

Tribhuvan University

Climate Change as Slow Violence in Barbara Kingsolver's *Flight Behaviour*

A Dissertation Submitted to the Faculty of Humanities and Social Sciences, T. U.

In Partial Fulfillment of the Requirements for the Degree of

MASTER OF PHILOSOPHY IN ENGLISH

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August, 2025

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Letter of Recommendation

Mr. Ram Prasad Bhusal has completed his M. Phil Dissertation “Climate Change as Slow Violence in Barbara Kingsolver’s *Flight Behaviour*” under my supervision. He carried out this study from June 2025 to August 2025. I hereby recommend this Dissertation be submitted for the final viva voce.

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Letter of Approval

This Dissertation entitled “Climate Change as Slow Violence in Barbara Kingsolver's *Flight Behaviour*” submitted to the Central Department of English, Tribhuvan University by Mr. Ram Prasad Bhusal has been approved by the undersigned members of the Research Committee.

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Declaration

I solemnly declare that the Dissertation entitled “Climate Change as Slow Violence in Barbara Kingsolver's *Flight Behaviour*” is a product of my independent research, carried out in accordance with the academic regulations of the Central Department of English, Faculty of Humanities and Social Sciences, Tribhuvan University. This dissertation has been prepared and submitted in partial fulfillment of the requirements for the Degree of Master of Philosophy in English.

I, hereby affirm that all sources consulted, cited, and referenced during the course of this research have been duly acknowledged with academic integrity. This work is original and has neither been submitted previously for any academic qualification nor published elsewhere, in whole or in part, in any form.

Wherever ideas, arguments, data, or textual excerpts of other scholars have been drawn upon, due credit has been given through appropriate citation and referencing. I further declare that I have conscientiously adhered to the ethical norms and scholarly conventions throughout the research, analysis, and composition of this dissertation.

By submitting this work, I reaffirm my commitment to uphold the values of academic honesty, intellectual rigor, and research integrity.

Ram Prasad Bhusal

August, 2025

Acknowledgments

First and foremost, I extend my deepest gratitude to my dissertation supervisor Prof. Dr. Jib Lal Sapkota, former Head of the Central Department of English, Tribhuvan University, for his continuous support, insightful guidance, and constructive feedback throughout the course of this research. His mentorship has been instrumental in shaping both the direction and depth of this work.

I would like to express my profound gratitude to my external supervisor, **Dr. Bal Bahadur Thapa**, whose scholarly guidance, invaluable insights, and positive feedbacks have been instrumental in shaping and refining this dissertation.

I am equally indebted to the Head of the Central Department of English, Prof. Dr. Dhurba Bahadur Karki, whose encouragement and academic leadership have greatly strengthened my journey through the M.Phil. Program.

My sincere thanks also go to my esteemed Gurus - Prof. Dr. Abhi Subedi, Prof. Dr. Arun Gupto, Prof. Dr. Krishna Chandra Sharma, Prof. Dr. Ram Chandra Paudel, Prof. Dr. Anirudra Thapa, Prof. Dr. Ananda Sharma, Dr. Shiva Rijal, Dr. Kamal Sharma and Dr. Komal Phuyal - whose innovative pedagogy and transformative classroom practices have left a lasting impact on my academic development.

I would like to dedicate this dissertation to my beloved mother, Krishna Kumari Bhusal, the living embodiment of inspiration, whose immeasurable sacrifices, boundless patience and joyous moment in celebrating each of my successes have been the foundation of my personal and professional growth. Even in absence of my father's physical presence, she has stood firmly beside me, carrying forward his dreams with remarkable strength.

My special dedication to this work is to the cherished memory of my Late Father Devi Ram Bhusal, whose steadfast support, selfless sacrifices, and heartfelt wish to see me excel academically have been my guiding light from childhood to this very achievement. While I

am deeply grateful to have fulfilled his aspirations with an outstanding performance, my greatest sorrow remains that the happiness of this success could not be shared in his presence. The timeless ideals of honesty, hard work, and perseverance they both instilled in me are the moral foundation of my life, and this accomplishment stands as a proud tribute to their enduring love and unwavering faith in my potential.

I also express deep gratitude to my mother-in-law, Mina Kumari Bhattarai, whose encouragement and joy in celebrating my successes have meant so much to me. Her heartfelt support has been a source of comfort and motivation. I hold dear the cherished memory of my Late Father-in-law, Devi Bhakta Bhattarai, whose presence I have not witnessed physically but whose legacy and spirit continue to inspire me every day.

My heartfelt appreciation extends to my sister, Radha Khanal and brother-in-law, Bishnu Prasad Khanal whose constant encouragement and moral support have been a pillar of strength throughout my entire academic journey, from its very beginning to this day.

I am also blessed by the joyful presence of my daughters, Aariya and Akshiney, whose singing, dancing and spontaneous performances often lifted my spirits during moments of fatigue and stress.

Finally, I owe an immeasurable debt to my better half, Maya Bhattarai Bhusal, whose constant love, reliable support, and boundless patience have been the cornerstone of this academic journey. Even amidst my hectic schedule, she consistently encouraged me to continue my studies and took on numerous responsibilities to help me manage my time effectively. Whenever challenges arose, she thoughtfully addressed them, always mindful not to let anything hamper or disturb my focus. This dissertation stands as much a testament to her sacrifices and steadfast commitment as it does to my own efforts.

Thank you all.

August, 2025

Ram Prasad Bhusal

Abstract

The present study explores the impact of climate change on displaced monarch butterflies and farming in Turnbow farming of Tennessee in Barbara Kingsolver's novel *Flight Behaviour*. Dellarobia Turnbow and Ovid Byron demonstrate a profound sense of connection to nature, and a strong protest against harmful human activity like logging. However, their differing views on the arrival of butterflies in Turnbow farming show a tension between those who romanticize natural things and those who are seriously worried about anti-nature activities. Nevertheless, their constant mutual understanding that appears as the novel progresses is their fascination towards nature and ecological system. Gradually, they share similar views in their attempt to resist patriarchal and capitalist systems that seek to exploit nature bringing climatic adverse situation. Following the qualitative research design, this study brings ideas from the works of Amitav Ghosh, Dipesh Chakrabarty, and Lawrence Buell to develop a theoretical framework for analyzing the primary text under scrutiny.

Keywords: capitalism, flight, nature, ecological denial, slow violence, climate fiction

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Chapter I: Representation of Climate Change and *Flight Behaviour*

This research explores how climatic change adversely affects Monarch butterflies' migration pattern coming to Turnbow farm instead of Mexico mountain, and agricultural activities as seen in the family of Dellarobia as shown in the novel *Flight Behaviour* by Barbara Kingsolver. Here, I argue that, the Monarch butterflies' coming to Turnbow farm and Dellarobia's concern of degrading farming show that they are displaced due to climate change though pattern of displacement differs as it is more physical in the case of butterflies and more psychological in the case of Dellarobia.

Monarch butterflies and Dellarobia share a kind of similar fate where the 'Flight' of butterflies indicates the 'Flight' of Dellarobia metaphorically. Dellarobia's fascination to butterflies, researcher Ovid, and nature shows her agitation to the practices that damage natural world contributing climate change. Thus, this research critiques capitalistic approaches of modern society in the novel under scrutiny that harm climate chain thereby posing a threat to climate justice. For this, the theoretical insights of climate change discourse envisioned by Rob Nixon, Dipesh Chakrabarty, Adrian Martin, Gregers Andersen, and Amitav Ghosh are used.

Flight Behaviour explores how climate change affects farming, agro-based activities and rural communities, particularly in the context of Dellarobia's life while raising her children in rural Tennessee. The novel uses the degrading farming and arrival of displaced monarch butterflies as a symbol to analyze the disruption of climate change that causes problems in the natural world and the livelihoods of citizens like Dellarobia. Thus, the novel exposes how climate change-related complexities exacerbate existing economic struggles in rural communities, forcing families to make difficult choices about their farms and futures.

The genre of 'climate-centered fiction' has gradually developed and expanded its thematic scope. Amitav Ghosh, in *The Great Derangement: Climate Change and the Unthinkable*, expresses deep concern about the deteriorating state of nature caused by climate change - a crisis that, he

argues, has not been addressed with sufficient seriousness even in fictional narratives. In this context, Ghosh asserts that “the climate crisis is also a crisis of culture, and thus of the imagination” (12), highlighting its profound and lasting impact on human psychology. His subsequent work, *The Nutmeg’s Curse* (2021), extends this exploration, examining the worsening climatic conditions alongside the global challenges brought by the COVID-19 pandemic.

Similarly, Gregers Andersen, in *Climate Fiction and Cultural Analysis*, emphasizes the significance of climate fiction, noting that it “... provides speculative insights into how it might be to feel and understand in such worlds” (1). He compares it to science fiction in its capacity to envision the future, observing that “consequently, climate fictions... have catastrophic consequences ... what is arguably the greatest challenge facing humanity today: anthropogenic global warming” (5). In this sense, climate fiction spans a broad temporal spectrum, engaging with the past, present, and future to imagine the human experience under changing climatic conditions.

Throughout the narrative, Kingsolver subtly critiques anthropocentrism and advocates for a shift towards an ecocentric perspective that recognizes the intrinsic value of nature beyond its utility to humans. The ecological disruptions depicted in the novel serve as a stark reminder of humanity’s complicity in environmental degradation and the urgent need for ethical responsibility. The characters’ responses to the climatic anomalies - ranging from denial and indifference to curiosity and activism - mirror the spectrum of human reactions evident in contemporary society. Kingsolver’s portrayal underscores that confronting climate change requires not only scientific awareness but also a collective ethical awakening that transcends individual interests and acknowledges the interconnectedness of all life forms.

This research has further established that *Flight Behaviour* exemplifies the role of climate fiction as a potent medium for ecological engagement. Kingsolver’s narrative demonstrates how literature can humanize scientific discourse, making complex environmental issues accessible and emotionally resonant for a wider audience. By embedding climate science within a compelling

human story, the novel transcends didacticism and fosters empathy, reflection, and critical engagement. In doing so, Kingsolver contributes to a growing body of climate fiction that seeks to bridge the gap between scientific knowledge and public consciousness, emphasizing the power of storytelling in shaping environmental awareness and ethical discourse.

The implications of this study's exploration of climate change as a form of slow violence in Kingsolver's *Flight Behaviour* extend well beyond the scope of literary analysis, underscoring the necessity of interdisciplinary engagement in addressing the complexities of climate change. The intersection of literature, environmental humanities, and climate science - as exemplified in both Kingsolver's narrative and the present research - demonstrates that meaningful responses to ecological crises must draw on insights from multiple fields of inquiry. Literature plays an important role in exploring the human side of climate change. It helps readers to feel empathy, to think critically about environmental issues, and to reflect on their moral responsibilities. In this way, literature goes beyond the boundaries of a single discipline and speaks to broader human concerns.

Literature Review

This dissertation is proposed to build on the following body of literature. It consists of three things; review on *Flight Behaviour*, review on theories of ecofiction on climate change, and key terms. The scholarly ideas developed by theorists are discussed in a way to develop a theoretical approach.

Eswar Rao highlights the centrality of global warming and climate change in *Flight Behaviour*, noting that "Global warming is the most critical and controversial issue focusing the world in the twenty-first century. Global warming is the term used to describe a gradual increase in the average temperature of the Earth's atmosphere, a change that is believed to be permanently changing the earth's climate" (71). Rao contends that human beings - particularly women - possess the capacity to acquire and share the knowledge necessary to address shifting environmental conditions and to

devise practical solutions. Similarly, Axel Goodbody examines the novel's engagement with climate issues, remarking that "The information we receive from climate scientists challenges the basics of contemporary social organisation. Climate change is therefore a daunting and depressing subject" (45). He further observes that culture is often at odds with the warnings issued by climate scientists. Referring to the novel's Appalachian setting, Goodbody writes, "Here in the Appalachian mountains they are faced with extinction, for, exposed to sub-zero temperatures, they will be lucky to survive the winter. Dellarobia learns that their presence is a symptom of damage to the earth's fragile ecosystems, and to understand it as part of a broader picture of change including weird weather" (149). This moment in the novel reveals Dellarobia's growing awareness that the monarch butterflies' arrival is not merely a natural curiosity but a visible sign of the disruption to delicate ecological systems.

Similarly, V.S Binu and A Selvaraj reads the novel with Eco - Socio concerns in Barbara Kingsolver's *Flight Behaviour*. They assert, "The novel highlights the disparities in the personal life of a Dellarobia Turnbow and in the geography in Feathertown which forms a part of her life. The incidents in the whole text are approached in two angles-ecological and sociological, to understand and to derive a conclusion that supports a sustainable future" (133). It shows the disparities in the personal life of a Dellarobia Turnbow and in the geography in Feathertown. She suffers a poor life and social constraints. They argue that eco-crisis finds its cause in human exploitation which is in progress with the emergence of science and technology. It has become a serious cause of concern globally, yet its implication among the local residents is a slow process.

Amitav Ghosh contends that the climate crisis is not merely an environmental issue but also "a crisis of culture, and thus of the imagination" (Gosh 12). This observation resonates strongly with the thematic concerns of *Flight Behaviour*. In the novel, Barbara Kingsolver not only portrays the ecological consequences of climate change - most strikingly through the anomalous migration of monarch butterflies - but also interrogates how cultural beliefs, values, and epistemologies shape

communal responses to environmental disruption. The residents of Feathertown struggle to comprehend and accept the ecological upheaval, their perceptions constrained by tradition, skepticism, and economic hardships. This dynamic exemplifies Ghosh's argument that confronting climate change demands an expansion of the collective imagination and the reconfiguration of cultural frameworks in order to recognize and address emerging realities. *Flight Behaviour* thus reveals the inextricable link between environmental crisis and the cultural and imaginative capacities required to envision and enact transformative change.

Similarly, Gregers Andersen in *Climate Fiction and Cultural Analysis* asserts that, “. . . climate fiction provides speculative insights into how it might be to feel and understand in such worlds” (1). He further mentions, “Consequently, climate fictions . . . have catastrophic consequences . . . what is arguably the greatest challenge facing humanity today: anthropogenic global warming” (5). Gregers Andersen highlights how climate fiction (cli-fi) explores the emotional and sensory experiences of living in worlds transformed by climate change, helping readers to imagine what it feels like to confront these new realities. In *Flight Behaviour*, Kingsolver vividly portrays the disruption caused by shifting climate patterns in a rural Appalachian community through the sudden arrival of migrating monarch butterflies, symbolizing ecological imbalance. The novel's narrative embodies Andersen's idea by immersing readers in the characters' personal struggles and fears about environmental catastrophe, reflecting the “catastrophic consequences” of anthropogenic global warming. Through this, *Flight Behaviour* exemplifies how climate fiction raises awareness about the urgent challenge of climate change by making its impacts emotionally tangible and culturally relevant.

In the similar light, Angelo Monaco, in *Water Stories in the Anthropocene*, argues that *Flight Behaviour* uses environmental storytelling to highlight the interconnectedness of human and ecological systems amid climate change. He emphasizes how Kingsolver's novel

portrays water not just as a physical resource but as a symbol of life's fragility and the shifting natural cycles disrupted by global warming. Monaco suggests that the novel "foregrounds the tension between traditional rural livelihoods and the unpredictable forces of nature" (Monaco) through its depiction of altered migration patterns and changing landscapes. By focusing on the protagonist's awakening to environmental realities, *Flight Behaviour* challenges readers to reconsider their relationship with water and the environment in an era defined by the Anthropocene's human-driven ecological changes. Sylvia highlights on social and ecological problems:

Dellarobia's reconsideration of her own attitude towards global warming leads her to gradually develop an environmental ethical stance that is grounded in the conviction that climate change is real. This stance is based on gaining scientific knowledge, but also, and strongly so, on a growing concern and on worries about the possible effects of climate change. Ultimately disagreeing with her husband, Dellarobia realizes that they, too, after all, belong to the kind of people who need to worry about climate change. (500)

Dellarobia develops affection to nature. Her reconsideration of her own attitude towards global warming leads her develop an ecological take grounded in the conviction that climate change is real and it must be settled: "While feeling for the butterflies suggests a climate ethical stance that draws nonhuman nature into the moral universe, Dellarobia's strongest worries are still centered on people. She is appalled by finding out more about the history of the Delgados and worries that the logging of their own trees may cause the same disaster as the logging of those" (501). The butterflies' scene is troublesome to her and it also functions as enlightening one.

Faten Ahmed Ramadan has read this novel from the perspective of ecosocialism. Ramadan argues, "*Flight Behaviour* is the dramatization of one female, Dellaboria (Dell) Turnbow, who is in a

state of flight from marriage and domestic oppression. She lives and grows up in Feathertown, Tennessee in the southern Appalachian Mountains” (284). This quote highlights how *Flight Behaviour* can be understood through the lens of ecosocialism, emphasizing the interconnectedness of environmental and social struggles. By focusing on Dellaboria (Dell) Turnbow, the novel dramatizes the experience of a woman trying to escape the confines of marriage and domestic oppression, reflecting broader issues of gender inequality and social constraints. Set in Feathertown, Tennessee, in the southern Appalachian Mountains - a region often associated with both natural beauty and economic hardship - the story situates Dell’s personal flight within a landscape deeply affected by environmental and social challenges: “On her way to meet the young man at the appointed time, she is astounded by what seems to her as a forest fire. Deeply shaken and dazzled, she returns home obsessed with what she has seen” (284). Another social problem highlighted in the conversations between Dellaboria and Dr. Ovid is the issue of education. They criticize contemporary education, as it does not enhance people’s awareness of the interlinking relationship between themselves and nature/environment.

John Thieme, in *Anthropocene Realism*, discusses Barbara Kingsolver's *Flight Behaviour* as a novel that powerfully intertwines environmental crisis with human experience, highlights the urgent realities of climate change through personal and community narratives. Thieme notes that the novel “foregrounds the ecological transformations of the Anthropocene by dramatizing the sudden appearance of monarch butterflies in the Appalachian Mountains, signaling disrupted natural cycles” (95). He argues that Kingsolver uses this environmental event to explore how individuals and societies respond to ecological upheaval, making the abstract concept of climate change tangible and immediate. Thieme emphasizes that *Flight Behaviour* offers a form of realism that acknowledges the Anthropocene’s complex social and environmental entanglements, illustrating how human lives are deeply affected by and implicated in ecological change.

Talking about climate changes, scholars agree that it is both natural and human-induced. For example, the report of East West Center mentions: "Scientists have researched the physical science of climate change for almost two centuries. Carbon dioxide and other greenhouse gases that naturally occur in the atmosphere capture heat from the Sun's energy that radiates from Earth's surface" (11). Thus, climate change is a natural phenomenon; however, it is largely human-induced one:

However, human activities have emitted an increasing amount of greenhouse gases into the atmosphere since the late 1800s through burning fossil fuels (such as oil, gas, and coal) and, to a lesser extent, through changes in land use and global deforestation. As a result, the greenhouse effect has intensified and driven an increase in global surface temperatures and other widespread changes in climate. These changes are now happening faster than at any point in the history of modern civilization. (11)

Human activities emitted an increasing amount of greenhouse effects. The atmosphere is changing. The land use and global deforestation are in degrading position. These changes are now happening faster than at any point in the history of modern civilization. The report further discloses that greenhouse gas emissions from human-induced practices and activities leave a huge impact in the climate change over this century and beyond. It has increased global temperature over the next few decades. Globally, annual average temperatures over land and oceans have increased over the past century.

Ursula K. Heise's *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (2008) and Rob Nixon's *Slow Violence and the Environmentalism of the Poor* (2011) talk about impacts of environmental crisis of ecosystems. Rob Nixon claims: "Slow violence is a violence that occurs gradually and out of sight; a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (2). Slow violence appears gradually, and it is a violence of destruction.

Most of the previous studies on Barbara Kingsolver's *Flight Behaviour* have approached the novel through ecological, ecofeminist, and ecosocialist perspectives. These readings have contributed valuable insights into the relationship between humans and nature, yet they have not fully examined the novel in terms of climate change as a form of slow violence—a framework that reveals the gradual, unseen, and long-term effects of ecological crises. This study departs from earlier approaches by highlighting how climate change, when read as slow violence, disrupts not only the natural environment but also the lives of human communities and other species. Conducting this study is important because the slow, cumulative impacts of climate change are often ignored in public discourse, overshadowed by sudden disasters that attract immediate attention. By bringing this dimension to light, the research not only deepens literary understanding of *Flight Behaviour* but also contributes to wider discussions in environmental humanities about how literature can make visible the hidden and long-term harms of climate change. In this way, this study offers both critical and social value, showing how narrative can help us to recognize, reflect upon, and respond to the challenges of our changing world.

Statement of the Problem

The sudden appearance of displaced monarch butterflies in rural Tennessee becomes a symbolic projection of ecological denial and disruption, initially interpreted by protagonist Dellarobia as a divine sign, only to be later explained by the scientist Dr. Byron as a threat to ecology taking the butterflies as “climate refugees” (Kingsolver 156). The flight of monarch butterflies represents diverse views on nature. When it is understood as a threat by Dellarobia, it leaves a tremendous psychological impact on her. She begins to understand the personhood of ecology. The anthropocentrism and its roots are rooted in the everyday routes that humans walk/follow. The anthropocentric activities limit human understanding of ecological values that lie beyond human measure. However, humanity measures its values in the utility of humanity alone. This anthropocentric bias is root cause of climate crisis. For Faten Ahmed Ramadan, *Flight Behaviour* is

the dramatization of one female, Dellaboria who has a similar flight to butterflies. It highlights how *Flight Behaviour* can be understood through the lens of ecosocialism. Similarly, John Thieme intertwines environmental crisis with human experience, highlighting the urgent realities of climate change. He claims that Kingsolver uses this environmental event to explore how individuals and societies respond. These views reflect the ecological and social exploration with theoretical lens from feminism and ecocriticism. Here, this research however, explores the representation of climate change as slow violence reflecting the impacts of climate on ecology. Based on this, following research questions are developed.

Research Questions

This research is shaped and guided by these research questions:

- What does the *flight of monarch butterflies* symbolize for different characters in the novel, and how does this symbolism reflect ecological denial or recognition of climate change as slow violence?
- In what ways does the novel link climate change to displacement of both species (butterflies) and humans and how does this reflect the logic of slow violence?
- In what ways can *Flight Behaviour* be read as a narrative of climate justice that gives voice to the overlooked victims of slow violence?

Research Objectives

The objectives are as follows:

- To identify different perception of characters' on 'monarch butterflies' to indicate a tension between ecological denial and climate change as slow violence.
- To analyze the reversal relation between climate change and displacement.

- To explore the representation of climate change along with hinting measures to minimize the problem of climate change

Hypothesis

The study hypothesizes that the flight of monarch butterflies symbolizes different meanings for different groups in the novel. It represents ecological threat and urgency to characters like Byron and Dellarobia, while appearing merely as beauty or wonder to the villagers. This divergence in perception underscores ecological denial as a dimension of slow violence. The disrupted migration of the butterflies not only signifies species displacement but also destabilizes farming practices and leaves a profound psychological impact on both individuals and the community, reflecting the entwined violence inflicted on humans and nature alike.

Research Methodology

This dissertation employs a qualitative research design where close textual analysis and interpretive reading of the primary texts are employed as research tools. This approach recognizes literary texts as domain to explore the climate crisis and subsequent solution. This study applies ecocriticism in general and climate justice perspective in particular to analyse the primary text under scrutiny. This research focuses Kingsolver's *Flight Behaviour*, examining the climate problems exposed through narration. While drawing on climate theories from academia and research, this dissertation approaches climate crisis through humanities cum nature perspectives. The primary methodology is close textual analysis through a climate fiction lens. These delimitations sets a scope within the research area.

Dipesh Chakrabarty, in his exploration of climate change as a planetary crisis, highlights the diverse range of human reactions to global warming. He notes that individuals, groups, and governments respond with varying attitudes, spanning from outright denial and emotional or cognitive disconnect to passive indifference and, on the other end, committed engagement and

activism. These responses reflect differing levels of awareness, responsibility, and urgency in confronting the climate crisis. Chakrabarty's "observation underscores the complex socio-political landscape surrounding climate change, where recognition and action are not uniform but shaped by cultural, ideological, and institutional contexts" (24). According to him, climate change has impacts on landscape. Behind such climatic adverse situation, the complex socio-political remains either in overt or covert form.

Ecocriticism, which challenges anthropocentric literary traditions, resonates deeply with this dissertation. Chakrabarty's insight mirrors Timothy Morton's concept of 'the ecological thought', which dissolves the binary between nature and culture. Literature, therefore, must now reflect this entanglement, portraying nature not as a passive background but as an active historical agent entangled with human narratives: "The idea of the Anthropocene, the new geological epoch when humans exist as a geological force, severely qualifies humanist histories of modernity/globalization" (3). Humans, as geological agents, are countless at a time of ecological disaster.

This dissertation aligns with the ecocritical imperative to interrogate Enlightenment rationalism, capitalist modernity, and extractivist logics. Ecocritics like Rob Nixon have described the "slow violence" of environmental degradation - harm that occurs gradually and invisibly within the very narratives of progress. Chakrabarty insists that the Anthropocene compels us to critically reassess such narratives, as literary texts increasingly foreground the cost of modernization in planetary terms. Similarly, he also observes, "The geological hypothesis regarding the Anthropocene requires us to put global histories of capital in conversation with the species history of humans" (4). Here, Chakrabarty brings together Marxist-inflected historical materialism and the species-level considerations of environmental humanities. Ecocriticism, too, has undergone a similar shift - from focusing exclusively on cultural production to engaging with the deep time of evolution, geology, and climate. Bruno Latour's actor-network theory, which decentralizes human agency, complements this view by emphasizing that nonhuman entities (e.g., CO₂, viruses, rivers) are actors in the

historical process. Finally, he states, “The cross-hatching of species history and the history of capital is a process of probing the limits of historical understanding” (4). This final thesis resonates with the ecocritical notion that literary form itself is strained under the weight of the Anthropocene.

As climate fiction (cli-fi) and speculative eco-narratives emerge, scholars such as Ursula Heise and Amitav Ghosh argue that we must develop planetary aesthetics that reckon with scale, temporality, and interconnectedness. Chakrabarty’s call to rethink historical categories- progress, agency, subjectivity - echoes the ecocritical turn toward non-linear, decentered, and interspecies storytelling. Chakrabarty’s four theses offer ecocriticism a powerful theoretical scaffold for engaging with climate change in literature. His first thesis argues that anthropogenic climate change collapses the boundary between human history and natural history, compelling us to view environmental transformations and human actions as inseparably linked - a dynamic clearly visible in *Flight Behaviour*, where disrupted monarch migrations mirror human-induced ecological shifts. His second thesis integrates the histories of capital with the histories of the species, reminding us that climate change is shaped not only by natural processes but also by economic systems, as Kingsolver’s portrayal of rural economic struggles and environmental degradation vividly demonstrates. Third, Chakrabarty observes that the planetary scale of climate change challenges conventional notions of human freedom and agency, a tension reflected in Dellarobia’s growing awareness of forces that extend far beyond her local world. Finally, he notes that while climate change creates a shared human predicament, its impacts are distributed unevenly, as the Appalachian community’s limited resources and adaptive capacity in the novel reveal. Hence, Chakrabarty’s four theses offer ecocriticism as a powerful theoretical scaffold. They call on scholars of literature and culture to imagine new frameworks that account for humanity’s entanglement with planetary processes. In this light, ecocriticism becomes not merely a reading practice but a necessary intellectual and ethical response to the intertwined ecological, cultural, and moral challenges of the Anthropocene.

In similar manner, Adrian Martin shows a distinction between anthropocentrism and ecocentrism: “Anthropocentrism and ecocentrism represent polarised worldviews. In the former, what is valued is human well-being, and the protection of nature is instrumental to that; in the latter, nature itself is valued, and its protection is therefore an intrinsic good” (137). Human-centric activities are anthropocentric ones that stand in sharp contrast to ecocentrism. He again highlights: “Justice and injustice are not fixed and universal categories, but are conceived in conjunction with diverse human cultures and values that produce a variety of notions of right and wrong” (137). Justice to nature is justice to everyone. Humans should not define what is right or wrong: “Humans are not viewed as an exceptional species, uniquely deserving of moral concern, but as part of the biotic community. In this framing, the community of justice (those we are morally responsible towards) is extended to include elements of the non-human world, including, for example, sentient animals, or entities such as rivers and mountains” (138). Thus, justice involves all the ecological selves including non-human world, for example, sentient animals, or entities such as rivers, mountains, and natural entities.

Talking about how scientific invention causes climate degradation, Naomi Oreskes claims, “The nature and sources of the scientific consensus to explain how scientists are so confident that climate change is real and that human behaviour is responsible for it” (608). In Naomi Oreskes’ analysis of scientific consensus on climate change, particularly in *The Scientific Consensus on Climate Change* (2004), she asserts that the overwhelming majority of climate scientists agree that global warming is real and primarily caused by human activity. However, she also acknowledges a significant gap between scientific knowledge and public understanding, which is often worsened by misinformation and systemic denial: “The movement for climate justice thus promises to be a vehicle for mobilizing the kind of transnational, grassroots alliances that will be decisive in the unfolding fight against ecocide” (653). The solution for ecological degradation is climate justice which promises to be a vehicle for mobilizing the kind of transnational, grassroots alliances.

Ashley Dawson, in his essay *Climate Justice: The Emerging Movement Against Green Capitalism*, argues that "the movement for climate justice thus promises to be a vehicle for mobilizing the kind of transnational, grassroots alliances that will be decisive in the unfolding fight against ecocide" (Dawson 653). This perspective situates climate change not only as an environmental crisis but also as a socio-political struggle, one that demands collective resistance to systemic exploitation and ecological degradation. Barbara Kingsolver's *Flight Behaviour* resonates with this vision through its ecocritical portrayal of a rural Appalachian community grappling with the visible impacts of climate change - namely, the dislocated monarch butterflies that symbolize ecological imbalance.

While the protagonist Dellarobia begins her journey with a spiritual interpretation of the phenomenon, she gradually aligns with scientific and ecological awareness, challenging the complacency and consumerism embedded in her socio-economic surroundings. Dr. Ovid Byron, a climate scientist in the novel, condemns the global structures of denial and inaction: "The arrogance of people thinking their plastic crap is more important than the world's life systems" (Kingsolver 219). Through its depiction of local awareness awakening within a marginalized population, *Flight Behaviour* reflects Dawson's emphasis on grassroots mobilization, offering a fictional but realistic account of how ecological consciousness can emerge from the ground up. This alignment between Dawson's theoretical stance and Kingsolver's narrative underscores the role of literature in envisioning climate justice as both a moral imperative and a form of resistance to ecocide.

In *Writing for an Endangered World*, Lawrence Buell articulates the concept of 'toxic discourse' as a mode of environmental writing shaped by collective anxieties about a poisoned and diseased world - an anxiety that, as he observes, is "increasingly pressed, debated, debunked, and reiterated" (30). Such discourse, he argues, "...requires imaginative frameworks that merge social constructivist perspectives with environmental restorationist aims, envisioning physical environments as sites where human welfare and planetary health are inseparably linked" (45). In its

affinity with 'ecological holism' toxic discourse affirms the intrinsic value of a purified physical environment, resisting its reduction to a mere ideological construct or socioeconomic by-product (45). Yet, as Buell cautions, it often operates as a “discourse of allegation or insinuation rather than of proof” (48), drawing rhetorical power from the tension between evidentiary support and heightened alarm. This theoretical lens illuminates *Flight Behaviour's* narrative of the monarch butterflies' disrupted migration, where local skepticism, media sensationalism, and scientific warnings converge to produce a potent mix of environmental anxiety and contested truth. Kingsolver's depiction of Dellarobia's Appalachian community closely reflects Buell's description. The community's fear of ecological contamination is both real and pressing. However, this fear is shaped by cultural beliefs, economic struggles, and competing narratives of causation, thereby embodying the dynamics of toxic discourse.

Buell suggests that toxic discourse demands an imaginative engagement that “fuses social constructivist perspectives (how societies interpret and narrate environmental issues) with restorationist imperatives (calls for ecological repair), ultimately advocating for an 'ecological holism' that restores both natural and cultural balance” (45). Barbara Kingsolver's *Flight Behaviour* operates squarely within this framework, offering a literary enactment of toxic discourse as it dramatizes both the visible and symbolic disruption of ecosystems in a poor Appalachian community. The sudden and inexplicable appearance of monarch butterflies, displaced from their Mexican overwintering grounds, functions as a powerful metaphor for environmental imbalance and planetary toxicity. In keeping with Buell's observation that toxic discourse is often “a discourse of allegation or insinuation rather than of proof” (48), Kingsolver's narrative refrains from offering definitive scientific evidence, yet it generates a strong emotional and ecological implication of collapse and contamination.

This sense of ecological urgency resonates with Adrian Martin's observation that “biologists describe the current period as the sixth age of mass extinction, in which rates of species loss exceed even the most dramatic of past mass extinction events. The loss of birds, insects or species, such as

the decline of African elephants during the 21st century, has gained most media attention” (134). Martin further identifies the principal drivers of biodiversity loss as, “Land and sea use change, the biggest direct driver of biodiversity loss in terrestrial and freshwater ecosystems, including the extension and intensification of arable and livestock farming, urbanization, mining and infrastructure” (134). Equally significant is “direct resource use, including fishing (the biggest driver of biodiversity loss in marine ecosystems), hunting, logging and other harvesting” (134). These factors are compounded by “climate change, which threatens biodiversity in even the most protected of waterscapes and landscapes” (134). Together, these forces underscore the pressing reality that climate change is not only a global environmental crisis but also a profound threat to biodiversity, a reality that *Flight Behaviour* renders tangible through its interweaving of ecological symbolism, community narratives, and planetary concerns. He further adds:

Pollution, including the massive use of agricultural and other chemicals that directly kill insects (pesticides) and plants (herbicides) and overload water courses with nitrogen and phosphorous (fertilisers). 5 Biological factors, including invasive and alien species, that lead to loss of native species (such as the introduction of Nile perch and tilapia in Lake Victoria) or degrade habitat diversity and prevent regeneration. (134)

The extensive use of agricultural chemicals, such as pesticides and herbicides, contributes significantly to pollution by directly killing insects and plants. Additionally, biological factors like invasive and alien species lead to the loss of native species, degrade habitat diversity, and hinder natural regeneration. These environmental pressures are closely linked to global warming, which Rao defines as “Global warming is the term used to describe a gradual increase in the average temperature of the Earth’s atmosphere, a change that is believed to be permanently changing the earth’s climate” (71). This gradual rise in atmospheric temperature poses a serious threat to ecological balance and biodiversity.

Chapter II: Climate Change as Slow Violence in Kingsolver's *Flight Behaviour*

Barbara Kingsolver's *Flight Behaviour* represents climate issue in a significant way to critique the anthropocentric idea of ecological denial of degrading climate. This is reflected in the displaced butterflies and Dellarobia. The arrival of butterflies in Turnbow farming coheres with psychological flight of Dellarobia as she also wants to escape from the climate-induced problems affecting agriculture.

The sudden appearance of displaced monarch butterflies in rural Tennessee becomes a symbolic and literal disruption, initially interpreted by protagonist Dellarobia as a divine sign, only to be later explained by the scientist Dr. Byron as a consequence of climate change: "These butterflies are climate refugees" (Kingsolver 156). This narrative mirrors Oreskes' concern that without accessible and emotionally resonant communication, scientific truth remains impotent in the face of public skepticism. Kingsolver critiques human behaviour and ecological irresponsibility, echoing Oreskes' emphasis on anthropogenic causes, as Ovid Byron laments, "We're living in the middle of the greatest catastrophe in the history of the natural world" (224). Through Dellarobia's transformation from ignorance to ecological awareness, Kingsolver embodies the ecocritical mission of reawakening human consciousness to nature's fragility and interdependence, thus reinforcing Oreskes' call for bridging science and society through narratives that humanize environmental data.

Dellarobia internally decides to leave the farming to make new choice: "After all the months of dampness, the air inside the barn now seemed unnaturally dry" (365). She experiences a profound shift in ecology, suggesting that change causes prolonged periods of discomfort. Dellarobia suffers poverty and hardness in her life. Alex Goodbody opines, "A bright and attractive 28-year-old with a gentle, passive and unambitious husband, she is trapped in claustrophobic rural poverty and the drudgery of life as a mother of two small children" (47). She is trapped in between pessimism of claustrophobic rural poverty and optimism of her children. Goodbody explains:

As the scientific evidence has accumulated over the last few decades, the likely impact of anthropogenic global warming has been shown to be widespread and potentially catastrophic

in the longer term: water shortages and the spread of diseases will lead to decreased agricultural productivity, while the rise in sea level, increased seasonal flooding, and extreme weather events will wreak havoc on coastal conurbations. (39)

Goodbody highlights the long-term, widespread impacts of global warming, including water shortages, disease spread, and extreme weather. In *Flight Behaviour*, Kingsolver represents these effects as forms of slow violence - gradual, often unseen environmental harm that disproportionately affects vulnerable communities. The disrupted migration of monarch butterflies symbolizes this slow ecological damage, reflecting how climate change quietly but profoundly reshapes both ecosystems and rural lives. Thus, the novel illustrates climate change as a slow, cumulative crisis demanding urgent attention. These issues are the realms of climate fiction.

Climate fiction has emerged as a vital literary response to the ecological crisis in the anthropogenic time. As a response to degrading climatic situation, the ecofiction has turned towards addressing the unethical consideration of traditional anthropocentric perspectives. In this context, this paper introduces 'climate change' as a theoretical framework to study climatic (in) sensibility, and its subsequent impact on nature and human world in Kingsolver's novel *Flight Behaviour* (2012). Exploring how the novel explicates climate issues, interspecies consciousness, and psychological impacts, this research contributes to on-going conversations in climate ecofiction.

The farming is adversely affected along with climate change. Dellarobia is worried about it: "Everything was gone!- the girl cried, in obvious distress. 'The houses. The school. The peoples'" (281). The devastation due to the natural disaster, causing a damage to farming along with the loss of community, stability, and identity, serves as a profound reminder loss of humanity. Due to the climate change, migration of various species has become a common phenomenon adversely affecting ecosystem. In the novel under scrutiny, the migration of monarch butterflies poses a serious question to entomologist - Ovid who has a thorough research aptitude on these butterflies, and his response to Dellarobia Turnbow, a frustrated housewife, is a source for her transformation.

Though the sight of these butterflies is a matter of beauty and source of tourists attraction for Dellarobia and her father-in-law, it is a great threat for ecology to Ovid. Thus, this ecofiction stands at the intersection of these dividing poles and concerns, providing a forum for literary discussion where the human world and non-human world mingle to address climate crisis.

Kingsolver's depiction of ecological collapse is layered with social, economic, and ideological concerns. Dellarobia's community, economically marginalized and intellectually distant from scientific authority, initially interprets the butterflies as a divine sign. Yet through Dellarobia's engagement with Dr. Ovid Byron and her growing awareness, the narrative subtly confronts readers with the reality of climate disruption and its toxic effects on all life. Dr. Byron, as a voice of science within the novel, voices the urgency of the moment: "We're talking about the end of certainty. Of stability. The end of normal. The end of butterflies, maybe" (219). This breakdown of ecological normalcy echoes Buell's idea of a 'poisoned world' that haunts contemporary environmental consciousness. Furthermore, the novel recognizes the material reality of environmental crisis - monarch collapse, erratic weather, habitat destruction - as not merely ideological constructs, but as non-reducible environmental facts, aligning with Buell's argument that toxic discourse acknowledges "the benefit to human and planetary welfare of the ideal of a purified physical environment as an end in itself" (45). Through fiction, Kingsolver gives shape to the very kind of environmental imagination Buell calls for - one that navigates between human anxiety and ecological reality, between social experience and environmental restoration, serving as an example of ecocriticism in action. Reflecting upon climate issue that results from man made things and nature, the narrator reflects:

A small shift between cloud and sun altered the day light, and the whole landscape intensified, brightening before her eyes. The forest blazed with its own internal flame.

"Jesus," she said, not calling for help, she and Jesus weren't that close, but putting her voice in the world because nothing else present made sense. The sun slipped out by another

degree, passing its warmth across the land, and the mountain seemed to explode with light. Brightness of a new intensity moved up the valley in a rippling wave, like the disturbed surface of a lake. Every bough glowed with an orange blaze. "Jesus God," she said again. No words came to her that seemed sane. Trees turned to fire, a burning bush. Moses came to mind, and Ezekiel, words from Scripture that occupied a certain space in her brain but no longer carried honest weight, if they ever had. Burning coals of fire went up and down among the living creatures. (43)

This passage echoes the theme of wildfires, heat intensity, and ecological instability. This imagery is strongly associated with wildfires, which have become more frequent and severe due to climate change. The flame now appeared to lift from individual treetops in showers of orange sparks, exploding the way a pine log does in a campfire when it is poked. The sparks spiraled upward in swirls like funnel clouds. Twisters of brightness against gray sky. In broad daylight with no comprehension, she watched. From the tops of the funnels the sparks lifted high and sailed out undirected above the dark forest.

The narrator exposes the climatic adverse situation as mentioned: "A forest fire, if that's what it was, would roar. This consternation swept the mountain in perfect silence. The air above remained cold and clear. No smoken crackling howl. She stopped breathing for a second and closed her eyes to listen" (19). It captures a climate crisis in slow motion - a disruption that does not explode but creeps in, silently unsettling everything it touches. It is similar to slow violence as suggested by Rob Nixon: "By slow violence I mean a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (2). Gradually, nature is being contaminated and the result is adverse.

The climatic adverse situation is reflected in the transfer of butterflies to Turnbow farming.

The narrator states:

A mighty blaze rising from ordinary forest, she had no name for that. No words to put on a tablet as Moses had when he marched down his mountain. But like Moses she'd come home rattled and impatient with the pettiness of people's everyday affairs. She felt shamed by her made-up passion and the injuries she'd been ready to inflict. Hester wasn't the only one living in fantasy land with righteousness on her side, people just did that, this family and maybe all others. (30)

Dellarobia has seen something extraordinary, mysterious, and a miraculous or apocalyptic vision that is very near in the future. The “mighty blaze” refers metaphorically to the monarch butterflies that have come to the mountain covering it. It is result of human-induced problem as suggested by Dipesh Chakrabarty. In line with Chakrabarty’s second thesis - “the idea of the Anthropocene . . . severely qualifies humanist histories of modernity and globalization” (34), Kingsolver critiques the economic and cultural forces underpinning ecological degradation. The novel situates the rural Appalachian community within the shadow of extractive capitalism and economic hardship, highlighting the costs of development and globalization. Dellarobia’s family struggles with poverty and limited opportunities, a reality reflecting “the slow violence” described by ecocritic Rob Nixon. Kingsolver’s narrative reveals how these socioeconomic factors shape local responses to climate change, as Dellarobia muses, “It’s hard to worry about butterflies when you’re hungry, underscoring how survival concerns often eclipse environmental awareness” (84). She is worried about butterflies.

Kingsolver weaves this integration by illustrating how climate science, economic structures, and individual lives intersect. The novel portrays scientists working to understand the butterfly migration amid skepticism from locals, exposing the fraught relationship between knowledge production and lived experience. Dellarobia’s transformation - from a disillusioned housewife to an engaged environmental interlocutor - reflects this convergence

of the personal with the planetary. As she contemplates the precarious balance between nature and human activity, she becomes happy.

The disagreement between Dellarobia and Cub is a tension between ecological protection and ecological destruction. The text goes like:

'I hear you.' She was conscious of her unfinished cigarette, aware that only a fool or city person would smoke in a hayloft. It could catch fire in a flash. But that would be in some year other than this one, in which the very snapping turtles had dragged themselves from silted ponds and roamed the soggy land looking for higher ground. A little tobacco smoke might help dry our this hay. .. Cub evidently didn't disagree, for he lay silent awhile. Then spoke from under his cap.'Dad's fixing to sign a contract with some loggers. You mean to cut timber? Where? (51)

Dellarobia and Cub have differing attitude about logging. She is not happy with her husband, who speaks a little later in the passage. Dellarobia says she understands him acknowledging someone (most likely Cub), though she's distracted by her own thoughts. She realizes that everything feels troublesome even turtles are moving to dry places. She ironically thinks maybe her smoking may dry up the hay and her husband Cub stays silent for a moment. Then he mentions about logging that his father is about to sign a contract with loggers. Dellarobia reacts and does not agree and is surprised or concerned. Dellarobia is feeling sad, and there's a sense of climate change (turtles moving, soggy land). A growing tension is hinted at, cutting down of trees is for money which Dellarobia's growing awareness of nature contradicts. In this regards, Dipesh Chakrabarty in *The Climate of History in a Planetary Age* offers a critical intervention in historical and environmental thought, which has become increasingly central to ecocritical discourse. His four theses reframe climate change as a historiographical and ontological crisis that reshapes not only how we narrate the past, but how we conceptualize the human's place in planetary systems: "Anthropogenic explanations of climate change spell the collapse of the age-old humanist distinction between natural history and human

history” (3). The main focus of this statement is that anthropogenic climate change breaks the traditional separation between human history and natural history. Human actions were once seen as limited to culture and society. Now they also act on the scale of geological forces. This change reshapes the way history itself is understood.

The tension, mentioned in the text is a conflict between loggers and protectors of nature. This represents two polarized views. Adrian Martin suggests, “In the former, what is valued is human well-being, and the protection of nature is instrumental to that; in the latter, nature itself is valued, and its protection is therefore an intrinsic good” (137). Adrian Martin is talking about two different ways of thinking about nature: ecological holism and ecological destruction represented by anthropocentrism and ecocentrism. The anthropocentrism theme is prevalent in the novel indicating climate issues. Anthropocentrism and ecocentrism represent polarised worldviews; former representing human-centric activities and later representing nature-centric activities. The narrator observes:

That hollow up behind our house. All the way to the top, he said. What possessed him to do that now? That timber's been standing awhile. The taxes went up, and he's got a balloon on his equipment loan. You and I are behind on our house payments. Money's coming in even lower this year than last. He's thinking we'll have to buy hay out of Missouri this winter, after we lost so much of ours (51).

The couple, Dellarobia and Cub are having a conversation. They are talking about their father's decision to let loggers cut down trees from the farm which Dellarobia objects.

Dellarobia questions why her father-in-law is cutting trees. She feels uncomfortable with this idea, especially because she is becoming more aware of nature and the environment. It reflects a conflict between capitalism and ecocentrism as suggested by Timothy Clark. He states, “Anthropocene include events that predate the advent of capitalism, primarily the invention of

agriculture, deforestation and the eradication over centuries of large mammals in all continents beyond Africa as humanity expanded across the globe” (3). It says that human intervention on the Earth is geared up by industrial capitalism and its root can be traced back thousands of years in which humanity began to dominate world. Human impact on nature began with capitalism - giving a shape planet: “The Anthropocene also manifests itself in new kinds of psychic affects and a destabilization of norms as to the serious and the trivial. Global environmental issues such as climate change entail the implication of the broadest effects in the smallest day-to-day phenomena, juxtaposing the trivial and the catastrophic in ways that can be deranging or paralyzing” (14). Timothy Clark explains how the Anthropocene - a time when human induced activities have reshaped the world and they are dominant forces affecting not only affects the environments but the psychology. For example, global issues like climate change are tied to small, everyday actions - such as using plastic, driving a car, or eating certain foods. This connection between minor personal habits and massive global consequences are dangerous. People do not know how to respond and this bewilderment reflects a broader approach to ecological crisis and interconnected problems. The problem of tension continues in the novel after the arrival of Ovid to research on monarchs with his assistants Bear and Hester:

She looked at the backs of her hands. "Just one month behind, you and me." She'd been hoping Bear and Hester didn't know about the missed payment, but every nickel gained or lost on that farm went on the same ledger. Bear and Hester knew every detail of their lives, as did their neighbors and eventually the community as a whole, thanks to the news team down at Hair Affair. (51)

Dellarobia guesses that Cub's parents Bear and Hester did not know about it. But on the family farm, earned or spent - is tracked down. The pain due to the abnormal sight in ecology that appears in profound way is problematic as, “A lake of fire, what would Cub make of that? The route to the world's end, a vivid moral suggestion he'd heard all his life and probably believed. The Revelations.

Her mind worked differently. Flame and inundation were opposites, they canceled" (60). It indicates the destruction that nature is going through. This surprises her and she says that you," she said selling trees is bad: "Trees, okay. But you could go look at them. The logging company could rob you blind. They could tell you the timber is not any count, when it is. "How do you know what it is?" (62). Robbing trees mean to rob the world and ecology, and she does not like the idea.

Dellarobia is more concerned on trees and the logging deal. She is skeptical and worried that this company damages the ecology. She says a company claim the timber (wood) has no relation to ecology. The growing concern over family that appears with the sight of butterflies: "Every tree on the far mountainside was covered with trembling flame, and that, of course, was butterflies. She had carried this vision inside herself for so many days in ignorance, like an unacknowledged pregnancy. The fire was alive, and incomprehensibly immense, an unbounded, uncountable congregation of flame colored insects" (72). Dellarobia at first is amazed to see the unusual sight of the trees on the distant mountainside look like they are covered with fire, but this is not a fire but a mass of butterflies, their orange wings shimmering like fire. She realizes she had been carrying this image in her mind - something quietly growing inside her without being fully acknowledged. This is thematically important; butterflies though represents nature, have come there due to climatic impact.

The arrival of butterflies in Turnbow farm is a serious climate issue. It is a result of human activity. Carolyn merchant asserts, "Climate change is the most critical issue for the long- term well-being of humanity in the twenty first century" (1). This climate change has affected the humanity: "Scientists now broadly agree that anthropogenic or human- driven inputs exacerbate climate change and that a wide range of strategies to manage its effects are possible" (1). She asserts that scientific issues and debates about climate change have set up possibilities for responses by the humanities. People now engage with climate issues "surrounding global climate change and its

effects on peoples of different race, class, and gender” (9). For Merchant, global climate change and its effects on peoples of different race, class, and gender is common.

Being happy at first, she talks to Ovid about butterflies as, “Monarch butterflies. You wouldn't believe it, but they are the most amazing of all insects. They gather up like that” (159). Ovid being a researcher understands why they are there which can be observed in the novel as:

“They’re monarchs,” Dellarobia told him. Ovid looked at her a little oddly. “The butterflies,” she quickly explained: “Monarch butterflies. You wouldn't believe it, but they are the most amazing of all insects. They gather up like that.” The guest smiled broadly, appearing to understand now. “They do indeed. Gather up like that.”

I mean, not just here, this once. Every winter they come from all over the United States and even Canada I guess... (159).

Monarch butterflies are not just beautiful creatures, in fact they are ecological indicators as well as ecological selves. Their migrations in their group, mentioned as miraculous flight, are now at danger due to human-caused environmental stresses and issues.

These butterflies are supposed to be in Mexico, but accidently they came there: “I mean, not just here, this once. Every winter they come from all over the United States and even Canada I guess, and fly south for the winter, and gang up together in a bunch like that. Just millions. We saw pictures on the Internet, Preston and I” (159). The change in the direction is the change in climate: “what's up there, clusters of butterflies hanging on the trees and practically covering up whole forests. Can you picture it? I mean, of course you can picture it, you just saw them. But can you picture such a little flimsy thing making that long trip? “My wife's an expert,” Cub said proudly. “She's the one that led us to find them up there in the first place” (160). The massive transformation in climate issue is seen in the heavy flooding in Mexico as stated in the novel as, “Usually these butterflies go to Mexico for the winter. They've never come here before, in something like a million years, and now all of a

sudden here they are. As you can see. He said... okay, wait. Stop. Can I tell you something?" (284).

The researcher and scientist Ovid Byron describes that these butterflies are supposed to be in Mexico. Normally, they have appeared in the Appalachian mountains which is unusual. This indicates the issue of the climate crisis.

Climate issue is indicated by Ovid which can be observed from "Ovid nodded, listening and chewing thoughtfully" (159). Similarly, the novelist says, "She noticed he had tiny corkscrews of gray in his short-cropped hair, near the temples, and crinkly smile lines at the corners of his eyes" (160). In the same part and context, the clear message is shown as, "She shook her head to fend off Cub's compliment, but was nowhere near finished with the subject. "They fly thousands of miles to go south, like birds do. The only insect capable of flying great distances and even over ocean. They can go a hundred miles in a single day. It's unbelievable. They hardly weigh more than a quarter, I bet" (160). Then, Ovid says that the butterflies usually go to Mexico. Ovid talks to Dellarobia about the arrival of mass butterflies and says that they wanted to go to Mexico but they came there abnormally which can be identified in the text as, "Millions of butterflies pile up in this one spot on top of a mountain in Mexico. Always the same one I mean, why Mexico? What's so special about that one mountain? Good question, Ovid replied. Well, I guess a few of them go to California" (160). Millions of butterflies piling up in one spot on top of a mountain in Mexico is a serious issue because they were supposed to go to the Mountain in Mexico.

The narrator explains about Dr. Byron as, "Dr. Ovid Byron, an experienced scientist from New Mexico who visits Feathertown and conducts research knows that the Butterflies roosted in the forest in Appalachia can't be saved. Human intervention has disrupted their natural habitat and their yearly migration" (134). Dr. Byron, a research-based scientist is more concerned for climate issue acting as an awareness to Dellarobia. This moment gives a focus to abnormal ecological issue caused by climatic impact and it develops a conflict between ecocentrism and egocentrism. The narrator reflects:

It wasn't easy for her to stay on the train of the conversation, even if they were running it for her benefit. Pete explained that in recent years their studies had found the range was expanding northward. Meaning the butterfly generations had to push farther into Canada to find happiness, Ovid added helpfully, probably astute to the fact that in her pay grade a range meant a stove. The southern end of things was getting difficult too, he said. (202)

Ovid's research assistants explained their studies had found the range was expanding northward. It means that the butterfly generations had to push farther into Canada to find happiness. Adrian Martin explains that humans are not exceptional species as, "Humans are not viewed as an exceptional species, uniquely deserving of moral concern, but as part of the biotic community. In this framing, the community of justice (those we are morally responsible towards) is extended to include elements of the non-human world, including, for example, sentient animals, or entities such as rivers and mountains" (138). Humans perceive as an exceptional species, deserving of moral concern, but they are part of the biotic community. Ovid is worried to see the changing climatic situation. It is where Ovid adds that there is a threat on nature:

The monarchs had to leave the Mexican roost sites earlier every year because of seasonality changes from climatic warming. She wondered whether any of this was proved. Climate change, she knew to be wary of that. He said no one completely understood how they made these migrations. Hundreds of factors came into play. Fire ants, for example, had now come into Texas, where the monarchs were vulnerable. Ants ate the caterpillars. (202)

Migration of butterflies is a serious issue indicating climate change. This migration of the monarchs shows that they were vulnerable: "milkweed plants, another worry he mentioned. She wondered if she should tell Ovid about the landslide in Mexico. But the students were jumping into the conversation, rendering it less than comprehensible. Biogeography, roosts, host plants, overwintering zones, loss of something-communities, devastation" (203). They all agree that there is

devastation indicated by an orange flow of rivulets reaching over a continent, pulsed by its own internal engine.

The cited exchanges in *Flight Behaviour* vividly dramatize the mechanics of climate-induced ecological disruption. The research assistants' observation as, "Temperature, solar cues, it's all they can do... If they're roused off their wintering grounds to fly north before the milk weeds come up, they show up to an empty cafeteria" (203). This underscores how minor climatic shifts can dismantle long-evolved synchronies between species, resulting in cascading ecological consequences. Similarly, the conversation mentioned in the novel that "Every year that we record temperature increases, the roosting populations in Mexico move farther up the mountain slopes... But there's only so far you can go before you run out of mountain" (204) captures the slow, incremental displacement of species until survival thresholds are breached.

The aesthetic awe expressed Ovid as, "They are beautiful... Terrible things can have beauty" (203), encapsulates the paradox of slow violence. The environmental degradation often unfolds in visually arresting forms, masking the gravity of the underlying harm. Dellarobia's reflections and the community's responses convey how environmental change seeps into the rhythms of everyday life, blurring the line between the personal and the planetary. The anti-ecological logging practices in the novel resonate with Brett Clark and Richard York's assertion that capitalism's 'second contradiction' lies in its relentless exploitation of both nature and labor, where short-term economic gains obscure long-term ecological costs (395). Kingsolver's narrative thus frames climate change as a form of slow violence - gradual, cumulative, and often invisible - yet devastating in its reshaping of ecosystems and livelihoods.

Dellarobia remembers that she is deprived of education. The narrator in the novel reflects:

She ate the lunch she had carried here in a plastic grocery bag because she didn't have a nice little expensive backpack. She didn't have a nice little college education, either. She'd just have to let the smart people figure this one out. She tried to hold on to anger but felt it being swamped by a great sadness that was rising in her like the groundwater in her yard. (205)

Dellarobia's reflection on her lack of education and material resources highlights the intersection of poverty and environmental crisis. Her exclusion from the realm of "smart people" who can interpret the ecological phenomenon underscores how structural inequalities deny marginalized individuals the power to participate in decision-making. This quiet erosion of agency, combined with the emotional weight of her circumstances, exemplifies slow violence - harm that accumulates gradually, leaving those most affected with diminished capacity to respond to environmental change.

The climate issue has expanded her horizons of her as an ecological self-existing in a large eco system. Dellarobia asks questions about climate change. It also reveals how climate disruption affects nature in complex ways, like harming butterfly populations. It reminds her sickness along with nature's sickness:

Why did the one rare, spectacular thing in her life have to be a sickness of nature? These butterflies had been hers. She found them, she'd showed them to her son, in her name they were becoming beloved and important. They seemed to matter, like nothing she'd ever possessed. Already she had made up her mind to throw her one hundred dinky pounds against the heft of her family's men, if it came to that. So how did an outsider just get to come in here and declare the whole event a giant mistake? These people had everything. Education, good looks, boots whose price tag equaled her husband's last paycheck. Now the butterflies were theirs too. (205)

Dellarobia's conflicting emotions - wonder at the monarch butterflies and anxiety over their ecological implications - reflect the tension between aesthetic appreciation and environmental threat. While the butterflies appear to her as the most beautiful phenomenon she has ever witnessed, Ovid's scientific perspective reframes them as ecological hazards, symptomatic of a diseased natural system. In this context, Lawrence Buell's concept of *toxic discourse* is instructive. As Buell explains, similar to an ecological holism to which acts of imagination have the capacity to (re)connect us, "toxic discourse holds that belief in the availability of such a holism . . . it recognizes both the rhetorical appeal and the benefit to human and planetary welfare of the ideal of a purified physical environment as an end in itself, thereby recognizing physical environment's nonreducibility to ideological artifact or socioeconomic counter" (45). The butterflies thus embody a paradox: a spectacle of beauty masking an underlying ecological toxicity. In terms of slow violence, they signal an insidious, cumulative harm - an environmental disruption unfolding gradually, imperceptibly eroding ecological stability and threatening the intertwined futures of human and nonhuman life. The scene was like a video game:

She tried to calm her burgeoning resentments and just float on the tide of butterflies that surrounded them. It was like being inside a video game. Little V shapes of moving orange light kept coming at her, sweeping around. They seemed to magnify the sun-light, igniting the air. She could see how they would need steady cues in their unsteady world. She felt for them. She wanted to like the scientists too, who really did care about the butterflies, probably a far cry more than she did. It was true what Ovid said, they were only taking the measure of things. If the news was bad, that wasn't their fault. They were just people. Kids, for the most part, basically her own generation, with jackets tied around their waists, walking along in a river of butterflies. (207)

Dellarobia has developed a kind of infatuation with Ovid because he is one who understands the plight of butterflies. She wanted to like the scientists too, who really did care about the butterflies,

probably a far cry more than she did. She is angry with anthropocentric people who are only taking the measure of things. It is a faulty thing to measure the things in terms of monetary value. She clearly defends her statement of ecological sensibility. She states, "Well, for one thing," she said, "when you clear-cut a mountain it can cause a landslide. I'm not crying wolf here, Cub, it's a fact. You can see it happening where they logged over by the Food King, there's a river of mud sliding over the road" (234). This reflects her unhappiness and dissatisfaction to clear-cut the mountain. Ovid also asserts, "And that's exactly what happened in Mexico, where the butterflies were before. They clear cut the Mountain, and a flood brought the whole thing down on top of them. You should see the pictures on the Internet" (235). He gives a history of Mexico where people cut the mountain and invited natural calamities making butterflies fly away.

After butterflies, humans can be next victim as stated in the novel, "She knew who he meant. Ovid Byron. No, I haven't. It's too weird. It's like the butterflies came here, and we might be next. Like they're a sign of some-thing" (235). She is trying to keep the scientists out of her argument for keeping the mountain intact. Their wonder, their global worries, these of all things would not help her case with Cub. She is more worried about logging:

Dellarobia knew this was wrong, bad luck didn't work that way. A person could have a long losing streak. But she didn't understand that well enough to explain. "It just seems shortsighted," she said. "If we log the mountain, then the trees are gone. But the debt isn't. Does it make sense to turn everything upside down just to make one payment? Like there won't be another one next month, and the month after that?" (236)

Dellarobia knows that it is bad luck for humans that they prefer to be shortsighted, because the logging is the cause of ecological damage. If humans log the mountain, then the trees will be gone affecting humanity and ecology. Eswar Rao understands Dellarobia as: "Dellarobia's evolving awareness of climate change; women's underutilized role in climate discourse and

solutions; butterflies as a narrative motif for disrupted migration and environmental change” (73). Dellarobia is aware of climate change after she comes into contact with Ovid.

In *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept*, Timothy Clark conceptualizes the Anthropocene not merely as a geological epoch but as a radical shift in perception - a threshold where traditional distinctions between human and non-human, trivial and catastrophic, collapse under the weight of planetary-scale environmental crises. He notes that the Anthropocene encompasses human activities long predating industrial capitalism, such as deforestation and the extinction of megafauna, thus challenging the notion that environmental crisis is purely a modern phenomenon (Clark 3). More importantly, Clark argues that the Anthropocene introduces “new kinds of psychic affects and a destabilization of norms as to the serious and the trivial,” creating a condition in which “the broadest effects” are implicated in “the smallest day-to-day phenomena,” leading to a cognitive disorientation (14). Barbara Kingsolver’s *Flight Behaviour* provides a vivid literary articulation of these ideas through an ecocritical lens, dramatizing the local repercussions of global climate instability in a rural Appalachian setting.

The protagonist, Dellarobia Turnbow, lives a life marked by economic hardship, domestic repetition, and emotional stagnation. Into this seemingly mundane life intrudes the surreal sight of thousands of monarch butterflies clustering in her forest - a spectacle she initially mistakes for a miracle. This event embodies Clark’s juxtaposition of the catastrophic and the trivial: what appears as a divine or beautiful anomaly is actually a symptom of ecological disruption - dislocated migratory behaviour caused by climate change. As Dr. Ovid Byron explains, “These butterflies are climate refugees” (Kingsolver 156), a revelation that shocks Dellarobia out of her daily routine and initiates a profound psychological transformation. Her mundane existence - full of folding laundry, child-rearing, and strained familial ties - is suddenly reframed by planetary crisis. This fusion captures Clark’s idea of

psychic derangement under the Anthropocene. Dellarobia begins to experience the destabilization of meaning, where once clear categories like cause and effect, human and nature, serious and trivial become entangled and disorienting.

Kingsolver does not portray Dellarobia's awakening as a triumphant eco-conversion but as a painful reckoning. As Dellarobia states, "It felt like the world was unraveling. Not just the butterflies, everything" (Kingsolver 212). The statement captures both personal and planetary unraveling - a convergence that reflects Clark's assertion that Anthropocene awareness is destabilizing because it collapses the individual into the vast. Moreover, the novel's concern with systemic inaction and disavowal reflects Clark's broader ecocritical insight: that recognizing the entanglement of human action with global ecological processes demands a radical rethinking of ethics, scale, and responsibility. *Flight Behaviour*, thus becomes a paradigmatic Anthropocene novel. It mirrors Clark's theoretical assertions by bringing the crisis to a lived, emotional, and localized narrative. It allows readers to confront the overwhelming vastness of ecological collapse through the story of one woman's awakening.

Alice Mah, in her article "Toxic Legacies and Environmental Justice" in Brendan Coolsaet's edited volume, confronts the pervasive and enduring presence of environmental contamination by stating that "Toxic landfills, waste, and industrial sites permeate our landscapes. We live in a toxic world" (121). She critiques the structural violence embedded in environmental degradation, aligning herself with anti-toxic environmental justice scholarship that reveals how "multiple social inequalities" are shaped by exposure to environmental toxins (126). These inequalities are often experienced most severely by economically marginalized and politically underrepresented communities, revealing what Mah calls "a politics of slow violence and uneven exposure" (127).

Barbara Kingsolver's *Flight Behaviour* offers a literary reflection of this argument by portraying how ecological disturbance disproportionately affects a poor Appalachian community,

whose members are economically disenfranchised yet situated at the frontlines of climate change. The novel's rural setting, far from centers of power, becomes a toxic interface between natural beauty and environmental crisis, symbolized by the monarch butterflies whose disrupted migration signifies deeper ecological toxicity and climate imbalance.

Dr. Byron's in the novel says, "The butterflies aren't supposed to be here. They've lost their winter grounds. That's a sign of climate chaos" (Kingsolver 155). It captures the novel's central ecological warning. The displacement of the monarch butterflies is not an abrupt disaster but the cumulative outcome of incremental environmental disruptions. Their loss of winter habitat signifies a long-term destabilization of ecosystems, where the effects of climate change are dispersed over time and space, often escaping immediate visibility. In *Flight Behaviour*, the butterflies become living indicators of this slow-moving catastrophe, their altered migration patterns marking a quiet but relentless ecological unraveling that threatens both species survival and human livelihoods.

Kingsolver's narrative amplifies Mah's point that toxic legacies are not just physical but socio-political, rooted in systemic neglect and the invisibilization of certain populations. The Turnbow family, living in economic precarity and skepticism toward scientific discourse, represents those whom Mah describes as "communities whose lived experiences of toxicity are routinely disbelieved or disregarded" (Mah 128). The novel further explores how toxic environments are internalized emotionally and psychologically, as Dellarobia begins to experience a sense of existential collapse that mirrors the environmental disorder around her: "The world was rearranging itself, mapping out a new topography of uncertainty" (Kingsolver 213). This aligns with Mah's assertion that environmental justice is also about reclaiming narrative agency in the face of erasure: "Environmental justice is not just about the cleanup of toxic sites; it is about the right to define and contest what counts as toxicity and justice" (Mah 130). Thus, *Flight Behaviour* becomes a literary case study of environmental justice, echoing Mah's theoretical framework by showing how ecological

collapse, social inequality, and toxic legacy are entangled through the everyday lives of ordinary people. Through an ecocritical reading, Kingsolver's novel not only reflects the material realities of toxicity but also critiques the socio-political systems that perpetuate ecological and human harm. Brett Clack and Richard York are concerned about capitalism and nature's looting, "If the multitude of environmental challenges societies face, global climate change has become one of the most pressing during the past decade" (393). The climate change is a burning problem.

Adrian Martin highlights a crucial ideological tension in environmental thought: "Anthropocentrism and ecocentrism represent polarised worldviews. In the former, what is valued is human well-being...; in the latter, nature itself is valued, and its protection is therefore an intrinsic good" (Martin 137). Barbara Kingsolver's *Flight Behaviour* critiques anthropocentric thinking by illustrating the ecological consequences of valuing nature only in instrumental terms. The protagonist Dellarobia's rural Appalachian community, struggling with poverty, sees nature largely through an economic lens, evident in the family's plan to clear-cut the forest for monetary relief. This plan - threatening the accidental sanctuary of displaced monarch butterflies - reflects the anthropocentric ethic that Martin identifies, where nature's worth is subordinated to immediate human needs. Dellarobia's husband argues, "It's not like we're cutting down anything people are using," implying the forest's value is null unless economically productive (Kingsolver 84). Yet, through Dellarobia's growing ecological consciousness, Kingsolver gradually shifts the ethical lens toward ecocentrism, particularly as she begins to grasp the intrinsic worth of nonhuman life. This is embodied by the fragile butterflies as, "It felt like a soul had flown through the woods. A golden fire moving with purpose" (Kingsolver 15). She sees the displaced butterflies but take them as fire.

This ethical evolution aligns with Martin’s proposal that in ecocentric worldviews, “humans are not viewed as an exceptional species... but as part of the biotic community,” wherein moral responsibility is extended to “sentient animals... rivers and mountains” (138). Dellarobia’s transformation mirrors this moral recalibration; she begins to see the butterflies not as divine signs or scientific specimens but as fellow victims of ecological disruption, deserving of protection for their own sake. *Flight Behaviour* also supports Martin’s insight that “justice and injustice are not fixed and universal categories, but are conceived in conjunction with diverse human cultures and values” (137). The novel’s exploration of environmental injustice is culturally specific - set in a marginalized American region where ecological concern must contend with economic insecurity, religious belief, and social skepticism toward science. Yet, Kingsolver insists that justice must extend beyond human communities to encompass the nonhuman and planetary, thereby articulating a literary form of environmental justice grounded in ecocentric ethics. The narrative demonstrates how fiction can expose the limits of anthropocentric thought and reimagine justice as inclusive of the entire biotic community - precisely the vision that Martin advocates in his environmental philosophy.

Climate justice theory offers a profound framework for interpreting literature. Barbara Kingsolver’s *Flight Behaviour* as a narrative grapples with the planetary crisis of climate change and its socio-cultural implications. The novel vividly portrays the entanglement of human and natural histories, reflecting Chakrabarty’s argument that the Anthropocene demands a rethinking of historical categories and narrative forms. Ecological change as a projection of human hubris is technological, economic, social, political and cultural forces and that has already reshaped the planet in a multiplicity is shared by Sylvia. Talking about climate change seen in *Flight Behaviour*, Sylvia argues:

Current anthropogenic climate change must be understood as both a manifestation and a driving force of globalization. It is defined by ecological transformation that is inextricably linked to technological, economic, social, political and cultural forces and that has already reshaped the planet in a multiplicity of ways. Receding glaciers, melting polar ice caps, the flooding of coastal areas, desertification and related shifts in precipitation and vegetation patterns, storms, of droughts all signal ongoing ecosystemic changes in various regions. (489)

Current anthropogenic climate change is anthropocentric and it should be understood a result of capitalism and globalization. It is linked to technological, economic, social, political and cultural forces that go on reshaping the planet in a multiplicity. Receding glaciers, melting polar ice caps, the flooding of coastal areas are examples. The desertification and related shifts in precipitation and vegetation patterns, storms, and droughts all signal ongoing ecosystemic changes in various regions in significant ways. Talking about the novel, Sylvia mentions: “Barbara Kingsolver's *Flight Behaviour* can be categorized as a risk narrative of anticipation. The novel presents a contemporary world marked by the first threatening signs of climate change, by uncertainty and controversy in terms of making sense of these signs, by an emphasis on spatial instability and transformation” (495). Dellarobia is in contemporary world marked by the first threatening signs of climate change, and she faces “uncertainty and controversy in terms of making sense of these sign, and by a growing awareness of an increasingly globalized experience of place. Set in rural Tennessee, in the community of Feathertown, *Flight Behaviour* tells the story of twenty-eight-year old Dellarobia Turnbow- the novel's sole focalizer- and her family” (495). Dellarobia undergoes a process of intellectually shaped emotional as well as moral growth. In the end, she is separated from her husband, and she compromises an arrangement with him concerning the two children, to begin a college education. She further talks how Dellarobia worries about global warming

and through the novel as “Dellarobia, moreover, learns that ecological deterritorialization is firmly linked to socioeconomic and cultural practices, practices that also reflect striking differences when it comes to assigning responsibility for ongoing global warming” (487). She links the ecological problems with social problems.

Climate justice theory is a part of the ecocritical project of articulating a planetary aesthetic that transcends anthropocentrism, inviting readers to imagine new forms of historical and ethical engagement in the Anthropocene. As a result, the decay and death hover around the Earth surface as “This roost had held upward of fifteen million monarchs, by Ovid's early estimates, but had suffered about a 60 percent loss, much of that in the last few weeks. Even now, they dropped the pattering sound of little deaths almost continuous. So close to the end, they were literally failing to hang on” (489). The continuous decay resulting in death of butterflies shows that they hardly survive. Their mass extinction of butterflies poses a deep threat to the nature:

Their ordinary home in Mexico was changing, trees getting cut down and climate zones warming up, much too quickly for their liking. He asked the kids if they ever had a big change at home they didn't like. Every hand went up. Dellarobia envisioned tales of broken transformers or foster care agencies-kids this age could hardly differentiate levels of grief - but Ovid kept to the subject of the wider world and its damage. Animals losing their homes, because of people being a bit careless. (490-491)

Their ordinary home of butterflies in Mexico has been changed, trees getting cut down and climate zones getting warmed up. Dellarobia understood this due to Ovid who kept to the subject of the wider world and ecological community before it is damaged. Animals losing their homes, because of anthropocentrism is a problem from the perspective of ecosystem: “‘Yes!’ Ovid cried. ‘A problem with the environment, is what you're trying to say. Pervasive environ-mental damage. This is a biological system falling apart along its seams. Yes. Very good, Tina Ultner’” (504). A problem in the

ecology is a problem in humanity as suggested by Byron: "And briefly, Dr. Byron, tell us the nature of the problem." Briefly? Unseasonable temperature shifts, droughts, a loss of synchronization between foragers and their host plants. Everything hinges on the climate." She blinked a couple of times. "Are we talking about global warming?" (504). Global warming, plants dying, degrading climate are the results of anthropocentrism.

The concept of 'anthropogenic explanations of climate change spell the collapse of the age-old humanist distinction between natural history and human history' - is dramatized in the novel through the mass migration of monarch butterflies to an unprecedented location in the Appalachian Mountains. This biological anomaly signals ecological disruption caused by climate change and draws local human histories into intimate contact with global environmental processes. Kingsolver writes, "What the monarch butterflies' flight meant was bigger than any one person or one place" emphasizing that the community's experiences cannot be disentangled from planetary-scale phenomena (Kingsolver 15). Dellarobia Turnbow, the protagonist, becomes the nexus of this entanglement, embodying the tension between local lived experience and global environmental change.

The novel refuses simplistic resolutions, instead embracing ecological complexity, multiple viewpoints, and temporal depth. Kingsolver's storytelling mirrors the difficulties in representing climate change, a phenomenon that operates across scales and timeframes beyond conventional human comprehension. This is evident when a character reflects on the enormity of climate change, saying, "It's like trying to hold water in your hands - impossible and yet necessary" (Kingsolver 318). Such language evokes the epistemological challenges Chakrabarty identifies, pushing readers to reckon with the limits of human agency and narrative.

The heating up of world is easily accepted by ecologists. For William R. Patterson, the Loss of biodiversity, green-house effect, increased air and water pollution: ". . . at the same time that we

have a growing need for natural resources, and global climate change are just a few examples. Humanists frequently discuss these issues and offer ethical and practical opinions about them” (93). The problems are very serious and needs a deep concentration. It needs a kind of eco-cosmopolitanism and global welfare: “Finally, the notion of cosmic patriotism should lead humanists to the position of wanting to maintain the biodiversity of the planet to the fullest extent possible. The various species of life and the ecosystems that they comprise are integral parts of our planet and as such they deserve our respect” (101). The notion of cosmic patriotism is humanists-based which maintains the biodiversity of the planet to the fullest extent possible. With this, the various species of life and the ecosystems that they comprise are integral parts of our planet and as such they deserve our respect. William R. Patterson further talks about humanity’s responsibility towards other species and for the loss of bio-diversity.

This problem is found in the novel, “Ovid's eyebrows lifted in a familiar way, almost amused. I'm afraid you have missed the boat, Tina. Even the most recalcitrant climate scientists agree now, the place is heating up. Pretty much every one of the lot. Unless some other outcome is written on the subject line of his paycheck” (505). Like in text, the climate scientists are indicating the climate issues. It is an outcome of anthropocentrism for Timothy Clark: “Anthropocene include events that predate the advent of capitalism, primarily the invention of agriculture, deforestation and the eradication over centuries of large mammals in all continents beyond Africa as humanity expanded across the globe” (3). Anthropocene trends involve events that predate the arrival of anthropocentrism, primarily the invention of deforestation and the eradication large mammals as humanity expanded across the globe. Clark further writes that deforestation and eradication are serious problems:

“The Anthropocene also manifests itself in new kinds of psychic affects and a destabilization of norms as to the serious and the trivial. Global environmental issues such as climate

change entail the implication of the broadest effects in the smallest day-to-day phenomena, juxtaposing the trivial and the catastrophic in ways that can be deranging or paralyzing” (14).

In the above mentioned extract, Clark highlights that in the Anthropocene, global crises like climate change collapse the boundary between the trivial and the catastrophic, making ordinary events carry profound ecological implications. This destabilization can disorient or paralyze individuals, reflecting how environmental degradation permeates both physical landscapes and mental states. Hence, the effects of climate change are found worldwide.

Similarly, Adrian Martin, in his chapter “Biodiversity: Crisis, Conflict and Justice,” highlights that “biologists describe the current period as the sixth age of mass extinction, in which rates of species loss exceed even the most dramatic of past mass extinction events” (Martin 134). He identifies five direct drivers of biodiversity loss - land use change, direct resource exploitation, climate change, pollution, and invasive species - all of which collectively push ecosystems toward irreversible degradation. These scientifically outlined forces of destruction find narrative embodiment in Barbara Kingsolver’s *Flight Behaviour* (2012), a novel that dramatizes climate-induced species dislocation through the sudden arrival of monarch butterflies in an Appalachian valley. The butterflies’ disrupted migration patterns serve as a powerful ecological symbol of mass extinction in progress. As Dr. Byron explains, “These butterflies are climate refugees. They’re not supposed to be here... This is extinction in motion” (Kingsolver 156). Here, Kingsolver fictionalizes one of Martin’s major concerns: climate change as a direct driver of biodiversity loss, even within protected environments.

Moreover, the setting of *Flight Behaviour* - a rural farming community undergoing economic stress - mirrors Martin’s first key driver: “land and sea use change,” including “the extension and intensification of arable and livestock farming” (Martin 134). Dellarobia's family, reliant on sheep farming, is pressured to lease forest land for logging, threatening the

very habitat where the monarchs have taken refuge. This tension reveals the conflict between economic survival and ecological preservation, a recurring theme in ecocriticism that critiques how marginalized communities are forced into environmentally harmful decisions. As Dellarobia reflects, “A forest had to earn its keep” (Kingsolver 117), underscoring the commodification of natural ecosystems. This commodification is exacerbated by pollution and pesticide use - Martin’s fourth driver - which the novel alludes to when discussing declining insect populations and disrupted pollination cycles.

Furthermore, the collapse of the butterfly migration can also be read in line with Martin’s emphasis on “biological factors, particularly the displacement of native species by environmental changes that “degrade habitat diversity and prevent regeneration” (134). Kingsolver never treats the butterflies as merely symbolic; rather, their behaviour is biologically precise, rendered with scientific detail, and integrated with social commentary. The result is a literary ecosystem that echoes Martin’s ecological analysis, demonstrating how biodiversity loss manifests not only in remote rainforests or oceans but also in the everyday landscapes inhabited by ordinary people. In ecocritical terms, *Flight Behaviour* succeeds in translating scientific data into narrative form, fostering ecological awareness and ethical reflection on biodiversity loss as both a global and local crisis.

Ovid shows how society is failing to maintain ecological balance, describing society’s failure to act: “The Arctic is genuinely collapsing . . . The canary is dead. We are at the top of Niagara Falls, Tina, in a canoe . . . We have arrived at the point of an audible roar” (404). Here, Ovid worries how the Arctic is almost damaged hinting a time where audible roar is perceived indicating climate change. With this sight, Dellarobia also develops an insight that nature is under threat and should be perceived.

Dellarobia talks to her son Preston the foresight she gets and future consequences: “There is some kind of juice in our brains that makes us only care about what’s in front of us

right this minute. Even if we know something different will happen later and we should think about that too . . . If I could teach you one thing, Preston, that's it. Think about what's coming at you later on" (589). The problem that she talks is about psychological one, the juice in the brains that she talks is more related to nature which is now sick. She is aware of forthcoming tragedy. She wonders about the coming tragedy: "Why did the one rare, spectacular thing in her life have to be a sickness of nature" (505). She sees a danger within beauty. A turning point - seeing beauty as ecological warning is her insight.

It is observed that the shift in migration pattern in of butterflies is horrible one as it means that humans are also waiting for the same fate because all ecological selves suffer climate change sooner or later. The climate change that has impacted on butterflies' shifting causing them to fly to Turnbow farm in Tennessee rather than going to Mexico is challenging issue. It also has a deep impact on Dellarobia who undergoes a massive change in understanding nature and her life. Such type of transformation should echo the heart of human being so that ecological problems can be minimized. This transformation has been perceived though the central character Dellarobia is violence in silence as represented in the novel.

Chapter III: Climate Change: Violence in Silence

This chapter analyzes how climate change as violence in silence, significantly affecting ecology and humanity, is a part of ecological denial. The climate change is a gradual transformation in atmosphere, weather pattern, and natural occurring in harmful ways. . While Kingsolver focuses on a single Appalachian woman's encounter with a climate anomaly, she critiques the human tendency to deny climate change which is called ecological denial. I have used the key ideas on ecological denial by Val Plumwood, slow violence by Rob Nixon, and ecological crisis by Amitav Ghosh. In addition, I also employ Dipesh Chakrabarty's idea that climate change collapses the boundaries between human history, and Lawrence Buell's notion of the environmental imagination and toxic discourse, both of which deepen the understanding of ecological denial and climate representation in literature.

The invisibility of climate harm is in fact visible in slow motion. In this regard, Rob Nixon mentions, "Slow violence is a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space" (2). The destruction is delayed but it is not deleted. It comes in gradual way as seen in the novel *Flight Behaviour* where the flooding cause losses to butterflies' houses in Mexico and they change their settlements coming to Tennessee mountain. This gradual displacement reflects Chakrabarty's claim that climate change is not only a

local disruption but a planetary process that entangles human and natural histories, making slow violence both personal and geological.

Similarly, Amitav Ghosh also raises the issue of climate change: “As the melting of the Himalayan glaciers accelerates, the variations in the rivers’ flow will increase, failing to unprecedented lows in the dry season and causing massive inundations in the summer” (121). He assumes that the variations in the rivers’ flow will increase displacing many ecological selves, reminding of butterflies in *Flight Behaviour*.

While Dellarobia is undergoing through her personal journey of complexities, she sees how nature is also sick. The climate changes are results of anthropogenic practices, which causes harms to nature and human health. The risk of global climate change is marked by the arrival of monarch butterflies; it hints the uncertainty of life including humans, flora and fauna.

Barbara Kingsolver’s *Flight Behaviour* emerges as a profound narrative that intricately intertwines environmental consciousness with human experience, reflecting the multifaceted impacts of climate change on both nature and society. This research, undertaken with the objective of exploring the climatic impact as portrayed in the novel, has traced how Kingsolver transforms the abstract discourse of climate change into an intimate, lived experience for her characters and readers alike. The study has demonstrated that *Flight Behaviour* transcends the confines of a conventional narrative, offering a penetrating examination of ecological disruption, human vulnerability, and socio-cultural dynamics in a world increasingly shaped by environmental uncertainty.

At the heart of Kingsolver’s narrative lies the anomalous migration of monarch butterflies - a phenomenon that serves as both ecological fact and powerful metaphor. Through this imagery, Kingsolver invites readers to witness the unsettling consequences of climatic imbalance, portraying nature not as a passive backdrop but as an active agent whose transformations carry profound

implications for human existence. The monarchs' unexpected arrival in Dellarobia Turnbow's Appalachian community becomes a catalyst for personal reflection, societal discourse, and scientific inquiry, embodying the interconnectedness of ecological phenomena and human perception.

The novel presents climate change in a realistic and carefully considered manner, deliberately avoiding exaggeration. It offers a clear and thoughtful depiction of how environmental challenges quietly but strongly affect the everyday lives of individuals and communities. This resonates with Lawrence Buell's assertion in the *The Environmental Imagination* that environmental narratives must avoid apocalyptic excess while still compelling readers to recognize ecological urgency. Kingsolver achieves precisely this balance, crafting a narrative that makes climate change tangible and ethically charged without resorting to sensationalism. By focusing on the tangible impacts on ordinary people, the narrative makes the issue of climate change immediate and personal, emphasizing its ongoing presence rather than treating it as a distant or abstract problem.

Kingsolver emphasizes that climate change is not a distant threat but a present reality with tangible effects on communities, economies, and belief systems. In doing so, she challenges the reader to move beyond abstract concern and engage with the ethical and practical dimensions of environmental stewardship. The rural Appalachian setting, characterized by economic hardship and limited access to formal education, underscores the complexities of climate communication in regions where scientific narratives often clash with cultural traditions and socio-economic constraints. This illustrates Buell's notion of 'toxic discourse' where communities interpret ecological harm through cultural or religious frames rather than scientific rationality, as seen in the community's initial interpretation of the butterflies as a divine sign.

Through the character of Dellarobia, Kingsolver crafts a narrative of gradual awakening - an individual's journey from passive acceptance of her circumstances to active engagement with the broader ecological crisis unfolding around her. Dellarobia's evolving consciousness reflects the potential for transformation within individuals when confronted with undeniable evidence of

environmental change. Her interactions with Ovid Byron, the dedicated scientist studying the butterflies, highlight the tensions between scientific authority and local skepticism, illustrating the broader societal challenges in bridging gaps between knowledge systems. Kingsolver portrays this interaction not as a simplistic conflict but as a complex negotiation of understanding, shaped by personal experience, cultural values, and socio-economic realities.

The study has revealed that *Flight Behaviour* operates at the intersection of science, faith, and societal belief systems, exploring how individuals and communities grapple with the implications of climate change. Kingsolver acknowledges the deep-seated human tendencies to seek meaning through religious or cultural lenses, particularly when faced with phenomena that challenge conventional worldviews. The community's initial inclination to interpret the butterfly migration as a divine sign underscores the enduring influence of traditional belief systems, even as scientific explanations strive to offer rational accounts. Yet, Kingsolver resists portraying this tension as irreconcilable, suggesting instead that meaningful engagement and critical reflection can bridge, divide and foster a deeper understanding of ecological realities.

Ecological denial is a denial of human dependency to Earth, and it is an outcome of anthropocentrism. This issue is raised by scholars contributing in the field of environmental literary criticism. For example, Val Plumwood in *Environmental Culture: The Ecological Crisis of Reason* claims that the ecological denial, backgrounding, and instrumentalization deteriorates the condition of ecology. She asserts, "Denial is often accomplished via a perpetual politics of what is worth noticing, of what can be acknowledged, foregrounded and rewarded, and what is relegated to the background" (104). The politics of what is worth-noticing and what is not worth-noticing involves radical exclusion of nature, land, and trees from human-centered world thereby denying ecological contribution to humanity. In the next book, *Feminism and the Mastery of Nature*, she discusses about the ecological denial along with the denial of women's contribution to the family and nation. She argues, "Denial can take many forms. Common ways to deny dependency are through making

the other inessential, denying the importance of other's contribution" (48). The denial of dependency on nature by humans is to treat the essential subjects as inessential only to prove hubris which Plumwood critiques. Similar trait of humanity is observed in the novel *Flight Behaviour* especially when the logging company along with Cub's family goes on cutting down the trees of the mountain without thinking its contribution to the humanity providing food, fodder, woods and contributing to maintain ecology and bio-diversity. Here, Buell's toxic discourse can again be invoked, since ecological harm is rationalized or ignored when economic survival narratives dominate, revealing the cultural filters that reinforce ecological denial.

In synthesizing the findings of this research, it becomes evident that *Flight Behaviour* is more than a narrative about climate change; it is a profound meditation on human agency, ecological interdependence, and the possibility of transformation amidst crisis. Kingsolver's depiction of the monarch butterfly migration transcends its literal significance, emerging as a symbolic force that challenges readers to reconsider their relationship with the natural world. The novel's exploration of personal and communal responses to environmental disruption underscores the necessity of moving from passive observation to active ethical engagement.

As the realities of climate change continue to unfold on a global scale, Kingsolver's narrative - and this scholarly investigation of it - underscore the urgency of fostering environmental literacy and ethical responsibility. *Flight Behaviour* calls upon readers to recognize the fragility of ecological systems and the profound consequences of human action or inaction. It advocates for a vision of the world that honors the interconnectedness of all life and embraces the moral obligation to safeguard the planet for future generations. This recalls Buell's insistence that literature nurtures the environmental imagination by making distant planetary problems feel near and immediate. It also incorporates Chakrabarty's claim that climate change forces humanity to think simultaneously at the level of local lives and planetary histories.

Kingsolver's *Flight Behaviour* serves as a vital contribution to climate fiction, offering a narrative that is both scientifically grounded and deeply human. By engaging with the climatic impact portrayed in the novel, this research highlights the power of literary narratives to foster critical awareness, challenge societal complacency, and inspire collective action in the face of environmental uncertainty. The journey undertaken in this exploration reaffirms the role of literature as a dynamic force in the ongoing dialogue about climate change, human responsibility, and the future of our shared planet. This study implies that literature holds transformative potential in shaping environmental discourse and promoting ethical reflection and further researches can be conducted by connecting this issue to sustainable development in literary practice.

Thus, climate change is more a human-induced activity as represented in *Flight Behaviour* leaving an adverse impact on ecological selves and their natural home. To minimize this degrading nature of climate, a shift in perspective as seen in the character of Dellarobia, who changes her attitudes and perspective on nature moving from human-centered perspective to ecocentric perspective, is necessary. Climate change has been represented as slow violence which affects ecology as well as humanity for long term that's why human beings should be aware of it. This message has been conveyed through the protagonist Dellarobia.

The critiquing on ecological denial disapproves the current practices of over exploitation of nature that leads to climate change as it is considered human-induced phenomenon. This study opens a new avenue for further studies. One of them would be environmental racism, where the issue to explore is why and how nature has been understood as an inferior race, in the position of black people while linking it in the history of slavery in the USA. Similarly, it also offers insights into post-colonial ecocriticism.

To conclude, the ecological denial and slow violence are related to climate change as both has an unprecedented increase as represented in the novel *Flight Behaviour* by Kingsolver. Humanity's reluctance to acknowledge the environmental crisis is seen in the sudden arrival of

monarch butterflies in Tennessee mountain and humans' deafness to hear the stories of climate change. The denial and slow violence echo Rob Nixon's idea of slow violence which is a gradual disappearance of sound ecology and Plumwood's idea of ecological denial that supports the slow violence. Together with Chakrabarty's vision of climate change as the convergence of human and natural histories, and Buell's call for an environmentally responsible imagination. These ideas highlight the urgency of Dellarobia's awakening as a model for humanity's broader ecological rethinking.

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