From Slow Violence to Active Violence: Transformative Adaptation for Global Governance in *The Ministry for Future* and *New York 2140*

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Declaration of Authorship

I, Mahnoor Zahra, under the registration number 722-FLL/MSENG/F22,hereby declare that this thesis is entirely my work and that all critical and other sources have been clearly and adequately acknowledged, as and when they occur in the body of my text.

Date: 16-12-2025

Signature: Mahnoor Zahra

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Dedication

This study is dedicated to those who have supported and believed in me throughout my academic journey. Their belief in me has been my greatest inspiration. To my friends, who have been a source of joy and ecstasy in moments of academic stress. To my supervisor and professors, whose wisdom and guidance have shaped my literary passion. I owe every bit of this achievement to all of them. Thank you for your support and insight in achieving this milestone.

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Abstract

This thesis examines the escalating global crisis of anthropogenic climate change, arguing that its impacts transcend national boundaries and demand urgent, transformative responses. Through an ecocritical and ecocompositional lens, the study analyzes two climate fiction novels*The Ministry for the Future*and *New York 2140*by Kim Stanley Robinsonto explore how literature imagines a near-future shaped by environmental catastrophe and systemic violence. Drawing on theorists such as Scott Slovic, M. Jimmie Killingsworth, and Jacqueline S.Palmer, Sidney I.,Dobrin, and Christian R. Weisser this study explores the critical issue of human-caused climate change, emphasizing its global significance beyond industrialized countries. It foresees a future marked by increased violence, stressing the need to move towards altered adaptation techniques and form non-politicized global climate governance.Central to this analysis is the need for depoliticized, globally coordinated climate governance that prioritizes long-term resilience and equity over short-term economic gain. By connecting fictional narratives to real-world ecological discourse, the thesis demonstrates how literature can challenge dominant environmental paradigms and inspire meaningful policy and behavioral change. The study ultimately calls for a radical restructuring of global systems to address the root causes of climate vulnerability.

Keywords: *Transformative adaptation, active violence, eco-criticism*

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Chapter-1

Introduction

The purpose of this research is to emphasize that the global climate crisis is not merely a distant or dystopian narrative; rather, it is an unfolding reality that transcends geographical and political boundaries, affecting both the Global North and South. Climate change, manifesting through heatwaves, sea-level rise, droughts, and wildfires, intensifies existing inequalities and power imbalances, posing serious implications for migration, social justice, and national security. In addressing this crisis, it becomes crucial to revisit Rob Nixon's (2011) concept of "slow violence," defined as "violence that occurs gradually and out of sight" (2), often unnoticed but deeply harmful to marginalized communities and ecosystems over time.

While Nixon's idea captures the insidious nature of environmental degradation, this study introduces a contrasting yet complementary term"active violence." Traditionally, the term has been associated with immediate and visible acts of aggression, such as armed conflict or genocide. However, in the context of climate change, I define active violence as the tangible, immediate harm resulting from environmental disruptions caused by anthropogenic activities. This form of violence includes sudden displacements, floods, wildfires, and conflicts over diminishing

resources. Unlike slow violence, which is often imperceptible, active violence underscores the direct and escalating consequences of ecological breakdown in real time. Recognizing this shift from slow to active forms of environmental violence is essential for understanding the urgency of the climate crisis and its profound implications for global justice and sustainability.

Moreover, climate change is rapidly reshaping our world, bringing about major shifts in temperature and ecosystems. Marco Malvestio argued in "Theorizing Eco-dystopia: Science Fiction, the Anthropocene, and the Limits of Catastrophic Imagery", that the representation of disaster and the "'imagination' of catastrophe is pervasive in environmental activism as well, and rightly so, the Anthropocene is an age of disasters, characterized by mass extinctions, ocean acidification, extreme weather events, drastic changes in climate, and an increasing amount of land that will be rendered inhabitable" (25). However, Malvestio's concept is relevant as it delineates the use of catastrophic narrative and imagery in eco dystopian fiction.Still, my emphasis is on transformative adaptation and strategies required to mitigate and adapt to the changing climate with the help of literary texts. Traditional approaches to coping with these changes may prove inadequate in the long term. This calls for transformative adaptation, a profound overhaul of systems addressing the root causes of vulnerability. Therefore, for the present study, I have selected*The Ministry for Future*(2020) and *New York 2140*(2017) by Kim Stanley Robinson. The selected texts serve as a compelling case study, portraying a world grappling with the repercussions of climate change and offering profound insights into the intricate challenges faced by individuals, communities, and governments in their responses to ecological security threats stemming from climate

change. Also helps in exploring the depoliticization of global climate governance through the portrayal of climate refugees as victims of slow violence, victims of PTSD due to heat waves, droughts, and floods. These novels present transformative adaptation that is characterized by restructuring, path-shifting, innovation, system-wide impact, and long-term persistence. Despite notable challenges in its implementation, policymakers and practitioners should consider transformative adaptation as a vital component of climate change adaptation strategies. This approach holds the potential to help vulnerable countries anticipate, guide, and recover from the radical impacts of climate change, ultimately enhancing the efficiency and sustainability of climate solutions.

The narrative of *The Ministry for the Future* unfolds in a world deeply scarred by the effects of climate change. The story begins with high temperatures killing ten million people in India, causing drought in Los Angeles, and forcing people to migrate from Algeria to Switzerland. Set in a near-future world, the story follows the efforts of an international organization, the Ministry for the Future, to address the climate crisis and its consequences. Robinson vividly portrays the complex interplay of environmental, social, and political factors as characters grapple with extreme weather events, resource scarcity, and mass migrations. The novel offers a hopeful perspective on the challenges of climate change. By the 2040s, the rate of carbon emissions has slowed enough that the amount of carbon dioxide in the atmosphere is headed in the right direction. Also,in response to the heat wave, India initiated its own geoengineering project. Additionally, a team of Antarctic experts devised a bold plan to mitigate the

loss of the continent's ice sheets, thus emphasizing the potential for collective action and transformative adaptation to create a more sustainable future.

Similarly, *New York 2140* is set in the year 2140, and risingsealevels have profoundly impacted NewYork due to climate change. Manhattan is partly submerged, creating a new urban landscape with skyscrapers surrounded by canals. The novel follows the lives of several characters who live in this waterlogged city, each with their own stories and struggles. It explores themes of climate change, economic inequality, and resilience as the characters navigate the challenges of this transformed world. As they interact and adapt to their environment, they also uncover financial conspiracies and political intrigue. Thus, *New York 2140* addresses the same issue about the consequences of climate change and a hopeful exploration of how people cope with the challenges of a dramatically altered world through transformative adaptation.

Hence, my thesis explores the crucial adoption of an ecological perspective, specifically an eco-critical and eco-compositional approach. According to Sidney I. Dobrin, eco-composition "investigates the total relations of discourse to its organic and inorganic environment" (573) and examines how writing both arises from and impacts its surrounding ecological systems.This highlights the universality of the issue of climate change and the potential for it to affect all communities, regardless of race or ethnicity. Thus, I build upon the theoretical insight of Scott Slovic, who emphasizes the recognition of the darker aspects of our own nature, which is a hopeful impetus for driving positive change and improvement. I further include the chapter titled "Rhetoric and the Environmental Dilemma" from M. Jimmie Killingsworth and Jacqueline S. Palmer'sbook *Ecospeak: Rhetoric and Environmental Politics in America*(1992).

Ecospeak, as analyzed by Killingsworth, oversimplifies environmental politics into a binary framework, pitting environmentalists against developmentalists. Acknowledging this dichotomy's oversimplification is crucial for my study as it influences perceptions and can hinder effective cooperation in environmental politics. I further take on board Dobrin and Weisser (2002) to underscore the need for ecological and environmental perspectives within composition theory and aim to promote the recognition of place, discourse, and the environment through theory and pedagogy. I utilize the theoretical tenets of the eco-compositionists as mentioned earlier, which view the current environmental crisis as a potentially catastrophic biospheric event demanding immediate consideration and action. This perspective underscores the interdependence and symbiotic nature of ecological relationships between humans and their surrounding environments. I analyze its significance by delving into examples from *The Ministry for Future* and *New York 2140*, such as the devastating impacts of climate change, which emphasize the urgency of recognizing our interconnectedness with nature. Furthermore, I study how eco-composition redirects my attention to the ethical imperative of stewardship and sustainable practices, encouraging a holistic and ecological perspective. Therefore, my study highlights that such narratives are often employed to highlight the main issue at hand and attract attention to a pressing issue that is detrimental to an emancipatory approach to climate change and eco-composition not only raises awareness of the environmental crisis but also inspires transformative action, fostering a sustainable and harmonious relationship between humanity and the natural world.

1.1 Statement of the Problem

The global climate crisis is no longer a speculative concept confined to dystopian fiction,it is a tangible and accelerating reality that transcends geopolitical boundaries. Climate change affects both the Global North and the Global South, though disproportionately, revealing the interconnected vulnerabilities of a highly interdependent world. This research examines the transnational consequences of the climate crisis, highlighting how the ecological and humanitarian impacts in one region inevitably ripple into others, demanding a collective and coordinated global response. I argue that the selected works of fiction present a believable depiction of the near future emphasizing the critical need for transformational adaptation. This requires a depoliticized global climate governance model and systemic reforms that target the root causes of vulnerability.

My thesis addresses this gap by using an eco-compositional framework to show how *The Ministry for the Future* (2020) and *New York 2140* (2017) recompose environmental discourse from slow to active violence, and how those narrative strategies imagine practicable, justice-attentive pathways for transformative adaptation. These narratives not only critique the inadequacies of depoliticized global climate governance but also call for transformative adaptationa profound restructuring of social, political, and economic systems that addresses the root causes of environmental injustice. While the climate crisis disproportionately impacts the Global South, this study does not attempt to survey all Global South climate fiction or scholarship. Instead, it focuses on how a predominantly Western narrative imaginationengages with global

interdependence and represents Global South vulnerabilities within a global governance frame.

1.2 ResearchObjectives

1. To examine the global climate crisis, considering its effects on socio-ecological systems, inequalities, and power dynamics without being confined by racial and ethnic boundaries
2. To explore strategies for transformative adaptation that address the root causes of vulnerability to climate change, emphasizing the need for depoliticized global climate governance and highlighting the role of narrative-based eco-composition in fostering environmental awareness and action

1.3 ResearchQuestions

1. How do climate change impacts intersect with global socio-ecological systems, exacerbating inequalities and power imbalances, and ow can we address these challenges beyond racial and ethnic divides?
2. How do the selected texts represent transformative adaptation in response to climate change, and in what ways do they engage with themesof global climate governance and system restructuring?

1.4 Theoretical Framework and Methodology

My study uses a qualitative research methodology, primarily employing close textual analysis to examine two selected climate fiction novels: *The Ministry for the Future*(2020) and *New York 2140*(2017). These texts engage with the climate crisis across both the Global North and Global South, while also exploring the idea of

transformative adaptationa concept that calls for a fundamental restructuring of socio-political systems, policy-making, and the integration of traditional ecological knowledge to reshape human interaction within social-ecological systems.

The theoretical foundation of this research is rooted in ecocriticism and ecocomposition, drawing upon the interdisciplinary frameworks of Scott Slovic, Sidney I. Dobrin and Christian R. Weisser(2002), as well as M. Jimmie Killingsworth and Jacqueline S. Palmer (1992).

Scott Slovic's work, particularly in *The Hopefulness of Ecocriticism*, frames ecocriticism as an inclusive, evolving discipline that brings together scholars from literature and beyond to explore the interrelation between language, narrative, and environmental concerns. He emphasizes the hopeful potential of ecocriticism to influence societies by fostering more nuanced and responsible environmental discourse. His assertion that "language in our environmental discussions … is a great reason for hope" (11) provides a central pillar for the study's approach to climate fiction as a rhetorical and narrative force.

Complementing Slovic's insights are Dobrin and Weisser's (2002) perspectives in "Breaking Ground in Ecocomposition," which foreground the role of discourse in shaping environmental understanding. Ecocomposition studies how rhetorical forms not only reflect environmental realities but also participate in constructing them. In other words, how places, ecologies, and material conditions shape what and how we write, and how writing in turn helps construct environmental realities.Their work highlights the co-constitutive relationship between discourse and environment, which is

particularly relevant when analyzing how climate fiction narratives communicate urgency, policy critique, and adaptation strategies.

Similarly, *Ecospeak*(1992) by Killingsworth and Palmer critiques the reductive binaries often found in environmental rhetoric, such as environmentalist vs. industrialist, and advocates for more nuanced, multi-vocal discourse. Their contribution is vital in decoding how environmental conflicts are presented in climate fiction and how narratives can subvert simplistic ideological dichotomies. Together, these frameworks enable a layered analysis of how fiction can participate in environmental discourse, resist ideological closure, and suggest transformative paths forward.

The synergy among these theorists lies in their shared emphasis on language, representation, and discourse as pivotal tools in both understanding and reshaping environmental thought. While Slovic emphasizes narrative diversity as a source of ecological hope, Dobrin and Weisser focus on the discursive construction of environmental awareness, and Killingsworth and Palmer urge the breaking of ideological binaries that often constrain ecological debates. This combined framework allows for a comprehensive exploration of climate fiction's role not only in representing crisis but in envisioning just and sustainable futures.

In line with this framework, the novels under study are analyzed for their narrative structures, rhetorical strategies, and ideological positions on climate change and adaptation. Secondary sources, including journal articles, critical essays, and reviews, are consulted to support the analysis and situate the study within current ecocritical scholarship.Ultimately, it links literary analysis with environmental rhetoric and cultural critique, offering a multi-dimensional lens through which I examine the

selected texts' engagement with the climate crisis. By doing so, the study highlights the importance of language, story, and critical engagement in confronting environmental challenges and imagining alternative futures.

1.5 Significance of the Study

This research contributes a timely and critical perspective on one of the most pressing global challenges of the twenty-first century: climate change. The findings of this research will benefit scholars, policymakers, and environmental activists by offering an interdisciplinary framework that bridges literary analysis and climate governance. While much of climate fiction tends to emphasize dystopian futures, often depicting apocalyptic scenarios, alien invasions, or ecological collapse as seen in Octavia Butler's *Dawn* series, this study takes a different approach. It foregrounds the global nature of the climate crisis, which does not affect isolated regions alone but impacts the entire planet, exacerbating existing inequalities and demanding collective, transnational responses.

The study emphasizes the urgency of recognizing "active violence"the immediate, visible consequences of climate change, such as the melting of permafrost, Antarctic ice loss, increasingly frequent wildfires, and catastrophic floods witnessed recently in Pakistan, India, and Bangladesh. While Nixon's concept of "slow violence" remains critical for understanding the hidden and cumulative harms of environmental degradation, this study argues that we are now witnessing a more direct and rapid form of ecological violence that can no longer be ignored.

What sets this research apart is its focus on hopeful, forward-looking works of climate fiction; stories that do not merely lament ecological decline but propose transformative adaptation. These narratives offer alternative imaginaries that challenge depoliticized climate discourse and envision meaningful restructuring of global systems. They advocate for resilience, sustainability, and justice by reimagining how communities might adapt and thrive amid environmental change. Thus, the study aims to bridge the gap between environmental literature and actionable climate ethics, contributing to scholarly conversations on climate justice, global responsibility, and the role of imagination in fostering ecological hope.

1.6 Chapterisation

This thesis is organized into six chapters. Chapter One introduces the research topic, outlines the problem statement, research objectives and questions, theoretical framework, and significance of the study. Chapter Twopresents a comprehensive literature review, situating the study within existing scholarly debates on climate change, global governance, and climate fiction. Chapter Three analyzes *The Ministry for the Future*, focusing on transformative adaptation and global climate governance. Chapter Four examines *New York 2140*, emphasizing themes of resilience, community, and systemic transformation. Finally, Chapter Five provides the findings and conclusion, highlighting key insights and suggesting directions for future research.

Chapter-2

Literature Review

The world is linked through economic, environmental, and social ties that need proactive solutions to climate change, but solutions will vary from region to region. However, these solutions must be tailored to fit the unique conditions of different regions. Although the sky above is the same, the land varies significantly across the globe. Human activities have profoundly impacted regional landscapes, leading to distinct environmental challenges in different areas. For instance, the Global South

faces different climate-related issues compared to the Global North, making it clear that a one-size-fits-all approach is insufficient.

In *Slow Violence and the Environmentalism of the Poor*(2011), Nixon argues that conventional understandings of violence tend to focus on immediate, spectacular events. This perspective neglects the protracted, accumulative destruction characteristic of many environmental crises, particularly those impacting marginalized communities. Nixon's concept of slow violence addresses this gap, describing the gradual, often invisible harm inflicted upon both ecosystems and communities over extended periods, in contrast to the sudden brutality associated with traditional notions of active violenceacts of conflict or aggression that occur in confined spaces and unfold over shorter time frames. By expanding the framework to include slow violence, Nixon provides a more comprehensive understanding of how environmental crises manifest across multiple temporal scales. By and large, my study fills this gap by foregrouding active violence, as the accelerating climate crisis shows that violence is no longer slow.

Jagannathan et al.'s article, "Typologies of Actionable Climate Information and its Use" (2023), addresses the critical challenge of translating climate science into practical, decision-making tools for effective climate change adaptation. The authors focus on the co-production process, where climate scientists and resource managers collaborate to develop actionable climate information. Through a detailed analysis of a long-term co-production project, the study identifies three main types of actionable climate information: detailed data and results, broad trends and patterns, and data improvements and guidance. These typologies are designed to streamline the production

and use of climate knowledge, reducing the time and resources typically required. The study also explores how managers use climate information in various ways, such as understanding climate processes, motivating stakeholders, informing plans, securing funding, and taking action. Despite the comprehensive nature of these typologies, there are a few limitations in their study, noting that these categories are context-specific and not universally applicable. The research highlights the complexity of climate-informed decision-making and the need for both tailored data and guidance on data credibility and model selection, underscoring the multifaceted nature of actionable climate information.

While Jagannathan et al. focus on the technical aspects of producing and utilizing actionable climate information within specific management contexts, my research takes a broader and more critical approach by examining the global interdependence of climate change impacts through the lens of dystopian fiction. These narratives emphasize the urgent need for transformative adaptation, not just through the provision of actionable data but by rethinking global climate governance and addressing the underlying systemic vulnerabilities that exacerbate the crisis. My research argues that the climate crisis requires a profound restructuring of existing systems and the development of depoliticized global climate governance, as depicted in contemporary climate fiction *The Ministry for the Future* (2020).

Herminia A. Francisco (2008) highlights the urgent need for adaptation in Southeast Asia, focusing on the economic and social challenges. She outlines three primary strategies-protection, retreat, and accommodationachieved through technological, behavioral, managerial, and policy interventions. Francisco argues that

anticipatory adaptation, while costly, is more cost-effective than reactive measures, warning that inaction could lead to significant GDP losses.

Francisco emphasizes regional adaptation strategies; my research expands the focus to global interdependence, stressing that climate crises transcend borders. In contrast to Francisco's government-centered approach, I advocate for affordable, localized solutions that address climate change without imposing excessive financial burdens. Furthermore, my study calls for a rethinking of global governance structures to address systemic vulnerabilities, going beyond the regional focus of Francisco's analysis.

Furthermore, climate diplomacy has emerged as a critical practice in addressing the global challenge of climate change. Mabey et al. (2013) provide a comprehensive overview of how climate diplomacy has developed and the complex international regime it has shaped.The author argues that climate diplomacy must draw on the successful legacy of other diplomatic projects, noting that "history has demonstrated that great transformations are possible in the course of a few years" (21). By the same token my study emphasizes that effective climate diplomacy must address multiple failures in international cooperation, including the absence of political conditions for agreement that speaks for depoliticized climate governance that minimizes partisan agendas in decision-making process, inability to construct a fair political agreement, failure to capture the highest ambition possible, and failure of implementation.

Nature-based solutions (NbS) have emerged as a promising approach to address climate change challenges in urban areas while providing multiple benefits for

biodiversity and human well-being. The authors define NbS as "the use of nature in tackling challenges such as climate change, food security, water resources, or disaster risk management, encompassing a wider definition of how to conserve and use biodiversity in a sustainable manner" (Kabisch et al. 2). Despite the growing interest in NbS, there are several knowledge gaps that hinder their widespread adoption. These gaps relate to the effectiveness of NbS, their relationship with society, optimal design approaches, and implementation challenges (7-8). For instance, there is limited understanding of the long-term impacts of NbS on biodiversity and ecosystem services in urban environments. While Kabisch et al.'s article emphasizes societal and administrative challenges, it does not delve into the underlying global interconnections that exacerbate climate vulnerabilities and how narrative can play the critical role of shaping public perception and policy action.

Anthony Reid (2018) traces the historical development of international responses to natural disasters and argues that only in the last two centuries have humans begun to care about the sufferings of fellow humans in remote parts of the world due to natural disasters. Reid's analysis is centered on historical shifts in empathy and humanitarian responses.Still, my study emphasizes the necessity of proactive, transformative adaptation strategies to address the multifaceted impacts of climate change.

Erik Swyngedouw, in his article "Depoliticized Environments: The End of Nature, Climate Change and the Post-Political Condition," argues that current discourse around climate change and environmental issues has become "post-political" (267),

foreclosing genuine political debate. Swyngedouw contends that the concept of "Nature" as something external to human society is no longer tenable in the Anthropocene era, where human activity shapes planetary systems (253-254). In light of Swyngedouw's argument, I partially agree that climate change is framed as a "post-political" (267) issue, as it is often presented as a "de-politicized" matter. However, we cannot completely separate politics from the climate issue. We genuinely need to address the environmental problems by "politicizing environments democratically" (273), opening space for debate about different possible socio-ecological futures.

In "Climate Change and the Crisis of Capitalism: A Chance to Reclaim Self, Society and Nature," Pelling, Navarrete, and Redclift argue that the combined challenges of climate change and global economic instability necessitate a fundamental reevaluation of current development practices and values. The authors contend that existing approaches are inadequate for addressing these intertwined crises and may reconfigure risk rather than resolve it.The work brings together scholars from diverse disciplines to examine contemporary development discourses and practices, bridging geographical and disciplinary divides.

In their introduction to a special issue titled "Adding insult to injury: Climate change and the inequities of climate intervention," Elizabeth Marino and Jesse Ribot examine how climate change mitigation and adaptation efforts can potentially exacerbate existing inequalities and create new forms of injustice. The authors argue that while climate change itself will harm vulnerable communities, the responses to climate change may also produce winners and losers, reshaping social stratification and

risk distribution (1).Marino and Ribot highlight that climate intervention strategies, ranging from desalination projects to relocation planning and centralized forest management, can create new opportunities but also new risks for vulnerable populations. They emphasize that these communities may face not only material injuries from climate change or climate interventions but also "insults" (1) in the form of lack of representation, recognition, or misrecognition in climate-related discourse.

Baum et al. offer relevant insights and examine public perception regarding climate intervention technologies across the Global North and Global South. Their large-scale survey examines public attitudes toward carbon dioxide removal (CDR) and solar radiation modification (SRM) technologies across 30 countries, noting that public familiarity with these interventions remains low globally, with exceptions for ecosystem-based strategies like afforestation and reforestation. Notably, the study reveals significant regional disparities in attitudes, with Global South countries expressing more favorable views and stronger support for climate intervention technologies than their Global North counterparts. This difference is attributed to younger populations and heightened climate change concerns in the Global South, coupled with fears about the unequal distribution of risks between wealthy and poor countries.

Alternatively, to introduce a different way of thinking about this issue from Baum et al.'s study is to shift the focus a little from public perceptions to the deeper systemic challenges posed by political pressures on global governance structures. While Baum et al. highlight the need for more inclusive research involving diverse global

perspectives, this research argues for a more radical restructuring, moving beyond inclusion to envision governance that operates independently of political constraints. A fictional depiction of dystopian futures will help me in providing a fresh perspective on how literature can model the critical transformations needed in global governance to avoid these scenarios. This approach highlights the necessity of establishing depoliticized frameworks that prioritize equitable solutions and address the underlying causes of regional vulnerabilities.

Eva-LiisaAndima articulates in her thesis "Humanising Climate Change Through Climate Fiction: A Literary Examination of *New York 2140* (2017) by Robinson and *The Drowned World* (1962) by Ballard" that there is a gap as well as representational deficiencies … in the ways and manner in which a universal problem such as climate change is communicated" (4). Climate fiction attempts to bridge this gap by translating scientific data and projections into relatable human narratives.

Cli-fi works address the problem of climate change communication through various narrative techniques. As she cites Johns-Putrawho argues, these novels often depict "climate change as a political, ethical, or even psychological problem" requiring individual and societal engagement (266). By humanizing climate impacts, cli-fi makes the abstract concrete and personal. For instance, Robinson's *New York 2140*(2017) imagines a flooded New York City, bringing home the reality of sea-level rise, while Ballard's *The Drowned World*by J. G. Ballard(1962) explores psychological responses to extreme climate change.

The genre serves as important role in helping readers to envision and grapple with potential climate futures. This function is crucial in addressing another aspect of the climate change communication problem: the difficulty in imagining long-term, gradually unfolding catastrophes. However, climate change is no longer happening gradually; it is now causing abrupt and dramatic shifts in the world's climate, impacting ecosystems and human societies at an accelerated pace.

Cli-fi provides a space for readers to emotionally and intellectually engage with these possible futures. Therefore, I argue for a more systemic approach to governance. By focusing on the complexities of global interdependence and vulnerabilities, this thesis provides a fresh lens on how cli-fi can be leveraged not only for awareness but also for rethinking governance frameworks.

Additionally, Janet Fiskio examines two dominant narratives in climate change discourse: the "lifeboat" and the "collective" (14). The lifeboat narrative, drawing on Social Darwinism, imagines humans as self-interested agents competing for scarce resources. The lifeboat narrative often leads to the exclusion of corporeal differences, while the collective risks nostalgia. Fiskio contends that speculative fiction can disrupt these dominant narratives by centering disabled bodies and revealing how "allegedly maladaptive characteristics can become the key to the creation of new modes of thinking about climate change" (14).

Drawing on disability theory and intersectional analysis, Fiskio examines works like Ursula K. Le Guin's*Newton's Sleep* and Octavia Butler's *Parable of the Sower*. She demonstrates how these texts use corporeal difference to critique exclusionary ecotopian

visions and imagine new forms of community in response to climate crisis (28-32). Ultimately, Fiskio argues that speculative fiction offers possibilities for reimagining climate change narratives beyond fixed identities, suggesting that "new collectives, formed under the duress of climate change, can result in our own bodies and natures becoming unfamiliar to us beyond any fixed frame of identity" (31-32). This opens up new potentials for alliance across corporeal differences in envisioning responses to climate change.

Eric Bonds challenges the prevailing climate conflict models in "Upending Climate Violence Research: Fossil Fuel Corporations and the Structural Violence of Climate Change," which often emphasize environmental determinism and reinforce colonial stereotypes by disproportionately focusing on violence in the Global South. He argues that this orthodox research largely neglects the structural violence perpetrated by powerful fossil fuel corporations that have historically benefited from and perpetuated environmental degradation (3-5). According to Bonds, these corporations continue to amass profits while expanding carbon reserves that far exceed safe levels, all while lobbying against meaningful climate action (12-14). This structural violence, as Bonds contends, is a critical yet underexplored dimension of climate change, revealing how power and inequality shape environmental vulnerability.

My research deviates from this existing body of work by introducing a perspective centered on the need for global, cooperative governance structures that transcend political agendas. While Bonds emphasizes the role of fossil fuel corporations in perpetuating structural violence, my study extends this analysis by highlighting how

these dynamics necessitate global collaboration to address both immediate and long-term climate risks. The fictional work *The Ministry for the Future* offers cautionary tales of a future where fragmented, nationallydriven responses fail to manage the escalating threats of climate change, resulting in widespread violence and displacement. The role of fossil fuels in exacerbating climate issues and their eradication is also discussed in the novel, which I elaborate on in my analysis section.

Environmental displacement due to climate change is an increasingly pressing issue that spans both developed and developing nations. Shweta Jayawardhan's comprehensive study "Vulnerability and Climate Change Induced Human Displacement" examines the relationship between vulnerability and climate-induced human displacement through case studies in the U.S. Gulf Coast, Bangladesh, and Somalia. A key finding is that socioeconomic inequality and marginalization of vulnerable communities largely account for who is displaced by climate events (4).Jayawardhan problematizes the notion that climate change alone causes displacement. She argues that it exacerbates existing social vulnerabilities, which ultimately lead to displacement (105). This aligns with earlier work by Steve Lonergan, who cautioned against assuming a direct causal link between environmental degradation and population displacement without considering the broader socioeconomic context (106). The study employs vulnerability indexes to quantify how different groups experience climate risks, revealing how marginalized populations often inhabit more ecologically vulnerable areas due to economic and political discrimination (114-115). Through case studies, Jayawardhan demonstrates similar vulnerability patterns across developed and

developing contexts, while highlighting differences in primary reasons for migration between these settings.

Furthermore, the differences between the concepts of eco-terrorism and environmental terrorism is of prime importance to my study, which calls for rethinking sustainable solutions, but not through the lens of eco-terrorism. Instead, I engage with transformative, hopeful, and inclusive environmental narratives that foster long-term, systemic change rather than extreme, radical responses.

Paola Andrea Spadaro (2020) examines the complex relationships between climate change, environmental degradation, and terrorism. Spadaro establishes climate change as a significant security concern, presenting data on population growth, urbanization, and resource scarcity to support this claim. The author distinguishes between eco-terrorism, which involves acts of violence or property destruction in defense of the environment, and environmental terrorism, where environmental resources are deliberately targeted to spread fear and achieve political goals.Spadaro argues that while past fears of eco-terrorism may have been overstated, particularly in the United States, environmental terrorism poses a growing threat in regions facing climate-induced resource scarcity. The article cites examples of terrorist groups like ISIS and Al-Shabaab weaponizing water resources in Syria, Iraq, and Somalia as evidence of this emerging tactic. Spadaro contends that climate change exacerbates conditions conducive to environmental terrorism, including increased competition for resources, political instability, population displacement, and opportunities for terrorist recruitment among vulnerable populations. The author also examines how some states'

harsh responses to environmental activism, often invoking anti-terrorism laws, may inadvertently contribute to radicalization. Spadaro concludes that while past eco-terrorism threats were potentially overblown, climate change is creating conditions that make environmental terrorism an increasing security challenge, calling for further research and nuanced policy responses that address both environmental and security concerns.Unlike Spadaro, who explores environmental terrorism as an emerging security threat, my research focuses on how eco-terrorism, despite its destructive methods, reveals the inadequacies of existing climate solutions and prompts a rethinking of strategies in the context of climate change.

Natalie Lytle's thesis, "Climate Change as a Contributor to Terrorism: A Case Study in Nigeria and Pakistan" (2017), offers valuable insights that support the development of a more informed, proactive, and collectively accountable approach to the global climate issue. Her research provides a foundation for understanding the complex relationships between climate change, resource scarcity, economic stability, and conflict, which are crucial for developing effective global strategies.

To begin with, Lytle's examination of Intergovernmental Panel on Climate Change (IPCC) reports and other climate studies emphasizes the necessity of comprehensive knowledge in addressing climate challenges. The IPCC highlights "unequivocal warming of the climate system since the 1950s," (8) with unprecedented changes including ocean warming, diminished snow and ice, and sea level rise (IPCC). Moreover, out of the 17 hottest years on record since 1880, 16 have occurred since 2000. This information underscores the importance of an informed approach to climate

issues, as it reveals the wide-ranging effects of climate change on both natural systems and human societies.

Furthermore, Lytle's focus on the link between climate change and conflict supports the need for proactive measures. For instance, Burke's study, as cited in Rossati's work, found a relationship between civil conflict in sub-Saharan Africa and warmer temperatures from 1982 to 2001. Similarly, Alan Dupont argues in "Strategic Implications of Climate Change" that commodity disruption and reduced crop yields could seriously undermine political and economic stability in developing countries. These studies suggest that addressing resource scarcity and economic instability proactively could mitigate the risk of conflict and terrorism.

Additionally, Lytle's examination of case studies in Nigeria and Pakistan further illustrates the complex interplay between climate change, social tensions, and conflict. Aribigbola et al. highlight how desertification and resource competition have fueled conflicts between farmers and herders in Nigeria, potentially contributing to the rise of groups like Boko Haram. In Pakistan, Haider et al. discuss how climate-induced disasters have exacerbated existing social and political tensions. These examples demonstrate the need for a collective, global response to climate change, as its effects can transcend national borders and contribute to regional instability.

The potential for climate-induced mass migrations, as discussed by Lewandowsky et al., further emphasizes the global nature of the problem. Their projection that a 4-degree Celsius temperature increase could displace 187 million

people during this century highlights the urgency of collective action and shared responsibility in addressing climate change.

In addition, Lytle's research touches on economic factors, citing Miguel et al.'s finding that a five-percentage-point drop in annual economic growth increases the likelihood of civil conflict in the following year by over 12 percentage points. This economic perspective supports the argument for global economic policies that consider climate impacts and promote stability. The diverse sources cited by Lytle, spanning climate science, conflict studies, economics, and political science, support an interdisciplinary approach to climate issues. This aligns with the aim for a more informed and comprehensive strategy in addressing global climate challenges.

By and large considering these elements from Lytle's research, my paper builds a strong case for why a more informed, proactive, and collectively accountable approach to climate change is necessary. Understanding the complex relationships between climate change and various social, economic, and political factors enables us to anticipate potential problems, develop preventive measures, and work collectively towards positive transformation in the face of environmental adversity. Ultimately, this knowledge-based, forward-thinking, and globally coordinated approach offers the best chance for effective climate action and sustainable development on a global scale.

Vishwas Satgar'salso critiques the prevailing approaches to climate change, particularly the capitalist framework that, according to Satgar, drives the crisis. He advocates for democratic eco-socialism as a necessary alternative, emphasizing the need for systemic reforms that address the root causes of environmental degradation.

Satgarlinks the climate crisis to capitalist accumulation and argues that meaningful change requires transformative politics, including just transitions that incorporate principles like food sovereignty, climate jobs, and basic income grants. His analysis draws on a range of global perspectives, particularly from the Global South, and incorporates non-Western philosophies such as *buenvivir* and *ubuntu*, positioning these as crucial to developing a more inclusive and effective approach to climate governance.

While Satgar's work offers a robust critique of capitalist structures and proposes an eco-socialist framework as a solution, my research deviates by focusing on the portrayal of the climate crisis, transformative adaptation strategies, along with transformative politics. The dystopian fictions I selected provide a vivid and urgent depiction of the future shaped by climate-induced violence and societal collapse. Unlike Satgar, who emphasizes systemic political and economic reforms, my study examines how fictional narratives can highlight the necessity of depoliticized global climate governance and the restructuring of existing systems to address vulnerabilities. By developing an eco-critical and eco-compositionist framework, my research emphasizes the alienation from nature as a central environmental dilemma, arguing that addressing this alienation is key to fostering optimism and transformative thought in the face of global climate challenges.

Mari Luomi provides a comprehensive historical overview of international climate change governance from the 1970s to 2020. Luomi traces the evolution of key themes in climate negotiations, particularly the tension between differentiated responsibilities and universal participation. The article highlights the shift from the top-

down approach of the Kyoto Protocol to the bottom-up strategy of the Paris Agreement, emphasizing how this change reflects the challenges of balancing effective emissions reductions with global participation. Luomi's work underscores the dynamic nature of climate governance, showing how approaches have adapted over time in response to changing circumstances and understandings. The author effectively illustrates the ongoing struggle to reconcile scientific imperatives with political realities in international climate policy.

Christof Mauch introduces the concept of "slow hope" as a counter to the dominant, often apocalyptic narratives surrounding environmental crises. Mauch argues that while it is essential to acknowledge the severity of ecological challenges, focusing too heavily on catastrophic outcomes can lead to paralysis and inaction (3). He advocates for a more balanced approach that recognizes the potential for gradual, positive change over time. Mauch provides examples of incremental improvements in environmental awareness and action, such as the renaturalization of rivers and the growth of urban gardening, which offer a hopeful counter-narrative to the prevalent discourse of environmental doom. Additionally, Mauch emphasizes the importance of storytelling in fostering environmental engagement, suggesting that narratives that highlight humanity's ability to work toward positive futures can inspire creative and sustained efforts to address ecological issues. His discussion of "stretching the present" (40) underscores the idea that a slower, more deliberate approach may be necessary to confront environmental challenges effectively.

However, Mauch's concept of "slow hope" provides a valuable framework for understanding the potential of gradual change.My research shifts the focus to the urgency of immediate action in the face of the escalating climate crisis. By examining the latest climate situation in the world, my study highlights the shift from "slow violence" to "active violence," as depicted in narratives that portray the near future as one marked by severe and rapid environmental transformations. These fictional accounts illustrate the immediate and tangible impacts of climate change, demanding a more urgent and transformative response than what Mauch's gradualism suggests. My research agrees with Mauch's emphasis on the power of storytelling. Still,it diverges by arguing that the current climate crisis necessitates not only hopeful narratives but also those that confront the harsh realities of global interdependence and the need for swift, collective action.

Ultimately, this research contributes a novel perspective to the discourse on climate violence by arguing that sustainable solutions lie in reimagining global governance structures that can effectively manage the complexities of cross-regional interdependencies. The intersection of climate change, violence, and governance has been explored extensively within environmental and political studies, with recent research shedding light on the multifaceted consequences of climate disasters that extend beyond geographical boundaries.

While extensive scholarship exists on climate change, adaptation strategies, and global governance, much of it remains limited by a narrow focus on either technical solutions or regional concerns. There is a lack of critical

engagement with how narratives shape collective understanding of climate crises and the urgent need for transformation at a global scale. I identified a gap in current research where the human, emotional, and systemic dimensions of climate change are often overlooked in favor of purely scientific or policy-driven approaches. This absence creates a disconnect between the lived realities of climate-affected communities and the strategies being designed to address their challenges.

My study addresses this gap by examining climate change through the lens of contemporary climate fiction, offering a broader, more holistic perspective on environmental crises. By introducing the concepts of active violence and transformative adaptation, I explore how literature can illuminate the immediate, visible impacts of climate change and inspire imaginative, depoliticized frameworks for global governance. Through this approach, I aim to bridge the divide between narrative and policy, demonstrating how storytelling can not only critique existing systems but also provide the tools for rethinking and restructuring them. This contribution underscores the potential of literature to serve as both a reflective and transformative force in the collective response to the climate emergency.

Chapter-3

Can Transformative Adaptation Work at a Global Scale? Reimagining Climate Solutions and Systemic Change in *The Ministry for the Future*

Robinson stands as a transformative figure in contemporary environmental literature, distinguished by his unique synthesis of scientific precision and radical socioeconomic critique. His work fundamentally challenges traditional approaches to climate fiction by refusing to indulge in apocalyptic fatalism, instead offering meticulously researched pathways toward sustainable futures. Through novels like *The Ministry for the Future*, *New York 2140*, and the *Science in the Capital* trilogy, Robinson constructs narratives that function simultaneously as scientific extrapolation and social commentary, revealing the intricate connections between environmental degradation and systemic capitalism.

I argue that Robinson's literary style, marked by meticulous research and a deep understanding of ecological systems, has solidified his reputation as one of the foremost voices in climate-focused speculative fiction, often categorized as climate fiction. His ability to weave intricate narratives that explore the intersection of human resilience, technological innovation, and environmental sustainability continues to resonate with readers and critics alike.

My argument that is central to Robinson's literary project is the recognition that climate crisis cannot be addressed through technological solutions alone, but requires fundamental restructuring of global economic and social systems. His narratives

consistently demonstrate how market-driven capitalism actively resists the transformative changes necessary for environmental sustainability. By imagining radical possibilities such as carbon quantitative easing, alternative measures of societal wellbeing beyond GDP, and the integration of indigenous knowledge systems with modern science, Robinson illustrates what I identify as transformative adaptationa process of profound structural change that moves beyond incremental coping mechanisms. However, Transformative adaptation is not often included in plans, projects, or policies meant to lessen the effects of climate change, which is why the methods Robinson discussed in the novel demonstrate scalable and transformative solutions. While it's becoming an important topic in scientific and sustainable development discussions, it is still a complicated idea that is not clearly understood in real-world situations. Researchers have pointed out how transformative adaptation is different from simply coping with climate impacts or making small, gradual changes. However, there is not much clarity about what transformative adaptation involves, how it would work in real-life environments, or when it should be used. Some policy-makers are beginning to realize that usual approaches may not be enough to tackle climate change, but they rarely think of transformative adaptation as a possible answer.

Additionally, his contribution to environmental discourse extends beyond mere critique into the realm of practical solutions, though these solutions often challenge conventional wisdom about what is politically possible. His work advocates for a sophisticated understanding of climate change as a fundamentally political problem, requiring coordinated global action and democratic participation in environmental decision-making. This approach is particularly evident in his treatment of

geoengineering and other technological interventions, which he presents not as silver bullets but as tools that must be wielded within carefully constructed social frameworks.

By and large his detailed visions of possible futures have helped shape conversations about climate adaptation and mitigation strategies. He believes in the necessity of global cooperation while acknowledging the significant challenges posed by existing power structures and vested interests. Through this lens, I demonstrate how Robinson's fiction serves as a catalyst for rethinking both the stories we tell about climate change and the collective actions needed to confront it.

In the context of contemporary environmental literature, Robinson's work represents a crucial intervention that moves beyond the limitations of both traditional science fiction and climate apocalypticism. His narratives offer a unique combination of scientific rigor, social critique, and practical solutions that position them as essential texts for understanding both the challenges and possibilities inherent in addressing global climate change. Through his systematic exploration of alternative social and economic structures, Robinson demonstrates that different futures are possible.However, they may require radical transformations in how we organize society and relate to our environment.

3.1 Active Violence and Transformative Adaptation through Restorying

Scott Slovic's notion of "restorying," emphasizes the power of narrative to reshape perceptions of environmental crises. Slovic argues that storytelling serves as a vehicle for transforming abstract, systemic issues into relatable, actionable experiences

(31). In *The Ministry for the Future*, Robinson employs this technique through characters like Frank May, whose harrowing experiences during a heatwave in Uttar Pradesh, India, vividly illustrate the intersection of climate disasters and systemic vulnerabilities. The novelopens with a haunting depiction of environmental catastrophe that perfectly encapsulates the limitations of technological and bureaucratic solutions in addressing the climate crisis. The narrative begins by introducing Frank May, an aid worker in Uttar Pradesh, India, who becomes an unwitting witness to a devastating heat wave that transforms an ordinary morning into a scene of unprecedented human tragedy. The novel's opening lines immediately establish the devastating reality: "It was getting hotter" (12). This simple yet powerful statement sets the tone for what becomes an increasingly terrifying narrative of climate disaster in the Global South.The author meticulously constructs the progression of this environmental catastrophe through precise sensory details and scientific measurements. The morning begins at "38 degrees … In Fahrenheit that washe tapped 103 degrees. Humidity about 35 percent" (13). This technical precision serves to ground the narrative in scientific reality while simultaneously highlighting the inadequacy of mere data to capture human suffering. As Frank observes:"The combination was the thing" (14), emphasizing how the intersection of heat and humidity creates conditions beyond human endurance.

The human cost of this environmental disaster is portrayed with devastating clarity through Frank's harrowing experiences. The narrative describes how the unbearable heat made survival nearly impossible, emphasizing the breakdown of basic life-support systems: air conditioning failed, water was scarce, and the very earth seemed to be boiling. This is poignantly illustrated when Frank reflects: "He had read

that if all the sun's energy that hit Earth were captured by it rather than some bouncing away, temperatures would rise until the seas boiled. He could well imagine what that would be like. The lake felt only a few degrees from boiling" (21). The progression from individual deaths to mass casualty is captured in the haunting observation that the "town was a morgue" (18). This transformation of ordinary urban spaces into sites of mass death effectively conveys the scale of the catastrophe.

The author's description of people being "poached" (23)in the lake creates a disturbing image of human bodies literally being cooked alive, emphasizing the extreme nature of this climate event. The final scene, where Frank observes that "Everyone was dead" (23), serves as a devastating indictment of the global failure to address climate change before reaching such catastrophic tipping points. This vivid imagery not only captures the physical extremity of the heatwave but also underscores the fragility of human infrastructure in the face of climate extremes. By connecting Frank's immediate sensory experience to the broader scientific context of runaway climate change, Robinson bridges the gap between the abstract threat of global warming and its tangible, devastating impacts. Such narrative techniques exemplify Slovic's concept of "restorying," wherein storytelling transforms abstract environmental crises into vivid, relatable experiences. My analysis interprets this opening sequence as a call for empathy and action, positioning literature as a catalyst for imagining the scale of transformation required to prevent such irreversible tipping points.

Thus, the novel highlights the irreversible consequences of human activities such as mass extinction, ocean acidification, and deoxygenation.The text underscores

the interconnectedness of ecological crises, where one disaster, like acidification, can "stupendously accelerate" (51) another, such as mass extinction. The irreversible damage to oceans and biodiversity requires a paradigm shift, where global strategies prioritize systemic reform over short-term fixes.

Furthermore, Dobrin and Weisser's concept of ecocomposition enriches Robinson's narrative framework by highlighting the reciprocal relationship between discourse and environment. Dobrin and Weisser define ecocomposition as "the study of the relationships between environments and discourse, emphasizing how environments shape and are shaped by the act of writing" (573). Dobrin and Weisser's theory of ecocomposition is significant in its application to Robinson's *The Ministry for the Future*, which examines India's SRM (Solar Radiation Management) initiative,*as* it emphasizes the dynamic interplay between discourse and environment. Dobrin and Weisser argue that writing and discourse are not isolated acts but are deeply embedded in and influenced by ecological and social systems. This perspective is crucial to understanding how SRM serves as both a physical intervention and a discursive act within Robinson's narrative. The narrative explores this through India's solar radiation management (SRM) initiative, a radical geoengineering strategy replicating volcanic cooling effects. This reframes SRM from a contested solution to a symbol of localized adaptation. The description, "It will take the Indians several months to replicate that boost of sulfur dioxide"(28), situates SRM within the context of immediate survival rather than long-term strategy. By framing SRM as a response to systemic global inequities, Robinson demonstrates how localized environmental actions can challenge dominant global discourses on climate governance. For example, the depiction of SRM

as a desperate, unilateral action by India critiques the failure of international agreements to address the urgency of climate crises in the Global South. This aligns with Dobrin and Weisser's view that discourse has the power to construct and reshape environmental realities. The SRM initiative becomes a rhetorical statement, emphasizing the interconnectedness of local actions and global consequences, which mirrors Dobrin and Weisser's assertion that environments and discourse shape one another reciprocally.

I interpret Chandra's (head of India's delegation to the Paris Agreement) confrontation with the developed world during the meeting for the Future as a moment of rhetorical rupture that exposes the moral and political dimensions of climate injustice. Her frustration stated clearly the harrowing consequences of climate change in India in the form of heat waves, and "It was Europe and America and China who caused this heat wave, not us" (29), underscores the historical and ongoing exploitation of the Global South, a theme Killingsworth addresses in *Ecospeak*. Killingsworth and Palmer reveal how environmental debates are frequently reduced to an oversimplified binary between conservation and development interests, failing to capture the nuanced complexities and diverse perspectives inherent in ecological concerns. At the same time, Chandra does not absolve India of responsibility: "I know we have burned a lot of coal in the last few decades, but it's nothing compared to the West" (Robinson 29). This powerful narrative encapsulates the need for systemic change, greater accountability from industrialized nations, and the reimagining of international agreements to prioritize equity and justice in addressing the climate crisis. The statement:"We are all in a single global village now. We share the same air and water, and so this disaster has happened to all of us" (34), aligns with Slovic's pluralistic ecocriticism, which emphasizes

interconnectedness and shared responsibility. Hence, the line, “At long last, we have to take the climate situation seriously, as the reality that overrides everything else. We have to act on what we know,” (34) resonates profoundly, especially when viewed through the lens of active violence rather thanNixon’s concept of slow violence. These climatic catastrophes are no longer creeping; instead, they erupt with devastating speed and clarity, making the need for quick action.

In the face of major shifts in temperature and precipitation, Robinson compellingly illustrates that humanity is burning 40 gigatons of carbon annually, with scientists estimating that only 500 gigatons more can be burned before pushing global temperatures past a critical threshold of 2 degrees Celsius above pre-industrial levels. Exceeding this limit would result in catastrophic environmental effects, such as lethal heat waves with wet-bulb temperatures making human survival impossible. Robinson argued that shareholders, governments, and communities continue to sustain harmful practices because of economic and societal pressures. Thus, Mary Murphy,the head of the UN-created Ministry for the Future,assumes responsibility, stating, “We’re the Ministry for the Future. We have to take a stand on this” (43). In response to climate change, they adopteda transformative adaptation that aims to reduce the root causes of climate-relatedvulnerabilities.My analysis interprets Mary’s declaration as a pivotal moment in the narrative, signaling a shift from passive acknowledgment to active resistance.Killingsworth’s argument reinforces that this crisis cannot be reduced to a simple blame game; instead, it requires collective responsibility and systemic change, as advocated byMurphy.

I argue that Robinson uses India's geoengineering efforts to demonstrate how transformative adaptation is altering social and ecological systems and combining scientific and local methods to mitigate the effects of climate change. When a heat wave struck India and killed thousands of people, there emerged rage inside India. Therefore, India's geoengineering efforts exemplify transformative adaptation in practice, reflecting the urgency and scale of interventions required to combat climate-induced disasters. The narrative details how the aerosol deployment was executed, with pilots flying old planes "to sixty thousand feet, as high as the planes could get" (47), pumping sulfur dioxide and other particulates into the atmosphere to reflect sunlight. This method, likened to a controlled volcanic eruption, was a direct response to the devastating heat wave that had claimed countless lives. The line is self-explanatory when the whole world was criticizing India for this bold step because they lost people in the heat wave,"and it could happen again, anywhere in India and really anywhere in the world" (48) underscores the existential threat that motivated this intervention. India's focus is on its own survival, despite the potential global ramifications and criticism.

Moreover,I contend that Robinson portrays India's geoengineering response as a bold act of survival that exposes the failures of global climate governance and demonstrates how transformative adaptation often begins at the local level before inspiring worldwide change.Faced with unbearable temperatures and the loss of thousands of lives, India recognized that traditional adaptation strategies would not suffice. Instead, the nation implemented a large-scale geoengineering project to block some of the sun's rays, thereby cooling the planet. Robinson describes this action as a global intervention by a single country, forced by the crisis to act on behalf of all humanity. Their "Indian

agriculture moving into its post–green revolution is also a giant step toward independent subtropical knowledge production, achieved in collaboration with Indonesian and African and South American permaculturists, and its importance going forward cannot be over-emphasized" (129). This decision showcases India's ability to lead not only for its citizens but also for the global community. The project also required a reevaluation of governance and collaboration. Although India acted independently, its solution necessitated global dialogue about the ethics and logistics of such interventions. This underscores the importance of global cooperation, as stated by Slovic, as climate challenges demand interconnected responses that balance local actions with global implications. Robinson's narrative highlights the importance of countries such as India in driving transformative solutions and inspiring others to reimagine their approaches to climate adaptation.

I argue that Robinson presents the Ministry for the Future as a visionary model of global climate governance, highlighting both the potential and the deep systemic challenges of coordinating a worldwide response to the climate crisis. The novel shows that the climate crisis not only affects those who are part of the process but also affects people globally. It undermines human survival by depleting essential resources necessary for daily life. Thus, the Ministry for the Future institution takes an initial step to address the escalating crisis. Through this aspirational institution, Robinson embodies a globally coordinated effort that is currently absent in the real world. The Ministry for the Future is tasked with formulating strategies to mitigate and adapt to the environmental devastation projected for the near future. The conversation begins with a proposal from Imbeni Halle, who suggests redirecting fossil fuel companies toward decarbonization

projects " … plans to redirect fossil fuel companies to do decarbonization projects" (62). This idea, although met with skepticism from some members, highlights the tension between the immediate need for drastic action and the political and economic forces that maintain the status quo. In my interpretation, this exchange mirrors real-world climate negotiations, in which urgent solutions are discussed but repeatedly stalled by competing agendas and economic concerns, thereby illustrating Robinson's critique of the gap between knowledge and action.The group's discussions about climate change illustrate how even the most well-intentioned efforts are fraught with difficulties. For example, Jürgen Atzgen, an insurance expert, warns of the collapse of the financial system due to the increasing payouts for climate-related disasters, noting that reinsurers are refusing to cover such catastrophes. He explains, "Money no longer working as money" (62), which serves as a chilling metaphor for how deeply climate change is disrupting not only ecosystems but also entire societal structures. This reinforces the argument that adaptation is no longer a matter of choice, but a necessity that demands radical restructuring of financial and political systems.

Moreover, Robinson did not discuss traditional adaptation strategies; rather, he moved on to practical solutions that are costly but are needed at the time. The Ministry for the Future is a ministry established by the West, which he repeatedly criticized for producing more carbon emissions than the East.Yet, it reimagines collective action to address climate issues. While the Global South is experiencing heat waves, the Global North is facingsea-level rise. Thus, they come up with "pump all the melted ice back up onto the polar plateau" (87) to prevent glaciers from melting in Antarctica. This solution highlights the large-scale response required to combat climate change through an

innovative approach: refreezing Antarctic ice. This idea is both ambitious and practical. By refreezing the ice, it directly addresses one of the biggest contributors to rising sea levels. It is a bold solution because it does not just try to adapt to the effects of climate change,it actively works to reverse them.

I contend that Robinson's portrayal of transformative adaptation strategies illustrates Dobrin and Weisser's claim that discourse is not merely reflective but actively constructs environmental realities. This means that language, narratives, and communication do more than describe the environment;they shape how societies understand, engage with, and respond to climate change.For that reason, the depiction of transformative adaptation strategies such as refreezing Antarctic ice and restoring Arctic albedo exemplifies Dobrin and Weisser's point. These actions are not just technical interventions; they are also narrative acts that redefine humanity's relationship with the planet. Moreover, Robinson presents the Indian model of discounting as a bell-shaped discount rate for future generations, as indicated by the line, "We're studying what India is doing to their discount rate, it's very interesting" (131). Mary's conversation with Dick reveals how discount rates, initially designed for financial valuation, are applied to assess the costs and benefits of climate-related policies. Dick explains that discounting future generations' value effectively reduces their value, making it financially infeasible to invest in long-term projects that could benefit them. For instance, a policy requiring $10 million today to save a billion people two centuries from now is dismissed because the discount rate diminishes its present value to $5 million. I consider this a compelling critique because it exposes how economic language itself can perpetuate inaction, making long-term survival seem financially irrational.This approach minimizes

discounting for the immediate future while balancing the value of far-off generations. His portrayal of the Ministry for the Future as a substitute voice for the unborn highlights the ethical responsibility to act now to prevent irreversible harm. The dialogues between Mary and Dick serve as both a critique of present-day economic and political inertia and a hopeful vision for systemic transformation that considers the well-being of future generations.

I argue that Robinson uses the concept of eco-composition to show how language and narrative actively shape humanity's collective response to the climate crisis, transforming environmental realities into shared responsibilities. Eco-composition frames the current crisis as a potentially devastating phenomenon with profound consequences for the biosphere, urging collective recognition of the urgent need for unified action and reflection.Similarly, Robinson's novel promotes collaborative action on climate issues and considers transformative adaptation to mitigate their impacts.Robinson portrays the melting of the Arctic ice cap as a stark manifestation of these urgent challenges. Because the novel depicts the future of the climate crisis, he writes that the loss of Arctic summer ice was first observed in 2032. Robinson vividly illustrates this compounding crisis, describing how "the Arctic ice cap, which at its first measurement in the 1950s was more than ten meters thick, had been a big part of the Earth's albedo" (145). I consider this moment particularly significant because it links past and future, illustrating how decades of inaction create irreversible tipping points.This devastating shift not only intensifies warming but also accelerates methane release from thawing permafrost. These interconnected events exemplify the cascading consequences of climate inaction and the resulting conditions for survivors in a post-

mass-extinction world. Robinson shifts focus to experimental efforts aimed at restoring Arctic sea ice during winter. These endeavors, though described as “awkward as hell” (147) and fraught with challenges, represent a desperate attempt to mitigate the impending catastrophe.

Therefore, Robinson describes efforts such as using autonomous amphibious vehicles and solar-powered machines to spray water onto the Arctic ice, aiming to thicken it so it can withstand the summer melt.In contrast, these efforts are described as “like sucking the ocean through a drinking straw” (146). Despite their limitations, these interventions emphasize the importance of action, no matter how imperfect. The alternativeinactionwould lead to catastrophic consequences. This aligns with the eco-compositionist perspective that frames the current environmental crisis as a potentially catastrophic event for the biosphere, emphasizing the urgent need for awareness and action. It highlights the interconnected and symbiotic relationships between humans and their surrounding environments, showing how these dynamics are crucial to understanding and addressing ecological challenges (Dobrin& Weisser10).

It is evident that Robinson’s depiction of transformative adaptation to challenge readers to envision bold, collective action rather than relying on incremental or individual efforts. His shift from the idea that “what’s good is what’s good for the land” to “what’s good is what’s good for the biosphere” (162) symbolizes a crucial expansion of perspective, emphasizing that climate solutions must be global in scope. I consider this a powerful critique of traditional environmentalism, which often focuses on small-scale, localized changes that cannot match the accelerating pace of ecological destruction.

This theme becomes particularly clear when Robinson critiques individualism through the example of a city in the Global North facing extreme drought. In rejecting Margaret Thatcher's infamous claim that "there is no such thing as society" (165), the citizens' response, "when the taps run dry, society becomes very real" (165)illustrates the necessity of collective organization in the face of crisis. In my view, this moment underscores Robinson's belief that survival in the climate era depends not on isolated actions but on shared responsibility and collaboration across political and geographic boundaries. This collaborative vision is further reflected in the novel's exploration of practical solutions, most notably the creation of a "carbon coin" (168). Unlike traditional methods of regulating carbon emissions, this proposal reimagines climate action through a financial mechanism that integrates environmental responsibility into global markets. By rewarding verified carbon sequestration with tradable currency, the system reframes sustainability as a measurable and competitive economic activity. The guaranteed minimum value of the carbon coin, supported by central banks, provides stability while incentivizing investment, demonstrating Robinson's argument that systemic change requires both technological innovation and economic restructuring. My analysis sees this as more than a fictional solution; it represents Robinson's call for radical, interdisciplinary thinking to confront the magnitude of the climate crisis and move beyond symbolic gestures toward transformative global action.

Robinson highlights the importance of combining financial incentives with progressive carbon taxesand explains the incentive: "If you combined this thing with carbon taxes, you would get taxed if you burn carbon, but paid if you sequester carbon" (170). This carrot-and-stick approach leverages human psychology by balancing

rewards and penalties. Notably, the novel cites research that "modeling and social experiments got much better results than when either strategy was applied by itself. Not just twice as good, but ten times as good" (171). This synergy underscores the potential of integrating multiple strategies to achieve meaningful outcomes.

Although the carbon coin proposal is ambitious, Robinson acknowledges its challenges as well.For instance, central bank collaboration is identified as a critical requirement, with the protagonist noting, "If the dozen biggest central banks agreed to do it together, it would go" (171). To address potential economic concerns, this novel carefully outlines mechanisms to maintain market balance. For instance, limiting coin issuance to verified carbon reductions ensures that:

> the banks would only issue as many coins as carbon was mitigated, year by year, so there would be less worry about devaluing money by flooding the supply. If a lot of carbon coins were being created, that would mean lots of carbon was getting sequestered, and that would be a sign of biosphere health that would increase confidence in the system.(170)

This calculated approach builds investor confidence and aligns economic practices with environmental priorities. By embedding incentives like the carbon coin into the global financial structure, the proposed solutions bridge the gap between human short-term thinking and planetary long-term needs.

It is apparent that Robinson critiques the practicality of such efforts while emphasizing the growing urgency of addressing sea level rise, which has increased from

3 mm to 5 mm annually within two decades and shows no signs of slowing. He explores an ambitious yet impractical attempt to mitigate sea level rise by pumping seawater onto the Antarctic ice cap. The method involves a massive pipeline system powered by a nuclear submarine reactor, which pumps seawater from the ocean to the highest points of the ice sheet, such as Dome Argus. The idea, funded by a Russian:"It's like sucking up the ocean in a drinking straw, and spitting your mouthfuls onto shore" (176), conveys bith the audacity and the futility of such technological iterventions.I find it significant that Robinson contrasts this extreme proposal with a call for more holistic approaches, reducing emissions and slowing ice melt at its sourcerevealing his critique of reactive, last-minute solutions. This suggests that Robinson views collective, preventative action as far more sustainable than relying on desperate engineering fixes once environmental thresholds have been crossed.

On the other hand, the 2000-Watt Society represents a more localized approach to climate mitigation. Robinson introduces a variety of approaches to mitigate climate change, showcasing the need for solutions that span across borders and adapt to the specific challenges of different regions. By juxtaposing large-scale experiments like the Antarctic water-pumping initiative with localized efforts such as the 2000-Watt Society, he emphasizes that climate change affects every part of the world, regardless of its Global North or South classification. While the Antarctic experiment relies on cutting-edge technology and significant resources, the Swiss initiative focuses on reducing energy consumption through systemic changes in infrastructure and daily living. The Society's goal of limiting energy use to 2,000 watts per person aligns with global equity and sustainability: "They hoped that their economy would grow by 65 percent at the

same time they were reducing their energy per person; and they wanted their people to live pretty much as they had before" (189),offering a realistic model for balancing energy efficiency with quality of life. Robinson contrasts Swiss energy usecurrently around 5,000 watts per personwith the exorbitant 12,000 watts consumed in the United States, demonstrating how reducing consumption in developed nations could ease the global energy burden. These two methodsone experimental and large-scale, the other community-driven and localizedillustrate the breadth of transformative adaptation strategies needed to address the climate crisis.

It becomes clear through Robinson's narrative that he challenges the misconception that climate change primarily impacts one part of the world more than others. He highlights how the crisis transcends geographic and political boundaries, with rising seas threatening cities in both the North and South and energy consumption imbalances posing challenges for global equity. Hence, Robinson calls for a unified approach: localized efforts like the Swiss initiative must be complemented by large-scale global collaborations to combat climate change effectively. This highlights the idea that addressing the climate crisis demands not only innovative methods but also a recognition of our shared responsibility as a global community.

Therefore, it is evident that transformative adaptation requires profound changes to both the environment and society. One of the key areas where this transformation is happening is in how we use land. This change affects not just the environment, but also the communities that rely on land for their livelihoods. Robinson takes the example of Sikkim, a small state in India. From 2003 to 2016, Sikkim completely shifted to organic farming, "Sikkim became a state with fully organic agriculture" (221), which means

they stopped using chemicals on their farms. This change is not just about switching farming methods; it is about transforming how land is used to sustain both people and the environment. By moving away from chemical farming, Sikkim protected the land's health and helped create a more sustainable future.

Similarly, Kerala, another Indian state, provides a model of decentralized governance system that empowers communities to make decisions about land use. For example, there are "1,200 governmental bodies" (222) in Kerala, which are involved in local decision-making. This decentralized approach means that land use decisions reflect the needs and values of the local community, ensuring that the land is used in a way that supports both the environment and the people. Kerala's example portrays how social structures, like governance and community involvement, can influence how land is used in response to climate change. Therefore, India's vast sunlight offers another opportunity for transformative adaptation through land use. With more sunlight energy falling on India than any other country on Earth, solar energy has great potential to replace harmful fossil fuels. India can use its land to harness solar power to reshape its energy system, reduce reliance on fossil fuels, and contribute to a cleaner, greener future.

It is evident that Robinson uses the discussion of the International Criminal Court (ICC) to mirror the systemic obstacles that plague global climate governance. Just as the ICC is rendered ineffective when powerful nations like the United States withdraw to shield their citizens from accountability, fossil fuel companies in the novel undermine climate action by manipulating political systems. Robinson's observation that "The US and several other big countries had withdrawn from the court's jurisdiction after negative

rulings against their citizens" (237) highlights how national sovereignty and self-interest often overpower collective responsibility. Similarly, fossil fuel companies maintain their dominance by "pouring vast sums into buying elections, politicians, media, and public opinion" (238), even as they publicly claim to support climate negotiations. I find it significant that this duplicity reflects Killingsworth and Palmer's critique of environmental discourse, where complex issues are reduced to false binaries, such as the supposed choice between economic growth and environmental protection. Such oversimplifications, as they argue, obscure the interconnected realities of ecological problems and hinder meaningful solutions (Killingsworth & Palmer 3). Robinson captures this deception by showing how these companies "come to the table to negotiate with us," while never ceasing their "aggressive actions" (238), such as buying political influence and shaping public opinion to maintain the status quo. Their strategy, summed up in the phrase "the best defense is a good offense" (238), exposes their calculated efforts to appear as allies while actively worsening the crisis. This suggests that Robinson is critiquing not only corporate greed but also the broader systems that enable such exploitation, showing how climate negotiations are undermined from within. In response to this inertia, Mary and her team envision systemic change through technological and policy innovations like "carbon-negative agriculture," "direct air capture of CO2," and "landscape restoration" (238). These solutions are ambitious and hopeful, but Robinson makes clear that they require extraordinary levels of global coordination and political will. The discussion of targeting the six largest emitting sectors within the G20 underscores the sheer scale of collaboration necessary, as Bob's assertion that these measures could address "eighty-five percent of all emissions" (239)

illustrates both the possibility and the difficulty of achieving transformative global action.

Against the backdrop of an escalating climate crisis and economic instability, Mary pushes for a collective, transformative solution: the creation of a carbon coin. Dobrin and Weisser critiques the restrictive nature of traditional ecocriticism, which often confines itself to "writing about nature and literary criticism" (Dobrin& Weisser 577) without addressing the "political environments of classrooms, the technological environments of cyberspace, and the very metaphors by which we define writing spaces" (577). This perspective supports Mary's efforts to navigate and reshape the political and financial landscapes in the novel, rather than confining her point of view to discussing trivial and traditional solutions. Her push for the carbon coin exemplifies Dobrin and Weisser's emphasis on discourse as a tool for social and political change. The carbon coin, envisioned as a financial instrument backed by carbon sequestration, exemplifies the novel's central argument: that economic systems must be restructured to align with ecological realities. By proposing a currency "backed by long-term bonds created by the consortium" (272) of central banks and protected against speculative attacks, Mary confronts the inertia of global financial institutions that prioritize stability over innovation. This digital currency, backed by long-term carbon sequestration, represents an audacious attempt to leverage the global financial system to mitigate climate change. The plan's success hinges on uniting key players like the US, the European Central Bank, and China, reflecting the geopolitical complexities of enacting transformative change. The meeting reveals the political and cultural dynamics among global powers, particularly the central banks' reluctance to embrace change and the

diplomatic challenges of uniting diverse economic philosophies, such as those of Western democracies and China. Mary strategically uses both persuasion and pressure to drive the central bankers toward consensus. She invokes the existential threat of climate change, highlighting how failure to act will undermine not only civilization but also the central banks' own mandates, such as stabilizing inflation and ensuring employment.

It becomes clear through Robinson's narrative that hope and disaster are not opposing forces but deeply intertwined realities of the climate crisis. Rather than structuring the novel into a first half focused on catastrophe and a second half focused on solutions, Robinson weaves these threads together to show that even amidst devastation, there is always space for action, innovation, and change. I find it significant that this approach rejects simplistic narratives of doom or optimism, emphasizing that hope must be earned through hard choices, collective effort, and systemic transformation.At the same time, he reminds us that hope is not guaranteedit must be earned through hard choices, collective effort, and systemic transformation. Thus, the narrative intensifies as Robinson juxtaposes the slow progress of systemic change with the accelerating pace of climate disasters. In the later chapters of the novel, Mary's frustration with humanity's tendency to act "too little too late" (279) highlights the peril of reactive governance. Her observations about the permafrost melt and ocean acidification, described as signs that "...the ocean's acidification past the point of life at the bottom of the food chain surviving it, or the Antarctic's ice sheet collapsing fastthey were fucked and no denying it," (279) underscore the irreversible tipping points already crossed due to decades of inaction. This scientific inevitability contrasts sharply with

the political resistance Mary faces, encapsulated in her exasperated condemnation of those who actively sabotage climate efforts as committing "genocidal murder-suicide" (279). This stark language reflects the novel's broader argument: the climate crisis is not merely a scientific or economic challenge but a battle between competing ideologiesone driven by collective survival and the other by self-destructive resistance to change. The bombing of the Ministry's offices crystallizes this conflict, representing the violent backlash faced by those pushing for transformative adaptation. Robinson's depiction of Mary's resilience in choosing to remain near her team despite the threats signifies a refusal to yield to such opposition. Through this tension, the novel reveals the intertwined challenges of climate action: addressing physical realities while overcoming entrenched societal and political barriers that delay or derail meaningful progress.

It becomes clear that Robinson's integration of digital, blockchain-tracked fiat currencies strengthens the feasibility of his proposed taxation regime by closing systemic loopholes that undermine the effectiveness of current systems. By making every transaction traceable, this digital innovation would eliminate illegal tax dodges and empower governments to enforce compliance while redistributing wealth more equitably. I find it particularly significant that Robinson situates this solution within a framework of global cooperation, suggesting that institutions like the UN or World Bank could broker agreements to catalyze "rapid change in behavior and in wealth distribution" (314). This emphasis on traceability and accountability reflects Robinson's belief that technological transformation must go hand in hand with political will. The potential for such a tax regime to dismantle wealth concentration while maintaining its legitimacy within established legal frameworks underscores its revolutionary nature.

This suggests that Robinson views carbon taxation not merely as a fiscal policy but as a holistic strategy for confronting the intertwined crises of climate change and economic inequality. By challenging the entrenched privileges of fossil fuel industries and advocating for a redistribution of power and resources, Robinson reframes taxation as a tool of systemic transformation. His argument pushes readers to rethink fiscal policy as a powerful mechanism for reimagining global governance and ensuring collective responsibility for the planet's future.

Robinson's integration of digital, blockchain-tracked fiat currencies further strengthens the feasibility of such a regime by addressing systemic loopholes that undermine the effectiveness of current tax systems. By ensuring that every transaction is traceable, this digital transformation would eliminate illegal tax dodges, empowering governments to enforce compliance and redistribute wealth more effectively. Such a globally coordinated approach, brokered through institutions like the UN or World Bank, could catalyze "rapid change in behavior and in wealth distribution" (314). The potential for this tax regime to enforce accountability and dismantle wealth concentration underscores its revolutionary nature, even as it operates within the established legal framework of taxation. This vision of carbon taxation extends beyond mere fiscal policy; it represents a holistic framework for addressing the interconnected crises of climate change and economic inequality. Robinson's argument positions taxation as a powerful tool for systemic transformation, capable of dismantling the entrenched privileges of fossil fuel industries while fostering a more equitable and sustainable world. By leveraging the historical legitimacy and potential for

revolutionary impact of taxation, Robinson challenges readers to rethink the role of fiscal policy in addressing humanity's most pressing challenges.

The implementation of the carbon coin highlights both its potential and the challenges in shifting the global economy toward sustainability. Economic shifts triggered by the implementation of carbon coins focus on the transformation of oil-dependent nations and the emerging challenges to the global financial system. Robinson critiques the global reliance on fossil fuels, exposing the underlying indifference toward the people of oil-rich regions. The coup in Arabia and the subsequent declaration to reserve oil for non-combustible uses signal a radical departure from oil's historic role in energy markets. By committing to complete solar conversion and seeking compensation from the Climate Coalition of Central Banks (CCCB) for its unburned oil reserves, the new Arabian government not only redefines its economic model but also reshapes global energy dynamics. Their claim for a trillion carbon coinsworth trillions of US dollarsdemonstrates the potential of carbon coins to rival traditional currencies, offering a pathway for nations to monetize decarbonization rather than fossil fuel exploitation. By rewarding nations such as Saudi Arabia for keeping their oil reserves unburned, the carbon coin system offers a new way to value decarbonization. As Arabia announced, its oil would now be used only for "plastics manufacture and other non-combustible uses" (322), and its complete shift to solar power earned it a claim of about a trillion carbon coins. This compensation, spread over time, allowed them to become wealthier than they would have been by selling their oil for fuel.

What stands out in Robinson's narrative is how the ripple effects extend to Brazil, where a political shift mirrors Arabia's move, demonstrating how carbon coins incentivize decarbonization and climate justice. Brazil's Clean Brazil initiative, centered on protecting the Amazon rainforest, leads to significant compensation in carbon coins, including payments to indigenous groups for their centuries-long stewardship of the forest. It is noteworthy that this recognition of indigenous contributions as an act of climate justice underscores Robinson's emphasis on equity and the need to correct historical imbalances in global environmental governance. However, the global shift was not uniform. Some nations and industries still clung to fossil fuels, with carbon burning continuing at "twenty gigatons a year" (326). Petro-states faced a dilemma: sell their reserves quickly to avoid losses or risk stranded assets as renewable energy gained dominance. At the same time, non-petro nations struggled to transition, buying discounted fossil fuels to meet their energy needs. This contrast reveals that how the carbon coin begins to disrupt old systems, but change is slow and uneven, leaving significant emissions still threatening the planet.

The carbon coin also brings broader challenges to the global economy. Economists debated its impact, with some claiming it "depleted GWP" (323) by removing potential energy outputs, while others argued it saved costs by avoiding the damages of carbon burning. This debate, Robinson notes, reveals how deeply tied economic thinking is to growth, even as the biosphere suffers. The rise of carbon coins and renewable energy presented an opportunity to redefine "growth" (324) from unchecked expansion to "growth of some kind of goodness" (325), emphasizing safety and sustainability.

Robinson's depiction of Mary's executive leadership meeting can be read through the lens of Dobrin's eco-composition, which emphasizes how discourse actively shapes environmental realities rather than merely describing them. Mary and her executive leadership team take the rapid climate changes seriously and are again convening a meeting toexplore potential solutions. The dialogue underscores the tension between systemic challenges and the ambitious solutions needed to combat climate change. Indra emphasizes the potential of direct air capture technology, stating it is "now more powerful and less expensive" (332) and advocating for its expansion with significant investments, including "a huge dose of carbon coins" (333). This exchange illustrates how language and decision-making work together to construct a vision of environmental action, reinforcing Dobrin's idea that environmental solutions are as much rhetorical as they are technical. Also, this reflects the importance of technological innovation in achieving large-scale carbon sequestration but also highlights the financial and logistical hurdles in scaling such solutions. Similarly, Elena's report on the 4 per 1000 soil carbon movement illustrates progress in measuring soil carbon sequestration with inexpensive tools. Still,it raises the issue of paying farmers for transitioning to sustainable practices. Mary's proposal to use "carbon coins" (333) to compensate farmers aligns economic incentives with ecological goals, therebybridging financial gaps and driving meaningful change.

I find it significant that Robinson uses Dick's reflection, "measurement of anything always leads to financialization" (334),to critique how even well-intentioned climate solutions risk being absorbed into the very capitalist systems they aim to reform. By showing investors "shorting carbon coins" (334), Robinson reveals the dark irony of

speculative markets profiting from climate deterioration, turning ecological catastrophe into another opportunity for wealth accumulation. This moment suggests that the problem is not simply technological or environmental but deeply systemic: as long as markets operate unchecked, every tool for climate repair can be commodified and manipulated. Mary's response, proposing stricter carbon taxes and changes to WTO rules, signals a pushback against this cycle, emphasizing that solutions must include political reform as well as financial innovation. The metaphor of the state and the market "arm wrestling" (334) captures the ongoing struggle for control, with Dick's assertion that "states make laws, laws run the system" (334) positioning governments as the only entities with the authority to shift this balance. Through this exchange, Robinson illustrates what Dobrin describes as eco-composition: the idea that discourse actively shapes environmental realities. Here, the language of law and policy is not merely descriptive but constitutive, determining whether economies will prioritize planetary survival or continued exploitation. In this way, Robinson critiques the illusion that markets alone can solve the climate crisis, arguing instead for a narrative of collective governance that challenges the destructive binaries identified by Killingsworth, such as profit versus sustainability or economy versus ecology.

Therefore, the hopeful part of the novel begins where the public responds differently to global warming and climate change. People around the world are working together to fight climate change with smart ideas and teamwork. These projects focus on fixing damaged ecosystems, using nature-friendly farming, and creating ways to protect the environment while helping local communities. By sharing knowledge and working together, these efforts show that we can make a big difference if we all pitch in. Each

project focuses on solving problems in its area. For example, in Burkina Faso, “Reforesting with Ancient African Farming Practices” (392) uses old farming techniques to grow trees and plants, while Australia’s “How Aboriginals Made Australia” (392) shares how native people have cared for the land for generations. These projects not only help the environment but also protect important cultural traditions, showing how people and nature can work together.

Many of these ideas connect across countries. China’s “Greening China’s Desert” (392) and Brazil’s “Restoration Through Agroforestry” (392) focus on turning empty land into healthy ecosystems, while Canada’s “Great Bear Rainforest” (392) and England’s “River Restoration” (393) help protect animals, plants, and clean water. Moreover, India’s ambitious programs like “Planting 50 Million Trees in One Day,” “Rejuvenated Lakes in Bangalore,” and “Mangrove Restoration in the Sundarbans” (393) emphasize large-scale actions that blend ecological restoration with community involvement. These projects reflect how local efforts, supported by innovative strategies, can significantly contribute to global carbon sequestration and biodiversity preservation. Similarly, Senegal’s “Great Green Wall Initiative” (394) and Morocco’s “Making the Desert Bloom” (394) demonstrate how combating desertification can restore degraded lands while supporting agricultural productivity and local livelihoods.

From Portugal’s “Tamera Water Retention Landscape” (394), South Korea’s “Reforestation with 350+ Million Trees” (394), and the United States’ “Restoring the Colorado River” (395), these projects demonstrate a shared commitment to healing the planet through localized actions with global implications. Similarly, the United States’

"Regenerative Ranching" (394) and "Restoring the Redwoods" (395), while Russia's "Pleistocene Park" (395) explores rewilding as a means to restore ecosystems and mitigate climate change. These diverse approaches emphasize the importance of adapting solutions to local conditions while contributing to a global framework of ecological restoration.

Slovic's concept of pluralistic ecocriticism is particularly useful for understanding how Robinson frames transformative adaptation as a collective, collaborative process. In this context, the statement, "We are already out there working hard, everywhere around this Earth" (395), reflects Slovic's belief that addressing climate change requires many voices and perspectives working together rather than a single dominant narrative. The invitation to "build your own project" and "listen to our stories" (395) emphasizes the role of storytelling as a unifying force, allowing local, grassroots initiatives to connect with global efforts. What stands out here is that Robinson positions these small-scale, community-driven actions as just as vital as large-scale technological solutions, showing that systemic transformation begins at the local level. By foregrounding collaboration and shared learning, Robinson enacts the very kind of pluralistic dialogue Slovic advocates, where diverse narratives become a source of hope and a catalyst for meaningful, collective change.

What is striking about *The Ministry for the Future* is, as it moves on to the conclusion that Robinson underscores thatthe news of a measurable global drop in CO2 levels marks a significant milestone in the narrative, offering both hope and validation for the hard work invested in mitigation efforts. The drop from 475 to 454 ppm over

four years, a rate of 5 ppm per year, is described as “significant enough that it had been tested and confirmed in multiple ways” (408). This achievement demonstrates the tangible impact of human-driven initiatives such as carbon sequestration, reforestation, and kelp farming. Bob’s statement that this success was “bound to happen eventually” (408) acknowledges the cumulative efforts of global adaptation and mitigation strategies, showing that systemic changes can indeed yield measurable results. Moreover, the news that “a lot of clean energy was being generated” (436) marks a turning point in the global energy transition. Mary’s reflection on Bob Wharton’s earlier statementthat generating clean energy makes “lots of other good stuff possible” (436)emphasizes the foundational role of renewable energy in enabling broader climate solutions. The fact that CO2 emissions are at their lowest levels since 1887 demonstrates a critical achievement in decoupling energy production from carbon emissions, effectively overcoming Jevons Paradox. This shift signifies not only technological success but also a fundamental redefinition of energy’s role in society, in which clean power supports progress without exacerbating environmental harm.

The Global Footprint Network’s finding that humanity is now living within the Earth’s bioproduction and waste-processing limits is equally groundbreaking. This reversal of ecological overshoot, once a hallmark of unsustainable civilization, represents a shift toward global balance. The role of the Half Earth projects in reclaiming large swathes of land for nature is particularly notable. By reducing human and agricultural footprints, these efforts have enabled ecosystems to regenerate, resulting in healthier biomes and a resurgence of wild animal populations. The decline

in land use for domestic livestock, alongside the restoration of wild lands, reflects a broader cultural and economic pivot away from resource-intensive practices.

The steady decline in the global human population, with a replacement rate of 1.8 children per woman, further supports this transition. While not explicitly celebrated in the narrative, the population decrease is implied as a contributing factor to reduced ecological strain, enabling more sustainable interactions with the planet. The combination of fewer people, cleaner energy, and the restoration of ecosystems paints a hopeful picture of a world moving toward harmony with natural processes.

Chapter-4
Can Disaster Create Community? Rethinking Transformation in *New York 2140*

I have selected*Kim Stanley Robinson's New York 2140 (2017) because it aligns closely with* my theme of climate change and transformative adaptation. The story begins in a future in which rising sea levels have reshaped the world, leaving New York City partially submerged following two catastrophic floods, known as the First and Second Pulses. Despite the devastation, the city continues to thrive, adapting to its new reality with boats, skybridges, and repurposed skyscrapers. The novel follows a diverse cast of characters living in the MetLife Tower, including a hedge fund manager, a reality TV personality, two orphaned boys, and a building superintendent. Their intersecting lives reveal the financial and political battles that shape this new world, where real estate speculation, disaster capitalism, and economic inequality are as much a threat as the rising waters. Through their struggles, Robinson illustrates both the resilience of urban communities and the systemic failures that enablethe exploitationofclimate disasters for profit.

New York 2140 is highly relevant to my thesis because it explores the process of fundamentally reshaping social, economic, and political systems to survive in a drastically altered world. Rather than portraying climate change as purely apocalyptic, Robinson shows how societies continue to function, albeit unequally, in the face of environmental collapse. Hence, climate change is not merely a crisis of the Global South but a global issue that demands systemic transformation. *New York 2140* also critiques neoliberal capitalism, illustrating how financial markets profit from climate disasters while vulnerable communities struggle to survive.

Robinson has divided this novel into eight parts and has named each chapter. Chapter named "Citizen" serves as a powerful critique of systemic inertia and the illusion of resilience in a world shaped by climate collapse. He has traced New York's historical and geological evolution.Through tracing, he presents the city's current state not as a sudden disaster but as the inevitable outcome of long-term environmental and economic forces. The description of the First and Second Pulses as "a meltdown in history, a breakdown in society, a refugee nightmare, an eco-catastrophe, the planet gone collectively nuts" (42) emphasizes how climate change is both a physical catastrophe and a societal rupture. However, instead of sparking meaningful reform, these disasters are absorbed into the logic of disaster capitalism, where destruction creates "great new options for investment" (42). This reveals that climate adaptation, when dictated by economic interests, merely reinforces privilege rather than addressing structural inequalities. The shift of upper Manhattan into the new financial hub while lower Manhattan remains submerged illustrates how adaptation within existing power structures is fundamentally unequal.

Killingsworth's theory of environmental rhetoric is crucial for understanding the dynamics of adaptation depicted in Robinson's New York 2140. Killingsworth argues that dominant narratives often sustain environmental inaction by framing ecological crises as either inevitable or manageable within the very systems that caused them. His call for "rhetorical strategies [that] must engage with diverse perspectives and systemic complexities" (Killingsworth & Palmer 5) resonates strongly with Robinson's portrayal of post-flood New York. This reveals that the city's adaptation, while celebrated as progress, merely restructures existing hierarchies rather than challenging them. Robinson does not present adaptation as neutral or universally beneficial; instead, he exposes how climate responses shaped by economic interests become tools for reinforcing privilege and deepening inequality. The stark contrast between upper Manhattan's rise as a new financial hub and the submerged ruins of lower Manhattan signifies how narratives of recovery can mask systemic exploitation, illustrating Killingsworth's claim that environmental discourse often conceals deeper power imbalances. From this perspective, New York's adaptation is not true transformation but a carefully staged illusion of progressone that risks becoming a prolonged crisis rather than a path toward meaningful resilience. Yet Robinson's narrative also gestures toward alternatives, suggesting that only through a radical restructuring of social and economic systems can adaptation move beyond disaster capitalism and evolve into transformative adaptation.

Moreover, the beginning of the flood started in the chapter 'Vlade,' where the slow but inexorable incursion of water into New York's infrastructure is first revealed. Vlade, the building superintendent, detects the initial signs of moisture using his

humidity sensor wand, pinpointing a damp spot at the junction where the north wall, east wall, and floor meet. As water seeps "slowly but inexorably down cracks in the rock" (100), it becomes clear that the city's aging defenses, such as the diamond-sheeted sub-basement and the concrete structures designed initially for a drier past, are failing. This scene reveals more than a physical leak; it signifies the gradual unraveling of social, political, and economic systems that have long ignored environmental warning signs. This meticulous portrayal of the first leak not only marks the onset of what is known as the First Pulse but also establishes a tone of gradual decay that hints at a much larger catastrophe looming over the city.

In the chapter "Franklin," Robinson shows how environmental catastrophe is constructed not only as a physical disaster but also as an economic and rhetorical event, shaped by the systems of finance and law. The introduction of the Intertidal Property Pricing Index (IPPI)a tool that calculates the value of buildings in a perpetually waterlogged cityexposes how climate chaos is absorbed into the language of profit and speculation. The rhetorical question, "if people claim to own wrecked buildings that they or their legal predecessors used to own, but they do not own the land the buildings are on, what are those buildings worth?" (128), captures the absurdity of assigning value to ruins while simultaneously revealing the speculative logic that underlies disaster capitalism. This moment demonstrates how dominant narratives work to make crises seem manageable within the very structures that caused them, framing exploitation as adaptation and loss as opportunity. In this context, the IPPI is not simply a financial instrument but a mechanism of power, one that legitimizes inequality by determining whose lives and properties are deemed valuable. Robinson's critique suggests that when

climate responses are filtered through the discourse of markets and property, they do not disrupt systemic hierarchies but instead perpetuate them, reinforcing cycles of environmental collapse under the guise of resilience.

This analysis finds strong resonance with Dobrin and Weisser'sconcept of ecocomposition, which posits that discourse does not merely reflect the environment but actively constructs its meaning and value. As Dobrin and Weisser argues:"if we agree with Barry Commoner's first law of ecology, 'Everything is connected to everything else,' we must conclude that literature does not float above the material world in some aesthetic ether, but, rather, plays a part in an immensely complex global system, in which energy, matter, and ideas interact" (577). Moreover, he highlights that ecocomposition extends beyond textual interpretation, viewing discourse as the most influentialperhaps even the solemeans of driving social and political change.*New York 2140* and *The Ministry for the Future*, particularly demonstrates that discoursethe way we talk about and frame climate changeshapes the world's response to catastrophe. Dobrin and Weisser argues that literature and discourse are not separate from the material world but actively construct how we understand and respond to environmental crises. This reveals that narratives of adaptation and resilience are not neutral but are constructed through systems of power that define what counts as progress and whose survival is prioritized. Robinson's intricate depiction of speculative financial mechanisms and legal ambiguities demonstrates how discourse sustains and legitimizes a precarious status quo. By blending the abstract language of finance with the tangible effects of environmental collapse, Robinson critiques the reliance on incremental, short-term fixes. This suggests that genuine transformation requires not just technological

solutions but a radical reimagining of the ways we speak about land, property, and survival in a world fundamentally altered by climate change.

Chapter named “The Citizen” in part three the narrative continues with the flood in New York began with a huge shock to the system. It explains that the “First Pulse was a profound shock, as how could it not be, raising sea level by ten feet in ten years” (147). This sudden rise in water disrupted coastlines and global trade, leaving shipping ports and economies in chaos. Robinson shows that what was once the slow, barely noticeable harm of “slow violence” has now transformed into sudden, active violence. Instead of gradual changes, the rapid melting of ice and the swift rise in water levels have led to immediate, disruptive impacts on coastlines, global trade, and entire economies. This shift clearly illustrates that the cumulative effects of inaction have reached a tipping point, turning gradual environmental harm into an urgent, all-consuming crisis.

The recurring imagery of rapid ice melt and rising sea levels signals the interconnectedness of ecological crises, emphasizing that environmental disasters cannot be understood as isolated events. The terms “First Pulse” and “Second Pulse” operate not merely as narrative markers but as conceptual tools for understanding how every environmental shift reverberates across global systems. This suggests that climate change must be viewed as a systemic phenomenon, one that exposes the fragile interdependence of natural and human-made worlds. By foregrounding these interconnections, the narrative challenges fragmented approaches to adaptation and

instead calls for a holistic reimagining of how societies engage with environmental change.

This interpretation is further reinforced by Dobrin's assertion that ecocomposition goes beyond mere textual interpretation; it recognizes discourse as the most powerful means of shaping social and political realities. From this perspective, the narrative not only reflects environmental degradation but as a discursive space where catastrophic eventsactivelyare connected to broader systemic transformations. This highlights how climate change must be understood not as a distant or isolated occurrence but as an ongoing, dynamic process deeply embedded within economic and political structures. Dobrin's theory underscores the critical importance of understanding how literary discourse both mirrors and molds the world we inhabit, supporting the thesis that our approach to climate change must address these profound, systemic interconnections.

The flood in New York 2140 is presented not simply as a natural disaster but as a lens through which the power of language and discourse becomes visible. Rather than depicting chaos in purely physical terms, the narrative reveals how legal and financial systems construct meaning around catastrophe, shaping how society responds and adapts. The creation of the Intertidal Property Pricing Index (IPPI) illustrates this process, showing how concepts of ownership and value are renegotiated even as parts of the city sink beneath the rising sea. This reveals that climate disasters are never neutral events; they are framed through narratives that determine whose losses are acknowledged and whose survival is commodified. Robinson captures this in the line,

"History is just one damned thing after another" (153), a remark that underscores how even catastrophic events are absorbed into the flow of human history rather than sparking true systemic change.

The physical scale of the disaster is conveyed through his description of "the First Pulse… mostly the Wilkes/Victoria basin, also Greenland, also West Antarctica, another less massive but consequential contributor" (151), emphasizing that the catastrophe is global in scope. Yet, even as the world is reshaped, familiar systems of exploitation persist. The narrative uses lively and ironic language to highlight this contradiction: lawsuits surge, and investors see the flooded coastlines as a chance for profit. Robinson's sharp commentary is encapsulated in the cynical observation that disasters are often framed as "creative destruction" (152), a phrase that exposes how economic ideologies recast suffering as opportunity. His biting sarcasm peaks in the line, "the one percent get nasty when their assets are threatened" (153), which signals that even in moments of collapse, entrenched hierarchies remain intact. From this perspective, the flood is not simply an ecological event but a discursive battleground where economic and political narratives compete to define adaptation itself. By weaving humor and irony into the narrative, Robinson critiques a system in which tragedy fuels speculation and where climate change becomes another arena for profit rather than a catalyst for transformation.

The narrative illustrates how capitalism adapts and thrives even amid massive climate catastrophes, revealing its capacity to protect elite interests while leaving vulnerable populations exposed. The Second Pulse, which causes sea levels to rise by

fifty feet, destroys cities and displaces millions, but the richest people barely suffer. The novel describes this as part of the “ordinary workings of capitalism” (213), showing that economic systems are built to protect the wealthy, even during a crisis.This reflects what Killingsworth describes in Ecospeakhow economic and political narratives shape responses to environmental disasters, often prioritizing financial stability over real change. Rather than transforming governance to address the root causes of climate collapse, the system reinforces itself, protecting elite interests at the expense of broader society. This supports my argument that global climate governance, as depicted in the novel, fails to promote transformative adaptation and instead upholds an economic order that perpetuates environmental and social crises.

Furthermore, capitalism’s ability to not only survive but expand during crises is sharply critiqued in the narrative, revealing how systems of power turn catastrophe into opportunity. The bailout after the Second Pulse mirrors real-world financial crises, where state interventions protect banks rather than restructuring economies for long-term resilience. He writes that after the floods, “hundreds of millions of people were suddenly refugees, and that’s a lot of terrorists to suppress” (215), which suggests how governments prioritize security and control rather than addressing the root causes of displacement. Killingsworthand Palmer argues in *Ecospeak*that environmental crises are framed through political rhetoric that justifies maintaining the status quo. Instead of recognizing the failures of global climate governance or reforming economic systems to prevent such disasters, the response in *New York 2140* mirrors real-world patterns where instability is treated as a policing issue. The government does not take a transformative approach to solving the crisis.

The chapter from part six, named “The Citizen” critiques the delayed response of global climate governance to environmental disasters, reinforcing my argument that transformative adaptation is necessary but often ignored until catastrophe forces action. The metaphor of closing the barn door after the horses have escaped highlights how governments and economic systems refuse to take proactive measures, only reacting after severe damage has already occurred. The line “carbon-neutral and even carbon-negative technologies were all over the place waiting to be declared economical” (384) reveals that the barrier to change was never technological innovation but the economic logic that dictates when and how solutions become “viable.” This reflects Killingsworth’s idea that environmental crises are shaped not only by science but by power and discourse, where those controlling political and economic narratives resist action until suffering reaches catastrophic levels. The adoption of renewable energy, described as “closing the barn door” (383), signals not real progress but belated, market-driven responses aimed at damage control rather than prevention. What emerges here is a critique of reactive adaptationa system that waits for crisis rather than reshaping governance, economic priorities, and public thinking beforehand. The chapter insists that adaptation must be transformative, confronting structural inequalities and systemic inertia rather than merely mitigating the worst consequences of climate collapse.

4.1 Resilience and Hope in a Flooded City

Technological solutions alone cannot create meaningful climate adaptation if they operate within the same economic and political structures that caused the crisis in the first place. The line “And when the ocean is sick, humanity is sick” (386) is

particularly striking because it captures the deep interconnection between environmental health and human survival. While the novel describes ambitious geoengineering effortsfracking basalt for carbon capture, liming the oceans, and building massive electrolysis bathsthese solutions, though innovative, are still framed as reactive measures rather than proactive, systemic changes. Killingsworth and Palmer's critique in his book *Ecospeak* that environmental crises are as much about discourse and power as they are about science as evident here: despite the severity of ocean acidification, the solutions attempted were piecemeal and constrained by existing economic and political interests rather than driven by a fundamental restructuring of human-environment relationships.

Moreover, the discussion of biofuels and carbon-negative construction highlights the core tension between market-driven adaptation and the deeper systemic changes required for transformative adaptation. Market-driven adaptation only emerges when solutions are deemed economically viable, delaying action until profit can be assured. In contrast, transformative adaptation demands rethinking how infrastructure is designed, who controls it, and whose needs it serves, challenging the very foundations of the economic and political systems that created the crisis. The line, "So now even building infrastructure could be carbon negative (meaning more carbon removed from the atmosphere than added, for those of you wondering)" (387), points to a technological breakthrough, yet this moment exposes how even innovative practices remain embedded within the same frameworks of growth and exploitation that initially fueled environmental collapse. Graphene-based materials and 3D-printed construction might seem like progress, but they are deployed within a system that values short-term

economic gains over long-term environmental justice. Even the ironic suggestion that these technologies might someday tip the balance toward another ice age underscores the narrow "techno-fix" mentality dominating climate responses. This reveals that adaptation rooted in technological innovation alone risks perpetuating the very structures it seeks to repair. To truly confront the climate crisis, adaptation must move beyond incremental fixes and instead challenge entrenched power relations, restructuring governance, economic priorities, and environmental stewardship to build systems grounded in equity, resilience, and sustainability.

In my reading, the chapter "The Citizen"operates a s a critical interlude where frustration gives way ti the possibility of transformation, functioning less like a traditional narrative and more as a reflective, collective voice. By highlighting "interesting new technologies" (387) and the chance for a "carbon-negative civilization" (387),the text gestures toward a future where systematic change is still within reach, even amid chaos. The chaos on the "quarterdeck" (387) suggests people are no longer blindly following the pastthey are trying to take control. I view this as Robinson's challenge to readers to reconsider how adaptation is imagined as a profound shift in thinking, governance, and collective action. This fits with Scott Slovic's idea that even in dark times, literature can offer hopeful energy. It supports my argument that transformative adaptation is not just about fixing the environmentit is about changing how people think, govern, and imagine the future.

Furthermore, the hurricane's impact in *New York 2140* is not just a dramatic moment in the storyit reveals the real, immediate consequences of climate collapse. The

scenes after the storm show a city barely holding itself together. People are bloodied, cold, and in shock, described as “soaked and chilled, and many bloodied. There were obvious broken bones … Lots of people in shock” (475). These lines do not just show physical sufferingthey show how unprepared the city is to protect its people. The canals are filled with “flotsam and jetsam, pieces of the city knocked loose and floating around” (479), and police boats collect “floating bodies, animal or human” (479). Here, Robinson shows that slow violence has turned into active violencethe harm is no longer hidden or distant. It is sudden, public, and deadly. The sarcastic warning, “If you die your body rots in my water supply, so get a fucking grip!” (461)exposes how even compassion becomes practical when society is overwhelmed.

The scenes of gathering and solidarity are more than moments of survivalthey become catalysts for reimagining how societies govern, relate, and endure in the face of climate catastrophe. The gathering of residents in the common hall is not merely an act of survival but a symbolic gesture of collective resilience: “a danger to be endured together, a marvel to be marveled at” (466). Here, human connection becomes a form of resistance, challenging the isolating forces of disaster capitalism and political inertia. This reflects Scott Slovic’s belief that hope can exist alongside disaster, where literature serves as a space to imagine change even while acknowledging suffering. In my reading, these scenes show that recognizing pain is not a sign of defeat but an essential step toward envisioning new possibilities for action. The storm forces charactersand readersto confront what has been lost, from animal life to deeply personal connections, as expressed when Idelba laments, “So many animals are going to get killed” (470) while silently recalling her loved ones. This intertwining of ecological and emotional

loss reflects what Dobrin and Weisser describe as ecocomposition, where storytelling does more than depict events; it actively shapes how humans understand their relationship to the environment and to one another. Through this lens, the flood becomes not just a destructive event but a catalyst for systemic reimagining, reinforcing my argument that transformative adaptation requires both structural reform and a profound shift in collective consciousness.

After the hurricane, the city's destruction becomes painfully visible in Central Park, now a gathering place for survivors. Trees are broken, wild animals lie dead, and the air is thick with the smell of crisis. The scene is chaotic, "nowhere near enough water, toilets, food" (484)and people must use the park itself as a toilet. This shows how the basic systems of urban life have collapsed, exposing the city's deep unpreparedness. Even nature has not been spared: "not a leaf left on a standing tree anywhere … every single tree broken or down" (484). The destruction of the park means the destruction of shared public space, memory, and connection. This moment pushes the story beyond slow decline into active violence, where the consequences of climate change strike fast and leave deep scars. As Killingsworth and Palmer explain, public rhetoric often oversimplifies such moments, treating them as isolated "events" rather than part of a broken system.

In moments of systemic failure, collective action emerges as a quiet yet radical form of transformative adaptation. As urgent questions mount, *"*what about water? what about toilets? what about food?" (485)the narrative shifts from chaos to a fragile sense of order, with the narrator finding it "heartening to see people mostly calm and

semiorganized" (484). Ordinary citizens carrying stretchers, reporting problems, and organizing relief efforts demonstrate that adaptation is not driven by institutions but by individuals who refuse to succumb to despair. This reflects Scott Slovic's idea that hope is not the absence of suffering, but the energy that arises when people respond to it, showing that resilience comes through collective action rather than optimism alone. Central Park, where these efforts unfold, becomes more than just a storm-damaged location; its destroyed trees and shattered landscape represent the collapse of ecological and social systems, while simultaneously serving as a space of renewal where people gather to rebuild. Dobrin and Weisser's concept of ecocomposition helps explain this dynamic**,** as it emphasizes how environments shape human thought, language, and behavior, while those human actions in turn reshape the environment. The park thus operates as a living dialogue between people and place, embodying the reciprocal relationship at the heart of transformative adaptation. In this way, Robinson shows that meaningful change begins not with heroic leaders or top-down policies, but with ordinary people forging networks of care and resistance in the very spaces where systems have failed them.

Adaptation here is not imagined as a top-down process or the product of flawless planning, but as something that emerges organically from crisis and from the actions of ordinary people within their immediate environments. Survival, as the narrative suggests, extends beyond securing food or shelter; it depends on the collective ways communities respond to one another and to the damaged spaces they inhabit. In doing so, the text enacts Dobrin and Weisser's vision of ecocomposition, where the environment is not a passive backdrop but an active participant in shaping human

thought, language, and action. The disaster becomes a generative force, awakening voices rather than silencing them, and it is in this shared activation that the possibility of true transformation takes root.

Chapter-5
Findings and Conclusion

After a detailed analysis, I conclude that climate fiction,particularly through works such as*The Ministry for the Future* and *New York 2140,*plays a vital role in reimagining pathways to survival in the age of environmental

catastrophe. These novels do more than depict ecological collapse; they highlight the urgency of transformative adaptation, systemic change, and genuine global cooperation. My study demonstrates that traditional models of climate governance, rooted in market-based solutions, are increasingly insufficient in the face of accelerating climate violence, which now manifests not only as slow, invisible harms but also as immediate and spectacular acts of active violence**.**

Through my analysis, I have shown that *The Ministry for the Future* imagines bold global strategiesfrom carbon currency to solar geoengineering to widespread political activismthat confront climate change on a systemic scale, presenting a framework where internationalcooperation and climate justice become essential for survival. In contrast, *New York 2140*offers a different lens, portraying a post-disaster world shaped by capitalism and urban collapse, in whichordinary citizens and grassroots movementsemerge as agents of resistance and reform. Together, these texts make it clear that climate adaptation cannot be incremental or superficial; it must challenge entrenched power structures and radically rethink humanity's relationship with the planet.

The research also aimed at investigating how climate fiction represents active climate violence and offers models for transformative adaptation. First, it discussed the theoretical background of ecocriticism, eco-composition, ecospeak, and hope in climate narratives. Then it analyzed *The Ministry for the Future*, exposing how the novel moves beyond simple doom narratives and offers multi-dimensional solutions, including

geoengineering, justice movements, and global reform. Subsequently, *New York 2140* was analyzed to reveal how disaster capitalism, urban collapse, and grassroots resistance shape a different but equally urgent vision for adaptation. Through a detailed investigation of both novels, it was shown that climate fiction is not escapism; it is a tool for public engagement, political imagination, and systemic critique.

The Ministry for the Future portrays institutional efforts and radical policies aiming for global survival, emphasizing the role of coordinated international action, ethics, and leadership in navigating the climate crisis. Robinson combines technological hope (like carbon sequestration and solar geoengineering) with political hope (mass movements, justice-oriented governance) to envision a world that can still be saved through systemic transformation. Similarly, *New York 2140* focuses on the aftermath of sea-level rise, but rather than focusing on elite-driven solutions, it shifts the narrative toward community resilience, economic rebellion, and the slow building of alternative futures from below. Therefore, it can be concluded that rethinking, reimagining, and reshaping our thinking patterns can help us in battling the environmental problems.

This study opens up several avenues for future research in both literature and environmental studies. While it focuses on the intersection of climate change and global governance through the lens of climate fiction, further research could examine a broader range of literary texts, including works from non-Western authors, to highlight diverse cultural perspectives on environmental crises. Additionally, interdisciplinary collaborations between literary scholars, environmental scientists, and policymakers could generate innovative strategies for communicating climate challenges and crafting

effective, transformative adaptation frameworks. This would help bridge the gap between abstract theoretical discussions and practical, real-world applications.

Beyond literary analysis, this research has potential implications for related fields such as environmental policy, sustainable development, and international relations. The concepts of active violence and transformative adaptation introduced in this study can be applied to analyze real-world case studies, such as climate-induced migration, disaster management, or urban planning for climate resilience. By integrating ecocritical insights with policy-making, future studies could contribute to creating depoliticized global governance models that prioritize equity and long-term ecological stability.

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