

# Climate Anxiety and Environmental Crisis in Contemporary Climate Fiction: A Comparative Study of Gun Island and The Ministry for the Future

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| Article Detail:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Abstract                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p>Received: 08 Aug 2026;<br/> Received in revised form: 06 Sep 2026;<br/> Accepted: 09 Sep 2026;<br/> Available online: 14 Sep 2026</p> <p><b>Keywords—</b> Climate Anxiety, Environmental Crisis, Climate Fiction (Cli-Fi), Climate Change, Human and Nonhuman Migration, Environmental Justice, Ecocriticism.</p> <p>©2026 The Author(s). Published by International Journal of English Language, Education and Literature Studies (IJEEL). This is an open access article under the CC BY license (<a href="https://creativecommons.org/licenses/by/4.0/">https://creativecommons.org/licenses/by/4.0/</a>).</p> | <p>Climate fiction, commonly known as Cli-Fi, has become an important literary response to the growing concerns about climate change and environmental degradation. As climate change continues to affect human societies across the globe, contemporary literature increasingly explores not only environmental crises but also the ways in which they shape human emotions, perceptions, and ideas about the future. This paper examines climate anxiety and environmental crisis in Amitav Ghosh's <i>Gun Island</i> and Kim Stanley Robinson's <i>The Ministry for the Future</i>. Although both novels engage with climate change, they present the crisis from different narrative perspectives and cultural contexts. The study examines how the two novels represent environmental instability, displacement, uncertainty, and the changing relationship between human beings and the natural world. In <i>Gun Island</i>, climate change is closely associated with migration, ecological disruption, and environmental uncertainty, whereas <i>The Ministry for the Future</i> presents the crisis on a broader global scale, focusing on its social, political, and human consequences. Reading the two novels together makes it possible to consider how contemporary writers represent the effects of climate change in different ways. Drawing on ecocritical perspectives and recent discussions of climate anxiety, the paper argues that climate fiction does not simply represent environmental destruction. It also brings out the fear, uncertainty, and emotional responses associated with living through an ecological crisis. Through a comparative study of the selected novels, the paper explores how literature can make the human consequences of climate change more visible and understandable. It therefore highlights the close relationship between environmental crisis, climate anxiety, and human experiences of vulnerability and survival.</p> |

## I. INTRODUCTION

Human activities have contributed significantly to the present climate crisis. Rapid urbanization, indiscriminate cutting of forests, and the construction of large buildings, shopping malls, industries, and

other infrastructures have disturbed the ecological balance of the planet. As forests disappear, many species lose their natural habitats and face the threat of extinction. Rising global temperatures, heatwaves, floods, droughts, and wildfires have become increasingly common across the world. These

environmental changes have also created a growing sense of fear, uncertainty, and helplessness about the future of the planet, a feeling that is now widely recognised as climate anxiety.

Climate change has emerged as one of the most serious challenges of the twenty-first century. In recent years, even countries known for their moderate climate, such as the United Kingdom, have experienced increasingly severe heatwaves, demonstrating that climate change is no longer a distant threat but an immediate global reality. The consequences of this crisis are visible everywhere. Rising sea levels, environmental degradation, and extreme weather events are forcing people to migrate, while many animal species are losing their habitats and changing their migratory patterns.

The devastating flash floods in Nepal on 26 August 2026 demonstrate how extreme environmental events can pose an immediate threat to human life and communities (Ministry of External Affairs, Government of India). Such events further highlight the environmental uncertainties and vulnerabilities that contemporary climate fiction seeks to represent.

The increasing environmental crisis has also influenced contemporary literature. Climate fiction, or cli-fi, has emerged as an important literary genre that explores ecological catastrophe and its impact on both human and nonhuman life. Through imaginative narratives, climate fiction enables readers to confront environmental realities and reflect upon the anxieties generated by an uncertain future.

Amitav Ghosh's *Gun Island* (2019) and Kim Stanley Robinson's *The Ministry for the Future* (2020) are two significant examples of contemporary climate fiction. While *Gun Island* portrays climate-induced migration, environmental injustice, and the interconnected fate of humans and nonhumans, *The Ministry for the Future* presents a global vision of climate catastrophe and examines possible political and collective responses to environmental collapse. Both novels reveal not only the physical consequences of climate change but also the psychological fear and anxiety that accompany ecological crises.

This study attempts to examine how *Gun Island* and *The Ministry for the Future* represent environmental crisis and climate anxiety in the

contemporary world. Through a comparative reading of these texts, the study seeks to demonstrate that climate fiction not only depicts ecological destruction but also urges readers to rethink humanity's relationship with nature and its responsibility towards the future of the planet.

## II. LITERATURE REVIEW

Ecocritical scholarship provides the theoretical foundation for understanding how literature engages with environmental crisis. Greg Garrard, in *Ecocriticism*, discusses different positions within environmental thought, including environmentalism, deep ecology and ecofeminism, each offering a different understanding of the relationship between humans and the natural world. His discussion demonstrates that environmental crisis is not merely a scientific issue but also an ethical, cultural and political concern. Similarly, Cheryll Glotfelty defines ecocriticism as the study of the relationship between literature and the physical environment, emphasising that literary texts play an important role in shaping environmental awareness. Lawrence Buell further argues that environmentally conscious literature presents nature as an active force influencing human experience rather than as a passive setting. Together, these works establish an important framework for analysing climate fiction through an ecocritical lens.

Recent studies have focused on climate fiction as a distinct literary response to climate change. Axel Goodbody and Adeline Johns-Putra discuss how climate fiction uses realism as well as alternative narrative strategies to represent the complexity of climate change and its wider emotional, ethical and practical concerns. Susan Clayton's discussion of climate anxiety explains how climate change can produce emotional responses such as anxiety and distress, while also distinguishing between adaptive and maladaptive forms of anxiety. Rob Nixon's concept of "slow violence" similarly highlights the gradual and often invisible nature of environmental destruction, demonstrating how literature makes long-term ecological crises visible.

Existing studies on Amitav Ghosh's *Gun Island* have examined the novel through issues such as climate change, migration and environmental crisis. Bose and Satapathy (2021) examine the

relationship between climate crisis and immigration in the novel, particularly focusing on the socio-economic, political and climatological reasons for, and consequences of, the migration of underprivileged people. Their study connects climate change with illegal migration, human trafficking, xenophobia and the difficulties faced by migrants in a globalised world. Ahmed (2024), on the other hand, approaches Gun Island as climate fiction and focuses on environmental injustice, migrant ecologies, climate refugees and the simultaneous migration of humans and nonhumans. His study also examines how such movements challenge geographical borders and orders, with particular attention to the environmental crisis in the Sundarbans. These studies therefore show that Gun Island has been discussed from different but connected perspectives, particularly migration, environmental injustice and the relationship between human and nonhuman worlds.

In contrast, recent studies on Kim Stanley Robinson's *The Ministry for the Future* have examined the novel through the Anthropocene, environmental crisis and different forms of climate response. Rani et al. (2024) examine the novel through the framework of ecocriticism and discuss the representation of the Anthropocene, environmental degradation, human-nature relationships, resilience and collective action. Their study also considers the novel's criticism of anthropocentrism, capitalist systems and political inaction, along with possible responses such as geoengineering and policy reform. Leonash et al. (2024) similarly examine *The Ministry for the Future* as a work of climate fiction that encourages environmental awareness and action. Their discussion includes climate change and its effects on human societies, collective action, global cooperation and the political, economic, technological and social dimensions of the climate crisis. They also discuss possible responses such as carbon pricing, renewable energy, sustainable agriculture, geoengineering and carbon capture, while drawing attention to the unequal effects of climate change on marginalised communities.

A comparison of these existing studies shows that Gun Island and *The Ministry for the Future* have been examined through different but overlapping aspects of the climate crisis. Studies on Gun Island give particular attention to climate-induced

migration, displacement, environmental injustice and human-nonhuman relations, whereas studies on *The Ministry for the Future* place greater emphasis on the Anthropocene, collective action, climate governance and possible political, economic and technological responses. Within the studies reviewed here, the two novels are generally examined separately rather than through a comparative analysis centred specifically on climate anxiety and environmental crisis. The present study brings Gun Island and *The Ministry for the Future* together and examines their common concerns as well as their differences, particularly in the ways they represent environmental uncertainty, human vulnerability and possible ecological futures. In this way, the study builds upon existing ecocritical and climate-fiction scholarship while giving particular attention to the emotional dimension of climate change through the framework of climate anxiety.

### III. THEORETICAL FRAMEWORK

This study is primarily informed by ecocriticism and recent discussions on climate anxiety. Ecocriticism provides the broader framework for examining how literary texts represent the relationship between human beings and the natural environment, while climate anxiety offers a useful perspective for understanding the emotional consequences of environmental crisis.

Greg Garrard's discussion of ecocriticism forms an important basis for this study. His explanation of environmentalism, deep ecology and ecofeminism demonstrates that environmental problems cannot be viewed only as scientific concerns but must also be understood in ethical, cultural and political terms. Similarly, Cheryll Glotfelty's definition of ecocriticism as the study of the relationship between literature and the physical environment highlights the relevance of literary texts in shaping environmental consciousness. Lawrence Buell further strengthens this perspective by arguing that the natural environment functions as an active presence that influences human life rather than serving merely as a background to human action. Together, these perspectives provide the ecocritical foundation for analysing the selected novels.

The study also draws upon Susan Clayton's discussion of climate anxiety. Clayton explains that fear, grief, uncertainty and emotional distress arising from climate change should be recognised as understandable responses to an increasingly unstable environment rather than as signs of individual psychological weakness. This perspective is particularly useful for examining how contemporary climate fiction represents the emotional experience of living under the constant threat of ecological crisis.

In addition, Rob Nixon's concept of "slow violence" offers an important framework for understanding environmental destruction as a gradual and often invisible process whose effects accumulate over time. His argument helps explain how climate fiction represents environmental crisis not only through sudden disasters but also through long-term ecological change that reshapes both human societies and the natural world.

By combining ecocritical perspectives with the concepts of climate anxiety and slow violence, this study examines how *Gun Island* and *The Ministry for the Future* represent environmental crisis and its emotional consequences. These theoretical perspectives provide the conceptual basis for the comparative analysis that follows.

#### IV. METHODOLOGY

This study adopts a qualitative research methodology based on textual analysis. It employs a comparative approach to examine Amitav Ghosh's *Gun Island* (2019) and Kim Stanley Robinson's *The Ministry for the Future* (2020) as two significant works of contemporary climate fiction.

The analysis is based primarily on close reading of the selected novels. Particular attention is given to the representation of environmental crisis, climate anxiety, ecological change and the relationship between human beings and the natural world. The study also examines how the two novels use different narrative approaches to represent the challenges posed by climate change.

The interpretation of the primary texts is supported by selected ecocritical theories and recent discussions on climate anxiety. The ideas of Greg Garrard, Cheryll Glotfelty, Lawrence Buell, Susan Clayton and Rob Nixon provide the principal

theoretical framework for analysing the novels. Relevant secondary sources on climate fiction are also consulted to situate the discussion within existing scholarship.

Since the study is comparative in nature, similarities and differences between the two novels are examined to understand how they imagine environmental crisis from different literary, cultural and political perspectives. Rather than evaluating scientific accuracy or environmental policy, the paper focuses on the literary representation of climate change and the emotional responses it generates.

#### V. DISCUSSION

##### 5.1 Environmental Crisis in *Gun Island*

Amitav Ghosh's *Gun Island* presents environmental crisis as a continuing process that affects land, human communities, animals, migration and everyday life. The novel does not represent climate change through one single disaster. Instead, floods, cyclones, droughts, wildfires, salinisation, changing weather patterns and the movement of animals gradually build a wider picture of ecological instability. From the beginning, environmental disruption is connected with the legend of the Gun Merchant. By introducing these disasters through the legend, Ghosh connects environmental crisis with cultural memory and suggests that the relationship between human beings and the natural world has long involved uncertainty, fear and conflict.

The Sundarbans becomes the first major ecological space through which this conflict is developed. Kanai describes it as a frontier where "the war between profit and Nature is fought" (Ghosh 8). The statement is important because the Sundarbans is not presented merely as a geographical setting. It becomes a space where commercial interests, human activities and the natural environment come into tension. This representation can be related to Lawrence Buell's understanding of the environment as an active presence rather than simply a background to human action. The phrase "the war between profit and Nature" also suggests that environmental degradation cannot be separated from economic interests and human intervention. The Sundarbans therefore establishes one of the central ecological concerns of the novel: the conflict between human

exploitation and the continuing power of the natural world.

The novel also connects environmental crisis with historical events. The reference to the Bhola cyclone of 1970 recalls one of the most devastating cyclones in the Bengal delta and shows how an environmental disaster can have consequences beyond immediate physical destruction. The cyclone is connected with large-scale loss of life and with the political circumstances surrounding the creation of Bangladesh. In this way, Ghosh presents environmental disasters as events that can affect social and political histories as well as individual lives. The reference is also relevant to Rob Nixon's concept of slow violence because the effects of environmental disasters do not necessarily end when the immediate event is over. Their consequences can continue through displacement, loss of livelihood and social disruption.

This continuing nature of environmental damage becomes particularly visible in the discussion of Cyclone Aila. The novel emphasises that the consequences of Aila continued long after the cyclone itself had passed. Large areas of fertile land were submerged by salt water and became unsuitable for cultivation, while communities were destroyed and families dispersed. The statement that "the fish catch is down, the land's turning salty" (Ghosh 60) shows how environmental change directly affects the livelihoods of people living in the Sundarbans. The problem is therefore not simply the occurrence of a cyclone; it is the long-term transformation of the land and water on which communities depend. This is where Nixon's idea of slow violence becomes particularly useful, since ecological damage gradually becomes part of everyday social and economic life.

Environmental degradation also produces displacement. After Aila, poverty and environmental insecurity create conditions in which migration becomes increasingly necessary, while traffickers take advantage of the vulnerability of affected communities. The novel therefore connects ecological crisis with human exploitation. The movement of people is not represented simply as a search for a better life but also as a consequence of losing the possibility of remaining safely in one's own environment. This aspect of *Gun Island* corresponds with the concerns identified by Bose and Satapathy

regarding climate crisis and immigration, while Ahmed's discussion further draws attention to people displaced by climate and environmental pressures, migrant ecologies and the movement of both human and nonhuman life.

One of the significant features of Ghosh's environmental representation is that migration is not restricted to human beings. Moyna observes that "Even the animals are moving" (Ghosh 61). This short statement expands the meaning of displacement in the novel. Ecological instability affects animals as well as people, and changes in habitat and climate lead to changes in the movement of nonhuman species. The novel consequently challenges a purely human-centred understanding of environmental crisis. This is consistent with an ecocritical approach because the consequences of ecological change are shown across the boundaries between human and nonhuman life.

The Rani section develops this idea further through the changing condition of the rivers and the dolphin population. The later discussion of fish deaths and the possible role of the refinery introduces another important dimension of environmental crisis: human-generated pollution. The statement, "We can't just let them get away with poisoning the Sundarbans" (Ghosh 96), shifts the focus from natural disasters to human responsibility. Ecological destruction in the novel is therefore caused not only by extreme weather but also by industrial activity and economic interests.

The effects of such environmental changes are experienced by nonhuman species as well. Rani and her pod abandon their old hunting grounds, and the novel observes that "No one knows where they belong any more, neither humans nor animals" (Ghosh 97). The line brings human and nonhuman displacement together. Both are affected by an environment whose earlier patterns can no longer be taken for granted. The ecological crisis consequently becomes a shared condition, although its effects may differ across species and communities.

The novel then extends this environmental instability beyond the Sundarbans. In the sections dealing with Venice, the changing landscape shows that ecological crisis is not limited to one region. The floods in Venice, the increasing presence of shipworms in the warming lagoon and the damage

caused to the city's foundations demonstrate how environmental change can affect human-made spaces and cultural heritage. The observation that shipworms are "invading Venice, with the warming of the lagoon's water" (Ghosh 230) connects a change in temperature with changes in a biological species and, eventually, with damage to human infrastructure. Buell's ecocritical perspective is useful here because the environment directly shapes the conditions under which human societies and their built spaces exist.

The movement from the Sundarbans to Venice also recalls Ghosh's earlier engagement with the Sundarbans in *The Hungry Tide*. In both novels, the relationship between human communities and the nonhuman environment remains important. However, *Gun Island* extends this ecological imagination across different geographical spaces. The Sundarbans, Venice and later California are not treated as isolated environments; rather, their experiences become part of a wider network of ecological change. This movement across places strengthens the novel's representation of environmental crisis as a global phenomenon.

The global dimension becomes particularly visible in the sections dealing with wildfires in California. The description of "Massive wildfires" (Ghosh 115) around Los Angeles and the movement of thousands of people to safety show that environmental disasters can disrupt both natural landscapes and human communities far from the Sundarbans. At the same time, the novel does not present a landscape after wildfire as completely lifeless. Different species may respond differently to environmental destruction, and the damaged landscape can continue to support forms of life.

The Los Angeles section also establishes a connection between contemporary climate disruption and its historical causes. The discussion of fossil-fuel dependence points towards the human contribution to the present environmental crisis. At the same time, changes in the distribution of snakes show that climate change affects nonhuman geographical patterns. Snakes that normally lived in warmer southern waters are increasingly being seen farther north because of warming oceans. Thus, climate change alters not only human settlements but also the geographical distribution of other species.

The later chapters make the relationship between climate change and animal migration even more explicit. The novel observes that "animal migrations are being hugely impacted by climate change" (Ghosh 284). This statement brings together one of the major environmental concerns running throughout *Gun Island*: climate change affects movement across species. Human beings migrate because of environmental insecurity, while animals move because their habitats and climatic conditions are changing. The novel therefore refuses to separate human migration from the wider movement of the nonhuman world.

Environmental crisis in *Gun Island* is also associated with increasing weather uncertainty. The Sightings chapter notes that unusual storms were becoming more common because of changing weather patterns. The Winds chapter similarly presents violent weather, hail and a tornado as immediate threats to human life. These events show that climate change is experienced not only through distant statistics or large-scale disasters but also through disruptions to ordinary life. Roads become inaccessible, buildings are damaged and people suddenly find themselves vulnerable to forces they cannot control.

This vulnerability becomes particularly significant in the representation of climate anxiety. Although the emotional dimension of climate crisis is not always expressed through the term "climate anxiety," the novel repeatedly creates situations of uncertainty, fear and helplessness. Deen's reaction during the flooding of Venice is especially important. He asks how people in such a highly developed city could be "so utterly alone and helpless" and "at the mercy of the earth" (Ghosh 232). The statement captures the loss of human control in the face of environmental forces. It also connects the material crisis represented throughout the novel with the psychological experience that forms an important part of the present study.

The novel consequently presents environmental crisis as more than a series of isolated natural disasters. Floods, cyclones, salinisation, pollution, wildfires, warming waters and changing animal migrations are interconnected signs of an unstable ecological system. These changes affect agriculture, fishing, migration, human settlements,

animal habitats and cultural spaces. At the same time, the novel repeatedly shows that environmental vulnerability can become social vulnerability, particularly for communities whose livelihoods depend directly on the environment.

Seen through the ecocritical framework used in this study, *Gun Island* therefore challenges the idea that nature exists separately from human life. Nature actively shapes human movement, economic conditions, social relationships and cultural memory, while human activities also alter ecological systems. The novel's representation of the Sundarbans and its movement towards other climate-vulnerable regions makes this interdependence increasingly visible. Environmental crisis becomes a shared but unequal experience, affecting humans and nonhumans in different yet connected ways.

Thus, *Gun Island* establishes a close relationship between ecological instability and human vulnerability. Its representation of environmental crisis prepares the ground for the emotional dimension of climate change that will be examined more closely in the following discussion. The novel shows that when environmental change begins to threaten homes, livelihoods, species and familiar landscapes, it also changes the way people understand security and the future. This connection between ecological disruption and emotional uncertainty provides an important basis for examining climate anxiety in the broader comparative analysis of contemporary climate fiction.

## 5.2 Climate Anxiety and Environmental Crisis in *The Ministry for the Future*

Kim Stanley Robinson's *The Ministry for the Future* presents climate change as a global crisis that affects not only the physical environment but also human emotions, social institutions, economic systems and political structures. Unlike *Gun Island*, which often approaches environmental crisis through particular landscapes, communities and movements of humans and nonhumans, Robinson gives the crisis a wider global scale. The novel begins with an extreme heatwave in India, where unusually high temperatures and humidity make the environment almost impossible for the human body to survive. The situation becomes even more severe because of power and water failures, the collapse of local infrastructure

and the large-scale loss of life. The description that "A few years ago it would have been among the hottest wet-bulb temperatures ever recorded. Now just a Wednesday morning" (Robinson 2) presents extreme climate conditions as something that is becoming increasingly normal. The statement suggests that what would once have been considered exceptional is gradually becoming part of everyday climatic reality.

The environmental crisis in the opening chapters is closely connected with fear and psychological distress. The heatwave does not end when the immediate disaster is over; its effects remain in the minds and bodies of those who survive it. Frank experiences panic attacks whenever he becomes hot, showing how an environmental event can become a psychological trigger long after the original event has passed. His question, "So why did I survive? ... Why just me, out of all those people?" (Robinson 27), further reveals survivor's guilt and emotional uncertainty. The experience of the heatwave therefore creates a lasting psychological burden. This representation can be understood through Susan Clayton's discussion of climate anxiety, particularly her emphasis on fear, grief and distress as understandable responses to environmental crisis. Robinson shows that climate anxiety can emerge not only from an abstract fear of future climate change but also from direct experience of environmental catastrophe.

Frank's trauma becomes even more visible when ordinary physical sensations begin to remind him of the disaster. He recalls that "life itself was just a long series of trigger events" (Robinson 46). The statement shows the extent to which the climate disaster has affected his everyday psychological experience. Heat, sweating and other ordinary bodily sensations can bring back memories of the catastrophe. Climate change is therefore represented not only as an external environmental problem but also as an experience that can remain within the individual. Robinson connects environmental destruction with memory, trauma and the difficulty of returning to a normal life after a disaster.

The novel also presents climate anxiety as a collective rather than merely individual experience. During the early discussion of the climate crisis, the characters recognise that people are aware of the danger but often fail to respond adequately. The

statement “They knew but they didn’t act. Couldn’t act. Didn’t act” (Robinson 12) expresses the tension between knowledge and action. Similarly, the people affected by the crisis are described as “scared” and “angry” (Robinson 19). Fear and anger therefore become responses to both environmental destruction and political inaction. The novel suggests that climate anxiety is intensified when people understand the seriousness of the crisis but feel unable to change the systems responsible for it.

This sense of helplessness is also connected with questions of climate justice. *The Ministry for the Future* repeatedly emphasises that the effects of climate change are not equally distributed. Those who have contributed least to environmental destruction can become some of its greatest victims. The statement “You pay for being the victim, not the criminal” (Robinson 32) captures this unequal distribution of climate suffering. The novel consequently connects environmental crisis with historical responsibility and justice. Its reference to “historical justice, or climate justice” (Robinson 34) further indicates that climate change cannot be separated from questions of responsibility between nations, communities and generations. This aspect of the novel can be connected with the ecocritical concern for environmental justice because ecological damage is shown to have unequal social consequences.

Robinson also expands the scale of the environmental crisis beyond individual human suffering. The novel refers to the current rate of species extinction as “the sixth great mass extinction event in Earth’s history” (Robinson 43). This presents climate and environmental crisis as a planetary problem affecting biodiversity as well as human society. The claim that humanity is creating a “biosphere catastrophe” that will remain visible in the geological record (Robinson 43) further strengthens the novel’s concern with the long-term consequences of human activity. From an ecocritical perspective, these descriptions challenge a purely human-centred understanding of environmental crisis. The health of the planet and the survival of other species become inseparable from human survival.

At the same time, Robinson connects environmental crisis with economic inequality and the unequal distribution of resources. The discussion that “if the Earth’s available resources were divided

up equally among all eight billion humans, everyone would be fine” (Robinson 57) draws attention to the relationship between environmental pressure and unequal consumption. The idea that “there is enough for all” (Robinson 58) challenges the assumption that environmental sustainability can be achieved simply through continued competition for resources. The novel therefore presents ecological crisis as partly a problem of social and economic organisation. Environmental sustainability requires not only technological change but also a reconsideration of how resources are distributed and consumed.

Another important concern in the novel is the difficulty of thinking about the future. Robinson describes this problem through the “tragedy of the time horizon” (Robinson 172). Present institutions often prioritise immediate economic interests over environmental consequences that may appear decades later. This creates a serious ethical problem because future generations cannot participate in present decisions that will determine their conditions of life. The Ministry therefore understands its responsibility as representing those who cannot yet speak for themselves. As the novel states, “We’re the Ministry for the Future. So we step in and play for the three-year-olds. We substitute for them” (Robinson 132). The idea introduces an important ethical dimension to climate action: protecting the environment is also a responsibility towards future generations.

However, *The Ministry for the Future* does not remain focused only on fear and helplessness. One of its distinctive features is its movement from climate anxiety towards collective action. After the devastating heatwave, people become “galvanized” and begin to reconsider existing systems and practices (Robinson 125). The repeated question of what must be done to reach an agreement and act upon it suggests a movement from remembering disaster to organising a response. In this sense, the novel does not treat climate anxiety only as a condition of paralysis. Emotional responses to environmental catastrophe can also become a motivation for political and social action.

The novel therefore gives considerable attention to economic and institutional responses to climate change. The idea of the carbon coin is particularly significant because it attempts to connect

carbon sequestration with financial value. The proposal that people would be taxed for burning carbon but paid for sequestering it creates an economic incentive for climate action. Similarly, the Ministry encourages central banks to use financial mechanisms to move the global economy away from carbon dependence. The statement "Central banks, she urged them, quantitatively easing the world off carbon!" (Robinson 216) shows the novel's attempt to imagine climate action through existing economic institutions. Robinson thus suggests that environmental transformation requires changes in financial systems as well as individual behaviour.

The novel also questions the assumption that technological efficiency alone can solve the environmental crisis. Its discussion of the Jevons Paradox shows that improvements in efficiency can sometimes increase overall resource consumption. Robinson therefore argues for a broader change in economic priorities. The statement "Not profit, but biosphere health, should be the function solved for" (Robinson 166) is particularly significant in this context. It suggests that the health of the biosphere should become a central measure of economic decision-making. The environmental crisis is consequently represented as a crisis of values as much as a crisis of technology.

Geoengineering forms another important part of Robinson's response to climate change. The discussion of Antarctic glaciers presents technological intervention as a possible way of slowing the effects of climate change. In Project Slowdown, meltwater beneath glaciers is pumped to the surface so that it can refreeze. The later statement "So we did it" (Robinson 473) suggests that the intervention has achieved a degree of success. However, the novel does not present geoengineering as a completely safe or simple solution. The discussion of solar radiation management in India acknowledges fluctuations in monsoon rainfall following geoengineering, while other characters recognise that technological interventions may have unintended consequences. The novel therefore maintains a tension between technological hope and ecological uncertainty. This makes its treatment of climate solutions more complex than a simple belief in technological progress.

Robinson also presents ecological restoration as an important response to environmental crisis.

Sustainable agriculture, carbon sequestration, reforestation, habitat corridors and rewilding gradually become part of the broader transformation of society. The Half Earth project is particularly significant because it attempts to create space for nonhuman life alongside human settlements. Habitat corridors allow animals to move between fragmented ecological spaces, while the return of species demonstrates the possibility of ecological recovery. In this context, the novel moves towards a more inclusive understanding of the environment. Animals are eventually described as having rights and as being part of the same planetary ecosystem as human beings. This perspective strongly supports the ecocritical idea that nature cannot be treated merely as a passive background to human life.

The novel's ecological vision becomes especially clear towards its later chapters. The idea of the Earth as "one ecosphere, one planet, a living thing they were all part of" (Robinson 510) presents the planet as a shared ecological system. This vision brings together several concerns developed throughout the novel: climate justice, human and nonhuman life, ecological restoration, economic change and responsibility towards future generations. The environmental crisis is therefore not presented as a problem that can be solved through one technological invention or one political decision. Instead, Robinson imagines a gradual transformation involving governments, financial institutions, communities, farmers, scientists and ordinary individuals.

Thus, *The Ministry for the Future* presents environmental crisis and climate anxiety as deeply interconnected. Extreme heat, drought, floods, species loss and climate-related displacement create fear, grief, trauma and helplessness, while political inaction and unequal responsibility intensify these emotional responses. At the same time, the novel gradually moves from catastrophe towards collective action, climate justice, economic transformation, technological intervention and ecological restoration. In this way, Robinson does not represent climate anxiety only as a feeling of fear about the future. He also explores how awareness of environmental crisis can produce a demand for collective responsibility and change. The novel ultimately imagines that the future of both human and nonhuman life depends on

recognising the planet as a shared ecological system and acting collectively to protect it.

### 5.3 Comparative Analysis: Climate Anxiety and Environmental Crisis in *Gun Island* and *The Ministry for the Future*

A comparative reading of *Gun Island* and *The Ministry for the Future* shows that both novels present climate change as an environmental crisis that deeply affects human and nonhuman life. However, the two novels differ in the scale, narrative approach and possible responses through which they represent this crisis. Ghosh approaches climate change through particular places, communities, migrations and encounters between humans and animals, while Robinson expands the crisis into a global political, economic and institutional framework. Despite these differences, both novels suggest that environmental instability cannot be separated from human vulnerability, social inequality and uncertainty about the future.

One of the most significant similarities between the two novels is their representation of environmental crisis as an interconnected process rather than as a single isolated event. In *Gun Island*, floods, cyclones, salinisation, pollution, wildfires, changing weather patterns and animal migrations gradually reveal the instability of ecological systems. The Sundarbans provides an important starting point, but the environmental crisis later extends to Venice and California. Similarly, *The Ministry for the Future* moves across different geographical locations and presents heatwaves, droughts, floods, glacier melting, wildfires, species loss and climate-related displacement as interconnected aspects of a global crisis. Thus, both novels challenge the idea that climate change belongs to one particular geographical region. The difference lies mainly in their emphasis: Ghosh makes the global crisis visible through specific landscapes and lived experiences, whereas Robinson presents it through a wider network of environmental, political and economic systems.

Both novels also challenge a purely human-centred understanding of environmental crisis. In *Gun Island*, the movement of animals is repeatedly placed alongside human migration. Moyna's observation that "Even the animals are moving" (Ghosh 61) makes the connection between human and nonhuman displacement particularly clear. The

changing movements of dolphins, snakes and other species show that ecological instability affects different forms of life. *The Ministry for the Future* develops a similar idea through habitat corridors, rewilding and the Half Earth project. Towards the later part of the novel, animals are imagined as beings with rights and as part of the same planetary ecosystem as humans. The statement that the Earth is "one ecosphere, one planet, a living thing they were all part of" (Robinson 510) expresses this broader ecological vision. Therefore, while Ghosh often represents human and nonhuman movement as a shared experience of environmental disruption, Robinson moves further towards imagining institutional and ethical changes in the relationship between human and nonhuman life.

The two novels are also closely connected through their representation of displacement. In *Gun Island*, environmental degradation in the Sundarbans contributes to poverty, insecurity and migration. People whose livelihoods depend on the land and water become increasingly vulnerable when these environments are altered by cyclones, salinity and other ecological changes. Importantly, migration is not represented simply as an individual choice; it is shaped by environmental and socio-economic conditions. *The Ministry for the Future* similarly presents climate-related displacement on a much larger scale. Refugee crises, droughts, heatwaves and changing environmental conditions create large movements of people and raise questions about borders, citizenship and international responsibility. The proposal of world citizenship and solutions such as the Nansen passport therefore indicates an attempt to imagine institutional responses to displacement. In this respect, both novels connect environmental crisis with human movement, but *Gun Island* focuses more closely on the lived vulnerability of displaced communities, while Robinson explores the political and institutional structures required to respond to mass displacement.

Climate anxiety forms another important point of connection between the two novels. In *Gun Island*, anxiety emerges through experiences of uncertainty, helplessness and the loss of human control over environmental forces. Deen's reaction during the flooding of Venice, when he questions how people could be "so utterly alone and helpless" and

“at the mercy of the earth” (Ghosh 232), captures this emotional dimension of ecological crisis. The anxiety in the novel is therefore closely connected with the sudden disruption of familiar environments and the realisation that technological or social security cannot completely protect people from environmental forces. In *The Ministry for the Future*, climate anxiety is represented more directly through Frank's trauma after the Indian heatwave. His panic attacks, survivor's guilt and continuing sensitivity to heat demonstrate how an environmental disaster can remain psychologically present even after the immediate event has ended. His statement that “life itself was just a long series of trigger events” (Robinson 46) shows how deeply the experience of climate catastrophe affects everyday life. Thus, both novels represent climate anxiety as a response to environmental uncertainty, but Ghosh develops it more through moments of ecological vulnerability, while Robinson gives greater attention to the continuing psychological effects of direct climate trauma.

The novels further suggest that climate anxiety cannot be separated from questions of responsibility and inequality. In *Gun Island*, environmental vulnerability is particularly visible among communities whose livelihoods depend directly on the Sundarbans. The consequences of Aila, salinisation and ecological degradation make it difficult for these communities to remain secure in their own environment. The novel therefore connects environmental damage with economic vulnerability and migration. *The Ministry for the Future* makes the question of unequal responsibility more explicit through its discussions of historical and climate justice. The statement “You pay for being the victim, not the criminal” (Robinson 32) highlights the unequal distribution of climate suffering. The novel also connects present climate action with responsibility towards future generations. Consequently, both texts recognise that climate change does not affect all people equally, but Robinson gives greater attention to the political and economic structures through which such inequalities might be addressed.

Another important difference concerns the relationship between climate anxiety and action. *Gun Island* largely presents characters encountering an environmental world that is becoming increasingly

unpredictable. The movement of people and animals, the destruction caused by extreme weather and the transformation of familiar landscapes create a sense of uncertainty about what the future may hold. The novel's emphasis remains strongly connected with the experience of living within an unstable environment. *The Ministry for the Future*, however, moves more explicitly from catastrophe and anxiety towards collective action. The memory of the heatwave becomes a source of political mobilisation, while the novel explores carbon coins, changes in financial institutions, sustainable agriculture, geoengineering, ecological restoration and international cooperation. The movement from fear towards action is therefore more clearly developed in Robinson's novel. Climate anxiety does not disappear, but it becomes one of the forces that can encourage people and institutions to reconsider existing systems.

The different treatment of solutions also reveals an important distinction between the novels. *Gun Island* does not offer a single systematic solution to the climate crisis. Instead, its ecological concerns emerge through the experiences of particular communities, landscapes and species. Its representation of environmental crisis encourages readers to recognise the connections between human activity, ecological disruption and vulnerability. *The Ministry for the Future*, in contrast, spends considerable attention on possible responses to climate change. Financial reform, carbon sequestration, renewable energy, sustainable agriculture, geoengineering and ecological restoration are all presented as parts of a wider transformation. At the same time, Robinson does not suggest that technology can solve everything. The uncertainty surrounding geoengineering and the discussion of the Jevons Paradox show that technological or economic solutions can themselves create new problems if they are not accompanied by changes in values and systems. The two novels therefore differ in their treatment of possible futures: Ghosh leaves the reader more directly with the experience and uncertainty of ecological crisis, while Robinson more extensively imagines the processes through which societies might respond to it.

Narrative scale is consequently one of the clearest differences between the two works. *Gun Island* moves between the Sundarbans, Venice and

California, but its environmental crisis remains closely connected with individual encounters, local communities, migration and the movements of animals. Its global dimension emerges through these interconnected places. *The Ministry for the Future* begins with an intensely localised human catastrophe in India but gradually expands into discussions of international finance, climate governance, refugee rights, global energy systems, geoengineering and ecological restoration. The novel therefore moves from the immediate experience of catastrophe towards large-scale institutional responses. This difference allows the two novels to complement each other: *Gun Island* makes the human and ecological experience of climate change particularly visible, while *The Ministry for the Future* explores how that crisis might be understood and addressed at the level of global systems.

The representation of nature also differs in emphasis. In *Gun Island*, nature often appears as an unpredictable and powerful presence that challenges human attempts to control or organise the environment. Floods, storms, changing animal movements and the transformation of landscapes repeatedly remind characters of the limits of human security. This connects closely with Buell's understanding of the environment as an active presence. In *The Ministry for the Future*, nature is also presented as an active system, but the novel increasingly explores ways in which human societies can participate in ecological restoration. Habitat corridors, rewilding, sustainable agriculture and carbon sequestration suggest a movement from simply responding to environmental damage towards actively repairing damaged ecosystems. Thus, both novels reject the idea of nature as a passive background, but Robinson places greater emphasis on the possibility of organised ecological restoration.

Despite these differences, neither novel presents climate change as only a scientific or environmental problem. Both connect ecological instability with social, economic and psychological consequences. In *Gun Island*, environmental crisis affects livelihoods, migration, human settlements, animals and cultural spaces. In *The Ministry for the Future*, the same crisis extends into financial systems, political institutions, international relations, refugee movements and questions of intergenerational

responsibility. Both therefore demonstrate the wider meaning of climate fiction: climate change becomes a way of examining how human societies understand vulnerability, responsibility and survival in a changing world.

The comparison also shows that climate anxiety in these novels is not simply a private emotional condition. It is produced and intensified by the wider social conditions of environmental crisis. Fear becomes connected with displacement, inequality, political inaction and the loss of confidence in existing systems. At the same time, both novels suggest that recognising vulnerability can create a greater awareness of human dependence on the natural world. In *Gun Island*, this awareness emerges through the shared movement and vulnerability of humans and animals. In *The Ministry for the Future*, it develops into a broader idea of collective responsibility, ecological restoration and the protection of future generations.

Therefore, the two novels offer different but complementary representations of contemporary climate crisis. *Gun Island* foregrounds ecological disruption, migration, environmental injustice and human-nonhuman interconnectedness, while *The Ministry for the Future* places greater emphasis on climate anxiety, institutional failure, collective action, climate governance and possible ecological futures. Yet both ultimately challenge the separation of environmental crisis from human experience. Their comparison demonstrates that climate anxiety emerges not only from fear of environmental destruction but also from the unequal conditions under which that destruction is experienced. At the same time, both novels suggest that recognising this vulnerability can lead to a reconsideration of humanity's relationship with the natural world. In this sense, contemporary climate fiction becomes not only a representation of ecological crisis but also a space for examining responsibility, vulnerability, survival and the possibility of a different future.

## VI. CONCLUSION

The comparative analysis of Amitav Ghosh's *Gun Island* and Kim Stanley Robinson's *The Ministry for the Future* demonstrates that contemporary climate fiction represents climate change not only as an

environmental problem but also as a crisis of human experience. Both novels show how ecological instability affects human communities, nonhuman life, patterns of migration and the ways in which people understand security and the future. At the same time, their different narrative approaches reveal the wide range of ways in which climate fiction can represent the complexities of the present climate crisis.

In *Gun Island*, environmental crisis is closely connected with particular landscapes, especially the Sundarbans, and with the lives of people and animals who depend upon these environments. Floods, cyclones, salinisation, pollution, wildfires and changing animal movements gradually create a sense of ecological instability. The novel also shows how environmental degradation can lead to poverty, displacement and migration. Human and nonhuman movements are presented together, suggesting that climate change affects different forms of life in interconnected ways. The environmental crisis therefore becomes a social as well as an ecological crisis, particularly for communities that are already vulnerable.

*The Ministry for the Future*, on the other hand, expands the representation of climate crisis to a wider global scale. The novel begins with an extreme heatwave and its devastating effects on human life, but gradually moves towards questions of climate justice, economic inequality, political responsibility, financial systems, technological intervention and ecological restoration. Frank's trauma and survivor's guilt demonstrate the psychological consequences of environmental catastrophe, while the later development of collective and institutional responses shows that climate anxiety can also become connected with action. The novel therefore moves from immediate catastrophe towards the possibility of social and political transformation.

The comparison of the two novels also shows that climate anxiety is closely connected with vulnerability and uncertainty. In *Gun Island*, feelings of helplessness emerge when characters encounter environmental forces that they cannot fully control. In *The Ministry for the Future*, the psychological effects of climate catastrophe become particularly visible through Frank's continuing trauma after the heatwave. Both novels therefore demonstrate that

climate change is experienced not only through physical environmental changes but also through fear, uncertainty, grief and a changing sense of the future. Climate anxiety, in this sense, is connected with the recognition that familiar ways of living can no longer be taken for granted.

Another important finding of the study is that environmental crisis cannot be separated from questions of justice and responsibility. The effects of climate change are not equally experienced by all people, and communities that are already socially or economically vulnerable often face greater environmental risks. *Gun Island* represents this inequality through the experiences of communities affected by ecological degradation and migration, while *The Ministry for the Future* addresses it more explicitly through historical responsibility, climate justice and the unequal distribution of resources. Both novels also extend this question beyond the present generation by drawing attention to the responsibility of human beings towards future life.

The study further demonstrates that both novels challenge a purely anthropocentric understanding of the environment. In *Gun Island*, animals are affected by changing habitats and climate conditions just as human beings are affected by displacement and environmental insecurity. *The Ministry for the Future* develops this concern through habitat restoration, rewilding, wildlife corridors and the recognition of nonhuman rights. The two novels thus present human and nonhuman life as interconnected rather than separate. This aspect of the novels supports the ecocritical understanding of nature as an active presence in human life.

At the same time, the novels differ in the extent to which they imagine possible responses to the climate crisis. *Gun Island* primarily makes the ecological and human consequences of climate change visible through its landscapes, movements and encounters. *The Ministry for the Future* goes further in imagining institutional, economic, technological and ecological responses. However, Robinson also shows that no single solution is sufficient. Geoengineering, economic reform, sustainable agriculture and ecological restoration all involve possibilities as well as uncertainties. The novel therefore presents climate action as a long and collective process rather than as the result of one technological or political solution.

Overall, the comparative study suggests that *Gun Island* and *The Ministry for the Future* offer two different but complementary ways of understanding climate crisis and climate anxiety. Ghosh foregrounds environmental disruption, migration, environmental injustice and human-nonhuman interconnectedness, while Robinson places greater emphasis on psychological trauma, global climate governance, collective action and possible ecological futures. Yet both novels ultimately question the separation between human society and the natural environment. They show that environmental instability can become social and psychological instability, while awareness of this vulnerability can also encourage a reconsideration of human responsibility towards the planet.

Thus, contemporary climate fiction can function as an important literary space for thinking about both the present crisis and the uncertain future it creates. *Gun Island* and *The Ministry for the Future* demonstrate that representing climate change involves representing not only damaged landscapes and extreme events but also the emotions, inequalities, movements and responsibilities that accompany them. Through their different approaches, the novels make visible the relationship between environmental crisis, climate anxiety and human vulnerability, while also encouraging a more responsible understanding of the shared ecological future of human and nonhuman life.

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