middle-class and high-class families was increasing, who were controlling the mills and manufacturing units as their proprietors. The class divisions were quite strong and many aspired to rise high, gain more and more in economic terms, and become part of the group of the rising affluent entrepreneurs. Such collective efforts brought enormous wealth to Britain and paved the way for her rise as a colonial power, imposing her supremacy over an enormous portion of Asia, Africa, Latin America, and the Caribbean.

One such influential family is the Aspinalls. When the rescued child is taken for the baptism ceremony, Simon Clegg and Bess come across the Aspinall family in the church, who have also come to baptize their baby boy. The author describes in full detail the opulence and privileges that the family enjoyed:

A nurse followed, with a baby, whose christening robe, nearly two yards long, was a mass of rich embroidery. The mother herself, a slight, lovely creature,...wore a long plain-skirted dress of vari-coloured brocaded silk. A lustrous silk scarf, trimmed with costly lace enveloped her shoulders. Her head-dress, a bonnet with a bag-crown and Quakerish poke-brim, was of the newest fashion.....(23)

Anthropogenic climate change cannot be studied without such individual-centric details. In Manchester, describes Banks, an artificial culture was created where outward appearances bore significant value and became identity markers for the rich. All their activities required a lot of raw materials and energy for manufacturing, and resultantly added to the planet's pollutants in the form of carbon dioxide and chemical waste coming from the factories. More engines were required for more production as the purchasing capacity of such people was increasing. A person who possessed wealth but did not follow the ways of the world was considered a misfit, and such vanity-driven trends amplified the demands for more clothes and more accessories and prepared the grounds for a consumer-driven economy. "I borrowed my

landlady's silk gown and fine satin bonnet, and put on my lady's manners; and then Mr. Whipper-snapper could show his samples, and his best manners too" (62). As wealth was getting stored in the coffers of rich merchants, they were busy in 'earning and spending'. During social events, munificent gifts were exchanged like "silver mugs, and spoons, and corals" (29). The trade practices centred around creating more and more demand led to steep growth in mass production, and it is an established fact that anthropogenic climate change has been its worst outcome. Natural resources like cotton, gold, silver, precious stones, ivory, and many food items were much in demand in the leisure classes of Britain because a large part of the colonized world was at their disposal. The Industrial Revolution and economic changes have traditionally been understood as a nation-specific phenomenon, but because the earth is a single unified system, even a seemingly harmless action can have disastrous consequences. Isabella Banks keenly underlines the interests and hobbies of the contemporary denizens and the social setup where "peaceful arts flourished" (45).

Many poor families were forced to send their young children to work in factories that were rapidly installing state-of-the-art machinery to meet the growing demands of consumers as a result of industrialization and the new transformed economic order. In the novel, Simon Clegg decides to find employment for the eight-years old Jabez because he was not born in "blissful times" (67). He decides to send the child to the "Simpson factory (where Arkwright's machinery was first set in motion)" (67). Significantly, all the inventions that were considered path-breaking and dynamic also became responsible for disbalancing the ecological system. Arkwright, the Architect of the Industrial Revolution, obtained patent rights for a number of machines, propelling Britain to the forefront of global trade. His machines were powerful, fuel-consuming, and mass-producing superfine products.

The city of Manchester was growing, and many cities were following its example, thereby amplifying the impact of transformations in both economic and ecological spheres.

Britain formulated many trade policies to secure her interests, and no one realized how these policies would weigh heavily on the environment. At home, Britain was processing commodities at a mass level, and its delegates were ordained to plunder the natural resources of the colonies to ensure an unbroken supply of raw materials.

Britain didn't require mercantilism or formal governance to control its economy; it could achieve it through free trade alone. The proportion of British exports to the empire increased gradually from 30% in 1820 to 35% in 1910. In the 1830s, the principal imports were (in order): raw cotton (from the South America), sugar (from the West Indies), wool, silk, tea (from China), lumber (from Canada). The majority of raw materials, except from coal and iron, had to be imported. By 1900, Britain accounted for 22.8% of all imports globally. Its market share increased substantially by 1922, reaching 14.9% of all exports and 28.8% of manufactured exports. (*Trade in the 19th Century British Empire*)

The period of industrial growth redefined the most fundamental concepts of human life. Materialism entered into the very composition of human mettle, and the ones who were economically well-off were considered to be successful. Nature, in the eyes of many, was not so important as money. However, many people were still enjoying an organic relationship with natural surroundings full of flora and fauna. In Simon Clegg's life, nature was a vibrant force as he had a "deep-seated love of nature in his soul; finding her so good a physician, he kept up the acquaintance through rounding seasons and years" (43). This kind-hearted man was attempting to mould the young child Jabez to revere nature the way he had been doing. "And from Nature he drew lessons which he dropped as seeds into the boy's heart, as unconscious of the great work he was doing as was Jabez himself" (43). The child learnt humility, humanity, and love for the animal world. One day, he brings a wounded brown linnet to his home and keeps it along with kittens that Bess has already sheltered. Rev. Joshua Brookes sent a couple of pigeons for the boy so that he lives in close proximity to nature and learns to admire and

understand its value. Unfortunately, the young linnet “pined for its young friend” (80) and died when Jabez joined the Chetham Hospital, the residential school.

The Anthropocene is the outcome of many millions of activities collectively done by human beings over a long period of time. Unknowingly and unconsciously, human beings lost their proximity to the natural surroundings and substituted them with new forms of surroundings. Earlier, human beings could have a concrete relationship with nature; since the population of territories was small, people could see and feel nature around them. Human habitats witness many changes. By and by, the appealing wilderness which used to surround the dwelling places of human beings got substituted by inhouse verdure, and gradually, the inhouse green patches of land shrank and were replaced by landscape images, miniature models of waterfalls, artificial plants potted in the choicest vases, and so forth. Manchester, the city, along with its dwellers, was no exception in this regard.

One of the best, and best-looking of these houses, near the church, was the one in which the delicate Mrs. Aspinall had presided for a few brief years. An iron palisade, enclosing a few shrubs and evergreens, separated it from the wide roadway, but behind the screen of brick ran a formal but extensive garden and orchard, well-kept and well-stocked, with a fish-pond as formal in the midst. (88)

Life in the city, as the text documents, was taking new shapes with each passing day. The construction of new buildings has become a normal, uneventful and regular activity. The periphery of the city was expanding, and owing to new encroachments on the open green space and a busy lifestyle, the inhabitants were less keen now to stroll and spend their morning hours in the lap of nature.

The extensive oblong enclosure known as Ardwick Green situated at the south-eastern extremity of the town, on the left-hand side of the highway to Stockport and London, was, in 1809, a part of a suburban village, and from Piccadilly to a blacksmith’s forge

a little beyond Ardwick Bridge, fields and hedges were interspersed with the newly-erected houses along Bank Top. (87)

Buildings made of brick and concrete were providing immense comforts, and the close nature-human connection was quivering:

Red-brick church, red brick houses, hard and cold outside, solid and roomy and comfortable within, as Georgian architecture ever was, overlooked green and pond, but, luckily, overlooked them from a reasonable distance, and, moreover, did not elbow each other so closely, but were individually set in masses of foliage, which toned down the staring brickwork. Time and smoke have done so more effectually since. (88)

Since all the needs of human beings were being fulfilled while living away from nature, nature became a remote entity. It was something that one might occasionally visit, enjoy, and come back again to resume the everyday affairs of life.

Transformation in any system, culture, or lifestyle does not occur instantaneously; rather, the process is slow and gradual. In the industrial town of Manchester, such transformations were coming and were affecting every resident. Workers had to labour for long hours along with their wives and children to meet the expenses of bare survival. The owners of the manufacturing units were keen to hire personnel who might prove to be assets for growing their businesses and supporting their enterprises with their multiple capacities. The central character, Jabez Clegg, is one such apprentice whose all energies till the middle of the novel are centred solely on proliferating the business ventures of the Ashtons. In other parts of the country too, manufacturing and trading businesses were being set up, and the number of people belonging to the leisure class was increasing. "Like Manchester, Liverpool has vastly swelled in size and importance within the last fifty years, and her docks have grown" (286).

The port cities were growing phenomenally, as the Industrial Revolution was bringing material gains to the kingdom. Since the engineering units ventured forth into new businesses,

railways, banks, chambers of commerce and industry, and insurance companies started providing the required infrastructural support. More buildings were needed to house such offices. More trees were chopped off to establish rail links. The text records, “Mr. Ashton took in the Manchester Chamber of Commerce and in the project for widening of Market Street and other of the cramped thoroughfares of the growing town....” (270). Water courses were also exploited to quench the thirst of human civilization. On one hand, the Manchester Ship Canal Act of 1885 was enacted so that the navigation of goods could be made possible through waterways; on the other hand, dyeing units were throwing heaps of chemical waste into the rivers. The waters were dammed and canals were built for the merchandise to pass from one place to the other. The novelist documents that in the city, the New Quay Company was established for the better navigation of Irwell. “The company was established, quays were constructed, warehouses erected, boats built, traffic was extended.....” (439). The author provides further details that “In the February of 1828, the axe, the adze, and the hammer made a busy noise in the boat-building yard of the company, and sail-makers were active with their needles; for a flat or barge destined to convey cargoes of merchandise to and from Liverpool.....” (439).

As ordinary people were still not very far away from nature yet and were made to work in a controlled setting, they tried to evolve new ways to come closer to the waters, flora and fauna. Nevertheless, the time they had to spend in sylvan surroundings was considerably less. The well-to-do occupied properties on the country side, and developed them as summer lodges; those who could not do so, liked to go in for walks amidst natural beauty; and for the new generation, there grew clubs, like the Skaters’ Club as mentioned in Banks' records, where the progeny of the businessmen would go, and enjoy both games and sports along with the green views. Lands started getting occupied to be used for infrastructural establishments, and even the older buildings were demolished to build new concrete structures. Political bodies chiefly

gave these processes the name of improvements. “‘The Palace Inn’ on the north side of Market Street Lane was the last relic of that cramped thoroughfare to disappear at the bidding of Improvement Committee” (319).

The industrial era was marked by the perpetual cycle of importation of the choicest rarities from the colonized countries along with excessive exploitation of their natural resources. Mrs. Augusta Aspinall is shown wearing pearls and ivory items with which the new bourgeois class could flaunt their status. Those who could afford to possess the things after their hearts had stuffed their households too with the pieces that could not be otherwise procured without the plunder of the environment.

The Aspinall home at Fallowfield was an ancient many-gabled grange, with mullioned windows, recessed window-seats, expansive two-leaved entrance arched above; noble hall, with trophies from the hunting-field; grand staircase, with massive carved oak balusters, flights of broad low steps, with wide square landings.....heavy draperies of silk or velvet, and tables with legs of all possible patterns. (423)

As human beings were creating their own cultural environments, the quest to seek pleasure in the lap of nature was gradually being substituted by indoor recreational spaces. “The Theatre Royal, in Fountain Street, was opened in 1807” (288). Besides, many sports clubs were opened where the rich might go and enjoy themselves. One such club is the Skating Club, which has already been mentioned.

The wealthy nations, driven by their individualistic ambitions, gave birth to an economically monolithic culture where human greed to plunder the planet and thereby turn these resources into surplus wealth was justifiable. These malevolent actions did not stop at one space or territory, but did spread and were aimed at controlling other territories as well. Jonathan Bate's often quoted statement that colonialism and deforestation went together is highly relevant in tracing the various phases of climate change and anthropogenic global

warming. Thus, it is undeniable that the history of colonization of the two thirds of the globe has to be understood largely in ecological terms. Alfred Crosby's study points out:

European imperialism is not solely an ideological or even just a human phenomenon; on every continent, environments with similar climates to Europe were invaded by a 'portmanteau biota' including domestic, feral and wild animals and plants as well as epidemic and epizootic pathogens. On the plains, a whole European biota ultimately supplanted a native American one in a well-documented campaign of what Crosby calls 'ecological imperialism': whites brought ploughs, cattle, pigs, tough short-stemmed grasses, European weeds, smallpox, measles and whooping cough and drove out, in a combined ecological assault, Indians, tall grasses and bison. Wherever the climate was less temperate or the native flora and fauna more resilient, as in most parts of Africa, New Zealand and Australia, it was extremely rapid, near-total and incredibly destructive. (Crosby 123)

The Reshaping of the Ridges in *The River Between*

The European forces, through their weapons of cultural domination, turned the rich, fertile soils into wastelands. Ngugi wa Thiong'o's *The River Between* depicts the magnitude of violence which the alien minorities hurled against the African land and its inhabitants. Ngugi, unapologetically, holds the view that colonial portrayal of the African (Dark) world cannot perceive the fulsome cultural belief systems whereby indigenous tribes and societies were living within a very close and nearly inseparable proximity with their land, so much so, that, their rituals were intertwined with their rivers (whom they considered sacred), harvest sowing and reaping, and the weather cycles. Once they were made to disrespect their local age-old traditions and rituals, their innate bond with their land was bound to get torn into pieces.

who would sit side by side, singing the song of love which harmonized with music from the birds, and all their hearts would beat to the rhythms of the throbbing river. The children would play there, jumping from rock on to rock, splashing the water which reached fathers and mothers sitting in the shade around, talking, watching. Birds sang as they hovered from tree to tree, while farther out in the forest beasts of the land circled around...”. (Thiong’o 117)

The River Between puts forth the details of how the Europeans ignited conflicts amongst the tribes by winning over or converting some of their members to Christianity. It was a herculean task for the Occidental world to seize the enormous natural wealth from the locals who used to give respect to their waters, trees, farming lands and who were unaware what materials were hidden under their soil which the former were aspiring to seize; so, a set of systems were meditated and executed using coercive administrative and religious forces. In the process, whatever came their (Europeans’) way, they were ready to rip apart—may it be any ritual, religion, authority, or community whatsoever.

Thiong’o’s text open with the following string of words:

The two ridges lay side by side. One was Kameno, the other was Makuyu. Between them was a valley. It was called the valley of life. Behind Kameno and Makuyu were many more valleys and ridges, lying without any discernible plan. They were like many sleeping lions which never woke. They just slept, the big sleep of their Creator.

A river flowed through the valley of life. If there had been no bush and no forest trees covering the slopes, you could have seen the river when you stood on the top of either Kameno or Makuyu. Now you had to come down. Even then you could not see the whole extent of the river as it gracefully, and without any apparent haste, wound its way down the valley, like a snake. The river was called Honia, which means cure, or

bring back to life, scorning droughts and weather changes. And it went on in the same way, never hurrying, never hesitating. People saw this and were happy. (1)

The very exposition of the narrative sets the tone that the reader needs to prepare herself/himself to see the change in the affairs that are drawing near. The ever-flowing river sustains the local life; the people not only respect it as it fulfils their needs, but Honia, too, reciprocates and wants to pay back such respect by not allowing itself to get dried up owing to African draughts; it brings to the living beings cures against all ills. The writer's choice of expressions confirms that Honia was not merely a water reservoir for the people around; its presence filled their lives with happiness, bounty, and self-sufficiency. The indigenous people were living in their worlds and they did not require any foreign machinery to make them learn the systems, alien to them. All exercises and ideologies like White Man's Burden were neologisms to grab what the Whites lacked. Their aims were to get coal, timber, minerals, and fibres, which were much in demand in industrial cities like Manchester.

The ridges, states Thiong'o, were 'isolated' and so were its people. The disturbances came from the outer world, which aspired to gain and reap the benefits of whatever the local people had. "These (the locals) were the people whose blood and bones spoke the language of the hills. The trees listened, moaned with the wind and kept silent. Bird and beast heard and quietly listened" (3).

The part of Kenya where the novel is localized, is miles away from the capital city of the colonial rulers. This part, in the beginning of the novel, has very recently received the attention of the Western 'civilizing mission'. Other parts of Kenya and other countries of the continent have already been assaulted or are being mauled. "Nairobi was already flourishing, and the railway was moving across the country in the land beyond where not many from the ridges have been" (7). Locals were sure that the aliens would not be able to make any incredible impact on their ways of life. "The white man cannot speak the language of the hills..."(7).

Right in the early part of the narrative, the arrival of the white men has been reported. “But the white man had come to Siriana, and Joshua and Kabonyi had been converted. They had abandoned the ways of the ridges and followed the new faith” (8).

The everyday life in these Kenyan ridges is depicted very closely and the writer has transparently emphasized on the indigenous vitals of man-nature relationship. Chege, the father of the central character, Waiyaki, narrates to his son the local beliefs, the story of the advent of culture in the ridges, “.....it was before Agu; in the beginning of things, Murungu brought the man and woman here and again showed them the vastness of the land. He gave the country to them and their children and the children of the children.....That is a blessed and sacred place”(18). The father added that the son should be true to his people and “the ancient rites” (20). Such cultural values did not allow their land to be seized, exploited and commodified. Their very belief systems protected nature as guards as it is reiterated many a time in the text “Salvation shall come from the hills” (20). Nature, for this society, was a living entity which is to be respected and taken care of.

As the narrative develops, the conflict between the local belief system and the one propagated by the Christian missionaries arises. Muthoni and Nyambura, the daughters of Joshua, discuss the age-old ritual of female circumcision. Muthoni expresses her wish to follow the ritual as it is the traditional way to get initiated into womanhood. Female circumcision was one of the principal rituals that united the tribes among one another and with their natural world; as the candidates who were supposed to be initiated for the ritual were ordained to wet their bodies on the morning of circumcision as the cold water of the river Honia used to numb their skin and the operation became less painful. The missionaries had instructed their converts not to follow any of the pagan rituals as it was a sin against the Supreme Lord. Nyambura’s attempt to discourage her sister proves to be futile and Muthoni is firm to follow her will and remain uncontaminated by the new ways of life. The central point here is not to consider what value

the ritual had for the indigenous people. Rather, it is significant to see the interrelationship of the cold water of the river Honia providing a 'cure' for the pain which the surgery would lead to. The Church authorities, psychologically, cut the innate bond of the people of Kenya with their natural spaces. In *Facing Mount Kenya*, an anthropological study of Gikuyu culture, Jomo Kenyatta, the very first leader of Kenya, states:

The real argument lies not in the defence of the surgical operation or its details, but in the understanding of a very important fact in the tribal psychology of the Gikuyu—namely, that this operation is still regarded as the very essence of an institution which has enormous educational, social, moral and religious implications, quite apart from the operation itself. For, the present it is important for a member of the tribe to imagine an initiation without clitoridectomy. Therefore, the abolition of the surgical element of this custom means to the Gikuyu the abolition of the whole institution. (87)

Thiong'o uses strong expressions to bring out how, during the particular season in which the ritual was performed, the water of the river gave upsurge to the emotions of youthful women:

Then she looked at the pale dark water of the river. It flowed on just as it had done for years, making incessant gurgling sounds as it made its way round the projecting rocks. Nyambura was fascinated and felt attracted to the river.....It was an exhilaration, a feeling of acute ecstasy, almost of pain, which has come to her as she watched the shaky movement and listened to the throb of the river. (22)

The local tribal customs were termed as evil ones, and, so people were fighting among one another and greater splits were coming in the society. Religion, ideologies, administrative powers were working together to alienate people from their own earth and "The earth was important for the tribe" (63). The colonizers started a taxation system whereby all the harvest

which the locals were sowing for their own use, etc. was labelled as commodities to be sold in the market places specifically set up by the white authorities.

“The men of God came peacefully. They were given a place. Now see what has happened. They have invited their brothers to come and take all the land. Our country is invaded. This Government Post behind Makuyu is a plague in our midst” (62). The land was seized and the ruthless deforestation continued since the demands for creating more and more infrastructure were to be met; more office spaces, more boats and ships for transporting goods, more lavishly made furniture for the swelling leisure class in towns like Manchester, Liverpool, and London. The Whites, through the process of conversion, won over a considerable number of local people, and they were put to work for endlessly. “The country could now no longer be called isolated. Since the alienation of all the land in the hills and ridges around Siriana to white settlers, the country of sleeping lions was like any other part of Gikuyu country” (60). Thiongo’s tale of a small territory fighting with so many problems transforms itself and becomes a big narrative to represent that the entire continent was under such assault.

The swift changes in the physical and cultural worlds went together, and the climate related issues like soil erosion due to heavy deforestation were being experienced by the tribes. The rain was ‘a blessing’. But now, “The rain carried away the soil, not only here but everywhere. That was why land, in some parts, was becoming poor.....the racing drops of water had turned to filth and mud..... Even here in this natural happening, he could see a contradiction” (63). The earth loving people were looking at the visible changes which were coming in the environment and their landscape. “it rained, with the little streams gathering and joining together.....Carrying away the soil’/Corroding, eating away the earth,/Stealing the land...” (63)

Kinuthia, Waiyaki’s friend and many other characters in the novel talk about the soil getting affected and the encroachment of the white man. In the past few years, things were

changing; the pattern of seasons was broken. “It no longer rained regularly. The sun seemed to shine for months and the grass dried. And when it fell, the rainwater carried away the soil. The soil no longer answered the call and the prayers of the people (78)”. People were certain that “Things would now change. It may take years, but far, far into the unknown future things would become different” (91).

The people of the ridges were protectors of their earth which was nourishing them like their mother. Since ages, they were living on this space, many of them claimed to have listened to the secret voices coming from the ‘sacred woods’. “And there the ancient tree stood, towering over the hill, watching, as it were, the whole country. It looked holy and awesome, dominating Waiyaki’s soul so that he felt very small and in the presence of a mighty power. This was a sacred tree. It was the tree of Murungu” (15). The same relationship was there with the water courses, Waiyaki’s soul used to get comfort when “the quite throb of the river echoed in his heart”(72). Nyambura, the central female character, “would run to Honia and just stay there watching the flow of the water. Then she would go home feeling at peace” (73). The African rivers were not dammed or controlled with the help of engineering technologies to support the cargoes until the Whites started doing it the way they did to the rivers Irk and Irwell in the industrial town of Manchester, as discussed in the early part of this chapter.

The River Between discusses, in concrete terms, the newly introduced taxation system in Kenya and many other parts of African countries. The Whites levied a hut-tax by which every household was forced to pay either in terms of money or labour or grain or stock to the colonial administration. This new system started the most tangible destruction of the entire territory. Enormous labour was engaged to dig out trees to build and expand rail-tracks. Huge migration took place as the local population had to work in far off places, and it resulted in their physical uprooting from their dear surroundings. Waiyaki’s friend Kinuthia speaks about the ills of “this hut-tax”(62).The ambition of the loyal sons of the soil like Waiyaki was to see

“all living together, tilling the land of their ancestors in perpetual serenity...”(85). As things were taking new shape because of the hut-tax, Waiyaki aspired to sensitize the simple-hearted people and restore the purity of the tribe. “He touched on the land taken by the white man. He talked about the new taxes being imposed on the people by the Government post now in their midst” (92). The seized land became the subject of woeful songs, and the people from far and near outpoured their agony in powerful songs: “Land is gone/ Cattle and sheep are not there/ Not there any more....”(90).

The Whites were constructing their buildings with concrete and iron columns, and their followers, who had converted to the new religion, were also trying to live like their masters. Waiyaki laments the days when the community used to spend time together and lived close to their animals, flowers, and land. Their dwelling places were also made up of materials that did not cause any harm to their surroundings. It is mentioned that the huts in Waiyaki’s home were a part of the bush and the forest.

Actually, the whole place was not all bush. Small shambas were hidden from view by the trees. Now that the rain had fallen, Waiyaki knew that green life would appear soon; and peas, beans and maize would soon be flourishing, scorning the draught that had been threatening the country....everyone would be sure of a good harvest. The peas and beans, bursting into life, gave colour and youth to the land. On sunny days the green leaves and the virgin gaiety of the flowers made your heart swell with expectation. At such times women would be seen in their shambas cultivating; no, not cultivating, but talking in a secret language with the crops and the soil. Women sang gay songs. The children too. And the plants and all the trees around, swaying a little a little as if they were surrendering themselves to the touch of the wind, seemed to understand the joy of mothers. You could tell by the bright faces of the women that they were happy....Not only the women but cows and goats caught the life. They jumped about, kicking in the

air with their tails twisted into different shapes. The children were also happy and the ones who were grown up looked after the very young ones. You would see them running about, wandering aimlessly as if the madness of intoxication of the bees had caught them. So they ran and played. But they were careful not to harm the flowers. Waiyaki could still remember how he used to the shamba and keep on climbing up a *mwariki* tree. (77-78)

As the colonial settlers poured in large numbers, the number of people who lived in traditional ways and as companions to the land and its flora and fauna declined. They could not stand against “the new ways of the invaders as their lands were taken, their children were forced to work in the settled ridges, and women and men were forced to pay hut-tax” (115). There was mass destruction going on and there was no one who would “sit side by side, singing the song of love which harmonized with music from the birds, and all their hearts would beat to the rhythm of the throbbing river” (117).

More people were visiting the ridges which laid once in slumber, the Whites have made market places where the local commodities were sold at a high price and “Indian traders too had come and were beginning to carry on a thriving business” (107). Human beings living in serenity and harmony with their land had to surrender before the invaders who came as preachers of a religion but systematically ripped apart the age-old local ways of life in which nature was the centre of all human activities and where:

The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and the little child shall lead them. And the cow and the bear shall feed; their young ones lie down together: and the lion shall eat straw like the ox. And the sucking child shall play on the hole of the asp, and the weaned child shall put his hand on the cockatrice’s den. They shall not hurt nor

destroy in all my holy mountains: for the earth shall be full of the knowledge of the Lord, as the waters cover the sea. (131)

Thiongo's novel rests upon the literal and metaphorical value of land, and more significantly, 'soil'. He challenges the colonial discourse by keeping the focus of the reader on bio-diversity, the culture of harvesting which is according to the soil and which does not harm the living and the non-living. The people of the ridges of Kenya gave importance to the vital role that plants and forests play on the earth, and they understood the central need for a well-balanced existence. They were taking care of animals as stewards and guardians. People were exhorted to stop living this way, and the culture of making nature a commodity and stealing from it for human purposes led to a huge threat in the form of warming of the planet and climate change.

The Desire to Go Back in *The Age of Magic*

The third novel selected for analysis is Ben Okri's *The Age of Magic*. It is not fixed in one location, as in the previous two texts. Much of the action in the novel does not occur in concrete, physical terms. The novel brings out how human beings, living in the midst of machines and gadgets all the time, get devoid of psychological peace and aspire to be transformed into nature loving creatures, though for a very brief duration. The novel takes the reader on a journey that is both physical and metaphysical. A host of young filmmakers undertake a train journey from Paris to a small, idyllic green village in Switzerland in search of gathering some content for their film as well as an escape from the mundane baggage of everyday life in the city. They are haunted by the idea of Arcadia and want to witness it. Thus, the novel is very much structured in the French Romance model, where the central character undergoes a quest journey into the lands of magic. The ideal of Arcadia becomes the chief

motif in the literary piece, and in the process, the characters discover how human beings have altered the Arcadian spaces of the planet and how everyday city life is ruining the eco-system. The film makers begin their journey and watch “Oxen in the grass. The fields singing. A lost dream” (Okri 25). They have left the place where “urban ruins tumbled” and “induced the gloominess” (30) and they wished to do “a work that has the spring of eternal freshness within it” (100).

Okri’s narrative slides very smoothly but relatively slowly. On one hand, it builds on the discourse on how nature energizes, uplifts, and transforms the human soul and gives relief to the fatigued mind and body dwelling in cities, and, on the other hand, it frames a parallel statement that such temporary escapes by human beings have wrecked the bio-systems of green belts of the earth. Intervention by excursion groups has dilapidated the local bio diversity and has done irretrievable damage to the planet.

Lao, one of the members of the filmmakers’ group, and his female friend Mistletoe, enjoy the green bounty of the Swiss mountain village where:

The air was crisp and clean. It made them breathe consciously. They drew the ionized air of lake and mountain deep into their bellies. Then they exhaled, emptying their lungs....They breathed to the rhythm of their walking, cleaning out the years of neglect. One’s breathing is shallow in cities, thought Lao. Shallow breath, shallow life; as you breathe, so shall you live. (177)

Both Lao and Mistletoe enjoy their countryside stay, rambling here and there, in sylvan setting. “The wind was gentle, the air pure and lovely to breathe. Each breath felt like a purification” (99). Okri’s repeated reference to the magic land and the character’s yearnings to discover the ideal world of Arcadia suggests that in the contemporary world, the life in the midst of nature is not possible, as the organic bond of man with nature has been snapped and the loss of a simple life amidst nature seems to be of permanent nature unless a conscious and

purposeful holistic attempt to restore the planet is not made. The seven characters, coming from different cultural groups and places, lament the loss of natural bliss, which is as necessary for human existence as breathing. Propr, another character in the novel, feels how the water and mountains communicate with him. “He listened to the mountain, the wind, and the lapping of water from the rim of the earth. He listened to the lake, heard its songs. He heard the dance of water and rock and the wind twisting round the crags of the mountain.....From the sound he heard he gave the world form. Sounds created worlds for him, worlds more interesting than world seen” (167). In the course of the narrative, the author questions what humanity has achieved after the immense economic exercise. He, through the metamorphosis of the characters, who have come to spend some time in the natural surroundings, reiterates that the current set of economic ideas have proved to be dangerous both for living beings and the earth as a whole. Human beings, particularly the well-off, who have now discovered the importance of living close to nature, turn to it, time and again, to relax their bodies and souls, creating even more dangers to the eco-sphere of the green belts. The small green towns become hubs of tourist activities and give way to many other problems.

“Everybody is here, you know. The rich, the famous, the fatous, dear lady, all are here. Film stars, shipping magnates, great beauties, American tycoons, and the thousand that go where they go, all are here.....The town is ruined....ruined by the rich and famous. It’s over-run and over-exposed” (187). These fierce words of warning come from the mouth of a boy who takes care of a hotel lodge in the small town. He goes on telling Lao and Mistletoe that the locals go greedy when money starts pouring in their area. “We have torn up its flowers, fornicated in its cemetery, and revelled in its churches” (188). The growing culture of getting relief and solace, in the Arcadian strips, rob these places of their piece and essential vitality:

The rich came here from all over the world. Goethe, Mark Twain, Hesse, they all fell in love with our mountains. Turner painted our sunsets. Princes, kings, tycoons,

playboys, they all came to us in huge numbers. Then the others followed. They came in spring and summer and the town became immensely successful and rich.....And so with fame, with money, with neuroses, they ruined the town. More people came than ever. It was like a stampede. The roads and lanes were crowded with cars....Money became a plague, an epidemic, a curse. (250-252)

The Nasty Plunder in *Surfacing*

Undeniably, human greed has sucked in the essential balance of nature, and the literary texts under study trace how human beings' changed attitude towards nature has worsened the conditions. Margaret Atwood's *Surfacing* (1972), touches upon the subtle damage done to even the remotest areas of the world, in the guise of turning the world into a global village. She vehemently projects her standpoint and takes the side of the people who support and are guardians of all kinds of life on the planet and who live life without harming their living spaces. In the process, she lays bare the ill practices of the superpowers of the world, which are trying to make loud speeches and use euphemisms to advocate their anti-nature practices. She explores the relationship between the anthropogenic ecological disbalance and infrastructural growth in Canada over a period of time.

I'm on this road again, twisting along past the lake where the white birches are dying, the disease is spreading up from the south, and I notice they now have sea-planes for hire. But this is still near the city limits; we didn't go through, it's swelled enough to have a bypass, that's success. (Atwood 3)

At the very onset of the narrative, Atwood sets a serious note about the fact that megacities have swelled up and it has become a norm to connect the smaller villages and towns with express ways, which 'bypass' and undermine the existence of these small dwelling spaces

and all their value systems. Just as the Whites entered in the interior spaces of Africa and, in the name of civilizing missions, engaged in ruthless, nasty plunder of their eco system, similarly, the neo colonial forces are ravaging even the remotest and once isolated parts of Canada under the guise of globalization:

we moved through flattened cow- sprinkled hills and leaf trees and dead elm skeleton, then into the needle trees and the cuttings dynamited in pink and grey granite and the flimsy tourist cabins, and the signs saying GATEWAY TO THE NORTH, at least four towns claim to be that. The future is in the North, that was a political slogan... (Atwood 5)

The natural habitats and bio diversity of these areas are under constant threat since the infrastructure goes on expanding, the local lanes get lined with concrete structures, and the conventional, friendly attitudes of the ordinary people are substituted with the culture of greed and consumption:

we're passing the turnoff to the pit the Americans hollowed out. From here it looks like an innocent hill, spruce-covered, but the thick power lines running into the forest give it away. I heard they'd left, maybe that was a ruse, they could easily still be living in there, the generals in concrete bunkers and the ordinary soldiers in under-ground apartment buildings where the lights burn all the time. There's no way of checking because we aren't allowed in. The city invited them to stay, they were good for business, they drank a lot. (6)

The economically powerful nations, the novelist establishes, are spreading their greed-driven culture in the countries which they want to control; in the present situation, the domination is not political or administrative, as it has been discussed during the study of Ngugi wa Thiongo's text; instead, the domination is cultural, psychological, and economic. Such heavy-handed bullying has led the governments of the relatively less-empowered nations to

surrender themselves to these mighty giants, and in the bargain, their lands, waters, and mountains, including plant and animal life, come under their control. The text is replete with references that show how economic repression has led the people of such nations to look at their natural objects as assets which can be used and sold off:

There was a covered bridge here once, but it was too far north to be quaint. They tore it down three years before I left, to improve the dam, and replaced it with the concrete bridge which is here now, enormous, monumental, dwarfing the village. It's the dam that controls the lake: sixty years ago, they raised the lake level so that whenever they wanted to flush the logs down the narrow outflow river to the mill they would have enough water power. But they don't do much logging here any more. A few men work on railway maintenance, one freight train a day; a couple of families run the stores, the small one where they used to speak English, the other where they wouldn't, the rest process the tourists, businessmen in plaid shirts still creased from the cellophane packages, and wives, if they come, who sit in two's on the screened blackfly-proof porches of the single-room cabins and complain to each other while the men play at fishing. (16)

The creation of roads and railways requires mountains to be blasted with dynamite and trees to be chopped off. The creation of waterways for the transportation of goods needs rivers to be dammed so that the water can be artificially controlled. The novel refers to all these movements which are going on in Quebec's far off parts also, which, hitherto in human history, remained very little visited.

The first smell is the mill, sawdust, there are mounds of it in the yard with the stacked timber slabs. The pulpwood goes elsewhere to the paper mill, but the bigger logs are corralled in a boom on the river, a ring of logs chained together with the free ones

nudging each other inside it; they travel to the saws in a clanking overhead chute, that curving up into the tiny company town, neatly planned in the middle...(9)

The mountains, trees, and living beings maintain the ecological balance, but the novelist laments the fact that the smaller villages are connected to bigger cities, and so the narrator could see “rock blasted, trees bulldozed over, roots in the air, needles reddening” (13). The attitude of companies engaged in constructing infrastructure towards these entities is remorseless and unsympathetic. “If they catch one, they’ll be here all night. If they don’t get anything in fifteen minutes, they’ll blast off and scream around the lake in their souped-up boat, deafening the fish. They are the kinds who catch more than they can eat, and they will do it with dynamite if they can get away with it” (81).

As it has been discussed earlier, unnatural regulation of water courses for the purpose of making waterways to transport goods and carriers devastates the environment in more ways than one, yet the political will to control such actions is lacking. Artificially erected dams and water control ways behave in an artificial manner too. They pose a permanent danger to the habitats around them, and during the rainy season (which has become a prolonged one due to changes in weather cycles), the magnitude of destruction grows manifold.

The lake is tricky, weather shifts, the wind swells up quickly; people drown every year, boats loaded top heavy or drunken fishermen running at high speed into dead heads, old pieces of tree waterlogged and partly decayed, floating under the surface, there are a lot of them left over from the logging and the time they raised the lake level. Because of the convolutions it’s easy to lose the way...(35)

Atwood, without mincing words, charges America and its policy of cultural domination of other countries, for being responsible for the impending anthropogenic apocalypse. By exercising its hegemonic powers, it establishes its right over the living beings and the natural objects of the territories under economic control. The neo-imperial power aspires to gain

absolute control and increases its corporates' profits by ruling over the lives of ordinary people. Their sole aim is to increase the local demand for processed food, synthetic clothes and concrete houses having many gadgets running on electricity.

Such cultural domination has discouraged the indigenous culture of sowing seeds in every household, getting fresh vegetables and fruits, and saving all factory-made products in order to minimize purchase and re-using of the products which are otherwise thrown out and which are sometimes non-biodegradable too and prove to be dangerous for the eco-system. Atwood has elucidated all these processes in the text by highlighting that there is a pressing exigency to do away with the policies and culture that the super-power has rolled out.

A peaceful co-existence among various species is vital in order to sustain the chain of life on the planet and to ensure many of the species get extinct. The writer highlights that before the cultural imperial forces made their identity visible in the less visited spaces of Canada, the local population was living in a harmonious relationship with nature, helping all kinds of flora and fauna to grow, get adequate food, and proliferate. The mother of the narrator is said to enjoy a special bond with birds.

Sometimes she would take bread crumbs or seeds out to the bird feeder tray and wait for the Jays, standing quiet as a tree, or she would pull weeds in the garden; but on some days she would simply vanish, walk off by herself into the forest. Impossible to be like my mother, it would need a time warp; she was either ten thousand years behind the rest or fifty years ahead of them. (62)

Economic and environmental safety are interrelated. The local families are described as food-sufficient and there was never any need as such of cellophane wrapped packaged food; "my father would be giving Paul the cabbages or the string beans he had brought from his garden and Paul would be replying with tomatoes or lettuce from his" (21). Economic policies, not only made people dwelling in these places dependent on commodities processed in other

nations and then transported to them. Both ways, these measures add to the carbon emissions in the environment as energy is consumed to transport raw foodstuffs from farms to food processing and packaging units and then deliver them to department stores. The consumer has to undertake a drive to get them, unpack them, use them, and then throw the packages away. “I pick up some fly dope in a spray can for the others, also some eggs and beckon, bread and butter, miscellaneous tins. Everything is more expensive here than in the city; no one keeps hens or cows or pigs anymore, it's all imported from more fertile districts. The bread is in wax paper wrappers, trenche” (29).

The anonymous narrator of *Surfacing* supports the resource sufficient life-style where all creatures, plants and human being live in close relationship. “I dig in the weediest part near the compost heap, lifting the earth and letting it crumble, sieving the worms out with my fingers. The soil is rich, the worms scramble, red ones and pink ones” (74). Around the house of the narrator, frogs “hop everywhere out of my way, they like it here; it’s close to the lake, damp, my canvas shoes are soaked through. I pick some of the leaf let lettuce that hasn't flowered and turn bitter, then I pull up an onion, sliding the loose brown outer skin of from the bulb, white and eye like” (42).

David, a friend of the narrator, speaks in an unrestricted manner against America’s conspiracies to control Canada. “If we could only kick out the fascist pig Yanks and the capitalist this would be a neat country. But then, who would be left?” (45). He further remarks, “that this country is founded on the bodies of dead animals? Dead fish, dead seals, and historically dead beavers, the beaver is to this country what the black man is to the United States. Not only that, in New York it’s now a dirty word, beaver. I think that’s very significant” (46).

The fresh waters of Canada either are seized by paying ransoms to the political parties which run the government or there are exploited by overfishing and allowing tourist to visit in large numbers who spread a lot of litter.

It is obvious. They're running out of water, clean water, they're dirtying up all of theirs, right? Which is what we have a lot of, this country is almost all water if you look at our map. So in a while, I give it ten years, they'll be up against the wall. They'll try to swing a deal with the government, get us to give them the water cheap or for nothing in exchange for more soapflakes or something, and the government will give in, there'll be a bunch of puppets as usual. But by that time the Nationalist Movement will be strong enough so they'll force the government to back down; rights or kidnappings or something. Then the Yank pigs will send in the Marines, they will have to; people in New York and Chicago will be dropping like flies, industry will be stalled, there'll be a black market in water, they'll be shaving shipping it in tankers from Alaska. They'll come in through Quebec, it will have and separated by then; the Pepsis will even help them, they'll be having a good old laugh. They'll hit the big cities and knockout communications and take over, maybe shoot a few kids, and the Movements gorillas will go into the bush and start blowing up the water pipelines the Yanks will be building in places like this, to get the water down there. (123)

The Insecure World in *The Gun Island*

The journey of the Anthropocene continues and expresses itself in equally potent terms in *The Gun Island* by Amitav Ghosh. Atwood's text rests its discourse on the role of countries like America, which are responsible for squeezing out the natural beauty of Canada with the help of international treaties and agencies. Amitav Ghosh carries the discourse still further and

presents a global picture of the dying planet. He throws spotlights on India, Bangladesh, Italy, California and many other parts of the planet where the seas have swelled and eaten-up enormous strips of land, depriving the human beings, the plants, and, the animal world of their habitats, the temperature of the earth has risen, forcing many species to migrate to other lands, where both the human beings, and, the animals are finding it difficult to adjust with each other; the wildfires are challenging everyday life and where zoonotic diseases are being faced since many creatures have, due to human encroachments, lost their habitats. The text focuses on the fact that human survival depends on multiple systems, the most important of which is the ecosystem. During the Anthropocene, roughly one third of the total human population will be left without homes, and society will have to envisage climate-driven migration, food and water riots, and illegal human trafficking. The world of the animals is also undergoing migration as the spirit of self-preservation is the most dominating one among all living beings. Animals living on land, inhabiting water, and flying in the air—all are changing their behaviour patterns. Thus, Amitav Ghosh depicts what it means to live in the era of the Anthropocene.

As the novel opens, Deenanath Datta, or Deen, the central character of the novel, comes in contact with a number of characters who either work as scientists, involved in the restoration of marine creatures which are changing their behaviour patterns due to rising seas, or as social activists who are helping the people who have lost their homes and livelihoods as the sea has crossed its boundaries. Pia, in the novel, is a marine biologist, and Neelima, Deen's relative, is associated with a social organization. Thus, through their direct conversation with the central character, the readers get to know the stark realities of the real damage that mankind has done by adhering to the economic policies of globalization and consumerism.

Neelima, during her conversation with Deen, tells her that the inhabitants of India and Bangladesh (earlier East Pakistan) came across a Category 4 cyclone (later named as Cyclone Bhola by the agencies) as early as 1970. Every year, people are witnessing that the frequency

of such cyclones is increasing. Neelima, her husband and a man named Horen Naskar were working for the rehabilitation of the victims in the island villages of the Sunderbans during one such massive tragedy, and they saw the devastation with their own eyes.

On each outing they saw horrific sights: hamlets obliterated by the storm surge; islands where every tree had been stripped of its leaves; corpses floating in the water, half eaten by animals; villages that had lost most of their inhabitants. The situation was aggravated by a steady flow of river images from East Pakistan. For several months people had been coming across the border, into India, in order to escape the political turmoil on the other side; Now the floor turned into a flood, bringing many more hungry mouths into a region that was already desperately short of food. (Ghosh 13-14)

Another major cyclone, Cyclone Aila hit the Sunderbans in 2009, and in between the periods of these two cyclones emerged a number of other cyclones which wrecked all sorts of life and activities in the area. The novel puts on record that due to its careful planning, the government saved the lives of a lot of people, but “Alia’s long term consequences were even more devastating than those of earlier storms” (48).

Hundreds of miles of embankment had been swept away and the sea had invaded places where it had never entered before; vast tracts of once fertile land had been swamped by salt water, rendering them uncultivable for a generation, if not forever...The evacuations too had produced affects that no one could have foretold. Having once been uprooted from their villages many evacuees had decided not to return, knowing that their lives, always hard, would be even more precarious now. Communities had been destroyed and families dispersed; the young had drifted to cities, swellings already-swollen slums; among the elderly many had given up trying to eke out a living and had taken to a begging on the street. (48-49)

The change in the climate patterns of the coastal areas has deprived the human population as well as the animal and plant species of their natural habitats.

Sometimes....it seemed as though both land and water were turning against those who lived in the Sundarbans. When people tried to dig wells, arsenic-laced brew gushed out of the soil; when they tried to shore up embankments the tides rose higher and put them down again. Even fishermen could barely get by; where once their boats would come back loaded with catch, now they counted themselves lucky if they netted a handful of fry. (49)

In addition to all these ills that anthropogenic climate change has brought to the coastal areas, it has also given free hands to human traffickers. They force women to become sex-workers, and many boys and girls get involved in criminal activities to amass money to be paid to traffickers in order to get all the (illegal) papers ready to migrate to Europe and other continents, where they have to work for meagre wages to sustain themselves. The character of Tipu, a teenage boy, in the text, represents the trauma of the coming generation that does not have any career security. He tells Deen that illegal immigration is the only way to survive for the people living around the waters, but the Western countries do not trust their experience that they leave their native places because the “land was flooded; or suppose his whole village was sick from the arsenic in their ground water” (62). The western world likes fiction created by migrants about politics, religion, gender, and sex. These people have to go a long way to get acknowledged as climate migrants. “Tipu’s was not an unusual story; over the last couple of years there had been a huge increase in the reports of teenage boys and young men leaving home without informing their families” (183), and, they undertake dangerous and illegal routes to cross over to alien lands so that they might get engaged in some employment and send money back home. Thus, climate change is depriving a large portion of the human population of their very fundamental human rights. The large number of people whose lands and homes are sucked

by the rising waters are not received by other countries, and they have no other choice but to live the lives of refugees who remain unaccepted in the alien lands. “Our new right-wing government came to power because they promised to be tough on migration. This has now become the biggest political issue across Europe...” (146). Ghosh takes note that Bangladeshis have become the largest group migrating to Europe and the reasons are not because they are entering Europe in search of greener pastures. Instead, they are forced to migrate because the water bed of the ocean is rising and changing the face of the globe. Lubna is one such female character who has come to Venice because she lost everything at her place in Madaripur, Bangladesh. She narrates her tale of woe, and, Deen gets deeply agonized:

The winds were so strong that they carried off the roof of our house. Then the water began to rise. It kept rising till it was halfway up the walls. We had no choice but to take shelter in a tree. Somehow my brothers managed to get all of us into the branches. But then we discovered that the tree was full of snakes; they climbed up to get away from water, just as we had. My brothers drove some of them off, with sticks, but one of them was bitten...Can you imagine what it was like...(160)

Tipu, a teenager and the son of Horen Naskar, tells Deen that “things about animals, and fish, and the water... are no longer as they were’ and that things were changing so much, and so fast, that I wouldn’t be able to get by here—he told me that one day I would have no choice but to leave.” (86)

Apart from the human groups migrating to other lands, there are numerous species that are changing their behaviours and migrating to other spaces because the temperature of the sea water has risen. Moreover, manufacturing units, since the last two centuries, have been throwing away their chemical waste/toxins into water courses posing profound threats to aquatic creatures. The same is true about animals living on land and in the air. During his conversation with Cinta, the historian, Deen states:

You know—temperatures are rising around the world because of global warming. This means that the habitats of various kinds of animals are also changing. The brown recluse spider is extending its range into places where it wasn't found before-like this part of Italy.....it's happening because there's more and more carbon dioxide in the atmosphere, and other green house gases too. (214)

Similarly, many shipworms that previously did not live near Venice are now establishing colonies there. Cinta makes an important remark regarding this change:

A friend of mine who works in the *municipio* brought me here a month ago to show me these creatures and the damage they are doing: it was he who made that cut in the wood. More and more of these are invading Venice, with the warming of the lagoon's water. They eat up the wood from the inside, in huge quantities. It has become a big problem because Venice is built on wooden pilings. They are literally eating the foundation of the city. (230)

Deen, as he belongs to the coastal parts of India, immediately recognizes the worms and adds that their habitats are changing and so the complacent forces working in the political spheres must know that life on the planet is now 'completely at the mercy of the earth' and the fate of Bangladesh and Venice is going to be the same if stringent and impactful measures are not taken immediately. Pia's assistants mention, while describing the mass mortality events, that they had recently seen "shoals of dead fish; decline of crab population and so on" (178). The novel depicts the same kind of picture of California as well, which is now teemed with yellow-bellied sea snakes. "These snakes generally lived in warmer waters, to the south, but sightings in southern California had become increasingly common: their distribution was changing with the warming of the oceans" (134).

Pia, the marine biologist, has a lot more to add to the disasters which both the defiled water and high temperature of the sea have brought about in the lives of marine creatures. Pia,

is presented in the text as a dedicated researcher who is conducting her research on dolphins residing in the river courses of the Sunderbans. The text underlines:

During the early years of Piya's research these patterns of movement had been regular and predictable. But then the tracks had begun to vary, becoming increasingly erratic; this was due, Piya believed, to changes in the composition of waters of the Sunderbans. As sea level rose, and the flow of fresh water diminished, salt water had begun to intrude deeper upstream, making certain stretches too saline for the dolphins. They had started to avoid some of the waterways they had frequented before; they had also, slowly begun to venture further and further upriver, into populated, heavily fished areas. Inevitably, some had been ensnared by fishermen's nets and some had been hit by motorboats and streamers. Over the last few years the pod had lost so many members...(92-93)

Piya informs that "these vast stretches of water have a very low oxygen content_too low for the fish to survive. Those zones have been growing at a phenomenal pace, mostly because of the residue from the chemical fertilizers. When they are washed into the sea they set off a chain reaction that leads to all oxygen being sucked out of the water" (95) She adds that only "a few highly specialized organisms can survive in those conditions_ everything else dies, which is why those patches of water are known as 'dead zones'. And those zones have now been spread over tens of thousands of square miles of ocean- some of them are as large as middle-sized countries" (95).

Deen discovers that such habitat changes are going on at an alarming pace. The litter-spreading industries, oil refineries, and other manufacturing units which are run by "very powerful people, a giant conglomerate that's got politicians in its pocket" (96) under the name of providing employment are spreading death and disasters.

Ghosh has given enough space to recount the weather-cycles in the era of the Anthropocene. During his stay in Venice, Deen learns that "the strange weather was not just a

local phenomenon: all of Italy had been affected in different ways. Some northern cities had been deluged with rain and hail” (254). Dolphins of the Sunderbans and surrounding areas also “rarely go upriver any more, although in the nineteenth century they used to be seen as far as inland as Calcutta” (261). Around the seaways that connect Egypt to Europe, “the storms were becoming increasingly common in that area; this was thought to be an effect of changing weather patterns” (263).

The transformed weather patterns also include wildfires, which have become very common now. During Deen’s journey to Brooklyn, New York, he gets the news that “massive wildfires had been raging around Los Angeles for several days. Thousands of acres of land had been incinerated and tens of thousands of people had been moved to safety” (115). While his plane was flying low enough, he could see, “a charred, smouldering stretch of forested hillside that had already been laid waste by the fires” (116). “I could see a great mass of blackened tree trunks rising out of a vast field of ash. I noticed also that many birds were circling over the ashes of the burnt-out forest_ this astonished me because the destruction was so complete that it was difficult to think that any living thing would be drawn to this incinerated landscape” (117) The wildfires are bringing many changes, as Deen notices that the remains of a wildfire are proving to be by no means a wasteland.

For certain species of birds, hawks, eagles and other raptors_ they present rare opportunities for hunting: the loss of tree cover makes it easy to spot those rodents and reptiles that they have survived the fire by burrowing underground. For birds of prey the conditions are so favourable that some species of raptor have even been known to actually start, or spread, wildfires by carrying burning twigs afield in their beaks. (117)

In the novel, Lisa, a researcher, shares her experience with Deen about bark beetles. She, during her research project, has studied “these insects that eat up the trees from the inside so that when there’s a dry spell the dead wood is like kindling, just waiting to go up in flames.

Bark beetles have been extending their range, as the mountains warm up...”(109). Smoke keeps people indoors and many school going children have to miss their classes as they cannot go out because of the suffocating air. “Inferno-like landscape ahead of us where towering columns of flame were advancing upon orderly, neatly designed neighbourhoods” (132).

The study of the five texts underlines that the European world has led the entire globe to a bottomless pit. They have made the whole world function on fossil-fuels; ordinary people rise to safeguard their lands, but they are thwarted and penalized for obstructing the development and civilization of the world. Indigenous communities knew the precise value of living close to nature. Even today, in the name of economic growth, the rich nations are playing havoc with the environment, which, in the long run, has determined that they are also going to witness climate related catastrophes. Ghosh makes a very powerful statement in *The Gun Island*. He thunders:

Beginning with the early days of chattel slavery, the European imperial powers had launched upon the greatest and most cruel experiment in planetary remaking that history has ever known: in the service of commerce they had transported people between continents on an almost unimaginable scale, ultimately changing the demographic profile of the entire planet. But even as they were repopulating other continents, they had always tried to preserve the whiteness of their own metropolitan territories of Europe. (*The Gun Island* 279)

Such careful scheming has received a setback as climate change is changing the demography of all the continents and the geographical features of the earth. Sea water rising, deluges, wildfires, impure air, infertile and saline soil, and so forth, are conditions towards which even the tiniest creature will react.

Analytical Outcome

The sequence of action of the selected novels traces the journey of the Anthropocene and provides ample evidence that the entanglement of literature and the Anthropocene helps to broaden the understanding of many areas such as genre, culture, the non-human world, the consciousness of an impending doom, and the future, which is full of insecurities. The selected novels map the key issue of human-nature relationship as a construct. Throughout the three phases of the Anthropocene, this bond has been what the dominant species, countries, groups, or ideologies defined and made the dominated section follow. The link of nature as a space and the social groups inhabiting in it provide climate models which vary from nation to nation and group to group. The city of Manchester is shown as the opposite of the ridges of Kenya before the coming of the colonial forces. As the value system shifts in the colonized land, everyday life of human beings which was full of certainties is replaced with one of struggle for bare survival. Normal climate models in the form of average annual rainfall, temperature, composition of water of rivers and seas also begin to alter. The life depicted in *The Age of Magic*, *Surfacing* and *The Gun Island* exhibit the state of a dying planet which is the result of seamless plunder of the earth. Ideological paradigms of the celebration of human beings as explorers, entrepreneurs, and inventors have been instrumental in the rapid misshaping of the ecosystem. While answering the first two research questions (1. How do the selected novels deal with the entanglement of literature and the Anthropocene? 2 Do the selected novels engage with the factors which have been responsible for the cultural change leading to the Anthropocene?), the composite and consolidated human action highlighted in the selected five texts also decodes the patterns of potent realities of the planet coming out of the previous geological epochs and ushering in the new human epoch.

Chapter 4

Ecocritical Perspectives

Ecocriticism is a type of literary criticism that focuses on the examination of environmental issues in literary and cultural texts. Cheryl Glotfelty defines ecocriticism as the investigation of the connection between literature and the natural world. Other critics later claimed that it has a green moral and political agenda. In philosophy and cultural studies, ecocriticism is associated with environmentally-oriented developments. Thus, it is more than just literary criticism; it also takes a strong political position, a call to build a protective shield around the earth. Ecocritical theory examines texts from the perspectives of environmental ethics, environmental justice, and species justice, with a focus on socio-political frames for reading the texts. So, it is not a question of appreciation of nature, as in the case of Wordsworth, but it looks at various things, such as how the author has constructed the nature-human relationship or the human species' power over the rest of the life forms, and humans' instrumental perspective on other than human life forms.

Both anthropocentrism, the human at the centre of the world, and speciesism, which is the human species' worst discriminatory practice, are linked to patriarchy and sexism. Eco-critics believe that humans are self-contained beings. Eco-critics call into question the human development models imposed by modernity. They look for textual characteristics that show how the authors conceptualize various effects, such as climate disasters. Typically, this theoretical analysis begins with a sense of 'place' because the sense of place is 'nature', but this is mediated by a series of interrelationships of the textual characters. In terms of space, the characters' cognitive, psychological, and emotional responses are also dissected. Thus, ecocriticism is the analytical and critical interpretation of texts through the lens of environmental ethics and environmental policies. It is the investigation of serious and

catastrophic environmental changes as recorded in literary texts. It provides a framework for analysing literary and cultural texts in order to decode, what these texts have in terms of their environmental imagination. Thus, it is underlined that it is about human history, and the careful documentation of the impact that the living space had, on the psyche of the characters. The ongoing research focuses on how those who control the lands and materials speak about and treat those who live on the margins for various reasons. Ordinary people suffer horribly; and the people, especially, in oppressed countries, have a horribly oppressive and exploitative relationship with their rulers. Anthropocentrism and speciesism often go hand in hand, implying that humanity is the jewel of creation, exceptional and unquestionable, in terms of dominating and dictating other life forms. The belief that the rest of the world is subservient to man implies that other life forms are subject to the race of human beings.

Ecocriticism, helps to investigate nature stereotypes that are hidden in literary texts; for example, Ben Okri proposes that nature is a healer. Atwood, too, affirms that nature has the ability to provide solace. She regards it as 'selfless' because it does not require anything in return: nature, free of human intervention, is some kind of pristine and pure object. The battle of stereotypes, thus, morphs into a battle of nature versus culture, separating nature as an idol of purity, and thus human culture, which is impure, dirty, and materialistic, is contrary to the ideal image of nature. Eco-critics evaluate how excessive production and consumption are the processes by which human beings have distanced themselves from nature. They weigh the ideas of why human beings should bother chasing after all of the materials when nature provides them all for free. Why build more industrial units to produce things that civilization does not necessarily require? Because it only gives for free, nature is both generous and liberal in its favours.

Anthropocentrism is a man-centric or human-centric view of the world: it assumes that man is the centre of the universe, which leads to the differentiation and hierarchization of

species, because it is assumed that man, as the centre, automatically rules over the other species. For Environmental Humanities, this set of assumptions allows for a specific type of criticism, namely that humanity survives only through the mutual inter-species cooperation of living and even non-living forms, and thus anthropocentrism is not a valid position or worldview because humanity's survival requires cooperation from everything from climate and weather to bacteria and other living life forms. These practices, however, have been ignored in the human world.

Agriculture, industrialization, science and technology, population, and urbanization have all severely and possibly irreversibly harmed the environment. In other words, the emphasis is on examining a situation in which humanity's very presence on the earth has resulted in irreversible changes from the time it first appeared to the present. Environmental damage may be traced back to the geological time of the earth to the point at which human intervention becomes palpable and tangible in terms of what it does to nature. The Anthropocene is a geological term for time-based human intervention and active damage to the world's resources, climate, and landscape topography. As it has been established in the preceding chapter, life, before the coming of the industrial-driven economy, was characterized by a harmonious relationship between human beings and their spatial surroundings, no matter if the territories were European, African, North American, or Asian. Everywhere, human actions were limited to a controlled intake of natural resources, which reinforced the fact that human activities did not lead to any catastrophic or irreversible transformation of the planet. Having traced the journey of the Anthropocene with the help of the selected novels, it is well understood that the series of human-centred pursuits led to the present state of ecological imbalance. The goal of this chapter is to show how the theory of Ecocriticism helps to decipher these literary texts and bring out important details about the main focus of the research from them.

The very beginning of *The Manchester Man* draws two contrary pictures of the city: Manchester in the pre-industrial era, and the same town when it becomes the hub of industrial units and materialism-centred activities:

When Pliny lost his life, and Herculaneum was buried, Manchester was born. Whilst lava and ashes blotted from sight and memory fair and luxurious Roman cities close to the capitol, the Roman soldiery of Titus, under their general Agricola, laid the foundations of a distant city which now competes with the great cities of the world. Where now rise forests of tall chimneys, and the hum of whirling spindles. (Banks 19)

As the novel develops, all elements which had earlier made Manchester full of 'dense woods of Arden' are ripped apart, by the agencies of both man and machine. The novel mentions the water of river Irk and Irwell being used to flush off the industrial waste, the infrastructural proliferation like broad roadways, enormous expansions of railways, banks, and waterways, mushrooming of long lines of houses which served as insanitary dwellings of the families of the labour class. The din of Industrial Revolution, on the one hand, made England 'the factory for the whole world' And on the other hand, led her to hunt raw materials to be stuffed in the machines which were vomiting out processed commodities at mass scale. Countries of African and Asian continents too, had begun to feel the disturbance, which the new state of affairs was creating in their peaceful cultural establishments.

The tale of colonial exploitations narrated by Ngugi wa Thiongo's in *'The River Between'* emblemizes the numerous communities which lived in the African and Asian territories, which were subjugated by the colonial masters and were forced to get disunited from their lands, "cattle, wild beasts and trees"(1). The title 'The River Between' too foregrounds that the human civilization, depicted in the text is on the brink of change; the moment, the white men enter the area with their value systems, the clash begins and it rips apart the local beliefs that the natural objects are sacred and so long as their bond with their

rivers, woods, cattle and wild beasts continue, they would remain happy. The local beliefs in miracles and magic add a mystic quality to the narrative, “These ancient hills and ridges were the heart and soul of the land. They kept the tribes magic and rituals pure and intact” (3). The community valued magic and spells so much that the great seer Mugo has been described as “Wachiori, the glorious warrior; Kamiri, the powerful magician” (3). The followers of Mugo were the people, the novelist states, who were the ones “whose blood and bones spoke the language of the hills. The trees listened, moaned with the wind, and kept silent. Bird and beast heard and quietly listened” (3). Their communion with nature and their environment is so strong that all their rituals and festivals are weaved around the rivers, forests, and seasons.

Margret Atwood, too in her own way has brought to the focus how the communities living in the Northern Canada were living in close relationship with nature without misshaping it. The nameless narrator of *Surfacing* remarks that she used to wake up when birds sang, but the traffic in the city now starts as early as pre-dawn, which throws jarring noises in her ears, leading them to become rusty. The neo-colonial forces have invaded the forests of Canada and one could witness the nasty plunder done by them.

We’re on the trail inside the forest; the first part is fairly open, though now and then we pose gigantic stumps, loved and saw-cut, remnants of the trees that were here before the district was logged out. The trees will never be allowed to grow that tall again, they’re killed as soon as they’re valuable, big trees are scarce as whales. (Atwood 55)

Thus, these literary texts become treaties on modern environmentalism and come close to the literature that laments the loss of the Arcadian home (the Old Testament, the Pastoral, and the literature of the apocalypse). Ben Okri’s *The Age of Magic* too continuously clamours for the inner peace and delight which human beings have lost. The novel’s seven characters long to return to Arcadia, but they are well aware that they have become estranged from it long ago; thus, Arcadia becomes more of an idea than a territory somewhere on the globe. They had

started in London and had filmed in Paris and were now bound for the Goetheanum in Basel, Switzerland. Along the way, they were filming travellers, asking what their idea of happiness might be. They were making a journey to a place, but in truth, they were making “a journey to an idea” (Okri 13).

Keeping this awareness in mind, the seven characters move on, undertake a train journey, and want to get bewitched by the beauties of nature __ nature which is the universal home not only for human beings but for all kinds of life. “A train gliding/Into the dark light/Oxen in the grass. /A lost dream” (Okri 25).

The sensation of a lost dream is not confined to a specific location, all around the earth, ordinary people appear to have sensed the stirring of something momentous. They seemed to have understood that a process had been launched that could lead ultimately to catastrophe: “what they didn’t allow for was that the story might take a few hundred years to play out. It has fallen to us to bear witness to the last turn of the wheel” (Ghosh 124).

The application of the ecocritical framework in analysing the selected texts reveals a comprehensive understanding of the many processes involved in elucidating the anthropogenic ecological catastrophe. An essential approach within the field of ecocriticism is the identification and analysis of the features within literary texts that establish a connection to the longstanding heritage of pastoral literature. Johnathan Bate, while presenting his eco-critique of Wordsworth's poetry, states that his themes are influenced by old pastoral poetry. It is necessary to mention that the entirety of the Wordsworthian tradition has been shaped by the development of the pastoral representation of nature. Ecocritics are interested in analysing how literary works exhibit profound connections with the ancient pastoral tradition that extolled a lifestyle characterised by simplicity, communal living, and harmonious coexistence with the natural world. The establishment of this relationship is facilitated by the writer’s purposeful selection of settings, depiction of individuals, employment of imagination, and integration of

nature-centred ideologies. Greg Gerrard categorises pastoral traditions into three main types: classical, romantic, and American. (33-58)

Terry Gifford opines that the classical pastoral is:

.... the specifically literary tradition, involving a retreat from the city to the country side, that originates in ancient Alexandria and becomes a key poetic form in Europe during the Renaissance; it exhibits itself more generally in any literature that describes the country with an implicit or explicit contrast to the urban. (Gifford 33-34)

The second type gets abundantly manifested in romantic tradition in general and that of Wordsworth in particular, where firmly exist sites of “pastoral mystification” (795-814). Wordsworth’s depiction of rural life, the water bodies of the Lake District, and flora and fauna bind him with the pastoral pieces of mediaeval and Renaissance times.

Pastoral literature occupies a distinct and noteworthy position within the broader scope of American literary culture. British eco-critics have predominantly directed their attention towards Wordsworth, but their American counterparts have primarily attributed the role of primary figure to Henry David Thoreau. Scholars, like Lawrence Buell, have established a connection between the pastorals and the acts of brutality and oppression inflicted upon the natural environment. Leo Marx's analysis focuses on the disruption of the tranquil pastoral existence caused by external forces, with particular attention given to the resulting feeling of displacement experienced by the local residents.

A substantial narrative space has been occupied by the pastoral-like details in the texts under dissection. Like other contemporary novelists, Isabella Banks projects the gradual and unfaltering shift that took place in nearly all spheres as the human race was trying to cross over the firmly rooted system of the agricultural economy and was ushering in the industrial era. The city of Manchester witnessed the earliest symptoms of all the maladies which followed this radical change, like people making mass movements from the countryside to cities, cities

encroaching over the cultivated lands and woods; the mushrooming of slums and unplanned localities with insanitary conditions, machines flushing out waste products into clear water courses.

As a classic pastoral, it values ordinary and uncomplicated life. Simon Clegg teaches the child Jabez that peace and delight are accessible only when one spends time enjoying the beauty of nature. Though characters like Simon Clegg are shown struggling to earn their meagre wages while living in dingy surrounding, they know what it means to live close to flowers and animals; to a blissful place in the countryside which they had to leave to make a living while working in factories. “Too busy were the tanners under the eye of their masters.....”(Banks 5). Women in the households were helping the men folk by undertaking some chores which were actually processes for preparing the raw materials to be stuffed into machines. Bess was a batter, and her work was to turn and beat the clotted mass with stout lithe arms and willow-wands until the fibres loosened, the seeds and specks fell through, “and a billowy mass of whitish down lay before her. It was not a healthy occupation: dust and flue released found their way into the lungs, as well as on the floor and furniture: and a rosy-cheeked batter was a myth” (Banks 11).

Thus, the narrative gradually takes on the form of a romantic pastoral and laments the loss of times when a healthy life amidst nature was a reality. The influential people, who set up machines and engaged more hands to work on them, knowing that they could no longer live in idyllic spaces, cultivated green spots in their huge mansions for their personal usage. They also selected beautiful, healthy areas as their dwelling places. The posh localities of the megacity were relatively green and spacious.

“A long, slightly serpentine lake spread its shining water from end to end within the soft circles of green; and the grassy belt served for fashionable inhabitants” (Okri 88). Thus, the divide between the rich and the poor was also a divide between the inhabitants of green and

healthy surroundings and those who were forced to live in shanty dwellings. Such a kind of gap has perpetually widened and survival in safe and healthy conditions has become a central issue in contemporary scenarios.

Tipu, in Amitav Ghosh's *The Gun Island*, is a mouthpiece for a large number of people living on the planet who once had safe houses but have lost them due to the unpredictable weather conditions and frequent upsurge of cyclones in the already abnormally swollen seas. The phenomenon of widespread human migration originated as a response to the need for work opportunities in urban areas, particularly in factories. However, the current trend of migration has shifted towards seeking safer regions on the planet, mostly influenced by the extensive utilisation of fossil fuels. The advent of mass industry, initially observed in urban centres such as Manchester, has propelled humanity into the epoch known as the Anthropocene: "you want to sell more books. I want more phones, more headphones, more everythingit's greed! If that's what a demon is, there's no way it's imaginary. Shit no! We're all demons" (Ghosh 111).

In the context of the Anthropocene, individuals face challenges in seeking relief from the inclination to amass material possessions and riches, exacerbating the existing issue. The sole source of pleasure remaining for individuals is to reside within the realm of their idealised imagination and seek peace within a utopian environment. In his work, Ben Okri skillfully crafts a narrative whereby a group of individuals, who are residents of an urban environment, engage in a playful contemplation of seeking peace inside Arcadia. Subsequently, they go on a journey to locate this elusive paradise, only to discover the disheartening reality that the same areas capable of offering them inner fulfilment have been irretrievably forfeited.

Four rivers flow into the Garden of Eden. In one of them, as an old commentary says, *the gold of the land is good*. A fifth river can be said to flow from Eden to Arcadia, and its allegories are wonderful, its gold good. When we are young, we set out with dreams.

In the middle of the journey of our lives we find perhaps that we have lost own way.

(Okri 8)

Urbanization, along with its specific culture, has created alienation in the human mind. “The idea behind Arcadia ... is the suspicion that we have lost something, the feeling that we tend to lose our best dreams (Okri 21)”. The city, in contrast to the countryside, is not a beautiful place to live, though it might offer “better” amenities.

Lao stayed silent. He stared at the urban ruins. They seemed endless tenements and dilapidated buildings. Edges of town in decomposition. He wondered why the worst aspect of cities were always visible from trains. He found himself paying more attention to the ugly sites they were passing through. He found himself eviling, reinventing the world in malice. He liked nothing that he saw. (Okri 31)

In Atwood’s *Surfacing*, the narrator is repulsed by the harsh reality of city life and cries out:

That was what used to bother me most about the cities, the white zero-mouthed toilets in their clean cubicles. Flush toilets and vacuum cleaners, they roared and made things vanish, at that time I was afraid there was a machine that could make people vanish like that too.....(Atwood 150)

As man-made culture undergoes a transformation, the relationship of human beings with their lands and its other inhabitants (animals) changes. Garrard argues that the human-animal relationship tends to operate at twin levels-

1. At the level of representation,
2. At the level of non-metaphorical physical existence of animals. (137-159)

Animals occupy a marginal space in the aesthetic discourse just like the physically or mentally challenged human beings or those belonging to the third sex. Yet, some animals, at

the same time, receive more attention and importance, like a trained army dog or an able-bodied stallion, etc.

Ecocriticism underlines that, while representing, the animals, which are depicted through a human lens, human emotions like love, anger, anxiety or fear are seen in them. The human mind has not yet explored what is innate in them. “The distinctive peculiarity of animals is that, being at once close to man and strange to him, both akin to him and unalterably not-man.....” (Willis 128).

Thus, it is important to centre the ongoing study less on their cultural representation and more on the actual physical existence of the animal species in the selected five texts. It is worthwhile to trace how they have been suffering during the Anthropocene and how the broad eco-balance, which they have helped to maintain since the advent of life on the planet has been disturbed due to human intervention.

Isabella Bank’s *The Manchester Man* comprises of a series of references, whereby, the novelist firmly implants the idea that tending domestic animals provides joy, and, thus, the novel connects itself to the simple, rustic and innocent, pre-industrial times, when rearing of animals and cultivations of land with their help, was the primary occupation. City-dwellers, in the industrial town could not domesticate enormous-sized animals, and the novelist has focused on Joshua Brooks’ and Jabez Clegg’s love for pigeons and Jabez’ special care of linnets, which he kept as a boy in his small space. The novelist has maintained the convention of the “rhetoric of animality.” While discussing the rhetoric of animality, Steve Baker remarks:

.....much of our understanding of human identity and our thinking about the living animal reflects_and may even be the rather direct result of_ the diverse uses to which the concept of the animals is put in popular culture, regardless of how bizarre or banal some of those uses may seem.....Culture shapes our reading of animals as much as animals shape our reading of culture. (Baker 4)

Likewise, in *The Manchester Man*, humans are compared to animals and vice versa. While domestic animals are shown reciprocating human emotions, wild animals are represented as evil forces. Jabez Clegg, the lover of domestic birds and insects, is shown killing a snake which happens to ‘steal’ milk from the kitchen of his residential school.

Without thought or consideration_____ without a cry of alarm to those above, he struck at the threatening foe with his whip; and as the resentful snake darted at him, jumped nimbly aside, and struck and struck again; and as the angry snake writhed and twisted, and again and again and again darted its frightful head at him with distended jaws, he whipped and whipped away as though a top and not a formidable reptile has been before him. (Banks 81)

The usage of expressions like “the threatening foe”, “the angry snake”, “its frightful head”, “formidable reptile” (91) brings to the fore the argument that wild creatures are treated not as animals with species-based innate nature but as having some immoral behaviour subject to human contempt.

The text also makes use of the animals as a metaphor to bring out the inner violence of the characters. Laurence Aspinall’s wrathful and unsocial behaviour is highlighted when, as a young boy, he throws five baby frogs in the fire. The animal is used as a motif to show how Laurence would bully and control the human world around him.

Animals (both domestic and wild) live in close proximity to human beings in African territory, and they are portrayed as being respected not for their utility to humans, but for their essential existence on the planet. Jonathan Bate, in his seminal and path-breaking work *The Romantic Ecology*, states that “ecology had other roots besides Darwin, as is clear from Haeckel’s use in his definition of the term ‘the economy of nature’. This venerable phrase takes us back into a long tradition of natural religion...”(Bate 31).

In 1749, Linnaeus wrote an essay titled “*Specimen academicum de Oeconomia Naturali*,” in which he puts forth that “we understand the all-wise disposition of the creator in relation to natural things, by which they are fitted to produce general ends and reciprocal uses” (37). Linnaeus states that there exists a complex relationship among the various types of organisms and this magnificent order and pattern, he terms, as the “economy of nature.” Whereby nature, through its creatures, sustains itself, and therefore, the western idea of looking at trees, waters, and animals as objects to gain material wealth is fundamentally faulty. Hutton’s ‘Theory of the Earth’ affirms:

there is a system in nature and that in the long perspective of geological time nature’s economy is benign__with such wisdom has nature ordered things in the economy of this world, that the destruction of one continent is not brought about without the renovation of the earth in the production of another. (Hutton 287)

It is within this aforementioned framework, the presence of the animals in the novels must be weighed. *The Manchester Man*, with its setting in an industrial town does not refer to life existing in the wild----saving one episode, in which, an encounter is shown between Jabez and the snake. However, it refers to the accentuation in the purchasing power of the families which were owning the manufacturing units. The homes of such family were adorned with pieces of artifacts made from ivory and turtle shells. Thus, it covertly speaks about the places where animals were being killed or poached, their body parts being shipped to the economically rich countries or the colonial powers. Undoubtedly, these were continents of Africa and Latin America.

The culture depicted in *The River Between* is diametrically opposite to that of *The Manchester Man*. The Kenyan communities are shown living in close relationship with the animals, both tamed and wild.

“Honia was the soul of Kamenno and Makuyu. It joined them. And men, cattle, wild beasts, and trees were all united by this life-stream” (Thiong’o 1). The indigenous people domesticated cattle and raised them as if they were family members: “sheep slept together around him and a low snore came from them.....a fat sheep which slept very close to the fireplace. Waiyaki poked the sheep in the ribs with the left leg so that he might get a place to sit....” (Thiong’o 13).

The tamed animals, like their human care-takers, seemed to love *Njahi*, the season of long rains. “Not only the women but cow and goats caught the life. They jumped about, kicking in the air with their tails twisted into different shapes” (77). Even the bees are described as being “careful not to harm the flowers” (77-88).

Thiong’o refers to the common wisdom that the communities living in the ridges had. They used it to avoid moving in the forest during the dark. Hunting was a common activity. Thus, in Thiong’o’s novel, animals are not treated in terms of “disnified beings” (Berger 14) but, as real creatures living on the earth, and both the human and the animal pose threats to each other and try to overpower each other.

It is significant to note that industrial processing of meat removes animals from the lives of human beings, which is why the city discourse in *The Manchester Man* does not give enough space to hunting and other meat-procuring activities. And, on the other hand, the rural setting of *The River Between* displays fondness for the forest animals and their hunting at the same time. The religion of the communities of Kenyan ridges accepts co-existence.

The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them. And the cow and the bear shall feed; their young ones shall lie down together; and the lion shall eat straw like the ox. And the sucking child shall play on the hole of

the asp, and the weaned child shall put his hand on the cockatrice's den. They shall not hurt not destroy in all my holy mountain. (131)

As touched upon earlier also, the African novelist gives implied hints to what Linnaeus calls 'the economy of nature'—all the organisms depending on one-another and making a pattern.

As the human beings ushered into the Anthropocene, the economy of nature has got disturbed and so, currently, environmental scientists are more concerned about the permanent damage, which human beings have done. Large sized animals, which are very much mentioned in the African text, are not present in the novel localized in the city, as the city continuously extends its limits and, needs more and more physical space for its proliferation and spread. In such cases, a considerable drop has been registered in the population of both massive and small sized animals, which are primarily engaged in the dispersal of seeds and thereby play a key role in maintaining the eco-balance.

Animals are regular "seed dispersal agents and seed predators for the same plant species" (Tanzen 465-492). Marke et al. concluded in a meta-analysis that, "Animals-mediated seed dispersal is vital for sustaining biological diversity in forest ecosystems, particularly in the tropics.....large seeded plant species were more susceptible to direct human effects than small seeded plant species, likely because large frugivores are quickly extirpated from forests disturbed....." (1012-81).

The African thick forest cover and its inhabitant species, which remained integral to African culture has played a significant role to maintain the eco-system. The deforestation and killing of animals sanctioned by the colonial masters disturbed this system badly. The less the number of animals, the slow the process of natural growth of trees would be. Both animals and trees work together to maintain the eco-balance, and, thus any kind of human-intervention becomes detrimental to the entire eco-system.

Margret Atwood expresses similar concerns about her homeland in *Surfacing*, which is plundered by the neo-imperial powers, under the guise of infrastructural development. Animals occupy a distinct space in this novel, as they are used as tropes to hint at the human-induced tyranny because of which many of which many animal species are becoming extinct in the era of the Anthropocene.

The text reveals the European colonial forces that have misshaped the North American continent so far as its bio-diversity is concerned. Later, driven by greed, Americans have continued the aggression even after territorial colonialism has ended: “this country is founded on the bodies of dead animals? Dead fish, dead seals, and historically dead beavers, the beaver is to this country what the black man is to the United States. Not only that, in New York it’s now a dirty word

” (Atwood 46). As per records of Sierra Forest Legacy, beavers were on the brink of extinction due to the fur trade in the 1900s. It is fortunate that due to their inner resilient nature, their numbers have increased; otherwise, there would have occurred a lot of ecological disbalance.

Beavers have the capacity to alter the structure and function of streams by cutting trees and building dams, activities that result in development of bog, meadow, and marsh wetlands. The result of their activities is increased biodiversity at multiple levels and scales. Beaver activities contribute to enhance resources for a variety of species including birds associated with riparian and meadow habitat, waterfowl, and fish including trout and salmon. Beaver dams have been shown to improve water quality downstream from their dams. (Ecosystem Planning Sierra)

Atwood projects how human agency is posing irreversible damage not only by killing this species but damaging the entire cycle it drives. The Northern Canadian communities, before the coming of neo – colonial power –mongering lords, believed in mutual co-existence of all species. The mother of the narrator is described as one such person who “would take

breadcrumbs or seeds out to the bird feeder tray and wait for the joys, standing quiet as a tree, or she would pull weeds in the garden; but on some days she would simply vanish, walk off by herself into the forest” (62).

Materialism has changed the relationship between people and animals so that it is now the same as the subject-object divide. Nature is looked upon as something, which can be captured in a camera and then advertised for the urban societies’ quest to explore it as tourists and “where the members could meditate and observe... and maybe do a little hunting and fishing” (120).

The infrastructural activities, hunting and fishing, coupled with the cutting down of forests to create residential towns and cities, have thwarted the existence of animals. The violent psychology to control the innocent, make the agents of development(disaster) hunt the innocent animals, simply for amusement, and, for showcasing their powers to others. “Carrion beetle, death beetle. Why had they strung it up like a lynch victim, why didn’t they just throw it away like the trash? To prove they could do it, they had the power to kill” (149).

Atwood powerfully claims:

The innocent gets slaughtered because they exist, I thought, there is nothing inside the happy killers to restrain them, no conscience or piety; for them, the only things worthy of life were humans, their own kind of human, framed in the proper clothes and gimmicks, laminated. It would have been different in those countries where an animal is the soul of an ancestor or the child of a God, at least they would have felt guilt. (164)

Thus, Atwood potently speaks about pre-Christian value- systems which have made protective faith around animals, trees, rivers, and hills as deities and gods worthy of worship and protection. The novelist digs out the hollowed-out values of greed driven people who kill and enjoy the killing practices.

The animals die that we may live, they are substitute people, hunters in the fall killing the deer, that is Christ also. And we eat them, out of cans or otherwise; we are eaters of death, dead Christ-flesh resurrecting inside us, granting us life. Canned Spam, canned Jesus, even the plants must be Christ. But we refuse to worship with blood and muscle but the thing in the knob head will not, wills not to, the head is greedy, it consumes but does not give thanks (180).

Several animals occur in the text as symbols but gain a body and existence as they are depicted as victims of hunting and objects for poaching. “I remember the person; by now it will be insects, frogs, fish, other persons” (217) being killed for fun and pastime. There are characters like Claude who are agents of American companies and who sell licenses to tourists to go to fishing expeditions, an exercise which has robbed the natural water bodies of the marine life they inhabit. Claude’s primary concern is his business, which he says is bad that year. He has managed to send the tourists to some other destinations where fish are readily available, which they can kill, 'enjoy', and collect without any complications. It is noteworthy that human civilization keeps on disturbing the natural cycle of life on the planet. The bodies of water and the life in them are treated as objects which are under human control; they are not considered to be the vibrant and dynamic systems which will be affected if altered.

Amitav Ghosh’s *The Gun Island* takes these concerns to the profoundest and farthest limits, illustrating that the animals shown are getting robbed of their natural habitats and are trying to find new homes, and are facing challenges of mass extinction. The principal character who brings these matters to the fore is Pia, a marine biologist. Along with a host of minor characters, she discusses abnormal behaviours and movement patterns of a large member of an animal species. “Things about animals, and fish, and the water__ he’d tell me that I didn’t need to learn what he knew because the rivers and the forest and the animals are no longer as they were” (Ghosh 86).

Piya, in the text, is depicted as a researcher in marine biology who is engaged in the study of the Irrawaddy Dolphin, (*Orcaella brevirostris*). A member of a pod of *Orcaella*, Rani, as Pia calls it, is very important to her research. She has kept intensive records for each individual in the pod, and, does not like to anthropomorphize the subjects she studies. Notwithstanding, it is clear from textual details that she has developed a special bond with Rani, the dolphin.

Piya's research shows that the dolphins suffer because of many human-generated actions like getting killed in collisions with motorboats or getting entangled in length of nylon netting. But recently, due to the change in the temperature of the planet and the composition of marine water in the Sunderbans, their regular movements and tracks have become increasingly erratic and unpredictable.

As sea level rose, and the flow of fresh water diminished, salt water had begun to intrude deeper upstream, making certain stretches too saline for the dolphins. They had started to avoid some of the water-ways they had frequented before; they had also, slowly, begun to venture further and further upriver, into populated, heavily fished areas. Inevitably some had been ensnared by fishermen's net and some had been hit by motorboats and streamers. Over the last few years, the pod had lost so many members that its members were now down to Rani and just two others. (92-93)

Piya, being a scientist, notifies that the Anthropocene is hitting the systems of the earth hard and the seas, which earlier used to be the house of life of myriad forms, have now become the cluster of dead zones. These dead zones are expanding at a phenomenal pace, "mostly because of residues from chemical fertilizers. When they're washed into the sea, they set off a chain reaction that leads to all the oxygen being sucked out of the water. Only a few highly specialised organisms can survive in those conditions—everything else dies"(95).

Piya's study underlines that these changes are occurring everywhere, as industries have been flushing out chemicals into the rivers and the sea-basins have become hubs for oil refineries. She explains that millions of creature 'beach' themselves in such adverse living conditions.

Another character, Lisa, an entomologist, figures in the text, and, speaks about the changed behaviour of insects, particularly, the bark beetles. Due to climate change, they have extended their range. As the mountains are getting warmer, bark beetles are changing their habitats and have started living in forests around the towns. They become active agents of igniting fires and, thereby, have become instruments in creating wildfires. The catastrophe does not stop here.

.....the remains of a wildfire are by no means a wasteland. For certain species of birds__ hawks, eagles and other raptors__ they present rare opportunities for hunting: the loss of tree cover makes it easy to spot those rodents and reptiles that have survived the fire by burrowing underground. For birds of prey the conditions are so favourable that some species of raptor have even been known to actually start, or spread, wildfires by carrying burning twigs afield in their beaks. (117)

Sea snakes with yellow bellies, wild spiders, crabs, and fish of all sorts are relocating due to the warmer climate, and are posing life-threatening dangers to the human race.

.....the brown recluse has been increasing its range very quickly because it's getting so much hotter in Europe. And there's a related species, the Mediterranean recluse, that's already widespread across Italy. Those're quite dangerous as well. A couple of years ago, in Southern Italy, a woman died after being bitten by a Mediterranean recluse. She ignored the bite at first, thinking it wasn't serious, and within a day, she was so sick she couldn't be saved. The antivenom had to be flown in from Brazil. She died before it arrived. (204)

The city of Venice, as Ghosh points out, has been invaded by ship worms due to the warming of the lagoon's water. Since the foundation of the city is made of wood, it might collapse as these small beings are eating up the wood from inside.

Rising of temperatures is the key reason why animals around the world are trying to find new homes. The fossil fuel driven human civilization since the last two centuries is dumping toxic matters in the soil, air and water and things are changing as one has “never” imagined or sensed before. (217)

The image of a dying planet gradually comes out, as the selected novels start exhibiting the human actions. There is a permanent presence of an environmental apocalypse which is going to destroy everything present. The Victorians were engaged in producing more and more, and thereby massively consuming fossil fuels. As, it has been mentioned in the previous chapter, as the natural objects were getting contaminated, the human imagination was there to foretell the events of the disaster. The people living in the ridges of Kenya had witnessed their soil getting eroded badly and the seasons of rain changing every year ever since the Whites arrived. The nature which they valued, as the seat of supreme power was now receiving the impressions of human intrusion.

Similarly, *The Age of Magic* and *Surfacing* lament the loss of sylvan spaces and frequently cite the ills of city culture, which is depleting the entire eco-system. Ben Okri's cry to stop the greed-driven practices and Atwood's appeal to shun the ways prompted by globalisation come out of a perception of the planet which is on the brink of a climate apocalypse.

As Lawrence Buell has stated, “apocalypse is the single most powerful master metaphor that the contemporary environmental imagination has at its disposal” (Buell 285). *The Gun Island*, makes extensive use of this trope. Ghosh, being a strong voice, presents the picture of every small organism on the earth on move. He portrays the plight of climate migrants of India-

Bangladesh borders in search of safer zones, people like Liza, whose life is threatened by the sea snakes, and a lot many who are suffering due to wildfires of Los Angeles. Not only human beings, but the animal world too, is shown reacting to the environmental apocalypse. *Irrawadi* dolphins are shown succumbing to death because of the change in chemical composition of the Bay of Bengal. Only some of the most resilient species, Ghosh points out, would survive the climatic apocalypse. The water-submerged globe imagined by Ghosh is parallel to the flood narrative of *The Genesis*.

The tropes of pastoral and animal-human relationships elucidate how human beings establish their relationships with the environment around them, keeping their own species as the central executive agency. The trope of the dying planet intensifies the profoundness of the problem. 'Dwellings' and habitats, too, as tropes, can be taken in, to decode the patterns of man-nature bond. As, ever since human beings have begun to superimpose their domination on the planet, they have simultaneously constructed concrete structures to keep themselves protected and have not allowed any outer intervention to invade their private space.

Ecocritics study the connection between the dwelling space and its inhabitants to decrypt the ways in which their ancestry has coincided with its soil, seasons and then evolved their rituals and ways of life. This is the reason why rural, urban, gypsy, tribal, etc. cultures have distinct features, including their stories, memories, festivals, and religions. Therefore, it is worthwhile to understand, how the human and other than human species become rooted in or get uprooted from a specific territory.

Thiong'o's *The River Between* depicts a world of strong inter-relations, transformation, and mediation between a specific territorial space and its inhabitants. The primitive and age-old rituals of the local communities and their ecology have structured their lives in a particular form for the last many centuries, which is why the colonial interventions and re-structuring of cultural and political systems are not welcomed in the area.

“But the missionaries had not as yet penetrated into the hills, though they sent a number of disciples to work there. The people remained conservative and loyal to the ways of the land” (Thiong’o 27). Throughout the course of *‘The River Between’*, there is a perpetual tussle between two alternate ways of dwelling; one which is truly indigenous, valuing self-governance and equally valuing the natural environment; and the other, which looks at every object as a resource to be seized and utilised by the imperial masters.

As per the primitive beliefs, Chege, the father of Waiyaki, informs that their sacred places have been seats of gods and all the natives are expected to keep and uphold the rites of the land. The collective memories of the communities are etched with the hills, trees, and rivers that they live close to. People have tried to create and maintain a balance between their needs and the place that fulfils them. They have an immense storehouse of knowledge about their local harvests, along with a thorough capacity to identify the local herbs that have therapeutic value.

“The bark of that tree is good for a fresh wound.”

“The roots of this plant are good. When your stomach bites you, you boil them in water, drink the liquid.”

And sometimes it would be a warning against that tree, “whose fruits is full of poison.”

(Thiong’o 14)

Such local systems of cures, social bonds and domestic contentment for the indigenous folks, were possible solely, by their kind of relationship with their space. Any alternative system was bound to disturb the existing set-up in entirety, and, would create dismal rupture of their primitive interrelatedness. The ideal world for them was “all living together, tilling the land of their ancestry in perpetual serenity, pursuing their rituals and beautiful systems” (85).

The gradual and firm penetration of the white-skinned people transformed the linkages of the people of the ridges with their dwellings. “The White man was slowly encroaching on

people's land. He had corrupted the ways of the tribe. Things would now change. It may take years, but far, far into the unknown future, things would become different" (Thiong'o 91).

To judge the interplay of life of human beings with their surroundings, is not a plain-sailing, since, ecological viewpoints can seldom be understood without tracing the phases of changes, which were brought about by multiple forces. The rural and urban dwelling are not the concepts for inhabitation in a specific area, rather they are synonymous of specific life-style and value-system by which nature can be understood. Bate opines, "Whereas in the city, the family is subordinated to the system of getting and spending, in Grasmere, the people are 'embraced maternally, by the hills around. Nature serves as both parents'" (Bate 21). Thiong'o's characters show reverence to their 'sacred' woods, trees and watercourses since they consider them living entities which listen to them in "secret language" (77).

Isabella Banks' characters live amid the din of urban spaces of every type: big mansions, having great parlours, shanty and unplanned colonies, manufacturing units, mills and tanneries; and so on. Deep in their hearts, they are aware of their lost contact with nature, as their work schedules are strict and long; and their working hours are monotonous and not in harmony with natural seasons and rituals. In a rural setting, one is at peace with one's own self, as rural life gives freedom and happiness. It, at the same time, "represents the spirit of unalienated labour" (Bate 22).

The urban dwelling, on the contrary, makes use of man as a tool to perform a certain set of activities and processes, and he remains unconcerned about other workers, fellow labourers, or neighbours. Human beings, thus, get 'imprisoned' in their work-places and have no other option but to lend their services at meagre wages.

Such scathing graphical details are presented in *The Manchester Man*; the Victorian text delineates the de-humanization and deprivation of a large population of England. As John Banyan opines that dehumanisation was the price which the common people of Britain paid for

the progress of their country. The political lords and men like Richard Arkwright, whose machines required a lot of raw materials and were perpetually engaged in never ending mass-production.

The people could no longer see “a mild and cherry April moon” (Banks 47) and the cities were ushering up on the green areas which once starred with “daisies, buttercups, primroses and cowslips. By wells and brooks, daffodil and jonquil hung their heads and breathed out perfume” (71). New residents, primarily the village folk in search of work, kept on migrating to such cities but they could only afford to live in small dingy spaces built on obtrusive sites which faced perpetual dangers during flood times. All cities which were developing rapidly witnessed irregularities in the planning of spaces both living and the ones which were made available for industrial units.

The influential families, the city dwellers, who could lead a life full of leisure, redefined the man-nature relationship in an altogether ‘unconventional way’. The natural space became object of large-scale organized tours and outings. The vast landscape was cut to pieces to serve as recreational spaces. Such practices are mentioned in *The Manchester Man*. In *Surfacing*, as well, Margret Atwood wails that her own remote home town has been linked to express-ways, and, the Americans visit it for hunting, fishing and for spending their surplus money.

We are confronted for the first time in history with the possibility of there being no part of the earth left untouched by man. ‘Human civilization’ has always been in the business of altering the land. Whether through, deforestation or urbanization or mining or enclosure or even the artificial reimposition of ‘nature’ through landscaping.....(Bate 56)

The journey of the Anthropocene, which begins in British towns like Manchester, robbed away the beauty of natural objects, which used to be considered once as deities by a large number of communities. Chege could see the seers of his community through the sacred

trees and bushes. The nameless narrator of Atwood's *Surfacing* feels the inner urge to live life the way her parents have done, but finds that she has re-adjusted herself according to the city, which is full of temptations.

Atwood's characters belong to two different habitats, and so, their relationship to their ecology is also different. Men like Paul are rooted in a culture that gives respect to frugality. "Paul saves everything useful. The house has added a pointed structure like a church spire, made of former car parts welded together" (Atwood 18-19). The other kind of relationship is when human beings consider nature as a 'thing' meant for seizure and destruction.

Atwood highlights that, for some, nature is worthy of reverence and preservation, and, for the rest, it is a storehouse of objects suitable for poaching and selling. Margret Atwood's narrator develops her own testament of the 'the sublime' through her intense bond with the soil of her motherland. She loves the seeds which grow in the local soil and respects the culture of living with austerity, unlike the hedonists who come to the place and bring with them, their culture of consumption.

After we landed, we found that someone had built a fireplace already, on the shore ledge of bare granite; trash was strewn around it, orange peelings and tin cans and a rancid bulge of grocery paper, the traces of humansgarbage was the only thing they had to with it. (Atwood 140)

As the respect for nature got replaced by the greed for material production, the vast landscapes were cut and divided amongst themselves by the wealthy and then were used for generating more wealth. Greed, as an ideology, paves way for conceptualizing the rural space, as a seat of temporary peace, and which needs to be treated as a stopover or an escape from the acrid city-space. "Packing off men after this fashion, for holiday entertainment, is in fact treating them like children. They go at the will of their masters, and must return at the same, or they will be dealt with as transgressor....."(Wordsworth 158).

This is precisely the situation from where Ben Okri's novel *The Age of Magic* begins. A group of film makers board a train from Paris to reach at Basil, Switzerland, in search of Arcadia to find the "ideal of happiness" (Okri 13). They carry the burdens of envy, anger, insecurities and fears as they are the inhabitants of urban spaces. They carry cameras and other film related instruments, and, want to capture the landscapes to create a documentary. They speak to native people to know more about their relationships with their local surroundings and get disillusioned about the excessive cruelty with which the urbanites have plundered the beautiful ecology of rural places. The rich could afford to spend time and money in such places and thus, there arose hotels, holiday special inns offering 'gambling, debt and women' and "so with fame, with money, with neurosis, they ruined the town" (250-252).

Once the money-centred activities that began in towns like Manchester deprived many of their natural homes; these people used to love the way "blanched Sun-blighted grass looked like"(16). Human progress altered the configuration of natural systems, displacing large populations of both humans and animals from their native habitats around the world.

The Gun Island has certain sets of characters, who originally belong to a common habitat, but are forced to disperse due to rising sea beds. The novel introduces Tipu, Rafi, Lubna, and a large number of destitute who have been displaced from their villages as the sea has overstepped its boundaries around the Bay of Bengal. In North America, areas like Los Angeles have become problem places due to the ever-rising fires, which are making everyday existence, perilous. European lands, which were once the centre of imperial powers, are changing their demographic profiles on an unimaginable scale. The entire world, during the Anthropocene, is getting depopulated from certain spaces and repopulated from other areas that are deep into the land-locks.

Analytical Outcome

The theoretical framework of ecocriticism, thus, has helped to study the changing nature of nature-human relationship in the selected texts (the third research question). Having moved away from the universal home, the characters in all the texts are shown longing to go back to the life which is full of simplicity. The process of becoming alienated from the indigenous dwelling place is highly troublesome, especially when it is forced upon the large groups of populations. Migration from the rural to urban spaces (as mentioned in *The Manchester Man*), from Kenyan ridges to the cities of imperial dominance (as highlighted in *The River Between*), and from the sea-sides to the interiors of the continents (as recorded in *The Gun Island*) have not only altered the demography of the populations of the respective territories, but have changed their mind-sets towards the planet. The temporary halts of the city dwellers in the lap of nature (as depicted in *The Age of Magic* and *Surfacing*), likewise, have added to the crisis. Ecocritical evaluation of the selected novels underline that human world have made deliberate performative mediations in the natural environment and have considered itself as the subject equipped with robust civilizational tools to control everything.

Chapter 5

The Anthropocene: A Comparative Approach

This chapter is dedicated to extending the ongoing study by comparing the selected texts in order to bring out the similarities and differences among them, as such an attempt is essential to understand how the authors belonging to different continents project their concerns about the ecological issues during the Anthropocene. Though the authors come from different worlds and ages, as true artists, their literary projections are objective, and they have accurately captured the stages of climate change and its disastrous consequences for all kinds of life on the planet.

The quest motive is central to the texts but it has been repurposed to bring out the malaise of climate change. Traditionally, the quest motif plot requires the hero to undertake a long or perilous journey in order to complete a mission. The journey's or mission's goal may be to find lost knowledge, rescue a captive comrade or beloved, get rid of a cursed object, or collect some particular artefact or prize. Walter Burkert discusses the reasons why quest narratives are so effective. They have descended from human being's primordial hunter-gatherer progenitors. Pre-agricultural communities that relied on hunting for sustenance frequently needed boys and young men to go through an experience comparable to that of the hero. This hunting expedition would occur dozens or hundreds of times each year, necessitating good social reinforcement for the participants. Stories of epic hunts would reaffirm the importance of such travels, despite personal anxieties.

The selected novels revolve around the quest journeys of their respective central characters. Jabez Clegg, the protagonist of *The Manchester Man* undergoes a series of hardships and struggles to rise the social ladder by acquiring the position of a successful

business tycoon in the industrial town. Providentially, during his infancy, he is rescued from getting drowned in the flooded river Irk. Simon Clegg takes care of him and with the help of Joshua Brooks, he is admitted to a local residential school from where he comes in contact with his future rival, Laurence Aspinall. Having overcome, numerous challenges and impediments, he rises to a top-notch position in world of big entrepreneurs. Jabez is depicted as a hero living during the era of the Industrial Revolution who has a robust inner quest to rise by overcoming every hurdle with his steadfastness and sincerity. Coming to the primary focus of the research, it is noteworthy that the quest of Jabez forces him to accept the city as his home, though. He becomes the representative of the human beings who, in their quest to change the setting of the things around them, have got separated from nature. The quest to gain and explore new frontiers sowed the seeds of Materialism and Individualism which thereby gave birth to a generation whose collective efforts led to disturbing the natural eco-system.

The quest motive is also used by the African novelist to shape the structure of *The River Between*. However, in the African world beset by the tyrannies of the white government, the central character, Waiyaki, fails to meet his end. It is noteworthy that the milieux play a vital role in the quest narratives. The hero is supported by favourable situations, and, minor characters, etc., to overcome all the barriers. The locale of the novel is deep in the interiors of Kenya, where the communities are shown facing the challenge of saving their age-old rituals, which are already banned by the new government. The situation is not supportive, and the people living around Waiyaki find it difficult to challenge the European missionaries and the district collectors of the new system. Waiyaki rises against all this and makes strategy and careful planning by which the communities remain “true to (your) people and the ancient rites” (Thiong’o 20).

Waiyaki accepts the commands of his father, Chege, who claims that he knows that “a son shall rise. And his duty shall be to lead and save the people!.....Few knew the prophecy”

(20). Waiyaki is given the charge to “save the people in their hour of need. He shall show them the way; he shall lead them” (21). Thus Waiyaki, in the very beginning of the narrative, becomes, a hero with a solemn mission. The rest of the novel rests on the struggle which he undertakes to fulfil his mission and to keep it alive in all situations. Though he is treacherously trapped by the rival forces personified in the figure of Kabonyi and many local people who have embraced the religion and lifestyle of the European masters, his longing to achieve his mission doesn't die. In this way, *The River Between* exhibits some structural deviation from the conventional quest narrative.

Ben Okri's *The Age of Magic* doesn't follow the fixed linearity of the quest narratives as it lacks the optimum series of physical actions which essentially bind such texts. The journey of one hero is substituted by a train journey of seven friends who yearn to witness Arcadia, a lost paradise. The novel depicts two parallel journeys—one external, belonging to the physical world and the other internal, related to inner quest. Okri, having set seven characters to motion, gradually, starts depicting, how all of them start burning with their respective inner quests which lead them to unravel the mystery surrounding their lives and experiences. They want to experience the secrets of life and crave for discovering 'the Ideal world'.

In A we begin and to A we return. Four rivers flow into the Garden of Eden. In one of them, as an old commentary says, *the gold of the land is good*. A fifth river can be said to flow from Eden to Arcadia, and it's allegories are wonderful, it gold good. When we are young we set out with dreams. In the middle of the journey of our lives we find perhaps that we have lost our way. At the end we find the origin; and we begin again.
(Okri 18)

Gradually, the film crew begins to understand that the journey in the physical world is not going to bring them any reward, and that the journey within in search of peace is going to

enrich them. Their quest to dwell in Arcadia, by and by, gets substituted by going deeper inwardly so that they are able to change their perceptions towards life.

We travel forward, but live backwards. Traveling is no escape; only the panorama changes. We are struck in ourselves. There is no escape, but maybe there can be a change of direction. Maybe true travel is not the transportation of the body, but a change of perception, renewing the mind. (35)

They encounter deeper reality. “Arcadia is a dream, and dreams infect reality with their truth” (71). Though the narrative focuses more on the interior journey, yet it is rich in expressions akin to the depiction of the magic-lands and mysterious spaces_a characteristic feature of the quest narratives.

They walked down the road that ran alongside the lake. The mountain loomed in the dark, unseen. Bright clusters of towns, rising tier upon tier, dazzled from the other side of the lake.

To their right was the distant Klewenalp

As they walked, they heard music. It seemed to come from the lake. Lao, thinking about the lake and the mountain, said:

‘A lake’s mystery depends upon her surroundings.’

‘What do you mean?’

‘If a lake is surrounded by forest....’

‘It takes on the quality of a fairy tale.’

‘But if it’s at the foot of a mountain..’

‘It becomes sublime.’ (98)

The novel affirms that the seven characters feel transformed and their quest to go deeper into mystery bears fruit.

The alchemy of Arcadia worked on the group in unexpected ways. Malasso was one of those ways. Had they all created him? Was it true that he was a group entity? Whatever he was, they had empowered him. They endowed him with influence, nourished his personality, enriched his agency. They made him the deity of their journey.....He was their ambiguous genie. And because his power came from the hidden source, he was a monarch of their minds. Darkness and sunlight were to him equal nourishment. (132-133)

They got empowered to “transcend Faust, and solve the enigma of Devil” (144).

The next selected text, entitled *Surfacing* by Margaret Atwood, centres around two types of quests: the inner quest and the one by which the narrator resolves her predicament about his lost father. The quest motive is highly potent in the text as it begins with ‘a journey with a mission’. The narrator undertakes the task of finding out the whereabouts of his father, who disappeared in mysterious circumstances all of a sudden. The nameless female narrator is seen trying to solve many riddles during her journey, one of the chief characteristics of quest narratives. In the outer world, she projects ideas about an ideal life that is close to the natural world. She carries with her the baggage of guilt due to her decision to abort her unborn baby; she dives into the water and feels as if she has undergone purgation. Her discovery of her real self is the reward of the journey she has ventured into. Similarly, the quest journey in the outer world causes enormous change in the state of affairs.

The Gun Island, like all of Ghosh's texts, is set in a vast historical setting, and it moves with the compulsive energy of a thriller. The tale of Chand Sadagar and Behula has been a part of Bengali folklore for decades. Ghosh adapts it to universal and recognisably contemporary conditions. Ghosh reimagines the traditional fairy tale in *The Gun Island*. In *An Antique Land*, the jaws of death and the gift of life tear apart two lovers. He adapts its well-known themes to contemporary events and universal settings. “I could hear Bengali everywhere,” he recalls,

referring to the Indian and Bangladeshi dialects spoken in his native India and Bangladesh. Ghosh was reporting on the migrant situation in Italy when he discovered Bangladeshi-dedicated mosques and temples in cities such as Palermo. Deen, during his ordeal makes a series of discoveries of facts about contemporary challenges posed by human induced ecological apocalypse. The coexistence of the real and the imagined, the natural and the supernatural, is the most remarkable aspect of the novel which is the essential feature of quest narratives.

The concern about the search for a 'home' is central to all the selected texts. Nature is considered as a universal home for all living beings, and a sylvan environment is something which is aspired to by human beings. Any attempt to get separated from the lap of nature is considered to be undesirable. The selected Victorian text sets forth the idea that in Britain, the Industrial Revolution uprooted people from their original homes. Away from the European cities, the African world, too, could not remain untouched by the economic policies of the imperial masters, and the Africans, too, felt uprooted and lamented the loss of their roots. The Great Acceleration and the political freedom of colonised territories were twin events occurring gradually in the world, side by side. The once colonial powers mastered renewed energies and, by changing their mode of control, continued to spread the culture, which resulted in the uprooting of nearly half of the world population.

The Manchester Man traces the roots of the factory workers of the first industrial city. Manchester, which was once a relatively small town, began to expand enormously as some manufacturing units processing leather and cotton were set up. More and more industrial activities require a lot of hands. A large number of people came from the countryside in search of money, leaving their actual engagements (primarily agriculture) behind. They had to pay a heavy price, as characters like Simon, along with many other workers of the tanneries, knew that the real bliss was to live close to the natural world. These were the reasons why Jabez

Clegg was taken on long walks by Simon, so that he wouldn't lose his essential humanity and somehow keep himself connected with mankind's universal home. The way these characters appreciated the waters of Irk, the mountains, and the landscapes filled with beautiful fragrances of flowers, it seemed that the inner urge to revisit and reunite with their roots was overpowering them.

Similarly, the African communities are shown to have a strong sense of roots, and their moral and cultural ethics guide them to live close to their lands and rituals and not to distort any of them. The local traditions are transferred to the progeny with the help of folktales and folksongs, the purpose of which is to respect the roots. The systematic intervention of the new religion of the Whites aimed to uproot them and make them disdain their culture and accept what the colonial rulers gave to them in the name of 'modern ideas'. The feeling of being uprooted from their lands became stronger as some of the locals converted to Christianity. The local church preached that there was no god or any living existence in the soil, water, mountains, trees, and skies. The imperial government forced the common people to pay Hut Tax. Both these novels present the realities of people belonging to different political, social, and economic milieus. Nonetheless, their essential bond to their respective land is very strong. Alienation from sylvan settings and working under inhuman conditions is highlighted as the chief cause of inner grief.

To overcome this rootlessness, human beings attempt to go back to nature, and this hidden urge makes them long for such places which are away from the mundane city life. The film crew of *The Age of Magic* and the nameless narrator of *Surfacing*, time and again, refer to the monotony of the everyday machine-like existence that is sucking away from them the essential humanity. More and more vanities have given way to ill feelings, and thus all these texts create multiple images which appear to be parts of a big collage to show human uprootedness in a social order based on greed and the power to control.

Amitav Ghosh doesn't put the idea of the original home the way the writers of the other four selected novels have done. He shows the actual apocalypse whereby the loss of a home is not a psychological experience but a real one. He opines that urbanisation caused by industrial activities has resulted in the establishment of such systems that have proved to be catastrophic not only for some human groups but for the entire cycle of life on earth.

Sustainability has emerged as an issue because of nature-human interaction and because of the limited resources of the planet and man's greed to squeeze them without giving time for their regeneration and revival. Margaret Atwood's *Surfacing* vehemently speaks about the lordly countries who create political and economic policies favouring their own ends and, with the tool of psychological conditioning of the natives of the less privileged nations, manage to grab and mis-manage their natural resources, thereby causing permanent damage to the ecosystem of the entire earth. The earth is not simply a universal home for all living beings, but a process by which it maintains its existence and nurtures and supports life of all kinds. Greedy and unequal seizure of the objects which anthropomorphically are termed 'natural resources' has led to the irreversible loss of various kinds of living beings. Pollution of various sorts has increased along with enormous volumes of non-biodegradable substances, particularly radioactive along with many such types of undesirable elements. At the time when human agency has ushered in the Anthropocene, every small activity that puts a burden on the limited natural resources weighs upon the total system in a very unhealthy manner. Therefore, there is an urgent need to develop sensitivity towards sustainability and resource management so that the fundamental needs of all species can be fulfilled. Post-humanism must be at the centre, and the method to achieve this goal is solely through living with frugal means and re-using and re-cycling the resources so that they may be sustained for future life on the planet.

Margaret Atwood's *Surfacing* states that neo-imperialism has affected the ecosystems very badly. The political erasure of colonial rule has not changed the colonial psychology.

Rather, the neo-colonial powers have accelerated the emptying of everything that could potentially serve as a resource. One nation's hegemony impoverishes the other territories and establishes its absolute power to deprive all forms of life existing there. Seizure of fresh drinkable water in lieu of money, selling of licences for fishing, hunting, and so on are telling upon the natural systems. Methods and procedures of recycling and reusing are not welcomed by many. Atwood goes on and brings forth how narrowly human beings are depicting the concepts of growth, development, and prosperity, and such attitudes are rapidly damaging the ecological balance. The disaster is just around the corner, and even the best minds lack the capacity to deal with its dangers. The worst part is that people who serve and work for betterment in these spheres are trolled and discouraged.

Atwood's nameless narrator's childhood is spent in Quebec, a Canadian region primarily dominated by people who came from France to get settled there, who made it their home and respected the land and its resources. They didn't stoop to exploit them before the scenario transformed due to the systematic entry of neo-colonial masters with a mission to join its remote villages with expressways and make this veiled territory come into the limelight as a tourist destination. Atwood's thoughts are akin to the ancient belief systems wherein human beings fulfil their responsibility to safeguard the trees, animals, mountains, rivers, and seas and try to take only the part of the resources which are needed for bare survival. Greed-driven consumer culture proliferated by countries like America is contrary to the essential essence of humanity. Nature is the driving force by which a human being can attain happiness and harmony. Trying to harm it or plundering its vital parts leads to far-reaching and disastrous consequences.

The novel has two types of characters who are assigned two distinct types of roles so far as their relationship with nature is concerned—the destroyers and the saviours. The narrator's mother, Paul, and his wife, referred to as Madame, belong to an era which is slowly

drawing to a close. Atwood employs a unique aesthetic technique to demonstrate that the value system of resource-saving is dying: the characters who believe in such sustainability are either old or dead, and their lives and belief systems take concrete form through the narrator's memory. These characters have the habit of using and re-using every small item; growing and cooking their food themselves; keeping some food aside in bird feeders etc. They had lived their lives with regard for the planet's resources and all other creatures. On the other hand, characters like Claude and a number of unidentified people who appear in the novel are interested in increasing the length of the express ways so that people can enter the interiors of Quebec for touring, hunting, and fishing. These people don't hesitate to kill innocent birds and animals. They show antagonism towards people who clamour to end such practises in their areas to ensure their natural bio-diversity. These characters are relatively young, and they are influencing the coming generations too, by imbibing new ways to live life. The generation gap, too, in this way, becomes a trope to suggest the mad vogue which has infected the current generation and gravely damaged the ecological system. Agents of the material-centred economies want every natural space under their control and don't mind having such ideologies hammered into the minds of the people of such regions. In exchange of money, the hegemonic powers force the governments of these territories to sign treaties so that they can have legitimate rights over the water courses, hills, and valleys just like the colonial powers used to allocate natural objects through legal charters.

The novelist suggests certain solutions for keeping the waste of resources under strict control. She hints that these measures are not new but have been a part of the collective living of human societies before consumer culture and greed took their deep roots. The French living in the area created art forms and structures made up of the items which people today throw away as litter. The narrator and her friends visit an abandoned structure called "the bottle villa," made of empty glass bottles. Paul's house is a place where every item is made up of things no

longer in use and are upcycled. The community, in order to show love, does not exchange expensive gifts; rather they exchange home-grown vegetables and fruits. They have the habit of using the items to the maximum __upholstery, clothing, and so on are not replaced with trends and fashion. Food doesn't come in cellophane packages but is grown and cooked at home. Such steps and habits of living life frugally are the most powerful solution in the sphere of resource sustainability. Atwood rejects the lifestyle popularised by liberalisation and globalization, which believes in madly purchasing a lot of unnecessary items and then throwing them away into the landfill, adding to the problem of climate related disaster. Human mettle must change and resource sustainability should substitute greed-driven pursuits. It is the sole solution to save the planet from an anthropogenic ecological apocalypse.

Atwood's text can be juxtaposed with the African novel *The River Between*. The Kenyan civilization is woven around two contrary forces. The western world defiled the local value system of the communities living in ridges, and the age-old system of agriculture was replaced by a market-driven economy. The farmers started harvesting the types that could be sold out in the marketplace. Trees were uprooted to procure timber for western households and to expand railways in the colony, as infrastructural development was a priority in order to control, exploit, and rule the territory. Local traditions, which used to serve as protectors of the natural world, were labelled as impediments to growth. The human centredness of the religion of the missionaries preached to look at human beings as the sublime creations who were ordained to give new shapes to the world around. But men like Waiyaki struggled to keep the ways of the ridges intact and pure, but their vulnerability in front of the system was evident. Nature, which was the source of life in the entire eco-system of the local culture, was taken as something subject to easy seizure. Animals could be hunted, trees could be chopped off, and the entire government machinery had been made available to facilitate such perverse actions. Like *Surfacing*, the Kenyan text too has two types of characters: the saviours and the

plunderers. The Occidental colonial masters and their African indigenous followers plunder the natural world around them, whereas the Chege and Waiyaki act to safeguard the local rituals and practises that are essential for the health of the planet.

The local traditions where trees and mountains communicate were looked down upon by the missionaries' system of education and the new culture was taking roots which was tarnishing the age-old customs of valuing the sustainability of the planet. The indigenous communities' collective heritage of living in the ridges with minimum essentials received a set back by two simultaneous historical events reported in the text: the new taxation system wherein the locals must pay the Hut Tax or accept coercive labour. European settlers used stereotyping the conventions as symbols of primitivism and many rich nature-centric conventions got easily defunct.

Both Atwood and Thiong'o plead to look at the colonial/ neo-colonial interventions from closer perspectives. They put every single detail that the dominated are not given the choice to opt for a particular life-style. They are told to shun their ways and accept the new system as if the new system is going to help them. The similar idea gets amply manifested in Ben Okri's *The Age of Magic* and the local people of the popular 'tourist spots' lament the idea that their territory is taken as an object ready to be used for temporary pleasure and then left out. The waters and lakes, the mountains and the forests are homes of life of myriad kind and the locals have learnt from their predecessors how to live and respect their surroundings, but the people who as Wordsworth says are taken as kids to tourist stations are trained to behave like consumers. How can one expect from them kindness for the land which they visit. There runs a parallel between *Surfacing* and *The Age of Magic* in so far as the behaviour of tourists is underlined. Both the authors mention about the rampant usage of commodities by the tourists who remain unmindful by the volume of the loss of resources their activities will lead to.

Unregulated tourism poses a threat to many. Tourism may place a pressure on already-scarce local resources including food, energy, and other essentials. Excessive extraction and delivery of such resources exacerbates the physical effects of their use. Due to the seasonal character of the industry, some locations attract ten times as many tourists during the peak season as they do during the low season.

To meet the high expectations that tourists frequently have, these resources are in high demand (proper heating, hot water, etc.). This can place a lot of strain on local resources and infrastructure, and it's not uncommon for locals to go hungry to support the tourism business. regions across the world. It can put a lot of strain on a region, resulting in things like soil erosion, pollution, discharges into the sea, loss of natural habitat, and increasing pressure on endangered species. (Butler 5-21)

Okri asserts that tourism causes the depletion of vital land resources. Among these are fertile soil, woods, marshes, and animals. As animals are frequently displaced when their houses are demolished or their natural habitats are disrupted, Atwood implores a halt to the construction of out-of-character high-rise hotels and structures in such places. Both the authors agree on the fact that in the tourist spots, the already scarce local resources such as electricity, food, and other essential supplies are severely strained by tourists. This puts a significant pressure on local resources and infrastructure, and it is not uncommon for residents to go without the essential stuffs in order to support the tourism industry. The local populace is viewed as secondary people, while other creatures, such as animals and plants, continue to be on the receiving end.

Escape from a perceived humdrum environment, investigation, appraisal and evaluation of oneself, relaxation, regression, prestige, strengthening of family bonds, and facilitation of social contact are all classified as some of the chief motives due to which the characters of the selected texts urge for escape in the midst of natural surroundings. The trope of 'escape' is thus

recurrent in all the selected novels. Alienation from one's surroundings leads to a desire for a utopian world. The Victorian patterns of life have already snatched away peace from the lives of the labour class. Jabez Clegg is taught by Simon to value and respect "nature" as it is the sole source of inner peace. The characters frequently board into the natural world to escape the harsh realities of their lives. The tribes of Africa feel alienation when the imperial forces coercively use them to develop roads and railways. Atwood's narrator wants to escape into the natural space for meaningful self-discovery. And for similar reasons, in *The Age of Magic*, the film-crew searches for Arcadia, a utopian ideal. Deen, in *The Gun Island*, laments his inability to look at the bounty of nature as it has been irreversibly damaged. The very basis for considering natural space as an escape has come from the Romantic construction of nature and the highly simplified view of the binary options of the city and the country. This idea is linked to the concept of nature as a universal home, losing it amid everyday existence is like going away from a paradise.

The difference in the attitude of the people of the pre-industrial and pre-colonial periods to that of the advocates of free trade practices needs to be elaborated. The kind of liberalism that market leaders demanded in order to expand their businesses had nothing to do with environmental concerns. *The Manchester Man* puts on record that various chambers of commerce and industry were set up and given freedom to execute their activities. Waterways were chartered and were allowed to be used to flush out industrial waste. and more emphasis was on mass production. This unbroken chain of economic activities nonetheless created a social culture that was 'product-centric.' The dwelling places of the leisure class became storehouses of the choicest rarities. On the other hand, the labour class was kept on the margins and they could not afford the privilege of owning such products. They relied on their visits to the riverside or natural spaces. Thus, society is seen to be divided into two sections: one which could own materials and the other which couldn't. The same 'product—centric' attitude is used

as a tool by both the colonial and the neocolonial powers to psychologically condition the people to loathe and get alienated from their original belief systems, which is 'earth-centric'. The prices of products that could be exported to Europe suddenly increased in Kenyan communities' marketplaces. "Indian traders too had come and were beginning to carry on a thriving business" (Thiong'o 197). Price got attached to the things of their everyday use, which, in their traditions, were gifts from nature just like air and water. Atwood, in *Surfacing*, too, presents situations whereby the harvests are exchanged between friends to show their love. The cultural backgrounds of these two novels are altogether different, but what binds them is their depiction of the 'earth-centered' approach, which values men "who have avoided the corruptions of the Industrial Revolution and learned the secret of the golden mean, the balanced life." (Atwood 44). The narrator of *Surfacing* shows herself in two different locations: the city, where she has the clutter of products, and her parental village, where she leads an 'earth-centered' life. She grows her own food, saves on resources and does not add anything to the landfill. Rather, she ensures that the soil becomes rich with her activities. "The entrails will be buried in the garden, they're fertilizer" (Atwood 84). She picks up the garbage thrown by tourists so that the soil could breathe.

...trash was strewn around it, orange peelings and tin cans and a rancid bulge of greasy paper, the tracks of humans. It was like dogs pissing on a fence, as if the endlessness, anonymous water and unclaimed land, compelled them to leave their signature, stake their territory, and garbage was the only thing they had to do it with. I picked up the pieces of clutter and piled them to one side, I would burn them afterwards. (Atwood 140)

The 'product-centred' approach, Atwood claims, has ruined the world. Technology-driven appliances and all the non-essential stuff of contemporary civilization have proved to be antithetical to earth-centred lifestyle.

That was what used to bother me most about the cities, the white zero-mouthed toilets in their clean tiled cubicles. Flush toilets and vacuum cleaners, they roared and made things vanish, at that time I was afraid there was a machine that could make people vanish like that too, go nowhere, like a camera that could steal not only your soul but your body also. Levers and buttons, triggers, the machines sent them up as roots send up flowers; tiny circles and oblongs, logic becomes visible, you couldn't tell in advance what would happen if you pressed them. (150)

Ghosh also calls the 'product- centric' approach the basis of the environmental catastrophe. "You want to sell more books. I want more phones, more headphones, more everything" (111). Okri's novel too reveals the same view. "Money became a plague, an epidemic, a curse" (252).

Yet another parallel can be drawn among the texts. The powerful nexus of economic and political lords is held responsible for acting against the planet and for favouring the view that mass production and infrastructural development are the solutions to every problem. They are presented as adversaries of the 'earth-centred' way of life, in which every species is treated with equal respect. Piya, the Marine Biologist, of Ghosh's novel tells Deen that the waters which are homes for the marine life are becoming toxic because of the industrial waste and the petroleum refineries. She has been fighting along with many environmental groups to get it to stop its operations, but to no avail.

....but we were up against some very powerful people, a giant conglomerate that's got politicians in its pocket on both sides of the border. They organized a campaign against us, called us "foreign agents", tried to cut off our funding, had protesters arrested, attacked our demonstrations, not just the police but also with paid goons—every kind of dirty trick you can think of and then some. And the online stuff! You wouldn't what comes at me through social media: death threats, hate mail, constant trolling. (Ghosh 96)

The Canadian author brings out the ugly conspiracies against the planet. She states:

Surveyors, the paper company or the government, the power company. If it were the power company I knew what it meant: they were going to raise the lake level as they had sixty years ago, they were plotting the new shoreline, Twenty feet up again and this time they wouldn't cut off the trees as they had before, it would cost too much, they would be left to rot. The garden would go but the cabin would survive: the hill would become an eroding sand island surrounded by dead trees.....The lake didn't matter to them....(145)

Since the Industrial Revolution when rivers were seen as drains to flush out the dyed stuff along with "Hanks of yarn, pieces of calico" (Banks 4) from the mills of Manchester, the power lords have put at stake the entire eco-system of the world.

The achievement of ecocriticism is to weigh and evaluate the construct of 'nature' as it exists in human imagination. "Imagination is seen as a way of transcending 'this frame of things', the earth in which we dwell, where revolutions go sour; imagination remains unchanged, it is 'exalted', divine" (Bate 3). The imaginary homeland of the entire life is seen as a beneficial space in which bounty exists for all. The cruel aspects of nature are kept at bay, and it is in this frame of reference, the selected texts need to be compared. Characters, belonging to different spheres of the world present their own notion of the earth through their strong imagination. For Simon Clegg, nature is the only place to seek solace. Banks portrays, through her characters, her construct of nature as something very much required for inner peace and strength, but no more a permanent part of the industrial world. For Banks, loss of contact with nature is equal to loss of happiness and harmony. Some concessions can be availed by poor city dwellers by nurturing small size pet animals or going out for solitary walks. For the rich, the concession is in the form of having a well-maintained garden space in big mansions or enjoying holiday evenings in the recently opened entertainment sites. Otherwise, nature, as

registered in the Victorian text, has taken a back-seat, and it is more in imagination now than in the tangible form. Ngugi wa Thiong'o's *The River Between* is formulated on the strong sense of imagination. Chege and Waiyaki go to the sacred tree and imagine how their ancestors have been living in close proximity to their lands and performing their rituals. For the Kenyan communities, the dichotomy of nature and culture has not existed. Their rituals, festivals, harvests, language, clothing, magic, and miracles are all connected to their lands, mountains, trees, and rivers. Any distortion in the ritual inherently implies cutting their link with their natural eco-system. Circumcision, which is a characteristic ritual of the communities, has to be performed on a special day when the weather cycle and the water of the river Honia is most appropriate. The Europeans' insistence on eradication of this special ritual, would amount to creating a rift between their lives and lands. It is for this strong reason, Waiyaki imagines that they are going to lose their existence if their rituals are not performed. He envisions a utopia in which they would live in the ridges, till their lands, and perform their rituals. Both the land and the rituals are intertwined so much that the loss of one would give way to the loss of the other too.

The narrator of Atwood's *Surfacing* imagines that the ideal way of life is in the way her mother and other people of her village have lived, nurturing close inter-human and nature-human bonds. The bond with nature, opines the narrator, should continue even after physical death and the innate urge of the living beings should be "pure joy, pure death, burning white like snow" (192). She renounces all that is identified with culture and civilization and accepts herself as an original and real being. Her idea of dying and getting assimilated into the soil is a powerful voice against the celebration of the human self/species and overlooking the existence of every other species. "The reason they invented coffins, to lock the dead in, preserve them, they put makeup on them; they did not want them spreading or changing into anything else" (192). Her imagination to look at herself as part of the entire eco-system places her along

with the communities of pre-Christian times, which saw the image of God in every form on the earth. “I am not an animal or a tree, I am the thing in which the trees and animals move and grow, I am a place” (236). In the socio-historical narrative, nature is conceived as an anti-thesis of culture, a notion which came as a by-product of Individualism and Enlightenment and which created a fixed line between the human beings who create and nurture culture and nature which is an object of human use. Atwood and Thiong’o’s novels try to give a post-human premise wherein all identities fall in the eco-system because of their interrelatedness and interdependence. Such a perception affirms the truth that the planet is a single whole, and anything that occurs in one part affects the whole system.

Ben Okri’s *The Age of Magic* is strongly founded on the power of imagination about nature. The central trope of Arcadia itself is an imaginary sylvan space where people would live and remain away from the humdrum of the city. But, at the same time, Okri conveys the idea that the realisation of the loss of Arcadia gives unending torture to mankind.

“We utter the inscription at the beginning and at the end. It was in our birth cry. It will be in our deaths, as the significance of our tombs. We write those words—I too have lived in Arcadia –as a memento to ourselves, to remind us who we are, where we have been, where we are now, and where we are going” (Okri 51). For Atwood, renunciation of human culture is a way to get back the real self and for Okri, the imaginary sylvan space is what humanity yearns to get. In both the context, it is the dissatisfied human self in the city that is longing to regain a green paradise. Okri refers to Virgil’s *Eclogues* and mentions the powerful feelings that Virgil’s shepherds had “extreme passions” who lived amidst the green pastures. The city space, once forsaken, is bound to purge the evil of the culture which doesn’t include nature in its total whole. “The wind was gentle, the air pure and lovely to breathe. Each breath felt like a purification” (Okri 99). The characters in this novel seek transformation and reconnection with nature, which can only be obtained by establishing a new life in the countryside. “He was

listening to the music of flowers. He felt he had entered an invisible temple that drifts through time. He could feel the earth revolving” (117).

Amitav Ghosh, contrary to the earlier discussed novelists, does not present in *The Gun Island* any imaginary association of human beings with nature. His details are tangible enough to lay emphasis on the warning which the planet is continuously giving in the form of cyclones, wildfires, and swollen seas so that the eco-balance can be restored without any delay. However, characters like Cinta, Tipu, and the legend of *Bandooki Sadagar*, his association with Mansa Devi, the goddess of snakes, season the text with formidable nuances of imagination. The legend of *Bandooki Sadagar*'s ordeal to escape from the wrath of the goddess gets connected to the reality by which nature shows its antagonism and it becomes difficult for the ordinary human species to carry on even the simplest activities of day-to-day life. *Bandooki Sadagar* lived in the time which the Europeans termed as 'the little ice age'. The entire earth did not behave “naturally” during this period and the novel records:

In any event many parts of the world had been struck by famines, draughts and epidemics in the seventeenth century. At the same time a succession of comets had appeared in the heavens, and the earth had been shaken by a tremendous outbreak of seismic activity; earthquakes had torn down cities and volcanoes had ejected untold quantities of dust and debris into the atmosphere. Millions had died: in some parts of the world the population had declined by a third. In these decades more wars had raged than at any time before: many parts of Europe had been convulsed by conflicts; England had experienced the greatest internal upheaval in its history_civil war_and central Europe had been devastated by the Thirty Years War; in Turkey a fearsome draught had led to a devastating fire in Istanbul, shaking the Ottoman Empire to its foundations; elsewhere in China, long established dynasties had been overthrown amidst torrents of blood; in India the Mughal Empire had been beset by famine and rebellion. A great

wave of suicides had swept the world; in China multitudes of Ming loyalists had killed themselves; in Russia an Orthodox sect called the Old Believers had declared the tsar to be the Antichrist and tens of thousands of its members had taken their own lives. And everywhere there was talk of apocalypse: the comets that were streaking through the heavens were thought to be portents of the destruction of the universe; even the creatures of the earth were believed to be convenient warnings of catastrophe. In many parts of the earth clouds of locusts had darkened the sky and vast swarms of rodents had stripped the land bare; in Italy there was a sudden crescendo in visions inspired by the bites of tarantulas_and in England dreams of beasts, from the Book of David, had caused a sect called the Fifth Monarchists to rise up against the government only to be brutally slaughtered. (Ghosh 122,123)

This strong recording of many historical events occurring simultaneously makes the text move between two extremes_the lived experiences when nature as a force tries to reclaim everything which it has vouchsafed and the imagination in which all these things live and relate the past to the present; thereby giving birth to the insecurities about the future of mankind on the planet. “We’ve got to show Mother Nature that we’re not quitters!” (125) The legend of *Bandooki Sadagar* joins the nature-centred tropes belonging to different parts of the world, emphasising the fact of the earth as a single unified whole. The fears, anxieties, and insecurities that tormented the *Bandooki Sadagar* during the Little Ice Age are similar to those during the Anthropocene. Nature is conceived as a force which has the power to undo everything that human beings have taken centuries to create and maintain.

Over a period of time, the human relationship with water bodies, mountains, hills, and trees has transformed. Primitive societies considered them to be the manifestation of gods and goddesses, some civilizations with Oriental roots, too, have these forms of belief systems, however, with the advent of Christianity with their monotheistic philosophy, the human beings

were placed at the centre of all action on the planet. These transformations in the belief systems of human communities over the last many centuries can be discovered within the selected texts. For example, no life is possible without the availability of water on the earth. Scientists infer that the bodies of water on the planet, apart from being instrumental in the water cycle, breed life of myriad sorts. Any unnatural distortion in the composition of water is highly undesirable and might end up distorting the entire lively system.

The attitude of the characters towards the water bodies mentioned in the texts elucidates how different the human belief systems were before the colonial rulers carried on their operations. The city of Manchester is shown as getting developed along the banks of two rivers namely Irk and Irwell. The manufacturing units of the industries town throw away the industrial waste in them. The waterways have been chartered and allocated which has resulted in the smooth movement of enormous cargo ships. The waters get flooded every year and become a cause of woe for the people who live in the unsafe localities along the banks of the two rivers. Thus, the water bodies, in the British towns are no more than objects which are available for human use, and the marine life present in them or the natural system they drive are of no concern at all. The Kenyan life, on the other hand, is weaved around the river Honia, which is 'a symbol of cure' in the local human communities. Ngugi states, "Honia was the soul of Kameno and Makuyu" (Thiongo 1). The culture of the indigenous communities is intertwined with this body of water. Their most important ritual, 'circumcision' which has kept the communities united, is performed only when the young men and women take a dip in the sacred water of Honia, which benumbs their senses and they do not feel excessive pain during the conventional surgical operation. The missionaries' insistence on not observing the ritual of circumcision is actually a process by which the bond of the communities with the sacred water would change. Thus, the religious belief systems have been kept intact in the ridges of Kenya to protect and guard the important systems that exist in the form of the water body itself and

the chain of activities undertaken by the marine life it inhabits. The Europeans began to treat Honia in the same way that they had treated Irk and Irwell in Manchester, and many market places sprouted up along the African water bodies, allowing goods to be transported. Atwood, in the Canadian text, hints at the fresh water lakes of the region of Quebec, being seized by Americans for transporting logs of wood and for fishing. The newly opened tourist spots allow visitors to have licences for hunting and fishing as recreational activities. The lakes are seen full of motorboats and streamers carrying tourists who switch over to other lakes when a specific lake is “fished out” (30). “The lake jiggles against the shore, the waves subside, nothing remains but a faint iridescent film of gasoline, purple, pink and green” (Atwood 37). In the era of the Anthropocene, such human activities have already altered the natural composition of a large number of water bodies. The construction of dams, Atwood states, is an unhealthy practice for it is the way the entire natural system gets ruined. Piya, the marine biologist of Ghosh's *The Gun Island* mirrors her grim concern not only about the *Irrawadi* dolphins, which are on the verge of extinction but also about the distortion of the essential composition of the waters of rivers and seas. Piya informs Deen about the scientific fact that all water bodies are essentially different from one another and perform their respective functions to support marine life.

....as I followed Piya's finger, what had seemed at first to be an unvarying mud-brown colour revealed itself to be a composition of many different hues. Nor was there any uniformity of the pattern of the river flow: once my eyes had grown accustomed to scrutinizing the water I was able to spot pools, whirlpools, braids, striations and many sorts of ripples.....These were signs, said Piya, of the innumerable streams that were contained within the course of this one river. Each of these streams differed from the others in small ways, and each was freighted with its own mixture of micro-nutrients. In effect, each was a small ecological niche, held in suspension by the flow, like a

balloon carried along by the wind. The result was an astonishing proliferation of life, in myriad forms. (Ghosh 94-95)

In this way, the novelist gives details about the anthropogenic intervention that has created havoc by defiling the water, which is like “a moving forest, populated by an incredible variety of life forms” (95) and which is like a “forest that’s been moving for millions of years” (95).

During the Anthropocene, Ghosh affirms that such natural water bodies, which have been treated like sewers, have lost their innate structure. Piya adds:

.....Have you heard of oceanic dead zones? No? Well, they’re these vast stretches of water that have a very low oxygen content—too low for fish to survive. Those zones have been growing at a phenomenal pace, mostly because of the residues from chemical fertilizers. When they’re washed into the sea they set off a chain reaction that leads to all the oxygen being sucked out of the water. Only a few highly specialized organisms can survive in those conditions—everything else dies, which is why those patches of water are known as “dead zones”. And those zones have now spread over tens of thousands of square miles of ocean—some of them are as large as middle-sized countries. (95)

Language is a distinct tool of human civilizations, and the selected novels are a repository of innumerable linguistic signs which convey that the codes which build up nature-human relationship change in different cultural settings. *The Manchester Man*, though, maps the loss of innocence, yet, at times, it celebrates human achievements in the form of the huge spread of manufacturing units and the infrastructural proliferation. “And only an antiquity or a very old inhabitant can recall Manchester as it was at the close of the last century; and shutting his eyes upon Palatine buildings, broad roadways, and river embankments, can see the Irk and the Irwell....”(Banks 2).

The British author does mention the infrastructural changes that were providing a lot of advantages to her native country in terms of material gains, but the tone of Ngugi wa Thiong'o's text is not adulatory. He laments the fact that the interiors of Kenya were on the brink of change. "The country could no longer be called isolated. Since the alienation of all the land in the hills and ridges around Siriana to white settlers, the country of the sleeping lions was like any other part of Gikuyu country" (Thiong'o 60).

The foreign agency in the Kenyan space is unwanted, and the changes they plan to make are taken as interventions in the peaceful private world of the communities of the ridges. Margaret Atwood concurs with Thiong'o in this respect, and *Surfacing*, too, outpours similar sentiments when the American agents are seen actively involved in the geo-physical plunder of Quebec:

...sixty years ago they raise the lake level so that whenever they wanted to flush the logs down the narrow outflow river to the mill they would have enough water power.....A few men work on railway maintenance, one freight train a day; a couple of families run the stores, the small one where they used to speak English, the other where they wouldn't. The rest process the tourists, businessmen in plaid shirts still creased from the cellophane packages, and wives, if they come, who sit in two's on the screened blackfly-proof porches of the single-room cabins and complain to each other while the men play at fishing. (Atwood 16)

Sarah Nolan while highlighting the use of language in narratives states that:

various situations in which individual memory, personal experience, ideology, and the limitations of the sense intermingle with natural elements of experience and on how new forms and experimentation with language can work to express these facets of experience as accurately as possible. (Nolan 88)

Thus, language can be used as a pertinent tool to understand and compare the changing attitudes of characters towards the space they inhabit. The nameless narrator of *Surfacing* incorporates memory to focus on the loss of the innate bond of the indigenous communities with the kind of value systems they had that inculcated in them respect for their land. Chege, the father of Waiyaki, also speaks the language that unites him and his clan with the hills and ridges. “Salvation shall come from the hills. From the blood that flows in me, I say from the same tree, a son shall rise. And his duty shall be to lead and save the people...” (Thiong’o 20) For an older character like Chege, it is crucial to instil local values in the next generation so that it can prepare to fight against foreign elements while remaining loyal to the ways of the land. *Surfacing's* narrator, too, has inherited from her mother, learning how to live closer to one's space. She lives according to those ways so long as she is in her hometown, but she finds herself culpable when she is in urban surroundings. The city, as a space, is something that can distract human beings from their real selves. All the cities mentioned in the five texts are referred to in the same way by all five authors. For example, Ben Okri makes use of concrete metaphors to describe the urban space.

Tenements and dilapidated buildings. Edges of the town in decomposition. He wondered why the worst aspects of the cities were always visible from trains. He found himself paying more attention to the ugly sites they were passing through. (Okri 31)

The city, thus, becomes a metaphor to signify a range of negative connotations, and on the contrary, sylvan and remote spaces stand for a paradise, which is very much needed for metamorphosis and self-renewal. The narrator of *Surfacing* and the seven film-makers in *The Age of Magic* find such revitalization only in unadulterated natural space. Simon, the rescuer of Jabez Clegg in *The Manchester Man*, infuses in the latter the urge to go back to sylvan spaces so that he cannot get dehumanised in a city space.

The binary of the urban and the rural does not bear the conventional metaphoric value in *The Gun Island*. Amitav Ghosh presents a world in which every living creature is on the move to locate a safe place for survival. The East and West, urban and rural, rich and poor, male and female, human and animal—all are shown facing the challenge as nature unleashes its fury in the current geological epoch. Thus, Ghosh's choice of myths, signs, and metaphors is highly different. The very myth of Manasa Devi and the Gun Merchant of Bengali folklore characterises human vulnerability and nature's supreme control. Deen's ordeal parallels that of the legendary Gun Merchant's in that he witnesses that no organism can survive if the planet's eco-system becomes disbalanced. The language of the Indian author is marked with urgency and grimness.

....we learnt that the strange weather was not just a local phenomenon: all of Italy had been affected in different ways. Some northern cities had been deluged with rain and hail; many parts of the country had been struck by gale-force winds; in the mountains of the Sud Tirol entire forests had been flattened; elsewhere too trees had been knocked down, damaging houses and blocking roads. (Ghosh 254)

Amitav Ghosh juxtaposes the eastern myth of goddess Manasa with the western myth of the Blessed Virgin, and by putting them together, he builds up the discourse of the narrative. The cultural realities expressed through the myths, metaphors and linguistic patterns thus provide a strong ground for the novels under investigation.

Analytical Outcome

The chapter on comparative study of the selected novels establishes that, despite the common theme of interaction with nature, there are a number of dissimilarities in these texts, the analysis of which provides valuable insights into some of the intersections between ecology and literature. The characters and the linguistic codes ascribed to them demonstrate that the

authors use sentimentalized anthropomorphism to make the figures communicate. The destroyers strive to celebrate the loss of contact with nature, but the saviours offer rational concepts to preserve the nature-human bond through thinking and memory, allowing eco-consciousness to reach its most primitive and expansive extent. Thus, this chapter gives factual details regarding the last two research questions. These questions are: How does the role of characters change if the selected novels are compared? and does the language of the selected novels unfold the issue of the Anthropocene and do the variations in the language of the texts contribute to establish human beings' key role in the mis-shaping of the earth? The ideas of Simon in *The Manchester Man*, Chege in *The River Between*, the narrator in *Surfacing*, the seven filmmakers in *The Age of Magic*, and Piya, Nilima, and Deen in *The Gun Island* are utilized to transform the reader's anthropocentric perspective into a biocentric perspective. The research also demonstrates how the fiction of the chosen writers with a particular interest in location and the non-human realm overlaps, intersects, and engages in a productive intercultural discourse.

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Chapter 6

Conclusion

By the 1980s, the literature had expanded to include the organizational, economic, institutional, and psychological needs of human beings that influence the relationship between modern industrial society and the biophysical world, particularly the environmental implications of various economic development models. This field has yielded significant insights regarding public opinion on the environment, the global spread of environmental institutions, the impact of values on individual environmental behaviour, the role of culture in shaping environmental exploitation and regulation, and the social interests that drive consumerism and high resource utilisation production systems. The earth, trees, animals, and the ecosystem have not established hegemony; only homo sapiens have altered and transformed natural cycles and systems with their collective force. The introductory chapter, 'Brief Candle', elaborates on all these issues.

The second chapter, entitled 'The Geo-historical Roots of the Anthropocene', shows how in the last 150 years, especially the last sixty years, the earth has warmed, causing climate change. Everywhere, from the sky to the oceans, there is change. Temperature variations at the surface, in the atmosphere, and in the oceans; melting and disappearing glaciers and snow covers; melting sea ice; rising sea levels; and a sharp increase in atmospheric water vapour are all contributing factors. Storms, droughts, and precipitation are in flux. Human activities, particularly greenhouse gas emissions, have caused climate change during the industrial age, particularly in the last sixty years. During this time, the earth's structure has undergone irreversible changes, and environmental experts believe that human activity is the root cause of climate change. Human beings are the cause of droughts, floods, tsunamis, wildfires, and other changes to the biosphere. The beginning of the Anthropocene epoch is when human

actions began to have an impact on the atmosphere and ecosystems. Crutzen and Stoermer coined the term "Anthropocene" in 2000 to describe the current geological period in which human beings have irreparably damaged the earth's natural system. Carbon and methane levels in the atmosphere were affected by the Industrial Revolution in the late 1800s. The Anthropocene reportedly began in 1945, as described by numerous scientists. Hiroshima and Nagasaki were both bombed following the first nuclear test. Global soil samples had radioactive particles. The research contends that, despite the fact that scientists have their own arguments, they all concur that human intervention has irreversibly altered the planet's natural eco-system. Thus, the Anthropocene refers to an epoch in which human dominance grew substantially and humans began to exert control over natural processes. The change in climate over time is the result of the interaction between rapidly varying local weather conditions and slowly varying regional as well as global variables, such as the distribution of heat in the oceans. The biosphere has been permanently altered by the establishment of capital-based economies. Constant increases in consumer demand have an alarming effect on the production and emission of greenhouse gases. The atmosphere is the probability distribution that describes the state of the air, sea, and freshwater systems collectively. Since nearly two centuries ago, human activity has had a long history of influencing the climate. The evidence refutes the premise that human beings have no effect on the global climate.

This study, in the chapters titled 'Anthropogenic Ecological Apocalypse' and 'Ecocritical Perspectives', has examined how the selected texts document the Anthropocene events (such as climate change and mass extinction) and focus on how literature may contribute to the development and dissemination of ecological literacy. Ecocriticism's theoretical framework seeks to comprehend how nature as a construct is represented in the selected literary texts. It examines the connection between literature and the physical environment. The ecocritical theory examines texts through the lenses of environmental ethics, environmental

justice, and species justice due to its green moral and political agenda. According to anthropocentrism and speciesism, humanity is the jewel of creation. The belief that the rest of the world is subordinate to humans implies that other forms of life are subordinate to human races. Ecocritics evaluate how humans have become estranged from nature as a result of excessive production and consumption. Anthropocentrism is a worldview that is centred on human beings.

The research infers that human intervention since the Industrial Revolution has already caused irreversible damage to the entire eco-system. These marks of human progress are very much manifest as the current human generation is witnessing an unprecedented change in the climate due to global warming caused by the emission of carbon gases at an alarming rate. The Victorian text has documented that Arkwright machinery was being used by many manufacturing units which were throwing out enormous industrial waste, resulting in the pollution of air and water resources. The sophisticated means of transport were being used to get supplies of raw materials from other countries. Rivers were chartered, and all these human-centred activities have started to weigh heavily on the eco-balance. Ngugi's *The River Between* mentions the colonial plunder which resulted in changing the composition of the soil. The local people used to value the soil as it was vital for their living, but the Whites were unmindful of the health of the soil of their region and ruthlessly exploited it for minerals. The novel affirms the visible changes which were being witnessed by the indigenous communities, as they could see that the rain patterns had not been the same; it sometimes rained very heavily and caused depletion of the earth's crust; at other times, the rainfall the territory received was very low. Atwood's *Surfacing* highlights the age-old practises of the people of Quebec related to providing enrichment to the quality of the soil. The female Canadian author talks about the gradual change of the attitude of the local people, particularly the new generation, which is harming the ecological balance. Deforestation, creating more city space and express-ways by

using dynamite to explode the mountains to pieces, and changing the remotest corners of villages into tourist destinations are some of the human activities that are fiercely denounced in the novel and that have led the current human generation to usher in the Anthropocene. *The Age of Magic* highlights the excessive damage done by humanity to the world, which was once as beautiful as Arcadia. Its beauty has ceased to exist since human beings have misshaped and altered the spaces and defined them only in terms of human use. The tourist places have become attractive places which the city folk visit and pollute. *The Gun Island* is also marked by repeated references to the human frenzy to seize and milk natural resources indefinitely without giving them time to regenerate.

In four out of the total five selected texts, nature has been stereotyped as a space to provide solace and as a continuous giver, like a mother, always yielding more and more but not demanding anything in return. It is a source of continual, interminable joy and it soothes the spirit of humanity. However, the significance of nature is not undermined. *The Manchester man* treats it as a paradise or a garden of Eden, which is lost forever. The only option for city dwellers is to visit the countryside, and thus this Victorian text emphasises the clear distinction that human beings have made between the constructs of nature and culture. *The Age of Magic* follows the same pattern whereby a host of young filmmakers go back to nature to temporarily regain the lost paradise. Nature, for them, is a source of inner joy and a kind of short-term cure for the maladies caused by urban dwellings. Atwood's *Surfacing* provides vital details about modern citizens who don't observe restraint when they visit places away from the city and which have been developed as tourist spots. Their sole relationship with nature is that of a subject bent upon altering the object. In the African novel, *The River Between*, nature is conceived as a source of gaining bliss, but, as per the indigenous belief system, it is not an object for seizure. Rather, it is a source of salvation, a living force that is at the centre of all the activities of living beings—human or other than human. It is supreme and the most powerful.

The Gun Island differs from the established norm of providing a set hierarchical structure to nature. Nature, in Ghosh's novel, is all powerful and potent enough to react against abnormal human intervention. It is not an object but a living super-system that is going to make human life very challenging if it's not treated with caution and restraint.

The study establishes that the selected novels focus on the essential interrelatedness and interdependence of all the living and non-living natural worlds. In this context, the research has focused on a significant concept known as the "economy of nature." The ecosystem works by the mutual actions and reciprocity of all living things and the environment. By absorbing carbon dioxide from the air, forests play a significant role in cooling the earth's surface. Yet, only two-thirds of their cooling capability derives from their capacity to absorb and store carbon dioxide. The remaining one-third is attributable to their capacity to produce clouds, humidify the air, and emit cooling compounds. When scientists analysed these biophysical impacts in conjunction with carbon storage, they discovered that tropical forests cool the surface of the planet by around 1°C. All the selected texts paint a grim picture of a gradually dying planet as, under the guise of economic development, the earth is being robbed of its essential forest cover. The killing of animal species and deforestation are twin practices by which the water cycle, the composition of the air and all other natural elements are being affected. In the name of checking these activities, some agencies have started to plant more trees. The natural forest cover, it is noteworthy, is not merely a large group of trees; rather, it is a system by which the earth revitalises itself. Therefore, decreasing the natural forest cover and then replacing it by growing trees of one or two kinds is not going to help in the long run. The study has supported this concept amply and illustrated it by citing relevant textual details.

As it has been discussed in the previous paragraph, the forest is not merely a great group of trees. Similarly, the seas are not simply bodies of water. Their existence depends on the very fundamental concept of mutual reciprocity among various kinds of marine living beings.

According to the study, the human race has used natural water courses as sewers since the Industrial Revolution, defiling their natural composition. Either the water bodies have become the easily available way to flush out industrial waste (as referred to in *The Manchester Man*) or they have been used for fishing and hunting of marine creatures (as projected in *Surfacing*). The research presents the attitude of the people of the pre-industrial world towards their water bodies and also shows the drastic shift in human culture that came along with the nineteenth century economic policies supporting the colonial giants. Marine living beings have evolved for millions of years and their specific behaviours and habitats have also been the outcome of centuries of their existing in a specific bioregion. Any abnormal intervention on the part of human beings is bound to disrupt the entire system. During the Anthropocene, sea creatures are trying to relocate as the temperature of the sea is rising with each passing year. Moreover, the presence of dead zones due to the chemicals present in the water is proving to be disastrous for a large number of marine species. In *The Gun Island*, Amitav Ghosh provides vivid and concrete details of various streams and rivers having different compositions that submerge in the Bay of Bengal.

The study has investigated the animal-human relationship in order to determine how the selected literary texts deal with living beings other than humans. As human culture evolves, so does the relationship between human beings and their land and its other inhabitants. The study concludes that the animal world has suffered during the Anthropocene and that human intervention has disrupted the broad eco-balance that they have helped to maintain since the beginning of life on the earth. On the African continent, domestic and wild animals are revered not for their utility to human beings, but for their very existence on the planet.

The Manchester Man, which takes place in an industrial city, makes no mention of wildlife, instead, it focuses on the increased purchasing power of families that owned manufacturing units. These families used ivory and turtle shell artefacts to decorate their

homes. Animals of all kinds are important because they are the natural instruments through which nature sustains itself. As a result, any decrease in their numbers or changes in their behaviour have an impact on the entire planet's system. Ecosystem restoration cannot take place unless environments for mutual reciprocal links between different species are created. In this context, the research concludes that the selected novels are replete with enormous details that can be used to judge the gradual change in human attitudes toward animal life. In her novel *The Manchester Man*, Isabella Banks discusses the domestication of small birds and insects by the industrial town's lower and middle classes. The African text *The River Between* describes how all kinds of animals, wild and domestic, large and small, live in close proximity to local human communities. Similarly, the Canadian text *Surfacing* alludes to the way of life of the people of Quebec's villages, in which all forms of life is respected. The animals of the sea, air, and land are regarded as vital, and human civilization needs to accept them as such. During both phases of imperialism (territorialism and neo-imperialism), powerful nations set out to create a human culture centred on greed and consumerism, with no regard for anything lacking material value. Animals have also been treated as commodities that can be easily poached and sold. People hunt and kill animals for their recreation as a result of their changed value system. As discussed in the study, Atwood reveals the mass-slaughter of animal species such as beavers in order to obtain furs for covering human body.

Ngugi's cautious claim of human communities living in close proximity to forest animals is ample proof of the scientific fact that these forest animals are instrumental in the continuous replenishment of the African continent's gross green cover. Animal-mediated seed dispersal is critical for maintaining ecological balance. The study confirms that when animals' habitats are taken away from them or their living conditions are altered, the entire system suffers. Since human beings have done so, animals of all kinds all over the world have been

reacting to these new conditions. They are either becoming extinct or struggling to find new habitats, causing more damage.

According to the study, human culture has artificially divided the earth. The city and county are considered two different worlds having two different lifestyles. Likewise, rural and urban living do not refer to a specific geographical location only, but rather to a way of life and value system through which the concept of nature can be comprehended. In the city, the human being is subservient to the system of acquiring and spending, but in a rural setting, nature controls and shapes the everyday existence. This dichotomy has led to the creation of country homes which influential people living in cities can own to spend some time away from the monotony of the urban lifestyle. Tourists visit such places and are not sensitive enough about the biodiversity of these regions. Some of the ill-effects of contemporary culture include the excessive pressure of tourists on the resources of such spots. The texts, *Surfacing* and *The Age of Magic* provide prodigious accounts of human intervention in the chaste natural areas of the planet. Such practices, as Ben Okri maintains, have left many bioregions deprived of their distinct identities. Tourists visit such places to seek solace, but they remain insensitive to the natural spaces. Atwood's *Surfacing* clamours for the end of such malpractices as well. Greed as an ideology paves the way for conceptualizing rural space as a place of temporary peace that should be treated as a stopover or an escape from acrid urban space.

In the era of the Anthropocene, it is important to develop green spaces within urban areas. It is a single major solution by which the recreational use of nature can be discouraged and endangered species of trees and animals can be saved. Protection of large trees in naturally, culturally and human-modified landscapes is very significant as they act as seed sources, conserve carbon pools and act as habitats for seed dispersal birds, small mammals and many other species. Soil conservation and enhancement of soil fertility through the conservation of trees is vital for the landscape continuum. Ghosh's *The Gun Island* gives a vivid and concrete

details of animals already struggling for their survival and the disturbed system of nature's economy. All types of animals are shown as succumbing to extinction. Only some resilient species would be present on the planet, and the lives of human beings would be in perpetual peril.

The research establishes that there are strong interrelationships and mediations between a particular territory and its inhabitants. The space in which a community has been living for ages together becomes its root-territory. The same is true for other species as well. There exists a continuous interrelationship between the natural space and the human culture of the community living in it. The flora and fauna of a specific bioregion become a kind of environment that provides for the fundamental needs of human communities. The collective repository of knowledge in the form of weather cycles of the area, the harvesting system, the therapeutic plants and herbs, etc., is the outcome of years of experience living in specific territories. Thus, the initiation of a new system of living disrupts the entire knowledge base and living patterns of human cultures. The Industrial Revolution brought such changes in the British cities and rural areas, as has been documented in *The Manchester Man*. Imperialism did the same with the communities living in Kenyan ridges, as per the records given by Ngugi wa Thiong'o. Atwood speaks out against neo-colonialism, which she blames for the transformations of societies in places like Quebec. *The Age of Magic and The Gun Island* demonstrate how cultural transformations unleash a greedy system. Transformations of such kind have brought along with them rigorous conflicts between two contrary ways of living: one that is truly indigenous, valuing self-governance and the natural environment equally, and the other that forces humanity to view every object as a resource meant to be weighed or measured and utilised for material gains.

The comparative analysis provided in the sixth chapter, 'The Anthropocene: A Comparative Approach', validates that the construct of 'nature' as a mother and as a female is

recurrent in the selected texts. Human beings are projected as children, depending upon mother earth for all their wants and the mother, unfailingly, fulfilling their desires. *The Manchester Man*, *The Age of Magic* and *Surfacing*, shapes 'nature' as a female, the company of which is much sought after as modern human beings have no other option but to live in the city, away from its healing touch. *The River Between* presents nature as a living spirit, which needs to be respected and guarded. Amitav Ghosh, too, in this regard, looks to nature as a female. The tale of *Bandooki Sadagar* and his encounter with the goddess of snakes, Mansa Devi, affirms this concept because it is the wrath of Manasa in the form of turbulent natural forces that keeps *Bandooki Sadagar* roaming from one place to another in search of safety; finally, when he orders the construction of a temple dedicated to the goddess, he is able to please the deity and receive her blessings. The comparison has been done on the basis of themes and the structures of the narratives. The use of escape as a trope and its recurrence in the texts have been investigated. The issue of the earth-centred approach of the bygone era has been compared with the commodity-centeredness of the contemporary civilization. The role of characters as saviours or destroyers of the planet has been elaborated on.

The journey of the Anthropocene, which begins in British cities such as Manchester, has robbed every natural object that was once revered as a deity by a large number of communities. Margret Atwood bemoans the fact that her own remote hometown has been connected to expressways and is now frequented by Americans for hunting, fishing, and spending their surplus cash. For some, nature deserves respect and preservation, while for many, it consists of objects suitable for poaching and selling.

Due to rising sea levels, certain groups of characters in the narrative are forced to disperse from their original habitat. The Indo-Bangladesh border, especially as presented in Amitav Ghosh's *The Gun Island*, is one such region where people are facing massive loss of life, property, and land every year since the waters of the seas are rising due to climate change.

Climate migration is a colossal issue which the contemporary world is facing, but the influential nations are not showing any eagerness to formulate any policies related to it. Tipu, in the novel, represents a large section of the citizens of economically backward countries whose future is full of uncertainties for reasons beyond their control. Lubna, a middle-aged woman, has lived through the most terrible experiences because the Bay of Bengal has swallowed her home and land where her family used to flourish earlier. Amitav Ghosh speaks about millions of people who are trying to find safer zones in the interiors of Europe and other landlocked countries because the rising seas have eaten up their original dwellings. Poor females in such areas end up living in prostitution houses, while men are forced to work odd jobs in faraway lands, and many of them fall victim to the nexus of human traffickers. Climate change and global warming in the era of the Anthropocene, the study affirms, have become the root causes of a grim human tragedy involving large-scale forced migration. The climate issue is leading to international border and refugee issues at the same time. The research highlights the need for the formulation of economic policies keeping in view of the climate crisis. European nations that were once the epicentre of imperial powers are experiencing unprecedented demographic shifts. The problem of refugees barging into the interiors of the western world is highly alarming and no government is yet prepared with any blueprint to address the issue. The research highlights all these issues in detail and brings to the surface the urgency of the problem so that the impending gigantic human tragedy might be kept at bay.

The research has elucidated how climate change impacts particular regions. This study examines the Anthropocene from a social perspective as well. Over millennia, human groups have adapted to the current climate. If changes occur rapidly, affected populations must make rapid and costly adjustments. It is difficult to relocate to a less adaptable area in today's crowded world. Bangladesh is located in the deltas of the Ganges, Brahmaputra, and Meghna rivers, and a one-meter rise in sea level would destroy 20 percent of the country's habitable land with a

population of 15 million. Rising sea levels contribute to more than just land loss. Storm surges pose a risk to Bangladesh. *The Gun Island* reports an alarming increase in the frequency of storms at sea. Every year a massive storm strikes Bangladesh. The storm surge of 1970 was one of the deadliest natural disasters in history, killing up to 250,000 people.

Infiltration of saltwater complicates Bangladesh's rising sea level coastline. Changes in climate may increase monsoon precipitation, thereby reducing saltwater intrusion. The fishing industry might be adaptable to shifting fishing grounds and conditions. It is unclear what would happen to those engaged in agriculture. Bangladesh lacks large agricultural lands to replace those lost to the sea, and it is difficult to relocate the delta region's entire population.

As stated earlier, many governments disregard environmental and cultural issues. Based on wealthy, over-consumptive societal paradigms, industrialists and developers promote unsustainable land and resource use. International institutions and nongovernmental organisations have worked to maintain the sustainable development ideals of the early 1990s—balancing the environment, society, and economy and meeting the needs of current generations without jeopardising their prospects. Sustainable development is under global pressure. This study examines the Anthropocene from a social perspective as well. Over millennia, human groups have adapted to the current climate. If changes occur rapidly, affected populations must make rapid and costly adjustments. It is difficult to relocate to a less adaptable area in today's crowded world. The absence of ecological "vital signals" results in group dysfunction and misery.

In North America during the Anthropocene, areas such as Los Angeles have become problematic for living due to the ever-increasing fires that pose a threat to daily life. Ghosh provides concrete details of the ongoing loss of fertile lands, large-sized forest trees, animals of varied kinds, and the habitats of human species due to wildfires. There are some dormant challenges posed by the outbreak of wildfires as well. The level of carbon gases coming out in

the form of smoke triggers health-related maladies and, due to the poor air quality, all living beings and the environment at large suffer.

The research validates that rural poverty, the sense of alienation from the land, and forced migration are interconnected. The texts give details of the human populations involved in the continuous process of finding new homes and new places for livelihood. During the Victorian period, a lot of rural people started settling down in shanty towns and unplanned spaces on the borders of the cities. They re-rooted themselves in new places as there were more opportunities to get regular work in the city as agricultural practises underwent a change owing to the upgraded technology-driven machines, which required only a few hands and ultimately left a large number of people unemployed. The study puts forth that life on the streets of England elicited a bewildering array of emotions, including terror and exhilaration, menace and happiness, awe and pity. The industrial cities were accepted by the populace because the villages were impoverished. The agreement was an unhealthy one because the cities offered them unsanitary living conditions and removed them from the bucolic countryside. All age groups, including children, adolescents, men, and women, were working to earn their daily bread. They were unable to cultivate their own food, and as a result, the prices of essential goods rose substantially. In Banks' novel, twenty-year-old Bess Clegg, who accepts responsibility for the rescued infant, is depicted spending her days in such filthy surroundings.

Human populations in the colonized world faced alienation since the imperial governments imposed unfair taxes on the indigenous communities, which led them to forsake their earlier ways of living. Their land was seized, and uncontrolled deforestation continued to meet demands for more infrastructure, office spaces, boats and ships for transporting goods, and lavishly made furniture for the growing leisure class in Manchester, Liverpool, and London. The Whites tirelessly converted many locals to Christianity. African rivers weren't dammed or controlled with engineering technologies to support cargoes until the Whites did it,

as they did to the rivers Irk and Irwell in Manchester. Trees were cleared for rail tracks and the locals were forced to work far away. They were uprooted.

Urbanization itself has become a necessity in the current socio-cultural set-up and Margaret Atwood calls it a deadly device by which the regional bio-identities have received a permanent setback. Wealthy nations, in the garb of poverty alleviation policies, transform rural spaces into tourist spots, which might attract people from urban areas during holiday seasons. Such practises do not end up providing any kind of benefit to the people of rural areas. Okri's novel *The Age of Magic* testifies that such a transformation of rural places into tourist destinations has damaged the local cultures. Rural poverty cannot be eradicated without giving respect to what is local and distinct in a bioregion. The details of human cultures presented by Ngugi wa Thiong'o and Margaret Atwood show that there is a need to learn from the cultural values of the people belonging to pre-industrial societies and create new human cultures that respect the earth and keep it as a living identity in their consciousness.

The researcher has assessed how the selected novels support the issue of adapting to resource sustainability as a culture. The Victorian text, *The Manchester Man*, speaks about the vanities of the leisure classes of the industrial towns of Britain. Ngugi wa Thiong'o throws light on the earth-centred lifestyle of the Kenyan communities being replaced by commodity-centeredness. Margaret Atwood goes far and offers several solutions to keep resource waste under strict control. She hints that these measures are not new but were part of human societies' collective living before consumer culture and greed became entrenched. The French who lived in Quebec created art forms and structures out of items that people today throw away as litter. The narrator and her friends go to an abandoned structure made of empty glass bottles called 'the bottle villa'. Paul's home is made up of items that are no longer in use and have been upcycled. To express love, the community exchanges homegrown vegetables rather than expensive gifts. They have a habit of maximising the use of items; upholstery, clothing, and so

on are not replaced with trends and fashion. Food is grown and cooked at home rather than consumed in cellophane packages. Such steps and the habit of frugal living are the most powerful solutions in the field of resource sustainability. Atwood opposes the lifestyle that has been popularised by liberalisation and globalization, which believes in buying a lot of unnecessary items and then throwing them away, contributing to the problem of climate-related disasters. The only way to save the planet from anthropogenic ecological apocalypse is to make resource sustainability a culture and a way of life and shun greed-driven pursuits. Ben Okri speaks of the ill effects of the crazy pursuits of the urban population to seek solace in the midst of nature and, in the process, pollute it. Ghosh presents a vision of the apocalypse that would be the outcome of human greed to grab a bigger share of everything.

Ecocriticism negotiates between human needs and those of all other species and focuses on the practical solutions by which life of all kinds remains safe in the universal home. Manchester witnessed the earliest manifestations of all the ills of industrialization, including people moving from the countryside to cities; cities encroaching on cultivated lands and forests; proliferation of slums and unplanned localities with unsanitary conditions and machines flushing waste into clear water courses. Jabez is taught by Simon Clegg that appreciating nature brings peace and happiness. Simon Clegg struggles to earn his meagre wages while living in squalor, but he knows what it means to live close to flowers and animals in a village which he was forced to leave in order to work in factories. By preparing raw materials to be stuffed into machines, housewives assisted male workers. Bess was working as a batter, and her job was to beat the clot with stout. As a result of exposure to dust and influenza, the lungs of many workers, including her, developed health issues. Knowing that they could no longer reside in sylvan areas, influential people who installed machines and hired more labourers cultivated green spaces for their own use and chose beautiful, healthy areas to reside in. Consequently, the divide between the wealthy and the poor was also a divide between green, healthy

environments and slum dwellings. This disparity has persisted, and survival in safe and healthy conditions has become a socio-economic issue of the present day.

Amitav Ghosh's *The Gun Island* represents a large number of people who once had safe houses but have lost them as a result of unpredictable weather and frequent cyclones on abnormally swollen seas. Mass migration began as a move from the countryside to the cities to work in factories, but the use of fossil fuels has transformed it into a migration to safer regions around the world. In the Anthropocene, human desire for having more and more goods and wealth exacerbates the crisis. Only by adhering to a fictitious ideal and discovering serenity in Arcadia, people could find happiness in the present world. Ben Okri weaves a beautiful story when a group of friends from the city decide to seek refuge in Arcadia and realize that they have lost the spaces that brought them inner happiness. The mental alienation caused by urbanisation and its culture is depicted in Atwood's *Surfacing*. The urban lifestyle has discouraged the indigenous culture of sowing seeds in every house, obtaining fresh vegetables and fruits, saving all factory-made products to minimize purchases, and reusing the otherwise discarded items that are sometimes non-biodegradable and harmful to the environment.

The earth is a single system, and the study confirms that the hegemony of wealthy nations is the underlying cause of a multitude of climate-related issues. The governments of the relatively weaker nations have capitulated to the bullying of these mighty giants, and their lands, waters, and mountains, as well as their plant and animal life, are falling under their control. Atwood asserts unequivocally that the anthropogenic apocalypse is the result of the dominant nations' policy of cultural dominance. By exercising their hegemonic powers, they establish their claim on the living organisms and natural objects of economically controlled territories. The sole objective of neo-imperial power is to increase the demand for processed foods, synthetic clothing, and concrete homes full of electrical appliances. They are responsible for spreading the culture in which human beings, particularly the wealthy, return to nature

repeatedly to relax their bodies and souls, and in the process, endanger the ecosphere of green belts even further. The small green towns become centres of tourism and give rise to a multitude of other issues. Ghosh also discusses the interconnectedness of powerful governments and wealthy businessmen whose primary motivation is to amass wealth regardless of the consequences of their actions.

The bio-geophysics of global climate change may be observed, assessed, measured, and, to some extent, predicted by science. However, its analytical power is limited as it does not examine the human component, which is the primary cause of planetary change. Human beliefs and values are all essentially outside the realm of scientific calculation. International scientific groups have made strident appeals for literature and the humanities to be incorporated into global environmental research projects. Although the Anthropocene's original theoretical framework has mostly been developed by natural scientists, it certainly has resonance in literature. Even if anthropogenic climate change is a universal phenomenon, the present study has established that it has occurred at varying speeds and in a variety of global settings. To comprehend, cope with, and act, human beings employ language, stories, imagination, and cognitive models. Individual, institutional, and communal levels of human perception, creativity, and agency are all explored in depth in this research so that pro-environmental consciousness can be brought into the contemporary world. Therefore, this study may aid in changing the perspectives and imaginations of larger groups of human beings. There is an urgent need for human civilizations to create durable defences against crises and disintegration threats arising due to climate-induced migration. India, too, is beset with such grim climate concerns, and today's governments are looking for more hands to join them to work in this field.

There are some suggestions for future researchers. Future researchers may choose to investigate how the Anthropocene is reflected in the works of other authors. This investigation

is based on five texts by five distinct authors. It is suggested that researchers may choose additional works by the same authors and use an ecocritical framework to decode their impressions. All works by any of these five authors may also be selected. Victorian authors, such as Isabella Banks, can be studied in terms of how they documented the materialistic culture that was ushering in the modern era. All of Ngugi wa Thiongo's works may provide useful insights into the Kenyan culture of natural resource appreciation. The Ngugi-mentioned agricultural practises can reveal alternative paradigms for sustaining the soil's richness and fertility. Ben Okri is a notable author whose works can be studied from the perspective of the urban-rural dichotomy and the city dwellers' alienation. A great deal of research has already been conducted on Margaret Atwood's works; however, her works can be revisited to determine how neo-imperial forces have mutilated the culture of resource sustainability and engaged contemporary societies in 'consumer' lifestyles. The Indian author Amitav Ghosh can be re-examined in terms of how his earlier and newer works depict the ecological apocalypse and how he warns modern civilization to protect the planet which is on the verge of a climate disaster. The ecocritical study can be co-related to psychological and Marxian theories to infer how climate migrants are suffering due to lack of administrative policies. Since literature is a point of convergence for all disciplines, there is an urgent need to look deep into it to find solutions for the enormous problems that the human race envisages during the Anthropocene.

Works Cited

Primary Sources

Atwood Margaret. *Surfacing*. Virago press, London, 1972.

Banks, Mrs George Linnaeus. *The Manchester Man*. JW Allingham, 1877.

Ghosh, Amitav. *The Gun Island*. Penguin Random House, 2019.

Okri, Ben. *The Age of Magic*. Head of Zeus, 2014.

Thiong'o wa Ngugi. *The River Between*. Heinemann, 1965.

Secondary Sources

Abatzoglou, John T., and A. Park Williams. "Impact of anthropogenic climate change on wildfire across western US forests." *Proceedings of the National Academy of Sciences* 113.42 (2016): 11770-11775.

Adeline Johns-Putra. "A New Critical Climate." *Symplokē*, vol. 21, no. 1-2, 2013, pp. 7–10. JSTOR, www.jstor.org/stable/10.5250/symploke.21.1-2.0007

Bakari, Mohamed El-Kamel. "Sustainability and Contemporary Man-Nature Divide: Aspects of Conflict, Alienation, and Beyond." *Consilience*, no. 13, 2015, pp. 195–215. JSTOR, www.jstor.org/stable/26427279. Accessed 15 Feb. 2021.

Baker, Steve. "Picturing the Beast: Animals." *Identity and Representation*. Manchester: Manchester UP 199 (1993).

Bartholomew, Alick. *Hidden Nature: the Startling Insights of Viktor Schaubeger*. Adventures Unlimited Press, 2005.

Bate, Jonathan. *The Song of the Earth*. Pan Macmillan, 2001.

- Bate, Jonathan. *Romantic Ecology: Wordsworth and the Environmental Tradition*. Routledge, 2013.
- Berger, John. *About looking*. Bloomsbury Publishing, 2015.
- Biermann, Frank, Norichika Kanie, and Rakhyun E. Kim. "Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals." *Current Opinion in Environmental Sustainability* 26 (2017): 26-31.
- Bigagaza, Jean, Carolyne Abong, and Cecile Mukarubuga. "Land scarcity, distribution and conflict in Rwanda." *Scarcity and surfeit: The ecology of Africa's conflicts* (2002): 50-82.
- Birch, Dinah, ed. *The Oxford Companion to English Literature*. OUP Oxford, 2009.
- Birx, H. James, ed. *Encyclopedia of Anthropology: Five-Volume Set*. Sage Publications, 2005.
- Boes, Tobias, and Kate Marshall. "Writing the Anthropocene: An Introduction." *the minnesota review* 2014.83 (2014): 60-72.
- Bouman, Mark J. "Luxury and control: The urbanity of street lighting in nineteenth-century cities." *Journal of Urban History* 14.1 (1987): 7-37.
- Braddock, Alan C., and Renée Ater. "Art in the Anthropocene." *American Art*, vol. 28, no. 3, 2014, pp. 2–8. JSTOR, www.jstor.org/stable/10.1086/679693.
- Braje, Todd J. "Earth Systems, Human Agency, and the Anthropocene: Planet Earth in the Human Age." *Journal of Archaeological Research*, vol. 23, no. 4, 2015, pp. 369–396., www.jstor.org/stable/43956793. Accessed 5 Sept. 2020.
- Briassoulis, Helen, and Jan Van Der Straaten, eds. *Tourism and the environment: regional, economic, cultural and policy issues*. Vol. 6. Springer Science & Business Media, 2013.

- British Library*, www.bl.uk, <https://www.bl.uk/restoration-18th-century-literature/articles/the-rise-of-cities-in-the-18th-century#:~:text=Dr%20Matthew%20White%20is%20Research%20Fellow%20in%20History,and%20policing%2C%20and%20the%20social%20impact%20of%20urbanisation>. Accessed 20 July 2020.
- Brown, Alison, Michal Lyons, and Ibrahima Dankoco. "Street traders and the emerging spaces for urban voice and citizenship in African cities." *Urban Studies* 47.3 (2010): 666-683.
- Buchanan, Maya K., Michael Oppenheimer, and Robert E. Kopp. "Amplification of flood frequencies with local sea level rise and emerging flood regimes." *Environmental Research Letters* 12.6 (2017): 064009.
- Buell, Lawrence. "Ecocriticism: Some emerging trends." *Qui Parle: Critical Humanities and Social Sciences* 19.2 (2011): 87-115.
- Buell, Lawrence. *Environmental Imagination at the Crossroads*. University of Washington, 2013.
- Burkert, Walter. *Ancient mystery cults*. Vol. 1. Harvard University Press, 1987.
- Burtynsky, Edward, Jennifer Baichwal, and Nicholas de Pencier. "Anthropocene: the human epoch." *Documentary*. Mercury Films. Theanthropocene.org/film (2018).
- Butler, Richard W. "Seasonality in tourism: Issues and implications." *Seasonality in tourism*. Routledge, 2001. 5-21.
- Carson, Rachel. *Silent spring*. Houghton Mifflin Harcourt, 2002.
- Chakrabarty, Dipesh. "Clima e Historia: Cuatro Tesis." *Pasajes*, no. 31, 2009, pp. 50–69. JSTOR, www.jstor.org/stable/41445869
- Chakrabarty, Dipesh. "Climate and Capital: On Conjoined Histories." *Critical Inquiry*, vol. 41, no. 1, 2014, pp. 1–23. JSTOR, www.jstor.org/stable/10.1086/678154

- Chakrabarty, Dipesh. "The Climate of History: Four Theses." *Critical Inquiry*, vol. 35, no. 2, 2009, pp. 197–222. JSTOR, www.jstor.org/stable/10.1086/596640.
- Chakrabarty, Dipesh. "The Human Condition in the Anthropocene." *The Tanner Lectures in Human Values* (2015): 18-19.
- Chakrabarty, Dipesh. "Postcolonial Studies and the Challenge of Climate Change." *New Literary History*, vol. 43, no. 1, 2012, pp. 1–18., www.jstor.org/stable/23259358.
- Chakrabarty, Dipesh. "Whose Anthropocene? A Response." *RCC Perspectives*, no. 2, 2016, pp. 101–114. JSTOR, www.jstor.org/stable/26241365
- Chambers, Benjamin A., et al. "The direct measurement of the electronic density of states of graphene using metastable induced electron spectroscopy." *2D Materials* 4.2 (2017): 025068.
- Chiabai, Aline, et al. "Economic Assessment of Forest Ecosystem Services Losses: Cost of Policy Inaction." *Environmental and Resource Economics* 50.3 (2011): 405-445.
- Clark, Timothy. *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept*. Bloomsbury Publishing, 2015.
- Clarkson, Leslie A., ed. *The Industrial Revolution: A Compendium*. Macmillan International Higher Education, 1990.
- Collins, Matthew, et al. "Long-term climate change: projections, commitments and irreversibility." *Climate change 2013-The physical science basis: Contribution of working group I to the fifth assessment report of the intergovernmental panel on climate change*. Cambridge University Press, 2013. 1029-1136.
- Council of Canadian Academies. Expert Panel on Harnessing Science and Technology to Understand the Environmental Impacts of Shale Gas Extraction. *Environmental impacts of shale gas extraction in Canada*. Council of Canadian Academies= Conseil des académies canadiennes, 2014.

- Coupe, Laurence, and Jonathan Bate, eds. *The Green Studies Reader: From Romanticism to Ecocriticism*. Psychology Press, 2000.
- Crate, Susan A., and Mark Nuttall. "Epilogue: anthropology, science, and climate change policy." *Anthropology & Climate change. From encounters to actions* (2009).
- Crosby, Alfred W. *Ecological imperialism: the biological expansion of Europe, 900-1900*. Cambridge University Press, 2004.
- Crutzen, Paul J. "The "anthropocene"." *Journal de Physique IV (Proceedings)*. Vol. 12. No. 10. EDP sciences, 2002.
- Crutzen, Paul J., and Eugene F. Stoermer. "'The 'Anthropocene'''(2000)." *The Future of Nature*. Yale University Press, 2013. 479-490.
- da Silva, A. Lavrador, M. João Fernão-Pires, and F. Bianchi-de-Aguiar. "Portuguese vines and wines: Heritage, quality symbol, tourism asset." *Ciencia e tecnica vitivinicola* 33.1 (2018): 31-46
- Das, Pallavi V. *Colonialism, Development, and the Environment: Railways and Deforestation in British India, 1860–1884*. Springer, 2016.
- Davis, Heather, and Etienne Turpin. "Art & Death: Lives between the fifth assessment & the sixth extinction." *Art in the Anthropocene: Encounters among aesthetics, politics, environments and epistemologies* (2015): 3-30.
- Davis, Heather, and Etienne Turpin. *Art in the Anthropocene: Encounters among aesthetics, politics, environments and epistemologies*. Open Humanities Press, 2015.
- Devaux, Andre, et al. "Agricultural Innovation and Inclusive Value-chain Development: a review." *Journal of Agribusiness in Developing and Emerging Economies* 8.1 (2018): 99-123.
- Dictionary, Cambridge. "Cambridge advanced learner's dictionary." *Recuperado de: <https://dictionary.cambridge.org/es/diccionario/ingles/blended-learning>* (2008).

- Dominey-Howes, Dale. "Hazards and disasters in the Anthropocene: some critical reflections for the future." *Geoscience Letters* 5.1 (2018): 7
- Doughty, Charles Montagu. *Travels in Arabia deserta*. Cosimo, Inc., 2010.
- Edgeman, Rick. "Urgent Evolution: Excellence and Wicked Anthropocene Age challenges." *Total Quality Management & Business Excellence* 31.5-6 (2020): 469-482.
- Edwards, R. J., and B. P. Horton. "Reconstructing relative sea-level change using UK salt-marsh foraminifera." *Marine Geology* 169.1-2 (2000): 41-56.
- Enya, Osim, Chuxia Lin, and Junhao Qin. "Heavy metal contamination status in soil-plant system in the Upper Mersey Estuarine Floodplain, Northwest England." *Marine pollution bulletin* 146 (2019): 292-304.
- Fenner, N., et al. "Effects of climate change on peatland reservoirs: A DOC perspective." *Global Biogeochemical Cycles* 35.7 (2021): e2021GB006992.
- Fleming, James R. "Climate, Change, History." *Environment and History*, vol. 20, no. 4, 2014, pp. 577–586. JSTOR, www.jstor.org/stable/43299707.
- Foote, Eunice. "ART. XXXI.--Circumstances affecting the Heat of the Sun's Rays." *American Journal of Science and Arts (1820-1879)* 22.66 (1856): 382.
- Fuller, Margaret. *Summer on the Lakes in 1843*. Vol. 32. University of Illinois Press, 1991.
- Garrard, Greg. *Ecocriticism*. Routledge, 2004. Garrard, Greg. *Ecocriticism*. Routledge, 2004.
- Gates, W. Lawrence. "AN AMS CONTINUING SERIES: GLOBAL CHANGE--AMIP: The Atmospheric Model Intercomparison Project." *Bulletin of the American Meteorological Society* 73.12 (1992): 1962-1970.
- Ghosh, Amitav. *The great derangement: Climate change and the unthinkable*. Penguin UK, 2018.

- Gifford, Terry. *Pastoral*. Routledge, 1999.
- Glotfelty, Cheryll, and Harold Fromm, eds. *The Ecocriticism Reader: Landmarks in Literary Ecology*. University of Georgia Press, 1996.
- Griffin, Emma. "Manchester in the 19th century." British Library, Discovering Literature: Romantics & Victorians. <https://www.bl.uk/romantics-and-victorians/articles/manchester-in-the-19th-century>. Accessed on 15 Sep,2021.
- Guha, Ramachandra. *How Much Should a Person Consume?: Environmentalism in India and the United States*. Univ of California Press, 2006.
- Hansen, James, et al. "Climate Impact of Increasing Atmospheric Carbon dioxide." *Science* 213.4511 (1981): 957-966.
- Hegerl, Gabriele, et al. "Understanding and Attributing Climate Change." (2007).
- Heister, Carla G. "Books and Literature." *The Journal of Wildlife Management*, vol. 79, no. 8, 2015, pp. 1389–1393., www.jstor.org/stable/24764398.
- Heringman, Noah. "Deep Time at the Dawn of the Anthropocene." *Representations*, vol. 129, no. 1, 2015, pp. 56–85. JSTOR, www.jstor.org/stable/10.1525/rep.2015.129.1.56.
- Houghton, John. *Global Warming: the Complete Briefing*. Cambridge university press, 2009.
- Hsiang, Solomon, and Robert E. Kopp. "An economist's guide to climate change science." *Journal of Economic Perspectives* 32.4 (2018): 3-32
- Hsiang, Solomon, and Robert E. Kopp. "An Economist's Guide to Climate Change Science." *The Journal of Economic Perspectives*, vol. 32, no. 4, 2018, pp. 3–32. JSTOR, www.jstor.org/stable/26513494. Accessed 15 Feb. 2021.
- Hurni, Hans, and Urs Wiesmann. "Transdisciplinarity in Practice. Experience from a Concept-based Research Programme Addressing Global Change and Sustainable Development." *GAIA-Ecological Perspectives for Science and Society* 23.3 (2014): 275-277.

- Irele, F. Abiola. *The Cambridge Companion to the African novel*. Cambridge University Press, 2009.
- Jackson, Roland. "Eunice Foote, John Tyndall and a question of priority." *Notes and Records* 74.1 (2020): 105-118.
- Jacquet, Jennifer. "The Anthropebo Effect." *Conservation Biology*, vol. 27, no. 5, 2013, pp. 898–899. JSTOR, www.jstor.org/stable/23525539.
- Jiménez Cisneros, Blanca E., et al. "Freshwater resources." (2014): 229-269.
- Johnson, Ben. "The Manchester Ship Canal." *Historic UK, The History and Heritage Accommodation Guide*, <https://www.historic-uk.com/HistoryMagazine/DestinationsUK/The-Manchester-Ship-Canal>. Accessed 17, Sep. 2021.
- Jonsson, Fredrik Albritton. "Anthropocene Blues: Abundance, Energy, Limits." *RCC Perspectives*, no. 2, 2015, pp. 55–64. JSTOR, www.jstor.org/stable/26241317.
- Joos, Fortunat, et al. "Carbon dioxide and climate impulse response functions for the computation of greenhouse gas metrics: a multi-model analysis." *Atmospheric Chemistry and Physics* 13.5 (2013): 2793-2825.
- Kenyatta, Jomo. *Facing Mount Kenya: the traditional life of the Gikuyu*. East African Educational Publishers, 2015.
- Khan, Anwar, et al. "The impression of technological innovations and natural resources in energy-growth-environment nexus: a new look into BRICS economies." *Science of the Total Environment* 727 (2020): 138265
- Koerner, Lisbet. *Linnaeus: Nature and nation*. Harvard University Press, 2001.
- Kolbert, Elizabeth. *The sixth extinction: An unnatural history*. A&C Black, 2014.

- Kongbuamai, Nattapan, et al. "The impact of tourism and natural resources on the ecological footprint: a case study of ASEAN countries." *Environmental Science and Pollution Research* 27.16 (2020): 19251-19264..
- Kopp, Robert E., et al. "Evolving understanding of Antarctic ice-sheet physics and ambiguity in probabilistic sea-level projections." *Earth's Future* 5.12 (2017) 1217-1233.
- Kopp, Robert E., et al. "Geographic variability of Sea-level Change." *Current Climate Change Reports* 1.3 (2015): 192-204.
- Krieger, Nancy. The Real Ecological Fallacy: Epidemiology and Global Climate Change. *Journal of Epidemiology and Community Health* (1979-), vol. 69, no. 8, 2015, pp. 803-804., www.jstor.org/stable/44017589
- Lind, Jeremy, and Kathryn Sturman. *Scarcity and Surfeit: the ecology of Africa's conflicts*. Institute for Security Studies, 2002.
- Livingstone, David N. "Environmental determinism." *The SAGE handbook of geographical knowledge* (2011): 368-380.
- Livingstone, David R. "Biotechnology and pollution monitoring: use of molecular biomarkers in the aquatic environment." *Journal of Chemical Technology & Biotechnology* 57.3 (1993): 195-211.
- Love, Glen A. *Practical ecocriticism: Literature, Biology, and the Environment*. University of Virginia Press, 2003.
- Lüthi, Dieter, et al. "High-resolution carbon dioxide concentration record 650,000–800,000 years before present." *nature* 453.7193 (2008): 379-382.
- Lynch, William T. "The Domestication of Animals and the Roots of the Anthropocene." *Journal of the History of Biology* 52.1 (2019): 209-217.

- Mackay, Anson W., and John H. Tallis. "Summit-type blanket mire erosion in the Forest of Bowland, Lancashire, UK: Predisposing factors and implications for conservation." *Biological Conservation* 76.1 (1996): 31-44.
- Magige, F. J. "Human-wildlife interaction in Serengeti and Ngorongoro districts of Tanzania: a case study on small mammals." *Tanzania Journal of Science* 38.1 (2012): 95-103.
- Marsiglio, Simone. "On the implications of tourism specialization and structural change in tourism destinations." *Tourism Economics* 24.8 (2018): 945-962
- Marx, Leo. *The Machine in the Garden: Technology and the Pastoral Ideal in America*. Oxford University Press, USA, 2000.
- Maslin, Mark, and Simon Lewis. "Anthropocene Began with Species Exchange between Old and New Worlds." *The Conversation*, theconversation.com, 11 Mar. 2015, <https://theconversation.com/anthropocene-began-with-species-exchange-between-old-and-new-worlds-38674#:~:text=We%20argue%2C%20in%20a%20new%20paper%20in%20Nature%2C,species%2C%20which%20is%20without%20precedent%20in%20Earth%E2%80%99s%20history> Accessed 10 July 2020.
- Maslin, Mark. *Climate change: a very short introduction*. OUP Oxford, 2014.
- McArthur, Tom, Jacqueline Lam-McArthur, and Lise Fontaine, eds. *Oxford companion to the English language*. Oxford University Press, 2018.
- McCarroll, Julia, et al. "Using palaeoecology to advise peatland conservation: An example from West Arkengarthdale, Yorkshire, UK." *Journal for Nature Conservation* 30 (2016): 90-102.
- Miller, G. Tyler, and Scott Spoolman. *Essentials of ecology*. Cengage Learning, 2011.

- Neimanis, et al. "Four Problems, Four Directions for Environmental Humanities: Toward Critical Posthumanities for the Anthropocene." *Ethics and the Environment*, vol. 20, no. 1, Indiana UP, 2015, p. 67. *Crossref*, <https://doi.org/10.2979/ethicsenviro.20.1.67>.
- Nichols, Ashton. *Beyond Romantic Ecocriticism: Toward Urbanatural Roosting*. Springer, 2011.
- Nolan, Sarah. "Un-natural ecopoetics: Natural/cultural intersections in poetic language and form." *New international voices in ecocriticism* (2015). 87-99.
- "North American Beaver - Sierra Forest Legacy." *North American Beaver - Sierra Forest Legacy*, sierraforestlegacy.org, sierraforestlegacy.org/FC_SierraNevadaWildlifeRisk/NorthAmericanBeaver.php. Accessed 21 June 2022.
- Oswald, W. Wyatt, et al. "A record of Holocene environmental and ecological changes from Wildwood Lake, Long Island, New York." *Journal of Quaternary Science* 25.6 (2010): 967-974.
- Perlin, John. "A "Foote-Note" on the Hidden History of Climate Science: Why You Have Never Heard of Eunice Foote."
- Philip, Kavita. "Doing Interdisciplinary Asian Studies in the Age of the Anthropocene." *The Journal of Asian Studies*, vol. 73, no. 4, 2014, pp. 975–987. JSTOR, www.jstor.org/stable/43553463
- Playfair, John. *Illustrations of the Huttonian Theory of the Earth*. Cambridge University Press, 2011.
- Ponzio, Richard, et al. *Smart Coalitions, The UN75 Declaration and Beyond*. Edited by William Durch, Stimson Center, 2020, pp. 51–63, UN 2.0: Ten Innovations for Global Governance: 75 Years beyond San Francisco, www.jstor.org/stable/resrep25153.12. Accessed 15 Feb. 2021.

- Rosol, Christoph, Sara Nelson, and Jürgen Renn. "Introduction: In the Machine Room of the Anthropocene." *The Anthropocene Review* 4.1 (2017): 2-8.
- Ruddiman, William F. "The anthropocene." *Annual Review of Earth and Planetary Sciences* 41 (2013): 45-68.
- Rueckert, William. "Literature and ecology: An experiment in ecocriticism." *The ecocriticism reader: Landmarks in literary ecology* 108 (1996).
- Sanjeev, Gunjan M., and Arvind K. Birdie. "The tourism and hospitality industry in India: emerging issues for the next decade." *Worldwide Hospitality and Tourism Themes* (2019).
- Sassoon, Dael, et al. "Scots pine (*Pinus sylvestris*) dynamics in the Welsh Marches during the mid to late-Holocene." *The Holocene* 31.6 (2021): 1033-1046.
- Sending, Ole Jacob, et al. "Climate Change And International Relations: A Five-Pronged Research Agenda." *Journal of International Affairs*, vol. 73, no. 1, 2019, pp. 183–194. JSTOR, www.jstor.org/stable/26872788.
- Shiva, Vandana, and Maria Mies. *Ecofeminism*. Zed Books Ltd., 2014.
- Shiva, Vandana. *Soil not Oil: Environmental Justice in a Time of Climate Crisis*. South End Press, 2008.
- Shockley, Kenneth. "Sourcing Stability in a Time of Climate Change." *Environmental Values*, vol. 23, no. 2, 2014, pp. 199–217., www.jstor.org/stable/43695133.
- Silva, L. C. R., and M. Anand. "Historical Links and New Frontiers in the Study of Forest-Atmosphere Interactions." *Community Ecology*, vol. 14, no. 2, 2013, pp. 208-218., www.jstor.org/stable/24113582.
- Snow, Charles Percy. *The two cultures*. Cambridge University Press, 2012.

- Sorensen, Carlo, et al. "Rethinking Coastal Community Approaches to Climate Change Impacts and Adaptation." *Journal of Coastal Research*, 2018, pp. 1521–1525. JSTOR, www.jstor.org/stable/26488472. Accessed 25 Feb. 2021.
- Sorenson, Raymond P. "Eunice Foote's pioneering research on CO2 and climate warming." *Search and Discovery* (2011).
- Stachiw, Jaroslaw Drahomyr. *The Birth of a Profession: The Transition From Mechanic to Engineer*. The Pennsylvania State University, 1963.
- Staff, Ecosystem Planning. "Submitted via Region 5 website Re: Comments on Notice of Intent and Detailed Proposed Action for the Forest Plan Revisions on the Inyo, Sequoia and Sierra National Forests." (2014).
- Steffen, W., et al. "BL, and Wasson, RJ 2004. Global change and the earth system: A planet under pressure." *Nature* 427: 244-245
- Steffen, Will, et al. "The Anthropocene: Conceptual and Historical Perspectives." *Philosophical Transactions: Mathematical, Physical and Engineering Sciences*, vol. 369, no. 1938, 2011, pp. 842–867. JSTOR, www.jstor.org/stable/41061703. Accessed 20 Jan. 2021.
- Stillman, Robert E. "The Politics of Sidney's Pastoral: Mystification and Mythology in The Old Arcadia." *ELH* 52.4 (1985): 795-814.
- Stocker, Benjamin D., et al. "Multiple greenhouse-gas feedbacks from the land biosphere under future climate change scenarios." *Nature Climate Change* 3.7 (2013): 666-672.
- Storlazzi, Curt D., et al. "Most atolls will be uninhabitable by the mid-21st century because of sea-level rise exacerbating wave-driven flooding." *Science Advances* 4.4 (2018): eaap9741.
- Sullivan, Heather I. "Dirty Nature: Ecocriticism and Tales of Extraction - Mining and Solar Power - in Goethe, Hoffmann, Verne, and Eschbach." *Colloquia Germanica*, vol. 44, no. 2, 2011, pp. 111–131. JSTOR, www.jstor.org/stable/43551602.

- Sustainable Development Solutions Network (SDSN), and The Institute for Sustainable Development and International Relations (IDDRI). *Taking the 2°C Limit Seriously*. Sustainable Development Solutions Network, 2014, pp. 3–6, Pathways to Deep Decarbonization, www.jstor.org/stable/resrep15875.5. Accessed 15 Feb. 2021.
- Sweet, William V., and Joseph Park. "From the extreme to the mean: Acceleration and tipping points of coastal inundation from sea level rise." *Earth's Future* 2.12 (2014): 579-600.
- Swiss, Re. "Natural catastrophes and manmade disasters in 2017: a year of record-breaking losses." (2018).
- "Textile Manufacturing", Boundless World History. <https://courses.lumenlearning.com/boundless-worldhistory/chapter/textile-manufacturing>. Accessed on 24 Aug, 2021.
- Thiel, Tamiko, and Serenella Iovino. "The Reverse of the Sublime: Dilemmas (and Resources) of the Anthropocene Garden." *RCC Perspectives*, no. 3, 2019, pp. 1–37. JSTOR, www.jstor.org/stable/26696727.
- Thomas, Julia Adeny. "JAS Round Table on Amitav Ghosh, 'The Great Derangement: Climate Change and the Unthinkable.'" *The Journal of Asian Studies*, vol. 75, no. 4, 2016, pp. 929–955. JSTOR, www.jstor.org/stable/44165215.
- Thoreau, Henry David, and Jeffrey S. Cramer. "Walden." *Walden*. Yale University Press, 2008.
- Thornes, Tobias. "Animals and Climate Change." *Journal of Animal Ethics*, vol. 6, no. 1, 2016, pp. 81–88. JSTOR, www.jstor.org/stable/10.5406/janimalethics.6.1.0081. Accessed 15 Feb. 2021.
- Timothy Clark. "The Deconstructive Turn." *Symplokē*, vol. 21, no. 1-2, 2013, pp. 11–26. JSTOR, www.jstor.org/stable/10.5250/symploke.21.1-2.0011

- “Trade in the 19th Century British Empire?” *How Important Was Trade in the 19th Century British Empire?*, britishempire.me.uk, <https://britishempire.me.uk/trade.html>. Accessed 20 July 2020.
- Trexler, Adam. *Anthropocene fictions: the novel in a time of climate change*. University of Virginia Press, 2015.
- van Dijk, Gijs, et al. "Biogeochemical characteristics of the last floating coastal bog remnant in Europe, the Sehestedt Bog." *Wetlands* 39.2 (2019): 227-238.
- Vulturius, Gregor, et al. *Building Bridges and Changing Minds: Insights from Climate Communication Research and Practice*. Stockholm Environment Institute, 2016. www.jstor.org/stable/resrep02772. Accessed 15 Feb. 2021.
- Wa Thiong'o, Ngugi. *Decolonising the mind: The politics of language in African literature*. East African Publishers, 1992.
- Wake, Thomas A., Douglas R. Doughty, and Michael Kay. "Archaeological investigations provide late Holocene baseline ecological data for Bocas del Toro, Panama." *Bulletin of Marine Science* 89.4 (2013): 1015-1035.
- Walker, Tom N., et al. "Vascular plants promote ancient peatland carbon loss with climate warming." *Global Change Biology* 22.5 (2016): 1880-1889.
- Waters, Colin N., et al. "Evidence for a Stratigraphic Basis for the Anthropocene." *STRATI 2013*. Springer, Cham, 2014. 989-993.
- Watson, Andrew J., et al. "Ocean Deoxygenation, the Global Phosphorus Cycle and the Possibility of Human-Caused Large-Scale Ocean Anoxia." *Philosophical Transactions: Mathematical, Physical and Engineering Sciences*, vol. 375, no. 2102, 2017, pp. 1–14. JSTOR, www.jstor.org/stable/44678559. Accessed 15 Feb. 2021.
- Watts, Cedric. *Heart of darkness*. New York: Infobase Publishing, 2008.

- Weart, Spencer. "Cultures of Prediction in Atmospheric and Climate Science: Epistemic and Cultural Shifts in Computer-based Modelling and Simulation ed. by Matthias Heymann, Gabriele Gramelsberger, and Martin Mahony." *Technology and Culture* 59.2 (2018): 505-506.
- Wehner, Michael F., et al. "Droughts, floods, and wildfires." *Climate science special report: fourth national climate assessment* 1.GSFC-E-DAA-TN49033 (2017).
- White, Matthew. "'Every loathsome reptile form of vice and crime': Formulations of the nineteenth-century London execution crowd: fears, fictions, and realities." *Execution Culture in Nineteenth Century Britain*. Routledge, 2020. 61-80.
- White, Matthew. "The rise of cities in the 18th century." *British Library, Georgian Britain*. <https://www.bl.uk/georgian-britain/articles/the-rise-of-cities-in-the-18th-century>. Accessed on 15 Sep, 2021.
- White, Sam, Christian Pfister, and Franz Mauelshagen, eds. *The Palgrave handbook of climate history*. Palgrave Macmillan, 2018.
- Whitney, Elspeth. "Lynn White Jr.'s 'The historical roots of our ecologic crisis' after 50 years." *History Compass* 13.8 (2015): 396-410.
- Willis, Roy. "Man and beast." (1974).
- Wodon, Quentin, et al., eds. *Climate change and migration: evidence from the Middle East and North Africa*. The World Bank, 2014.
- World Health Organization. "COP24 special report: health and climate change." (2018).
- Wuebbles, Donald J., David W. Fahey, and Kathy A. Hibbard. "Climate science special report: fourth national climate assessment, volume I." (2017).
www.historic-uk.com/HistoryMagazine/DestinationsUK/The-Manchester-Ship-Canal/
- Zalasiewicz, Jan, et al. "The Anthropocene: a new epoch of geological time?." (2011): 835-841.

Zalasiewicz, Jan, et al. "The Working Group on the Anthropocene: Summary of evidence and interim recommendations." *Anthropocene* 19 (2017): 55-60.



CERTIFICATE OF PUBLICATION OF PAPERS FOR PH.D.

This is to certify that Ms. Savita___ pursuing Ph.D. (**Part Time**) programme in Department of English_____ with Registration Number 41900024___ under the Guidance of Dr. Sandeep Kumar Sharma_ has the following Publications / Letter of Acceptance in the Referred Journals / Conferences mentioned thereby fulfilling the minimum programme requirements as per the UGC.

S no.	Title of paper with author names	Name of journal / conference	Published date	Issn no/ vol no, issue no	Indexing in Scopus/ Web of Science/UGC-CARE list (<i>please mention</i>)
1.	Nature-Human Interactions in Neo Imperial World: An Ecocritical Study of Margaret Atwood's <i>Surfacing</i>	International Journal of Psychosocial Rehabilitation ISSN-1475-7192	15 th March 2020	Vol 24/ Issue 3.1	Scopus
2.	Resource-Sustainability as a Culture: A Study of Margaret Atwood's <i>Surfacing</i> and Ngugi wa	ROCK PEBBLES ISSN-0975-0509	June-2022	Vol. xxvi. No. ii	UGC-CARE

	Thiongo's <i>The River Between</i>				
3.	Human Suffering in the Sunderbans: A Study of Climatic Catastrophe in Amitav Ghosh's <i>The Gun Island</i>	Shodh Sarita ISSN-2348-2397	January- March-2021	Vol. 8, Issue 29	UGC-CARE
4.	Animal-Human Relationship: An Ecocritical Study of <i>The River Between</i> by Ngugi wa Thiongo and <i>Surfacing</i> by Margaret Atwood	Shodh Sanchar Bulletin ISSN-2229-3620	January- March-2021	Vol 11, Issue 41	UGC-CARE
5.	CONFRENCES Contextualizing Nonfiction in the Age of Climate Change with	International Symposium on 'The Interdisciplinary	Not applicable	Not applicable	Not applicable

	Specific Reference to Amitav Ghosh's <i>The Great Derangement</i>	Hermeneutic: Re-appraising the Socio-cultural Episteme' –held on 05 March, 2020 by Lovely Faculty of Business and Arts, LPU, Punjab			
6.	Equality Issues and Climate Change: A Study of Two Literary Texts	International Conference on Equality, Diversity and Inclusivity: Issues and Concerns Organized by Lovely Professional University, Punjab on 25 th Sept. 2021	Not applicable	Not applicable	Not applicable

7.	An Ecocritical Study of Amitav Ghosh's <i>The Gun Island</i>	International e- Conference on Innovations in Science, Technology, Humanities, Management and e-Commerce Organized by Anand Niketan College of Science, Arts and Commerce, Anandwan- Warora, Distt. Chandrapur, Maharashtra-India on 14-15 March 2022	Not applicable	Not applicable	Not applicable
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Savita 18/01/2023, 41900024

savitabatala@yahoo.co.in

Signature of Candidate with Date, Registration No, Email ID

Dr Sandeep Kumar Sharma

Dr. Sandeep Kumar Sharma 12800

18/01/2023

Signature of Guide with Date & UID