EXPLORING CLIMATE CHANGE DISCOURSE IN NATIONAL GEOGRAPHIC MAGAZINE: A CORPUS ASSISTED ECOLINGUISTIC STUDY

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Exploring Climate Change Discourse in National Geographic Magazine: A Corpus Assisted Ecolinguistic Study

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The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance, and recommend the thesis to the faculty of Arts & Humanities for acceptance.

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Candidate of **Master of Philosophy** at the National University of Modern Languages, I do hereby declare that the thesis **Exploring Climate Change Discourse in National Geographic Magazine: A Corpus-Assisted Ecolinguistic Study** submitted by me in partial fulfillment of the MPhil degree is my original work and has not been submitted or published earlier. I also solemnly declare that it shall not, in the future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

Title: Exploring Climate Change Discourse in National Geographic Magazine: A Corpus-Assisted Ecolinguistic Study

This research examines the Climate Change discourse from an ecolinguistics perspective to find the impact of *National Geographic* Magazine articles on perception building. With its long publication history dating back to 1888, *National Geographic* stands out as one of the most prestigious magazines and media communication platforms, making it a valid area of inquiry. Ecolinguistics has been evolving as a robust analytical discipline, shaping, directing, and criticizing environmental narratives and discourses since the 1970s. Arran Stibbe's analytical approach to ecology has been instrumental in shaping the debates around the environment and Climate Change. This research draws on his 2015 seminal work *Ecolinguistics: Language, Ecology and the Stories We Live By*, and is a Critical Discourse Analysis (CDA). The study contributes to existing knowledge on Climate Change by examining a corpus of 110 articles containing more than 295,559 words from *National Geographic* between 2016 and 2024, alongside the 7,400-word Paris Agreement corpus (2015). This corpus-assisted qualitative research is exploratory and descriptive. Three stories from Stibbe's analytical framework have been selected to analyze metaphors, framing, and ideology. The research explores how *National Geographic* employs metaphors to manifest Climate Change and how descriptors related to conservation and sustainability frame perception in both the magazine and the Paris Agreement. The study also examines the role of *National Geographic* in manifesting beneficial, ambivalent, and destructive discourses. Findings show that "fear" and "urgency" dominate the metaphors in *National Geographic*, pointing to a discourse of policy intervention rooted in the Paris Agreement. The analysis uncovers discourse synergy between the magazine and the Agreement, showing that media discourse actively constructs public environmental perceptions.

Keyword: *Ecolinguistics; National Geographic Magazine; Climate Change; Corpus, Critical Discourse Analysis*

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DEDICATION

To my late baba, Raja Mazhar Hussain, who provided me with the best possible education and always inspired me to aspire for the best

CHAPTER 1

INTRODUCTION

1.1 Overview

Since its emergence in the 1970s, ecolinguistics has become a framework for analyzing linguistic strategies that influence environmental narratives and a study of human engagement with ecological issues. Ecolinguistics is an interdisciplinary domain of linguistics, and it investigates the relationship between language, society, and the environment (LeVasseur, 2015). Within social sciences and the discipline of linguistics, ecolinguistics is an organization of interactions between human beings and nature. Relatedly, scholars such as Haugen (1972) pioneered the idea of the "ecology of language" as the study of interrelations between the human mind, language, and ecology. Ecolinguistics has emerged as an interdisciplinary linguistics paradigm because of the contributions of subsequent publications by the linguists and the Ecology Forum, Arran Stibbe situating this field as the leading edge of the "Ecological Turn" (LeVasseur, 2015). As a well-established field, ecolinguistics examines the interactions between human beings and the environment, and highly debated and contested issues such as climate change. Stibbe (2015) has also postulated *Eight Stories* of Human Understanding of Ecology, complementing these with three kinds of discourses: beneficial, ambivalent, and destructive.

With an expansion of ecolinguistics as a discipline, many influential and reputable publications began featuring articles that intersect with the fields of environment, ecology, Climate Change, and linguistics. In this vein, National Geographic Magazine has an established reputation as one of the most authoritative sources of environmental issues and ecological journalism, offering a platform for scientific evidence, public awareness, and policy recommendations. The Magazine has been in publication since 1888, playing a crucial role in shaping discourses on Climate Change and environmental issues. In the wake of global concerns about Climate Change, examining the Magazine's portrayal of this and other intersecting issues provides timely and valuable insights into how the

environmental narratives and discourses are constructed, altered, disseminated, and perceived by the public.

With almost 136 years of publishing history, National Geographic Magazine is one of the most prestigious and leading publications on topics related to the environment, travel, culture, geography, climate change, science, animals, and Indigenous communities. This Magazine provides a rich, evolving, and vibrant source of data archived since its first issue was published in October 1888 (National Geographic, 2024). National Geographic has been persistent in the publication of articles related to the core issues related to nature. Throughout its publication history, National Geographic Magazine has amply reflected upon the debates related to the environment, Climate Change, and other global and geographical issues.

Additionally, over the past many decades, discourses related to ecology, sustainable environment, and Climate Change have dominated the public understanding, influencing global policies and activism. Even the UN Secretary-General António Guterres emphasized the issue of Climate Change and said, "Our world needs climate action on all fronts – everything, everywhere, all at once" (UNO, 2023). Electronic, social, and publication media have proven to be fertile grounds for Climate Change and environment-related discourses. The density and framing of these articles and their relationship to climate issues have received increasing scholarly attention, presenting issues on either side of the argument (Bortree et al., 2012; Meisner & Takahashi, 2016; Schoenfeld, 1983). Additionally, starting in the early 1970s, many international treaties and covenants by international organizations have tried to strengthen the preservation, sustainability, and conservation of the environment, climate, and ecological discourses. In this strand, one of the latest and most concerning treaties related to climate change is the Paris Agreement (2015).

Besides other Magazines and journals publishing environmental and Climate Change issues, National Geographic Magazine stands out with a long and reputable history of influencing global ecological perceptions, fostering coordination on environmental, indigenous population identities, cultures, and activism (Boguski, 2010; Bortree et al., 2012). National Geographic Magazine, with a well-reputed history of publications,

provides a rich corpus representing and highlighting global issues related to Climate Change and environmental issues meriting scholarly attention. Some of the impacts of Climate Change highlighted in the Magazine include flash flooding, droughts, rise in sea level, severe and frequent storms, expanding deserts, changes in rainfall patterns, reduction of land for agriculture, loss of species, shrinking glaciers, and rapid increase in global temperature. Within this backdrop, this research aspires to explore the depiction and framing of Climate Change and environmental issues in National Geographic Magazine and conduct a CDA of these (textual) representations through the lens of ecolinguistic theory and ecosophical arguments by Stibbe (2015). In doing so, this research provides a less-frequented yet necessary foundation for an examination of environmental communication by National Geographic Magazine from an ecolinguistics lens through a corpus-assisted analysis. The research confines its focus on the period after the Paris Agreement of December 2015 and scrutinizes 110 articles until August 2024. This period is also marked by an international discourse of numerous debates and discussions besides the regular annual Conference of the Parties (COPs) (Darby et al., 2024). The Paris Agreement's main agenda item has been to reduce global warming well below 2º °C through an international consensus and actions by all parties (Knutti et al., 2016; Kornek et al., 2020). Resultantly, this research is an interplay between language, public discourses in publications, and their interaction with public perceptions.

1.2 Thesis Statement

Despite the global urgency of climate change and the central role of media in shaping public understanding, little scholarly work has systematically examined how prominent publications like National Geographic contribute to perception-building using ecolinguistic strategies. While many studies analyze climate discourse in scientific or policy texts, few have critically applied Arran Stibbe's framework to popular media with a broad public reach. This presents a research gap in understanding how language in mass media may align with or diverge from internationally recognized environmental policy frameworks like the Paris Agreement. This research is an endeavor to fill this gap by critically analyzing the articles published in the National Geographic Magazine, drawing on the model proposed by Stibbe (2015) in his book *Ecolinguistics: Language, Ecology,*

and Stories We Live By. This model provides a comprehensive framework for understanding the discourses that are beneficial, ambivalent, or destructive in the text. In examining the text, this research also delves into the textual interaction between these discourses and the Paris Agreement (2015) to understand their relationship, mutual concords, and discords. Moreover, this research also reveals the power of language and its use in the manifestation of environmental and climate discourses and their relationship with "Ecosophy" (Guattari, 1992; Naess, 1989b, 1990, 2005). Concisely, this research is a critical analysis of the publications in National Geographic Magazine from January 2016 to August 2024, intending to understand the communication strategies and examine the resultant beneficial, ambivalent, or destructive discourses (Stibbe, 2015), from the Climate Change perspective.

1.3 Research Questions

Within the broader domain of ecolinguistics, analyzing the content and discourses of National Geographic Magazine concerning Climate Change, sustainability, and conservation in comparison with the Paris Agreement (2015), this research will answer the following questions:

1 What are the metaphors National Geographic Magazine has used to manifest climate change?

2 How do the descriptors related to "actions" for conservation and sustainability frame the perception of climate change in the Magazine and the Paris Agreement?

3 What are the concords and discords between environment-related beneficial, ambivalent, and destructive discourses in the Paris Agreement and the Magazine?

The three questions align under Stibbe's ecolinguistic framework and inquire how ecological thought and action are shaped by 'language'. The first question (Metaphor Analysis) explores conceptual framing. Similarly, the second question concerning framing narratives examines and is a critical discourse analysis of these narratives, whereas the

third question uncovers the ideological structures behind the narrative. Combined, these questions evaluate the impact of language on ecological, moral, and social constructs.

1.4 Significance of the Research

This research draws its significance from multiple strands of existing literature, research methodologies, and approaches. This research bridges a critical gap in the examination and an ecolinguistics analysis of one of the world's top publications, National Geographic Magazine, relating it to an international accord – the Paris Agreement (2015). As mentioned above, National Geographic has a long history of publication of articles related to the environment, geography, indigenous populations and cultures, climate issues, animal life, and flora and fauna. Despite this, the Magazine has received little scholarly attention from the ecolinguistics standpoint. The ecolinguistics theory argues that people's perceptions change due to the framing of issues and discourses at the global level (Alexander & Stibbe, 2014; Stibbe, 2010, 2014, 2015, 2020a, 2020b). In this regard, National Geographic has been a highly influential publication, molding people's perceptions and understanding of issues (mostly) related to nature. Against this backdrop, this research will also critically analyze and corroborate distinct corpora from National Geographic Magazine and the Paris Agreement. This study contributes to the existing knowledge on the subject of Climate Change, increasing its vitality by examining a rich and large corpus of almost 110 articles with more than 295,559 words and the Paris Agreement corpus containing 7400 words. The research adopts this novel approach to systematically explore the role played by National Geographic Magazine in the manifestation of beneficial, ambivalent, and destructive discourses related to conservation and sustainability concerning the environment and Climate Change. During the last almost five decades, multiple international covenants and treaties have strengthened environmental conservation, Climate Change, and sustainability discourses. This research situates itself in filling this gap by associating the articles published by National Geographic Magazine with the environmental and Climate Change issues, examining the intensity, framing, and frequency of the words, metaphors, and depictions. A further synthesis of these articles with the most recent Paris Agreement will increase the validity and reliability of the corpus. A corpus-assisted CDA of National Geographic Magazine

will also use an effective ecolinguistics model as postulated by Stibbe (2015) to enrich the findings, opening new avenues in ecolinguistics research.

1.5 Delimitations

As asserted by Akanle et al. (2020), the research delimitations are the limits, scope, and bounds set forth by the researcher so that the aims and objectives of the study do not become impossible to achieve within the available time. In this regard, it is important to highlight the massive available data as National Geographic has been in publication and circulation since October 1888 (National Geographic, 1888). Similarly, the discipline of ecolinguistics emerged during the 1970s (Haugen, 1972), and the first environmental treaty also became effective as a result of the Stockholm Declaration (1972), followed by scores of other treaties related to the environment, Climate Change, and ecology. As a result, it is difficult to examine such enormous data due to time and space limitations related to academic/university requirements. Therefore, the scope of this research does not include the aforementioned data in its entirety. Almost 110 articles published by the National Geographic Magazine between January 2016 and August 2024 delimit this research. This timeframe has been selected to correspond to the Paris Agreement (2015), focusing on Climate Change, conservation, and sustainability aspects of the environment. The Magazine articles published only in the English language will be selected to formulate the corpus.

The study also delimited multiple ecolinguistics theories (Goatly, 2006; Halliday, 2008; Skutnabb-Kangas & Phillipson, 2008), Ecosophy, and allied concepts (Guattari, 1992; Naess, 2005), and is bound by *Eight Stories* of ecolinguistics as posited by Stibbe (2015). This research adopts the framework discussing ideology, framing, and metaphors in the Climate Change discourses published by National Geographic Magazine. Although the research will triangulate the findings of the corpus analysis, this research will not engage in an analysis of the legal aspects of the Paris Agreement (2015) or discussions on other Climate Change and environmental treaties.

1.6 Organization of the Study Paragraph

The research progresses with the next chapter, which details the literature review and conceptual framework. The research design and methodology follow next. The subsequent two chapters are a presentation of data and an in-depth analysis of National Geographic Magazine articles and the Paris Agreement. The research is summed up in the fifth chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This literature review explores three research-relevant and core aspects of the previous literature to identify the gaps. The review is structured to evaluate previous work by source type (ecolinguistics theory, National Geographic discourse, climate-change/environmental media studies), criteria based on relevance to my research questions, and disciplinary alignment. These aspects are ecolinguistics, scholarly attention paid to the National Geographic Magazine, and a brief exploration of the literature related to climate change and environmental issues.

2.2 Ecolinguistics

Ecolinguistics emerged from the work of Haugen (1972, 2001), introducing the study of linguistics and environmental interactions explained in his work "Ecology of Language" (Eliasson, 2015). Although the focus of Haugen's work was primarily on the environment and ecology surrounding a language, the later works expanded the idea to include environmental issues and the way language is used to magnify or suppress these issues. Zhou (2022) claims that ecolinguistic expansion has mainly adopted six dimensions: geographical, conceptual, disciplinary, methodological, and practical. Scholars also posit that, since its inception more than half a century ago, ecolinguistics has also witnessed six "linguistics turns". These turns include: critical turn including critical thinking, researching, and analyzing (Fill & Muhlhausler, 2006; Halliday, 2008; Mühlhäusler, 2002), the environmental turn (Fill & Muhlhausler, 2006; Harré et al., 1998; Mühlhäusler, 2002), the ecological turn (Alexander & Stibbe, 2014; Stibbe, 2010, 2014, 2015, 2020a, 2020b), epistemological turn (Kravchenko, 2016), the scientific turn (Finke, 2014), and the radical turn (Cowley, 2019; Steffensen & Cowley, 2021). Although it is possible to identify these turns, defining them is challenging due to overlapping work. It is important to note that these turns span over many years; however, their relationship with the global environment, Climate Change, and ecological events has not received adequate scholarly attention, and a gap exists in analyzing this intersection. Research in the

Haugenian tradition has mainly focused on the ecology of multilingualism or language contact in various areas of the world.

Ecolinguistics examines the influence of linguistic structures on ecological consciousness. This field has emerged as a critical interdisciplinary scholarship focused on examining the role of language in shaping environmental and ecological narratives, drawing on CDA. Since its inception in the 1970s, scholars such as Haugen (1972, 2001), Fill and Muhlhausler (2006), and Stibbe (2015)have developed analytical models that analyze how environmental and ecological realities are constructed by language. Human interaction with the environment is both mediated and influenced by language. Ecological Discourse Analysis is the analysis of any type of discourse under the ecological framework (Alexander and Stibbe 2014). One of the underlying assumptions of EDA is that highlighting the way that discourse may be inhumane or destructive will create more awareness of the role of language in dealing with the environment. This also includes the hope that discourses that are more harmonious with our natural surroundings will result in more ecologically conscious ways of dealing with the environment.

Arran Stibbe's book Ecolinguistics: Language, Ecology, and Stories We Live by is an appropriate framework for analysis of linguistics-related metaphors, ideologies, and discourses that shape human perception of environmental degradation and sustainability. The work in this book essentially addresses the issue of how the dominant discourses reinforce certain ecological narratives, while silencing others, making it more applicable to the study of media representation of Climate Change.

2.3 Analytical Foundations of Ecolinguistics

The analytical foundations of ecolinguistics are rooted both in cognitive linguistics (Croft, 2004; Evans & Green, 2018; Ungerer & Schmid, 2013) and systematic functional linguistics (Eggins, 2004; Fontaine & McCabe, 2023; Schleppegrell & Oteíza, 2023), emphasizing the power of language in structuring human-environment interactions. Halliday (1995) developed Systemic Functional Linguistics, exploring how language is used to construct knowledge about the world in environmental contexts. The construct of "grammatical metaphor" as postulated by Halliday underscores the lexical and syntactic

choices framing environmental issues and is particularly relevant to understanding the ecological narratives.

Similarly, Lakoff and Johnson (1980a) explicated the concept of cognitive linguistics, which plays a critical role in the understanding of metaphors and analogies in shaping ecological discourses. They argued that "if anything is central to Cognitive Science, it is the nature of the human conceptual system. We have found that the system is fundamentally metaphorical. That is, it contains metaphorical as well as nonmetaphorical concepts, and the metaphorical structure is extremely rich and complex. Nonmetaphorical concepts are those that emerge directly from our experience and are defined in their own terms". More significantly, Lakoff (2010) focuses directly on framing in political and environmental discourses, highlighting how metaphorical structures influence public understanding of Climate Change. In this vein, a study by Ahmed et al. (2021) examined the use of metaphors adopted by the media advertisement to persuade customers to make environmentally friendly choices. Their application of the metaphor analysis model by Lakoff and Johnson (1980b) offers an interesting starting point for metaphor analysis in the research at hand.

Ecolinguistics has significantly contributed to understanding the role of language in promoting discourses that are beneficial, ambivalent, or destructive in addressing environmental and Climate Change issues. However, Stibbe (2020a, 2020b) argues that ecolinguistics needs to go beyond descriptive analysis and engage more directly with environmental activism. In this regard, scholars such as Castro-Sotomayor (2020); and Peluso (2020) also highlight the need for recognizing the environmental voices and concerns of non-Western cultures and indigenous populations and cultures. There is a gap in addressing the activism as propagated by globally recognized media houses and popular publications such as National Geographic, and there is a need to analyze the published narratives related to indigenous cultures.

The literature on the ecolinguistics analysis of media studies/communication is limited and has recently started growing. In the existing studies, the application of ecolinguistics analysis has been referred to as "innovation" and mostly focuses on the impact of migration on language ecology (Mohamed & Larouz, 2020; Ponton & Sokół,

2022; Syzonov, 2022). Scholars have also explored the representation of environmental issues. For example, Cox (2013) examined the role of ecolinguistics in altering public perceptions and policy regarding environmental issues, promoting solution-oriented narratives. Similarly, literature has also criticized the media's portrayal of Climate Change issues, claiming the presence of “balance in bias” created by the media, in which scientific consensus on the environment is considered to be one side of the story (Boussalis & Coan, 2013; Boykoff & Boykoff, 2004; Fahy, 2017). Within this literature, there is a gap in the literature concerning the critical analysis of emerging ecolinguistics theories as posited by authors such as Stibbe (2015).

2.4 Ecolinguistics and Environment

Another concern in ecolinguistics is the relationship between the environment and how language is used to portray the issues and actions. This concern also intersects with the study of discourses influencing people’s attitudes toward conservation, pollution reduction, and sustainability. In this string of ecolinguistics, Alexander and Stibbe (2014) contend that the ecolinguistics analysis should not only deconstruct the harmful environmental discourses but should also examine and promote the discourses that encourage ecological awareness and responsible action among human beings. Scholars such as Brockmeier and Mühlhäusler (1999) have also examined how the environmental discourses operate at the cross-section of media, scientific communication, evidential inquiry, and public perceptions, demonstrating that public action and engagement with the Climate Change issue are significantly impacted by these constructions. It is also appropriate to mention the work done by many scholars exploring how the media shapes Climate Change debates through language choice that could amplify the urgency needed in action and downplay environmental threats simultaneously (Carvalho & Burgess, 2005). These findings also underline the need to assess the importance of a critical examination of media outlets such as National Geographic in promoting its discursive strategies and promoting or mitigating Climate Change awareness as well as action.

2.5 National Geographic Magazine

National Geographic Magazine has played a vital role in environmental discourses, with a longstanding commitment to discussing ecological, environmental, Climate Change,

and Indigenous population issues. National Geographic Magazine articles serve as a bridge between the public discourses and scientific research dealing with environmental issues. Studies have also examined the impact of environmental journalism on public attitudes, actions, and policy discussions across the globe, demonstrating that National Geographic plays a vital role in shaping Climate Change discourses and narratives (see, for example, Ahern et al., 2013; Apostolis, 2012; Hansen & Machin, 2013; Hansen et al., 2010; Lester & Cottle, 2009; Manfredi, 2014). Similarly, Lindenfeld et al. (2014) argue that the framing of the environmental and Climate Change issues in National Geographic Magazine often shows an interesting balance between storytelling and scientific rigor, making it a valuable subject of inquiry and discourse analysis. Additionally, the rich and thoroughly researched visual imagery in the Magazine alongside textual narratives further enhances its impact and makes it a suitable candidate for multimodal visual analysis (Iftikhar, 2018; Kress & Van Leeuwen, 2020). These also provide a foundational source for analyzing how National Geographic employs different lexical choices, analogies, and metaphors to construct the narrative of Climate Change.

National Geographic Magazine has also been analyzed by many scholars from global issues such as global warming (Apostolis, 2012), analysis of the Magazine from the cartographic/mapping perspective (Fish, 2020), visual rhetoric in these publications (Hansen & Machin, 2008, 2013, 2016; Lester & Cottle, 2009), and the strategies applied for communicating environmental and Climate Change issues (Chang, 2020). Notably, most of these studies are recent contributions to the literature. The application of ecolinguistics in understanding the environmental issues in media texts outside National Geographic is also visible in literature (Goatly, 2006). A more elaborate examination of discourses was undertaken by Alexander and Stibbe (2014), as they argued that more "beneficial discourses" in the media portrayal focus on ecological sustainability. As mentioned above, National Geographic has been a key publication for centuries, shaping discourses and building public perception, but has received comparatively less attention from the ecolinguists.

2.6 Environmental Activism

Cunningham et al. (2022) made an interesting observation regarding the environmental and Climate Change discourses, pointing to the divergence in the ecolinguistics application by the environmental activists and politicians. Activists, in this study, were observed promoting negative/destructive aspects of Climate Change implicating human beings, whereas this aspect was not only absent from the politicians' corpus but rather promoted the discourses of finance, politics, and economy, with little or no reference to Climate Change. This is a significant observation and needs to be evaluated in the case of National Geographic Magazine. Similarly, in another study of the Cameroon newspapers, it was observed by the authors that strengthening the "green discourse" (or environmental communication) was depicted more in terms of the personification of divine/human virtues, and deliberate efforts were made by the journalists to associate human beings the nature (Ubanako & Acha, 2022).

2.7 Policy and Discourse

Many international treaties, covenants, and agreements have influenced the recent Climate Change, environmental and geographic degradation discourses, highlighting the vitality and legality of ecolinguistics. These treaties have generated a discourse necessitating (Chien et al., 2021) a media/publications communication strategy, reinforcing or mitigating the outcomes. In this regard, Budescu et al. (2012) argue that pursuing research in complex contradictory matters related to sustainability, conservation, economic growth, and ecology is often a challenging undertaking.

The impact of ecolinguistic media discourse on policy has lately been the area of concern for Pakistani authors. Sadiq et al. (2025), in a critical ecolinguistics approach, examined multiple print and electronic media depictions related to environment and ecology. Although the study is too broad-based, however, their findings emphasize the need for journalists and policymakers to adopt a more positive approach. In this regard, this research observes that the focus of a critical discourse analyst is not to make corrections based upon their personal views; however, certain policy outcomes could form part of the research.

The literature on policy discourse analysis argues that CDA is a particularly useful tool in examining how policy documents and media texts construct competing discourses on environmental issues (Fairclough, 1989, 1993, 2003, 2013b). The tensions between the economic, political, and ecological (ambivalent and beneficial) discourses have also been explored by researchers such as Dryzek (2022); Dryzek et al. (2013), and Hajer (1995). In the specific context of Climate Change policy, the study by Nerlich et al. (2010) examined the influence of the language of international agreements on the media representation, providing a relevant framework for analyzing National Geographic Magazine with the Paris Agreement.

2.8 Corpus-Assisted CDA

Corpus-assisted CDA offers a methodologically rigorous framework for assisting in examining large data sets for their linguistic patterns. Many scholars, such as Baker (2006) and Partington et al. (2013), have adopted this approach in inquiring about environmental discourses and demonstrated how corpus techniques reveal recurring linguistic patterns that shape public perceptions. Contextually relevant to the Climate Change discourse, scholars have examined environmental narratives through corpus-based methodologies by looking into different media platforms (Fernández Galeote et al., 2021; Fløttum, 2017; Fløttum et al., 2014; Grundmann & Krishnamurthy, 2010; Kapranov, 2016; Willis, 2017). Their findings signpost the significance of studying colocations, concordance patterns, and frequency distributions to identify dominant and marginal discourses in Climate Change communication.

In more recent studies concerning environmental corpus analysis, Shakeel et al. (2025) conducted a brief corpus analysis of two Pakistani newspapers and concluded that one newspaper published articles that were more concerned about the environmental challenges. AntConc software analysis focused on all stories from Stibbe's analytical model. This research realizes that inclusion and a wholesome analysis of all the stories is a cumbersome undertaking and adopts a more focused approach concerning the analysis of three stories.

Similarly, in another eco-critical study related to natural disasters in Pakistan, including floods and earthquakes, Qureshi and Abdulaziz (2025) observed that the

newspaper portrayal of these disasters needs to be more optimistic and adds to the dismal situation. The authors used a corpus analysis and Stibbe's eco-critical model, resonating with the approach taken in this research.

Building upon these foundational studies and research, this dissertation applies corpus-assisted CDA of 110 National Geographic Articles published between 2016 and 2024 for qualitative research. The research articles are being selected through purposive sampling. The articles related to climate change and global warming were selected for the research. By systematically examining the linguistic features of these articles, this qualitative study aims to identify recurring metaphors, evaluative language, and discursive strategies that frame Climate Change discourse. The integration of ecolinguistics and corpus-assisted CDA provides a unique approach to examining and understanding how media narratives and discourses help shape public perception, reinforcing the role of National Geographic in mediating environmental knowledge and policies.

2.9 Analytical Framework

2.9.1 Overview

Ecolinguistics is multidisciplinary and intersects with other analytical, methodological, and disciplinary approaches such as CDA, conceptual metaphor theory, framing theory, ideology theory, ecology, culture studies, and cognitive and behavioral studies, just to mention a few. The core idea of "linguistic ecology" was postulated by Skutnabb-Kangas and Phillipson (2008), referring to language as part of the larger ecosystem, which also includes both nature and human beings and their mutual relationships and interactions.

2.9.2 Critical Discourse Analysis (CDA)

CDA is considered one of the dominant theories employed in discourse studies, as it is the clearest path to examining the relationship between political language choices and social realities. Van Dijk (1993, p. 283) posits that "critical discourse analysts want to know what structures, strategies or other properties of text, talk, verbal interaction or communicative events play a role in these modes of reproduction", such as power abuse or political inequality.

Similarly, the literature argues that CDA originally emerged and developed in critical linguistics initially from *Language and Control* (Fowler et al., 2018), and Language and Ideology (Fairclough, 2013a; Rogers, 2004; Wodak & Meyer, 2009). The word 'critical' was taken from critical linguistics, and 'discourse analysis' was used to replace 'linguistics' (Wodak & Meyer, 2009). The development of the theory/methodology of CDA is primarily attributed to Fairclough (1989, 2003, 2013a, 2013b); Gee (2005, 2014); Van Dijk (1993, 2008a, 2008b); Wodak (2001, 2011); Wodak and Meyer (2009, 2015). These scholars theorized the relationship of text with other texts and text and power, assuming an interaction between text and social events. According to Wodak and Meyer (2009, p. 1), "the manifold roots of CDA lie in rhetoric, text linguistics, Anthropology, Philosophy, Socio-Psychology, Cognitive Science, Literary Studies and Sociolinguistics, as well as Applied Linguistics and Pragmatics".

2.9.3 Ecolinguistics

The term 'Ecolinguistics' is the combination of 'eco' and linguistics. For the first time, Voegelin et al. (1967) used the term 'ecology' in the field of linguistics by distinguishing inter- and intra-language ecology. Subsequently, the term was borrowed by the American linguist Haugen (1972), and many other scholars such as Halliday (1992), who argued that "classism, growthism, destruction of species, pollution and the like – are not just the problems for the biologists and physicists. They are the problems of applied linguistic community as well" (Halliday, 2006, p. 199).

The Ecolinguistics analytical framework has contributions from many authors who laid the foundations for understanding the explicit and implicit connections between human beings, nature, and the environment. In this regard, Fill and Muhlhausler (2006), in their co-edited volume, *The Ecolinguistics Reader: Language, Ecology, and Environment*, brought together a diverse range of ideas and perspectives on the linguistic interaction between human beings and nature/environment. Their work advocates for the preservation of the environment and what role language can play in this environmentally friendly discourse on one hand, and challenges the role language can play in challenging unsustainable practices. This work also exposes some of the hidden agendas promoted by using certain specific words, terminologies, idioms, and metaphors. Peter Mühlhäusler's

work also goes a step ahead of his analytical contribution, as he also advocates sustainability and diversity in practice. In his book, Linguistic Ecology: *Language Change and Linguistic Imperialism in the Pacific Region*, Mühlhäusler (2002) explains the dual role of language in an imperialistic approach both towards biological diversity and cultural practices and traditions. His work argues that there is a need to preserve ecological sustainability to indirectly preserve the Indigenous communities and cultures, and that is attainable in preserving the pristine nature of both of these fragile aspects of life on earth. Authors such as Goatly (2006) conducted a critical analysis of the environmental metaphors and texts and concluded that these discourses constitute anthropocentric ideologies. The study of metaphoric cognition contains both positive and negative aspects. Since there have been thousands of years of human-nature interaction, Wang (2021) argues that this interaction teaches us innovative ways to secure a sustainable future on earth, and the creation of new metaphors (and discourses) further adds to the possibility of a beneficial interaction.

2.9.4 Conceptual Metaphor Theory

The Conceptual Metaphor Theory was postulated by Lakoff and Johnson (1980b), takes metaphors not simply as decorative or ornamental devices in language, but as a conceptual tool used for structuring, restructuring, and creating reality. Similarly, Semino and Demjén (2017, p. 13) define the concept both as a process and a product by claiming that, "A conceptual metaphor is understanding one domain of experience (that is typically abstract) in terms of another (that is typically concrete)". In this definition, the process of 'understanding' a domain is the process aspect of metaphor, while the resulting 'conceptual' pattern is the product aspect. The literature also argues that the metaphor clusters fulfill three kinds of functions: "First, they are attention-grabbing…Second, clusters seem to occur where the action is. Finally, metaphor clusters connect and dynamite discourse" (Kimmel, 2010, p. 98). Metaphors also play an important role in 'framing of the environmental, ecological, and climate change-related issues. An explicit explanation of the framing of these issues spans an expanding literature. In *Framing Discourse on Environment*, Alexander (2010) identifies patterns in corporate and political texts, media programs, and publications that shape public perceptions, often reinforcing dominant

ideologies. The impact of lexical choices, metaphors, linguistic framing, and syntactic structures either emphasizes or downplays the climate change crisis. In this vein, an interesting study conducted by Nasir et al. (2022) observed how the media portrayal of the environmental discourses is altered by using salience, metaphor, and framing in the (re)productive phases, and found that the environmental advertisement creates positive discourses. This study is relevant to this research as it adopts an analytical approach using metaphors and framing of environmental discourses.

The CDA shows that corporate discourses often mask environmental degradation through the selection of certain phrases and linguistic choices, influencing policymaking and public choices (Alexander, 2010). Such choices either nurture a genuine environmental awareness or are used for the 'greenwashing' of these issues.

2.9.5 Stories – Arran Stibbe's Model

One of the most compelling scholars to work on contemporary ecolinguistics theory has been Arran Stibbe. His arguments point to the narratives influencing people's perspectives on ecology. He presented his narratives as "stories" that are told to us through different channels, media, and publication discourses. Stibbe (2015) divided these discourses into three categories: beneficial, ambivalent, and destructive discourses.

Stibbe (2015) argues that the beneficial discourses promote an ideology to encourage people to support of life on earth and living in close harmony with nature. In further explaining, the author posits that positive discourses of nature and culture, "Nature Writing", and discourses of Indigenous people and cultures (because they survived for centuries without harming nature), are all examples of beneficial discourses. Bringhurst (2008) invites ecolinguists to explore Native American Literature as he believes that their poems and stories are robust examples of beneficial discourses because they lived in the same environment for thousands of years without destroying it. The concept of beneficial discourses has been elevated to the next step by scholars, and the notion of "Positive Discourse Analysis" has now taken the front stage in ecolinguistic analysis (Buonvivere, 2024; Ponton, 2022). In this regard, the literature argues that if the discourse being promoted agrees with the broader Ecosophy, it must be promoted, and it is a beneficial discourse.

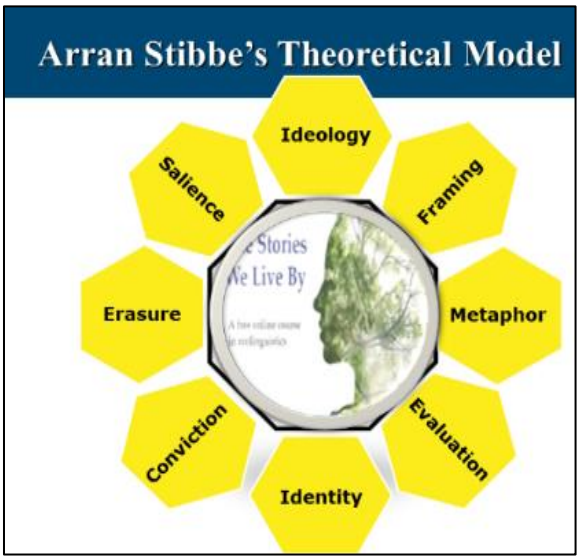
Destructive discourses are the second kind of discourse discussed by Stibbe (2015), claiming that these discourses promote ideologies that are harmful to ecology and are against the principles of Ecosophy. Some of the discourses of consumerism, economy and economic growth, intensive agriculture, and the advertising industry are considered to be destructive discourses. The use of language in these destructive discourses focuses on economic growth, production enhancement, sales/purchase of goods, making a living through excessive earning, and in the process causing harm to the pristine environment, adversely impacting Climate Change, causing global warming, and other destructive impacts on nature. In his earlier work, Stibbe (2001) explained how language contributes to cruelty against animals. In this CDA, the author presented explicit details of the mass confinement and slaughter of animals for human consumption.

The third kind, "ambivalent discourses," are perceived as positive/beneficial yet problematic because they share some aspects of Ecosophy (Stibbe, 2015). These discourses also contain some aspects of political interest that dilute their role in making them fully beneficial. For example, "green discourse" (Kasztelan, 2017; Prothero et al., 2010; Yuniawan et al., 2017), the discourse of environmentalism (Baviskar, 1997; Swaffield, 2016), ecology conservation (Manuschevich, 2016; Masterson et al., 2019), and sustainability (Dias et al., 2021)are all categorized as ambivalent discourses. These discourses are considered ambivalent for representing plants, animals, rivers, and forests as commodities, like the destructive discourses of animals represented as commodities.

Besides introducing these discourses as analytical tools for ecolinguistics, the author also argued that using different metaphors, words, and rhetoric, publications, and electronic and social media strengthens these discourses. Korten (2006) argued that "we, the humans, live by stories", and these stories play a crucial role in changing the course of history. His research discusses multiple stories, such as the "prosperity story", promoting the acquisition of money and material resources, the "biblical story", focusing on the life hereafter rather than the life we are living, and the "security story", which allows us to build strong militaries and police forces to safeguard the domination. Stibbe (2015) introduced *Eight Stories* in his book as depicted in Figure 1 below: -

Figure 2.1

Eight Stories Analytical Model



Note: Adopted from Stibbe (2015)

The model shown in Figure 2.1 is a depiction of the *Eight Stories* mentioned by the author. A brief explanation is given in the succeeding paragraphs.

2.9.5.1 Ideology

Following Stibbe (2015), the term "ideology" and the related story have been operationalized as the perception in the minds of members of a group about how the world *was*, how it *is*, and how it *should be*. A further explanation of this story includes examples such as people are selfish, more is good as compared than less, consumers are never satisfied, and money buys happiness, etc.

2.9.5.2 Framing

Framing of a particular issue in a specific manner to a packet of knowledge in a distinct manner is done in framing. For example, it is common knowledge that Climate Change is an environmental issue and must be dealt with by the environment and energy departments in the government. The issue is reframed to depict it as a prime national and global security threat. Framing the issues in a certain manner alters the perceptions.

2.9.5.3 Metaphor

Metaphors are used in stories to portray an issue metaphorically as another imaginable domain. For example, referring to the earth as a "single spaceship without unlimited reservoir or anything" (Boulding, 2013), and "diffusing the global warming time bomb" (Hansen, 2004), etc. Metaphors offer powerful and vivid framing techniques with effective outcomes, for example, referring to Climate Change as a rollercoaster, an angry beast, or a time bomb, etc.

2.9.5.4 Evaluations

This story by Stibbe (2015) is about the perceptions in the minds of people about certain aspects, whether they are good or bad. For example, low sales are bad, sunny weather is good, and rain is bad, etc. Evaluations are dependent upon the ecolinguistic depiction.

2.9.5.5 Identity

This story creates a perception in the minds of people about what it means to be a specific kind of person. For example, animal lovers, who always eat organic food, and people who are part of nature, etc.

2.9.5.6 Conviction

The framing of this story creates a perception in the minds of people whether a particular aspect is certain or uncertain, true or false. For example, it is likely that human beings are the main cause of global warming (Vitousek, 1994), and Climate Change is a fraud (Henricksen, 2018), etc.

2.9.5.7 Erasure

The perception in people's minds that a certain issue is not worthy of their attention or is unimportant. For example, nature or natural resources are unimportant, or animals are not important, etc.

2.9.5.8 Salience

Contrary to erasure (mentioned above), this aspect creates a perception in the minds of people that an event, idea, or thing is important and noteworthy. For example, floods are

caused by melting glaciers that inundate the rivers, or the animals are important and necessary for our happy life on earth, etc.

2.10 Summary

Overall, this study contributes to the growing body of research that examines the intersection of ecolinguistics, Climate Change communication, and media discourses. By analyzing how National Geographic constructs Climate Change narratives through framing, metaphors, evaluative language, and examining the ambivalent and beneficial discourses, this research will provide insights into the broader implications of media framing in shaping environmental consciousness.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Overview

This section discusses the research design, data collection and its methods, data analysis, ecosophy, and linguistic features of each story selected for this study.

3.2 Research Design

This research is exploratory and descriptive in nature, with a focus on qualitative methods of analysis. This study is an ecolinguistic CDA of the National Geographic Magazine. Stibbe (2013) argues that ecolinguistics uses the same forms of linguistic analysis as used by critical discourse studies. However, the analytical frameworks in ecolinguistics operate and consider the relationships of human beings with other humans as well as with the ecological systems on which all life depends. As mentioned in the previous chapter, Stibbe postulates eight stories analyzing the ecolinguistic discourses. For this research, only ideology, framing, and metaphors are being used as tools of analysis. A brief explanation of these stories is given below.

3.2.1 Ideology

Ideology makes perception and constructs the reality of the world in people's minds. As argued by Stibbe, most ideologies are concealed in the discourses, and therefore, people are unaware of these hidden ideologies (Stibbe, 2015, pp. 21-24). In Stibbe's book, discourses have been classified on the basis of the ideologies they convey. The discourses that promote negative ideologies, for example, the discourses of technological advancement, progress, or economic development, and advertisement, etc., are against the concept of "ecosophy" as originally postulated by Naess (1989a, pp. 32-38). Such discourses are referred to as destructive or negative discourses as they lead to more harm to the ecology, environment, and climate and, therefore, must be resisted and discouraged. On the other hand, Stibbe also discusses beneficial discourses originating from the ideologies that need to be encouraged. Similarly, "ambivalent" discourses are promoted through those ideologies that contain some aspects of beneficial discourses and

simultaneously echo aspects of destructive discourses (Stibbe, 2015, p. 29). As a discourse is a “characteristic way of speaking,” it includes grammatical choices, vocabulary, and other linguistic patterns to promote certain ideologies, creating a specific perception of the realities of our world.

3.2.2 Framing

Framing, as asserted by Stibbe’s framework, assists human beings in understanding the world. As argued by Lakoff (2010, pp. 71-73), “one of the major results in cognitive and brain sciences is that we think in terms of typically unconscious structures called 'frames' (or 'schemas')”. Frames have inbuilt semantic roles, inter-role relationships, and relationships with other frames as well. All communication, especially words, are defined relative to frames, and hearing a specific word can activate its frames in the brain of the listener. Words themselves are not frames; however, under the right circumstances, words can be chosen to activate desired frames. The stories about global Climate Change can be framed using certain trigger words to create a mental image in the minds of the audience. By using reframing techniques, the perception of the people regarding a certain ecological issue or phenomenon can be altered. Frames can be analyzed from the ecological perspective to examine their harmony or discord with the ecosophy. Stibbe (2015, pp. 49-50) argues that if certain frames are not environmentally friendly, they should be reframed to encourage people towards more environmentally friendly practices. This research is concerned with examining the trigger words that bring Climate Change into people’s minds and how such words have been used in framing the relevant discourses to affect the perception in people’s minds.

3.2.3 Metaphors

As a third focal aspect for this research, metaphors are taken from the source domain and mapped into the target domain to enhance our understanding of the world. Metaphors are analyzed by examining the elements of the source frame that are put into the target domain and how they resonate. Metaphors can also be in accordance with the ecosophy. As argued by Stibbe (2015, pp. 66-67), only the “beneficial” metaphors that are environmentally friendly need to be encouraged, whereas the environmentally destructive metaphors need to be changed and ignored for environmentally friendly outcomes.

3.3 Data - Corpora for CDA

Critical discourse in ecolinguistics also complicates the power relationships between the "oppressor and the oppressed" because it takes into account the future (yet unborn) generations. As mentioned above, this study also complements corpus linguistics with CDA to analyze the discourses. Against this backdrop, this research employs CDA of 110 articles (topics attached as Annex A), constituting a 295,000-word corpus based on National Geographic Magazine from January 2016 to August 2024. The selected time corresponds to the latest international treaty on Climate Change – The Paris Agreement (2015). This agreement was finalized in December 2015, and the parties pledged to reduce the rise in global temperature well below 2°C. These articles were selected through purposive sampling. Articles that focused on climate change and global warming were selected as data.

This corpus-assisted CDA will use qualitative methods to answer the research questions. The corpus will be analyzed using *LancsBox X* (a free software from the University of Lancaster), used for finding word clusters (frequency pattern of word sequences) (Website, 2025). This is useful when the word frequency is high. It also helps us find collocates to understand the context. and *LancsBox X,* which allow for large-frequency counting and finding the collocates (words that frequently occur together and impact each other's meaning), and the *GraphCol* feature in this tool will be used to find the collocates (LancsBox, 2025). This CDA will be based on the model shown in Figure 1 above (Stibbe, 2015). This approach allows for the examination of the context and frequency of metaphors and descriptor words. Figure 2 below is a depiction of the methodology.

Word Cloud is a vital textual analytical tool because it shows an instant visual reflection of the text and helps distill text down to those words that have been most frequently and commonly used (Heimerl et al., 2014). Cloud data analysis is also a useful tool for understanding large data in a corpus as it provides leads for further analytical processing (Lee, 2020), and is more applicable in the case of unstructured textual data in purposive sample collection, as done for this research. The clean corpus data (text) of metaphors and their themes will first be inserted into the *Word Cloud*. The resulting cloud

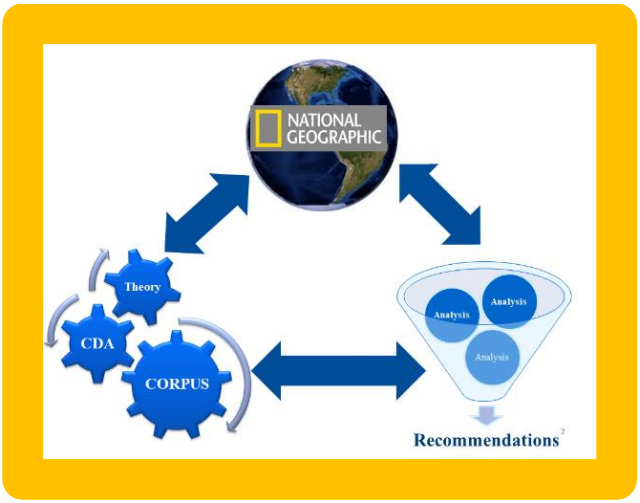
will show word size as per the frequency of the words in the corpus. Clouds will also be generated to examine the presence, absence, and repetition of selected words/phrases and most commonly used metaphors.

Word Frequency Counter and *Word Phrase Counter* will be used to search for descriptors. Literature shows that in large-scale data mining and analysis, the Word Frequency Counter is a useful tool to understand the "aboutness" of text (Archer, 2016). Scholars have also posited that for the exploitation of corpora data and to understand how many times a word has been used (or not used), a word frequency counter is a vital tool (Baron et al., 2009; Sinclair, 1991). In this research, the word and phrase frequency counter will also validate the above-mentioned cloud processing results. These phrases will also be examined in concordance with the *Three Stories* (Stibbe, 2015).

The data will finally be rendered to the LancsBox *X software for the final analysis of the three discourses: Economic (destructive), Technology (ambivalent), and Indigenous (beneficial) discourses will be analyzed by using the concordance tool.*

Figure 3.1

A Model for Corpus-Assisted CDA



The model above shows a corpus-assisted CDA model. The National Geographic Magazine-based corpus will be critically analyzed in light of the ecolinguistic analytical framework, comprising eight stories of Stibbe's analytical stories/ aspects. The word frequency, colocation, and context related to three of the stories will be analyzed

concerning the clauses of the Paris Agreement. The analysis will also focus on the sustainability and conservation aspects of the environment. Final data will be examined to understand if National Geographic Magazine generated a beneficial, ambivalent, or destructive discourse (Stibbe, 2015). This final data triangulation between the framework, text, context, and discourses will answer the research questions and will also inform the research if the narratives and discourses support Climate Change arguments in the articles published by the Magazine in the aftermath of the agreement.

After a meticulous study of word lists, all word lists that trigger Climate Change related frames, metaphors, and all three types of discourses (beneficial, negative and ambivalent) are analyzed through concordance and collocate features of LancsBox X. The analysis includes the implications for the Climate Change in comparison to the promises and actions to be taken of the Paris Agreement (2015). Repeated readings of the wordlists also lead to visibility of metaphors that may not be visible through the corpus. After the selection of these words, their context is also analyzed with the concordance feature of LancsBox X. Collocates help understand the context in which certain trigger words have been used. For example, the word “development” may have been used in different contexts, including economic development (leading to a destructive, negative, or harmful discourse); however, sustainable development might mean an ambivalent or sometimes beneficial discourse.

3.4 Summary

This corpus-assisted CDA study uses corpus data to explore three dominant stories in the Climate Change discourse. Tognini-Bonelli (2001) claims that corpus studies use corpus data to explore, validate, or refute theories. In this study, two corpora, including the articles from National Geographic Magazine and the Paris Agreement, are being studied for their linguistic significance, concords or discords based on Stibbe’s model. Corpus and repetitive readings have been used to generate the world lists related to framing, descriptors, metaphors, and the concords and discords in the frames propagated by the National Geographic Magazine.

CHAPTER 4

METAPHOR, FRAMING: DATA AND DATA ANALYSIS

4.1 Overview

This section is divided into two major subsections. The first subsection is a presentation of the data and analysis pertaining to the use of metaphors in the 110 selected articles published by the National Geographic Magazine and responds to the first question in this research. This subsection constitutes the methodology and subsequent analysis of metaphors from an ecolinguistics perspective. The second subsection, pertaining to the second research question, primarily focuses on the descriptors (action words and triggers) used both in the National Geographic Magazine and the Paris Agreement corpora.

4.2 Metaphors – Methodology, Selection, and Analysis

Metaphor is a linguistic feature that describes one thing referring to another due to their mutual commonalities and shared qualities. In the context of Climate Change, metaphors tend to simplify the complex scientific phenomenon for easy understanding to create urgency, relatability, and framing (Flusberg et al., 2017; Pokojná et al., 2025). Metaphors have been used excessively in the selected National Geographic Magazine article, making them a legitimate area of inquiry for this research.

4.2.1 Methodology

The first step is the "identification" of metaphors in text, discourse, or the corpus. A limitation of the research was that the Corpus tool was not helpful for finding metaphors. Therefore, after repeated readings of the articles, a list of metaphors was prepared. This non-computer-assisted process involved looking for metaphorical expressions, including figurative phrases, comparisons, and contrasts that are not meant to be taken literally. Adopting the explanations rendered in the literature (See, for example, Lakoff & Johnson, 1980b), the selected metaphors were then classified and categorized in self-created categories. These categories have been tabulated in the table below. This data was then rendered through a word cloud for an instant visual of the data. To ensure rigor and to expand the understanding, the model for analysis was adapted from Arran Stibbe's model

for metaphor analyses. The next step in metaphor analysis is the identification of source and target domains. Climate Change and associated phenomena, such as environmental degradation, greenhouse effect, extreme temperatures, etc., are the target for the source domain in this analysis, and all these metaphors have been analyzed within this backdrop. The source domain constitutes the examination of the metaphor from the linguistic perspective and its correlation with the target domain, signifying its textual location and its appropriacy for analysis. The source domain determines how people will conceptualize the metaphor, how the metaphors impact the culture, thought, and communication. Each metaphor uses a particular 'frame' or 'domain' category, such as fear, war, technology, nature, etc. To further clarify, the example of "freight train of heat" can be considered. Its source domain is a runaway train showing speed, unstoppable force, and impending damage. The source domain will synthesize these constructs with the target domain, i.e., Climate Change. In the third step of analysis, the metaphor is examined for its conceptual mapping. This inquiry shows how the source domain's qualities are transferred to the target domain. For example, consider the metaphor "house on fire":

House on fire:	Category – Fear
Source Domain:	A burning house
Target Domain:	The planet Earth, global warming
Mapping:	Urgency, danger, immediate need for action (to extinguish fire)

The next step and the final step in the metaphor analysis is the implication or contextual correlation. Metaphors are highly context-dependent, and the final step – implication- enhances our understanding of the context of the text or discourse in which it is situated. Metaphors can have different meanings in different cultural settings. It is, therefore, important to contextualize metaphors for comprehensive understanding. Metaphors could have a historical context, cultural context, or could be centered on different discourses, such as the discourse of action, media, public, policy, militarization, etc. The metaphors used in National Geographic Magazine articles are listed in Table 4.1 below. These sixty-nine (69) metaphors have been categorized for further analysis and understanding.

Table 4.1

Categorization of Metaphors

S/No.	Metaphor		Category
1	Game on		Fun
2	Playing out in real time		Fun
3	The specter of climate change now haunts		Fear
4	Tipping point		Fear
5	Freight train of heat		Fear
6	Angry beast		Fear
7	Pyrocene (future age of fire)		Fear
8	Fiery signature		Fear
9	Climate rocked up		Fear
10	Haunting music		Fear
11	Cataclysm		Fear
12	Roasting and threatening		Fear
13	Marred		Fear
14	Havoc		Fear
15	Penalty		Fear
16	A death sentence		Fear
17	Hazard		Fear

18	Dog days of summer		Fear
19	House on fire		Fear
20	Weather whiplash		Fear / Disease
21	Darker side of the sun		Fear / Unseen
22	Curse		Fear / Hardship
23	Inexorably stacked the deck		Fear / Conflict
24	Heat pummels		Fear / Conflict
25	Blow		Fear / Conflict
26	Crisis		Fear / Conflict
27	Loading of the climatic dice		Conflict / Unfair
28	Pressing		Technology / Fear
29	Powerful and Deadly		War / Conflict
30	Vampire summer		Fear / Danger
31	Batter		Fear / Failure
32	Cancer is eating what is left of the glacier		Fear /Disease
33	Weapon to fight climate change		Fear / War
34	War		Fear / War
35	Frontline		War
36	Time bomb		War
37	Environmental violence		War / Conflict

38	Fierce		War / Conflict
39	Temperature skyrocketed		Technology
40	Tools		Technology
41	Escalating temperatures		Technology
42	Heat dome		Technology
43	Thirsty sponge		Technology
44	Flip side of the coin		Technology
45	Oven-like heat		Technology
46	Trajectory		Technology
47	Elevated		Technology
48	Cooking the planet		Technology
49	Like a light itself		Technology
50	Giant experiment with a sample size of one		Technology
51	Atmospheric blankets and holes		Technology / Fear
52	Heat-trapping blanket		Technology / Fear
53	Fry an egg on the sidewalk		Technology / Fear
54	A bigger fight is brewing		Technology / Conflict
55	Cascade of ecological repercussions		Nature
56	Carbon footprints		Nature
57	Hitting the heart		Nature

58	Bellwether for the future		Nature
59	Human footprints		Nature
60	Finger prints		Nature
61	Disaster		Nature
62	Turbulence		Fear / Nature
63	Turn off the sunshine		Nature / Technology
64	Gateway to hell		Religion / Technology
65	Sin		Religion
66	A huge testament		Religion
67	Wimpier		Weak / Coward
68	An inconvenient truth		Humane
69	Revendications		Anger

Figure 4.1

Metaphors in National Geographic Magazine

The word cloud in Figure 4.1 shows the categorized metaphors used in the National Geographic Magazine articles. As can be seen, discourses of war, conflict, and fear dominate the metaphorical domains in these articles. Similarly, technology, heat, and nature are also adding to the contextualization of Climate change in these metaphors.

4.2.2 Metaphor Analysis

As can be observed from the table above, the most frequently used category in metaphorical language is "fear". Fear has been created through the use of metaphors such as haunt, angry beast, fiery, and havoc. Penalty, death sentence, and a house on fire, etc. Finding these metaphors of fear corroborates with many previous studies. It reinforces the narrative that fear, urgency, panic, and other harsh words are used to create an urgency and create the frames of perception. Similar findings have been noticed in the existing literature as well (Cossu, 2016; Flusberg et al., 2017; Skinnemoen, 2009). Studies have also been critical of the use of "fear" to instill consciousness among people regarding climate change and environmental degradation (O'Neill & Nicholson-Cole, 2009). However, in the case of the corpus for this research, fear is also linked to conflict, disease, and fear of the unseen.

Table 4.2

Metaphor Analysis

S/No.	Metaphor	Source Domain	Target Domain [Climate Change]	Mapping / Framing	Implications
1	The specter of climate change now haunts	Fear (Ghost, eerie presence, ominous and lingering)	Present, dangerous, active	Lingering threat, unpredictable	Emotional, historical inaction, mobilizing action, discourse from real to abstract or emotional

2	Tipping point	Fear (A slight push can cause the system to collapse or overturn)	Earth has reached the threshold, and a further increase in greenhouse gases will cause rapid and irreversible damage	Non-linear change, irreversibility, large impact of small increase	Urgency, immediate reverse action needed, risk, uncertainty, policy communication needed
3	Freight train of heat	Fear (an immense, unstoppable, and powerful force	Intense and relentless heat is building up on Earth	Non-stop momentum, destructive force, inevitability	Urgency in mitigation, evoke fear and risk, scientific framing, policy implications
4	Angry beast	Fear (wild, unpredictable, and powerful animal)	Uncontrollable and violent force	Unpredictable, uncontrollable, violent, risk, immediate action	Emotional impact, urgency in action, perception of nature's retaliation, climate change as a singular element (rather than a multi-aspect)
5	Pyrocene (future age of fire)	Fear (image of rapidly spreading fire, uncontrollable, engulfing the entire earth)	The future predicted by an intense period of fire	Dominance of fire, irreversible damage, human and ecological damage	Warning of a new era of fire, urgency of action, reframing climate discourse, policy, psychological, and cultural impact of destruction by fire

6	Fiery signature	Fear (same as Pyrocene)	same as Pyrocene	Same context as Pyrocene	same implications as the Pyrocene; however, an ongoing process
7	Climate rocked up	Fear (arrives suddenly, unexpectedly, includes elements of sudden disruption and surprise entry into the scene)	Sudden ways in which climate change events have become visible	Unexpected appearance, disruption of normalcy, visibility, and urgency	Heightened awareness and immediate action, public awareness, over-simplification, and normalization of risk
8	Haunting music	Fear (Eerie, lingering, and lasting impact, invokes fearful emotions, tones of mystery and warning)	Climate Change is leaving a lasting and scary impact on life	Lingering presence, emotional impact, atmosphere of complexity	Deeply emotional. Lasting memory, sense of warning, call to reflection, and action
9	Cataclysm	Fear (Sudden violent event causing destruction, such as the Earth getting hit by an asteroid)	Incremental climate change can lead to a sudden, devastating impact	Sudden and overwhelming impact, irreversibility, global scope, and impact	Sense of urgency, psychological impact of helplessness, action policy, and public discourse

10	Roasting and threatening	Fear (Evoking images of long exposure to heat, high temperatures, and burning)	Subjecting the earth and its residents to unrelenting heat has with impact on health, life, and the economy.	Prolonged exposure, intensity, and damage, imminent danger, call to caution.	Heightened impact, emotional urgency, policy framing, and oversimplified discourse
11	Marred	Fear (Spoiled, damaged, and disfigured)	Environmental damage leaves visible scars on ecology and life	Damage and scarification, loss of pristine quality, visibility of impact	Urgency of restoration, emotional and moral impact, accountability and warning, framing discourse for policy
12	Havoc	Fear (widespread chaos, disorder, and destruction; images of remains after a catastrophic scene)	Unpredictable and devastating impact on human life and ecosystems	Widespread disruption, destructive impact, loss of control	Urgency for change and adaptation, emotional and psychological impact, policy and public discourse, and oversimplification
13	Penalty	Fear (punishment for breaking the rules)	Climate change is a punishment for our unsustainable practices, overconsumption, and ecological ignorance.	Cause and effect, cost of inaction, moral and ethical judgment, accountability, and inevitability	Urgent policy discourse, moral responsibility and accountability, public perception and behavioural changes,

					oversimplification, a catalyst for punitive action
14	A death sentence	Fear (a formal irrevocable decree, ultimate punishment, shows finality, and loss as a consequence of severe wrongdoing)	Rendering the future generations to severe punishment	Irreversibility, doomsday scenario, accountability and judgment, urgency, and preventive action	Mobilization through urgency and action, moral and ethical framing, policy implications, and risk of fatalism
15	Hazard	Fear (potential danger, risk, and harm)	indicators of the environment and ecology, such as rising sea levels and extreme weather conditions	Uncertainty and danger, risk, possibility of damage, preventive action	Emphasis on risk management, public and policy awareness discourse, balancing fear with practical solutions, and encouraging multisector collaboration

16	Dog days of summer	Fear (hottest and most oppressive part of summer, associated with the rising of Sirius - the dog star, the hottest and lethargic days, sweltering heat	Increasingly prolonged heat and flooding caused by climate change	Heat, physical and social destruction, flood,	Historical discourse, awareness, call for action, policy, and infrastructure needs
17	House on fire	Fear (immediate and rapid destruction of domestic/ personal space)	Earth is our home, and its ecosystem is getting irreversibly damaged	Immediate urgency, visible and tangible impact, irreversible	Emotional impact, personal space, mobilization discourse, policy, and action are needed
18	Weather whiplash	Fear / Disease (sudden and rapid motion, shock, and loss of stability	Rapid shifting of the weather from one extreme to another extreme	Abrupt transition, unpredictable, instability	Increased vulnerability, economic and social disruption, adaptive strategies, and a powerful tool to communicate climate change
19	Darker side of the sun	Fear / Unseen (The life-giving qualities of the sun are hidden; dangerous and	Never-before-seen consequences of climate change, a	Contrast between light and dark, hidden dangers,	Rising awareness of hidden dangers, preparing for the unforeseen, and caution

		destructive qualities are visible.	doomsday scenario	complexity, and uncertainty	
20	Curse	Fear / Hardship (A deliberate malevolent spell or condemnation causing misfortune, suffering, or harm	Extreme weather and natural calamities are not random acts but have been cast upon us due to our actions.	Retribution and moral judgment, inevitable and persistent, haunting legacy	Moral responsibility, call for action, risk of fatalism
21	Inexorably stacked the deck.	Fear / Conflict (Predetermined and biased outcomes, unfairness with little room for chance	Unsustainable practices, the absence of policy, and industrial practices have led to predetermined outcomes against the ecology and climate change.	Inevitability of negative outcomes, systematic bias and unfairness, cumulative impact	Urgency discourse, structural injustice, and fatalism
22	Loading of the climatic dice	Conflict, same as serial 21 above	Same as serial 21 above	Same as serial 21 above	It's the same context as serial 21 above
23	Heat pummels	Fear / Conflict (Repeated forceful blows, aggression, intensity, and	Heat bombards the environment repeatedly	Relentless assault, damage, and disruption, loss of resilience	Sense of urgency, emotional impact, policy preparedness, and

		relentless impact)			communication of severity
24	Blow	Fear / Conflict(Sudden forceful strike, shock, setback)	Unexpected impact, vulnerability	Sudden impact, shock and disruption, setback or obstacle	Heightened urgency, emotional, physical, and psychological discourse, and policy preparedness
25	Crisis	Fear / Conflict (Turning point marked by intense uncertainty and danger, urgent, irreversible challenge	A series of extreme and overlapping environmental disruptions	Sudden disruption and turning points, compounding challenges,	Heightened mobilization and urgency. Risk of fatalism, policy, and structural change. Emotional and psychological impact
26	Game on	Fun (Structured challenges, defined objectives, strategy, cooperation, and adaptability	Policy making, technological innovation, societal shifts, and international cooperation to reduce the climatic impact	Initiation of active engagement, defining moment, collective action, strategic planning and adaptability, collaboration, and cooperation	Sense of urgency, empowerment, and motivation, risk of over -over-simplification of a complex issue

27	Playing out in real time	Fun (immediacy, transparency, and events unfolding in real time	Non-traditional understanding of Climate Change is not as a slow, gradual, and visible process	Immediacy and urgency, visible and transparent impact, ongoing process	Policy discourse, increased public engagement, accountability, and risk of overwhelming
28	Pressing	Technology / Fear (The mechanics of pressing means a continuous forceful pressure, potential to transform the object over time, urgency.	Environmental and social stress, systematic transformation	Continuous force, imminence and urgency, stressful transformation	Immediate action, highlighting vulnerability to stress, policy, and moral discourse
29	Powerful and Deadly	War / Conflict (points to natural disasters, military weapons, and predatory animals capable of causing irreversible damage	Intense global events, superstorms, heatwaves, wildfires, ice melt, etc.	Intensity and severity, showing urgency, changing perception	Action and policy discourse, inducing fear and fatalism in communication,

30	Vampire summer	Fear / Danger (Mythic creature draining life, energy, and vitality, leaving behind death and hunger)	Extremely hot, and a summer that drains the energy, leaving food and water shortage	Draining resources and energy, an unbeneficial summer, continuous lethal impact	Urgent mitigation discourse and public engagement are needed; the audience might feel this as irreversible, causing risk of fatalism, a need for adaptation, and resilience.
31	Batter	Fear / Failure (Striking and hitting forcefully and repeatedly to cause irreparable damage)	Extreme weather is causing disasters	Relentless impact, combined damage, irresistible	Urgency in policy, mitigation, and adaptation, awareness of cumulative impact
32	Cancer is eating what is left of the glacier.	Fear /Disease (uncontrolled and invasive growth, internal decay, declining health	Fragility of glaciers, rising temperature	Invasive destruction, irreversible damage, system decay, and destruction,	Urgency discourse, moral and emotional weight, call for intervention, system vulnerability, and oversimplification

33	Weapon to fight climate change	Fear / War (strategic employment to neutralize the enemy)	Not as a tool of violence but to fight the factors causing climate change, policy tools	Powerful and effective strategic planning. Transformation of tools to benefit	Empowerment through mobilization, urgency, and innovation, risk of militarization of narrative, moral, and ethical considerations
34	War	Fear / War (same as serial 33 above)	Same target domain as serial 33 above	Same as serial 33 above	Same implications as serial 33 above
35	Frontline	War (Direct impact and exposure to risk)	Both communities and affected ecosystems include activists, policymakers, and vulnerable populations.	Directly exposed to threat, high vulnerability, protection needed	Urgency, mobilization, unequal exposure, solidarity, military narrative
36	Time bomb	War (Countdown process, inevitable detonation, opportunity to intervene)	Limited window for action, gradual build-up, and tipping point threshold	Finite time left for action, limited possibility of diffusing the bomb, urgency of response	Mobilization for immediate action, public awareness, militarization discourse, fatalism, and immediate strategic policy

37	Environmental violence	War / Conflict (Characterized by international aggression causing suffering, injury, and loss)	The devastating impact of industrialization, transportation, carbon emission, etc., all acting like an attack on the environment, causing systemic injury and harm	Aggressive devastation, intentional actions, accountability, systemic harm	Discourse of moral public outrage, demand for accountability, potential for international polarization, urgency for transformation and action
38	Fierce	War/ Conflict (Intensity in aggression, relentless and unpredictable, emotional impact)	Extreme weather events, rapid environmental degradation, and ecological and societal impact	Unpredictable, intense, urgent, emotional, and psychological impact, relentless	Discourse of urgency, policy, and mobilization, risk of communicating fatalism, high need for resilience, communicative balance needed
39	Temperature skyrocketed	Technology (Rapid ascent, uncontrolled and increasing surge, visual and emotional impact)	Record-breaking increases, extreme weather and temperatures, and visual global warming	Alarming and rapid change, urgency in action, sudden shift from gradual to abrupt	Awareness, policy, adaptation, and mobilization discourse, oversimplification of the complex phenomenon

40	Escalating temperatures	Technology (Rapid increase, intensity, and momentum increase with the passage of time, urgency, and alarm	Rising global temperatures. Extreme weather events, systemic stress	Direct correlation with the visible changes, dynamic, and unstoppable change, demands immediate action	Public urgency, awareness, and policy discourse, risk of oversimplification of a complex problem
41	Elevated	Same as Serials 39 and 40 above	Same as serials 39 and 40 above	Same context as serials 39 and 40 above	Similar implications to serials 39 and 40 above
42	Tools	Technology (Characterized by human ingenuity, adaptability, and innovative development)	Renewable energy usage, carbon footprint reduction, carbon pricing, and community-led educational campaigns	Focused on problem-solving, innovation and empowerment, adaptability, and versatility	Optimism in technology, call for innovation and investment, holistic approach, risk of oversimplification
43	Heat dome	Technology (A high-pressure and temperature system, encapsulates and traps heat in a certain area for a long time,	Trapped heat amplifies the impact, directly impacting the ecosystem and human beings.	Containment of extreme heat, severity, and immediacy, visual, emotional, and immediate impact	Mitigation, adaptation, urgency and policy discourses, public awareness and inclusion, risk communicating hopelessness, and

		containment and intensity)			technological investment
44	Heat-trapping blanket	Technology / Fear (Insulation of heat, layers of heat effect, and comfort compromised)	Atmospheric insulation, accumulating effect, climatic impact	Greenhouse gases trap heat, carbon emissions, and disrupt comfort	Direct impact on human life, enhanced yet oversimplified understanding
45	Oven-like heat	Technology (Concentrated and intense, enclosed environment, transformation, and pressure,	Prolonged high temperature, intense and hot events, stress on life systems, both for human beings and ecology	Concentration of heat, sustained and prolonged exposure, and transformative impact	Increased health, emotional, visual, and physical discourses, urgency, call for mitigation, and risk of oversimplification
46	Cooking the planet	Technology (Human actions, altering and breaking the composition, need for external control)	Global warming, slow heating, overcooking/ burning, human control over heat	Disaster, irreversibility, urgency	Scientific, activism, media, policy, and technological discourses are highlighted.

47	Gateway to hell	Religion / Technology (Extreme fire and heat, suffering and tormenting, irreversible, punishment for wrongdoing)	Severe and deadly consequences of rising temperatures, massive scale, suffering, and inescapable	High-stakes, condemning humanity to an unlivable future, invoking fear and corrective action	Activism, scientific, religious, and moral, media and public discourses, possibility of corrective action through political and policy discourse
48	Fry an egg on the sidewalk.	Technology / Fear (Extreme surface heat, direct sunlight exposure, visual and relatable imagery)	Human impact on the environment, escalating extreme temperatures	Intense heatwaves, surface heat transfer, urgency in action	Public awareness, scientific discourse inability of the sidewalk to cook eggs
49	Thirsty sponge	Technology (Everyday object, great absorption capacity, desperate for hydration, readiness, and efficiency)	Stress of drought and water shortage, soil, vegetation, and environment are vulnerable, urgency in water management	A parched and thirsty sponge absorbs water; a thirsty landscape or community uses all available moisture, symbolic vulnerability, immediate need vs. supply shortage.	Discourse for public engagement, urgency, policy intervention, investment priorities, and risk of oversimplification

50	Flip side of the coin	Technology (Two distinct faces, interconnected duality, implications for trade-off and balance)	Dual outcomes of highlighting the devastating impact and the hidden or failed impact of policies and actions, trade-offs, complex, and interconnected	Climate change action has both benefits and drawbacks; a need for a balanced view, unintended consequences, and holistic solutions is needed.	Balanced decision making, risk awareness and management, public engagement, and potential risk of misinterpretation
51	Trajectory	Technology (Path determination, Predictability, possibility of altering)	Temperature trends, emission pathways leading to heat, and action	Directionality, momentum, and inertia, course correction	Scientific discourse, urgency in action, predictive in nature, empowerment, risk of determinism, with a limited possibility of change
52	Like a light itself	Technology (Brightness and visibility, technological correlation, auditory, as the light attracts attention without speaking)	High-profile awareness, technological solutions, and media coverage	Symbol of hope, visual and auditory, attention seeking, urgency, and immediacy	Technological, auditory, and visual discourses, potentially overwhelming, enhanced, and existing public awareness

53	Giant experiment with a sample size of one	Technology (Scientific and controlled experiment, need for a large sample size, replication impossible)	Global scale, irreversibility, uncertainty	In this scientific experiment, the sample size is only earth, risk, and uncertainty.	Extreme degree of precaution needed, ethical responsibility, policy, and action, discourse of change highlighted
54	Atmospheric blankets and holes	Technology / Fear (Combination of two distinct yet interconnected phenomena)	Greenhouse effect, ozone depletion, possibility of harmful radiations, and complex scientific changes	The protective layer, human impact, is causing the problem	Public understanding and confusion, policy and action discourse
55	A bigger fight is brewing.	Technology / Conflict (War-like scenario, tension increasing, impending clash, signals intensification)	Struggles over policy, activism, and resistance, multiple stakeholders involved, scientific warning, protests, and protests increasing	Tension between the government for resource extraction and development, and public activism, lawsuits, and worsening climate conditions	Multiple contesting activism, corporate and political, and scientific/policy, and media/public discourses

56	Cascade of ecological repercussions	Nature (Flowing waterfall, gaining momentum, inevitable, unstoppable)	Environmental disruption, melting glaciers, deforestation, rising temperatures, and acidification of oceans	Gradually increasing in intensity, a lack of control, inevitable, impossibility of reversal	Multiple interconnected discourses of science, activism, policy and media, industrial, and corporate.
57	Carbon footprints	Nature (visible signs, varying in size and intensity, can fade over time or remain forever, human agency)	Every action leaves a lasting mark, possibility of human intervention, and reduction of impact, some effects larger than others.	Responsibility issue, neutral and technical, scientific	Scientific activism, reversibility, media and public, policy, and government discourses
58	Hit in the heart	Nature (Life and survival, emotional connection, centrality, shock, and damage)	Amazon Forest, "lungs of the earth," deforestation, polar ice melting, and food and water supply are disrupted.	Vitality of the earth, protecting the core, fragility, and consequences of damage	Physical, moral, emotional discourses, activism, media, awareness, and protection
59	Bellwether for the future	Nature (Bring ahead of group moving to top priority, serving as a warning signal,	Indicators of extreme weather conditions, polar ice and glaciers melting, and	Progressive climate impact, crises at hand, preventive	Activism, scientific, media, and public discourses, corporate and

		predictive, and forecasting in nature)	biodiversity degradation		economic responsibility
60	Human footprints	Nature (Permanence, traceability, variable size, and scale)	Lasting impact, measurable, size, and volume are important to be noticed and measured	Accountability and responsibility, sustainability, and the possibility of reduction	Human, awareness, policy, and government intervention discourses
61	Finger prints	Nature (Uniqueness, identification, tractability, evidence, inescapability, detection)	Human activities leave traceable marks, and damage can be traced back scientifically, distinct from other species' observable marks.	Human agency is central, accountability, irreversibility and permanence, urgency in detection and reduction.	Scientific activism, human intervention, awareness discourses, media, policy, and governance
62	Disaster	Nature (Catastrophe, suddenness, wide-ranging impact, loss and destruction, crisis necessitating urgency)	Immediate impact, unpredictability, widespread destruction, urgency	Immediate and sudden threat, crisis management, humanitarian-centric, emergency	Humanitarian discourse, activism, awareness, prevention, intervention, and economic losses

63	Turbulence	Fear / Nature (Chaotic, unpredictable, and unstable movements, forceful and disruptive, uncomfortable, and unsettling	instability and uncertainty, environmental and social impact, discomfort, and threatening	A force beyond control, destabilizing, disruptive, instability in the system, imminent threat, limited preparation	Scientific discourse, activism, awareness, preparedness, policy
64	Turn off the sunshine.	Nature / Technology (Disruption in life-giving energy, consistency and dependability, inescapable force)	Blocking sunlight - geoengineering, global warming, control, and intervention	Unnatural intervention, drastic impact, environmental control and manipulation, solar radiation management	Scientific and nature discourse, activism, governmental policy, and technological control
65	Sin	Religion (Moral wrongdoing, guilt and responsibility, judgment and consequences, redemption and atonement)	Human actions are ethically questionable; humanity is responsible for climate change, the a need for redemption.	Moral failure, guilt and responsibility, punishment, and consequences	Religious, moral, cultural, and ethical discourse, activism, awareness, and motivation

66	A huge testament	Religion (Evidence of truth, authoritative declaration, irreversibility, moral and legal weight)	Scientific evidence, natural disasters, and visible environmental changes	Irrefutable proof of climate change, deceleration of responsibility, permanence, and consequences, moral and social obligation	Scientific and academic discourses, activism, awareness, media, political, and policy discourses
67	Wimpier	Weak / Coward (Inability to withstand stress or pressure, fragility and vulnerability, inadequate preparedness and response)	Vulnerability of the ecosystem and biodiversity, infrastructure, and human activity causing change, and insufficient human action	A gradually weakening force, a test of endurance, failure, and inability to respond forcefully and decisively	Activism, scientific, human, and cultural discourses, governmental intervention, and policy
68	An inconvenient truth	Humane (Discomfort, disruption, inconvenient, reluctant effort)	Climate change is scientifically proven, irrefutable, and major changes	Unavoidable, disruptive, truth, evidenced	Scientific, moral, and activist discourses, public awareness, and media discourses
69	Revendications	Anger (Forceful demands, claims, justice, and reparation)	Climate justice, scientific transformation, demand for accountability,	Social injustice, unfairness, and accountability are demanded	Environmental activism, political, moral, and corporate responsibility discourses

The tabular analysis above shows that a majority of metaphors have been used to create a sense of ‘urgency’. This urgency further calls for ‘policy’ intervention discourse. The desire for Climate Change policy reforms originates from the Paris Agreement (2015). Similarly, activism and action have been solicited in these metaphors. The causal-effect relationship implicates human beings, technology, industrial and economic development, and similar “destructive discourses” (Stibbe, 2015). Human involvement in Climate Change has been signified by the use of metaphors such as ‘footprint’ and ‘fingerprints, whereas moral arguments include truth, sin, and hell, etc. To add to the sense of urgency, certain militarization metaphors have been used in the National Geographic Magazine. These metaphors directly or indirectly use texts containing militarization terms such as war, frontline, fight, battle, and similar terminology. Aligned with the increasing human interest in technology, many articles in National Geographic Magazine use technological approaches while using metaphors. Words such as skyrocketing, tools, heat dome, heat blanket, and Pyroxene, etc., add to the urgency, even offering technology to show development. Additionally, many metaphors have been contextualized, showing irreversible loss or damage likely to be caused by Climate Change. Another vital aspect of metaphor study is the need for adequate and culturally sensitive communication. It has been observed that certain metaphors tend to oversimplify a complex scientific or environmental phenomenon. These findings correspond to the previous analyses of the metaphors in Climate Change literature (Pan & Lin, 2025; Shaw & Nerlich, 2015; Zurru, 2024).

To substantiate these findings, the metaphor analysis has been rendered as a word cloud, and the data triangulation results are shown below.

Figure 4.2

Metaphor Analysis

Figure 4.2 above has been generated based on the text from Table 4.2 above. The size of the cloud text shows the repetition and emphasis generated by these metaphors. As can be seen through this visual representation, metaphors have been used to show impact, urgency, and the need for policy. The need for creating awareness among the masses has been amply signified. However, most of the Climate Change is a result of the global and country policies, and the masses have little influence on these policies. In an ongoing debate, many developing countries or the new and emerging economies have been blamed for Climate Change and rising temperatures. These nations, in turn, implicate the developed countries for using coal and adding to greenhouse gases, ozone depletion, and deforestation for industrial development (Albritton Jonsson, 2012; Nath & Behera, 2011; Sagar et al., 2005). Briefly, fear and urgency dominate the metaphorical analysis in National Geographic Magazine.

4.3 Framing Climate Change – CDA of Descriptor

4.3.1 Overview

This subsection is a CDA of the descriptors (action/trigger words) used in the Paris Agreement and the 110 articles corpora to understand how these descriptors have been used for framing Climate Change in the National Geographic Magazine and in the Paris

Agreement. A corpus word list was used to search for descriptors for actions, and through reading the articles as well. The list of descriptors is attached as Annexes B and C at the end. A concise representation of all the selected descriptors is shown in the cloud shown below.

Figure 4.3

Descriptors – National Geographic Magazine *Paris Agreement 2015*

The descriptors shown in the figure above have been used to frame the issues related to climate change. The predominant trigger/action and words of concern while framing are visible based on the repetition frequency. Besides the core issue of Climate Change, the planet, carbon emissions, nature, the will to work together, and shared responsibility stand out among others. It is important to note that the narratives, frames, and discourses surrounding Climate Change are not only representing environmental truths but are deeply embedded in language – the ecolinguistics of framing. The extensive list of these trigger and action words was prepared through repetitive readings and by using the word frequency list, concordance and collocate features of the corpora in LancsBox X. These descriptors work as conceptual blocks used for framing the concepts of urgency, responsibility, possibility, awareness, and education, and therefore participate actively in the world we live in and in making sense of this world.

4.3.1.1 Urgency

The terms used as descriptors, such as ‘most urgent’, ‘as soon as possible’, ‘immediate’, ‘fast action’, ‘special responsibility’, and ‘driving sense of urgency’, create pressure based on time, showing that the window for action will close soon. Such framing,

besides creating a sense of urgency, can also lead to anxiety. On the one hand, it urges the stakeholders towards rapid action, whereas it also tends to foster a sense of fear, despair, and sometimes helplessness on the other hand. This duality is a characteristic of ambivalent discourses, which, while seemingly positive, can sometimes lead to negative consequences because they are focused on short-term plans instead of long-term strategies. Similarly, framing urgency has also been exhibited in these articles by the use of descriptors such as 'swiftly cutting emissions' and 'radically cut carbon dioxide emissions'. When such solutions are planned solely based on technology and market-based (economic) solutions, they effectively marginalize transformative long-term social change, mandating changes in lifestyles for sustainability. As can be noticed in the Paris Agreement cloud the language has been used to officially moderate the treaty among many nations.

4.3.1.2 Ethical, Environmental Justice, and Economic Frames

The use of descriptor phrases such as 'protect the integrity of the ecosystem' and 'restore nature to protect the planet' ethically frames the ecological issues. Such issues need to be addressed in conjunction with reduced consumerism, such as reduced meat consumption and the purchase of locally produced items, to alter the socio-economic dimensions. Intertwined with the ethical framing is the presence of economic frames focusing on economic growth. The use of terms such as 'pledge to net zero emissions' and making finance flow consistent' are attempts to reconcile economic dimensions with environmental issues. This also points to the economic systems deeply impacting the environmental issues. The challenge here is to prevent the economic interests and discourses from overshadowing the environmental and Climate Change concerns. Synthesized with the ethical dimensions of framing, environmental justice also appears to play a vital role in framing. Descriptors such as 'win-win for nature', 'restore balance to the natural world', 'develop an equitable response', and climate reparations' point to the ethical and justice-related responses and actions.

4.3.1.3 Criticality

Many descriptors emphasize the critical nature of solutions. References to 'solutions are crucial', 'radically cutting carbon dioxide emissions', 'reverse global warming', and 'achieving carbon neutrality' place Climate Change with specific yet critical

targets that must be obtained. Besides evoking urgency, these descriptors call for critical and aggressive actions. The frame, therefore, points to the enormity of the problem and suggests decisive and collective actions. Such frames are designed to initiate political actions and coordinate ambitious efforts.

4.3.1.4 Tradition and Knowledge

Descriptors used in National Geographic Magazine articles also underscore the need to integrate indigenous and traditional wisdom in finding environmental solutions. Phrases such as 'practicing living knowledge', 'return to traditional practices', 'ancient practice becomes reality', and 'combine customary knowledge with modern tools' highlight this frame. Such frames signify historical methods as time-tested relics from the past that can be vital sources for environmental preservation. These frames also challenge the excessive reliance on modern technologies to solve the issues related to Climate Change.

4.3.1.5 Shared Responsibility

Another vital framing tool has been used in the articles focusing on shared action and shared responsibility. Descriptors such as 'bring together communities', 'work together', 'collective action', everybody must share the burden', and 'share the responsibility for the problem' promote the idea that all of us are in this together and we must share collective responsibility and action. This frame emphasizes that no single actor, country, or individual has the solution; instead, combined efforts are needed. This frame promotes solidarity but also seeks to redistribute the blame, whereby some critics suggest that the current Climate Change is a result of industrial development and economic growth of some large countries (Cao, 2003; Khan et al., 2016).

4.3.1.6 Metaphors

Multiple descriptors used in the articles invoke an imagery of metaphors and serve to caution as well as inspire action. For example, 'with guns to our heads, we can stop driving and flying', 'trees like the little workhouses or lungs', and 'seaweed is salvation' use imagery to highlight extreme behaviors and natural processes supporting the life systems on earth. However, as observed in the analysis of the metaphor section, the use of

metaphors can also result in an oversimplification of complex scientific and environmental issues, thereby reducing their effectiveness or creating fear, anxiety, or confusion among the masses.

4.3.1.7 Technology

Many technological descriptors have been used to frame the Climate Change solution through technology. Use of ‘new plan for clear energy,’ ‘scientists want to copy the resilient plants’ to help engineer our future,’ and ‘using music to convey messages about the potential of technology to harness our core concerns in Climate Change. However, excessive reliance on the technology framing using descriptors such as ‘surefire strategy’ and ‘potentially elegant solution’ can alienate nations lacking in technology, besides prioritizing one solution over many other options, especially in attitudes and behaviors.

4.4 Summary

In summary, synthesizing these frames makes it evident that the language used for framing Climate Change is multi-dimensional and often ambivalent. It represents it as an urgent and global issue that needs collective and critical actions to solve this problem. On one hand, it offers a sense of hope, possibilities, and restoration of nature to its original pristine form; on the other, its reliance on economic approaches and technological engagements limits the possibilities of deeper structural and behavioral changes urgently needed to address the core issues. The next chapter is a CDA of the discourses in the National Geographic Magazine articles and the Paris Agreement.

CHAPTER 5

DISCOURSES: DATA AND DATA ANALYSIS

5.1 Overview

This chapter is a corpus-assisted CDA, which responds to the third question of the research. In the first part, this chapter examines the harmful, ambivalent, and beneficial discourses in 110 articles published in National Geographic Magazine between January 2016 (immediately after the signing of the Paris Agreement in December 2015) and August 2024. In the subsequent part, this chapter examines the discourses in the Paris Agreement and the articles of National Geographic Magazine discourses and presents the findings related to concords and discords between both corpora.

5.2 CDA– Data and Methodology

As argued by Richardson (2007, p. 21), the field of discourse and discourse studies is methodologically, analytically, and theoretically diverse. He further argues that the concept is vigorously contested and encompasses "different – and sometimes radically different – accounts" defining discourse. This research draws on Stibbe (2015, p. 22) and contends that the "discourses are standardized ways that particular groups in society use language, images and other forms of representation". Similarly, in analyzing large corpora, it is important to curtail the scope of the research and set the boundaries to keep the focus on the most desirable aspects. To this end, the (destructive, ambivalent, and beneficial) discourses being analyzed in this research have been chosen based on the ideology of Arran Stibbe's ecosophy. For this research, ideology has been defined as the "belief systems about how the world was, is, and will be or should be which are shared by members of a particular group in society" (Stibbe, 2015, p. 23). Similarly, it is also vital to operationalize ecosophy as it has been conceptualized and theorized by many scholars and forms the base for this analysis. The term "ecosophy" (short for philosophy of ecology) was defined by Naess (1995, p. 8), "by an ecosophy I mean a philosophy of ecological harmony….openly normative, it contains norms, rules, postulates, value priority announcements and hypotheses concerning the state of affairs…The details of an ecosophy will show many variations due to significant differences concerning not only the 'facts' of pollution,

resources, populations, etc., but also value properties. This research draws on Stibbe (2015, pp. 13-15) to explain the concept of ecosophy in one word – "living". The ecosophy of living does not only mean being alive but is intricately associated with the concepts of valuing living, wellbeing, living for now and future, caring for all living beings, setting the environmental limits, social justice in consumption, and the continuation of living through resilience.

Aligned with the analytical underpinnings and ecosophy adapted from Stibbe (2015, pp. 10-15 & 22-42), a CDA has been conducted for all three – destructive, ambivalent, and beneficial discourses. CDA concerns these discourses in multiple ways including the "perspectives on the world" (Fairclough, 2003, p. 124); "particular constructions of versions of reality" and "a coherent way of making sense of the world" (Locke, 2004, p. 1 & 5); "a practice of constituting and constructing the world" (Fairclough, 1993, p. 64); "models of the world" (Machin & Mayr, 2012, p. 5); and "ideologies" (Stibbe, 2015, p. 23). There is also an argument in the literature that the term 'critical' does not necessarily imply opposing or being negative, and as argued by Ruth Wodak, "proposing alternatives is also part of being critical" (Kendall, 2007, p. 17).

A majority of the work in CDA highlights how discourse can lead to exploitation and oppression. The purpose of CDA is to understand and resist the discourses that are harmful to their ideology and values and oppress them, and therefore, the emphasis of ecolinguistics is on the 'beneficial discourses'. It is also worth mentioning that this research is unbiased and contends that none of the ideologies and discourses that are deconstructed through this study are bad or good in their own right. They have only been considered beneficial if they resonate with the principles of ecosophy as mentioned above, and destructive or bad if they are incompatible with, work against the principles of ecosophy, or are opposed to it. Against this backdrop, the following subsections present a critical analysis of the discourses in the text of National Geographic Magazine.

5.2.1 Destructive Discourses

There is an ongoing argument in the literature and in the ecolinguistic discourses that one of the major causes of our ecological, environmental, and other allied problems is humanity. As contended by Plumwood (2007)

> "Arguably, the distinguishing feature of Western culture, and perhaps also the chief mark of its ecological failure, is the idea that humankind is radically different and apart from the rest of nature and from other animals. The idea, sometimes called Human Exceptionalism, has allowed us to exploit nature and people more ruthlessly (some would say more efficiently) than other cultures, and our high-powered, destructive forms of life dominate the planet. Exceptionalism seeks unlimited power over nature, but sometimes having power is not good for you, especially if you do not really know what is going on or what keeps it all together".

Many discourses in ecolinguistics can be considered as destructive; however, for focus and brevity, this research considers discourses such as economics/economy, industry/industrial, industrial (extensive) agriculture, consumer, and tourism. These discourses have been extracted from the corpus using the collocate function of the LancsBox X. Collocates show the range of words before (left) and after (right) the discourse token. A contextual understanding of these words was further examined through the concordance function in the corpus. Stibbe (2015, pp. 24-29) discusses the destructive discourses and also enlists economy, consumerism, industrial agriculture, and mining, etc. The relevant hits were selected for the analyses.

5.2.1.1 Economy

Table 5.1

Destructive Discourse – Economy

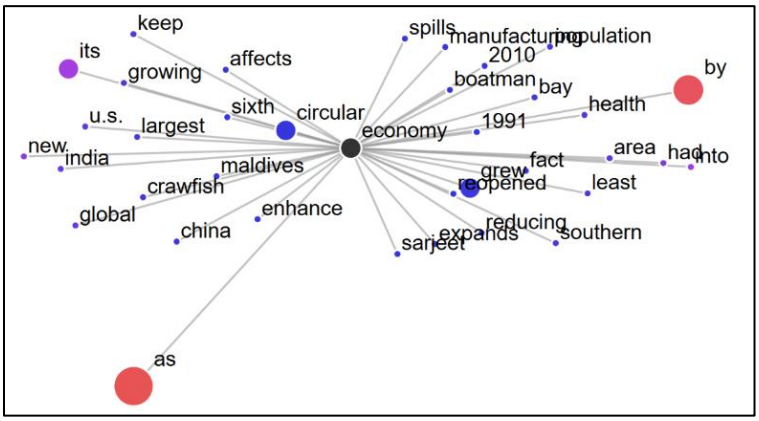
Left	Discourse	Right
The Alabamians built a new	economy	and a "Magic City." It
The feature was about the circular	economy.	Bay Area artist John Chiara
harvest, and that affects our	economy	as a whole. So we
powerhouse and the sixth largest	economy	in the world. per capita

drop in emissions even as its	economy	grew by 60 percent. Regulations,
marijuana fields that keep the	economy	of southern Oregon afloat. Firemen
manual labor fuels India's	economy	Boatman Sarjeet Singh ferries people
to increase steeply as the	economy	expands and the population grows
Temporary. By July, China's	economy	had reopened, and air pollution
of climate change on the national	economy	(1991-2010)
under construction as the growing	economy	and the population is
Fossil fuels cost the U.S.	economy	at least $240 billion
been a part of the	economy,	But it had suddenly grown
Into the atmosphere. "The circular	economy	of it is the beautiful
has disrupted everything—from the	economy	to health and education. The
every sector of the global	economy,	from manufacturing to agriculture to
and 2018, even as its	economy	grew by 75 percent. The
phase-out to "enhance the	economy."	And the kingdom maintains a
an "abnormal burden" on the	economy	by reducing its income from

The table above shows collocates of economy. As is evident that most of the words associated with the economy show an urge/desire for growth, putting a burden on the natural resources. A pattern developed around the economic discourse can be observed when analyzing the 110 National Geographic Magazine articles. Recurring phrases such as 'circular economy', 'new economy', and 'global economy' stand out and lead to a desire for growth, productivity, and expansion. The economic progress is idealized and prioritized when these words are collocated with the 'growing', 'expanding', and 'fueling' in the narrative. Even the core ecolinguistics concerns, such as air pollution and a drop in emissions, are mentioned and sometimes subordinated to economic concerns.

Figure 5.1

Graphcol – Economy



A graphic representation (Graphcol as per LancsBox X, or graphic collocates) of some of the economy collocates is displayed in Figure 4.2 above. Economic discourses are considered destructive because they frame 'nature' as a resource to be harnessed for the larger benefit of economic growth. Collocates around the economy construct a worldview in which ecological and environmental concerns are generally relegated as secondary to economic priorities. Phrases such as "fossil fuels cost the US economy at least $ 240 billion" signify the economic burden rather than the ecological harm and destruction. Economic discourses are also constructed to portray a benevolent force that is necessary to sustain and support human life rather than an extractive force against the planet's ecology. This discourse is destructive since it undermines environmental and ecological harmony by reinforcing "anthropocentric" arguments that promote the planet's existence to serve

humanity (Stibbe, 2015, p. 12). A CDA, therefore, calls for examining the economic discourse to question how this discourse will adversely impact the ecology of the plant.

5.2.1.2 Industrial and Industry

Table 5.2

Industrial and Industry

Left	Discoruse	Right
picking our way through an	industrial	maze, we finally reach the
available can help. In an	industrial	park outside the Burkinabe capital,
to be a kind of	industrial	plantation, built on enslaved labor.
of Britain, birthplace of the	industrial	revolution, but with the bonus
is the riven soul of	industrial	capitalism on starker display than
sleepy river town to an	industrial	metropolis of two million people.
it remained so until the	industrial	revolution of the 18th and
by the Enlightenment and the	industrial	revolution, has become our overarching
Pollution in the form of	industrial	waste, urban sewage, and agricultural
than they were before the	industrial	revolution. This year, we saw
blunder into a labyrinth of	industrial	agriculture. Each day is a

Left	Discourse	Right
aquariums, universities and the tourism	industry.	At island resort Soneva Fushi,
require more investment in the	industry,	but there's reason to
by the demands of irrigation,	industry,	and daily life. Because of
entrance. And with the steel	industry	much diminished, and cars less
The daughter of a steel-	industry	worker, she was born in
ENERGY INFORMATION ADMINISTRATION; MINISTRY OF	INDUSTRY	AND ENERGY, RUSSIA; MINISTRY OF
wiping out the anchoveta fishing	industry,	a critical one for the
what's, today, a burgeoning	industry.	But even as crawfish's
spread beyond Louisiana, its farming	industry	and production has largely stayed
factory in Sindh. The textile	industry	as a whole accounts for
AgCenter estimated the state crawfish	industry	could lose $140 million

is filled with toxins from	industrial	plants along its shores, which
nonbiodegradable municipal garbage along with	industrial	refuse, such as paint sludge
well as modern biomass (agricultural,	industrial,	and animal waste converted into
generally reflecting income level and	industrial	activity. Yet electricity use is
to remove carbon dioxide from	industrial	emissions and the atmosphere. ‡Includes
atmosphere. ‡Includes nuclear energy, reduced	industrial	consumption, and other proposals Diana
of Australia; Commonwealth Scientific and	Industrial	Research Organisation; Nawarddeken Academy; North
a lot in Vernon, an	industrial	area near downtown L.A. where
surface water against downstream environmental,	industrial,	household, and irrigation demands. Amu
middle you have lots of	industrial	poles. So there is a
is designed for a pre-	industrial	climate. A massive flood of
to one of the largest	industrial	undertakings in all of history.
as the air before the	industrial	revolution. The Climeworks direct-air-
is designed for a pre-	industrial	climate. A massive flood of
parts per million, until the	industrial	revolution kicked off in the
machinery, the eerie glow of	industrial	work lights that illuminated the
heart feels like bursting." The	industrial	revolution brought more sweeping changes
of its population since its	industrial	heyday in the 1950s, has
impact on Earth. Since the	industrial	revolution dawned in 1850, our
since the start of the	Industrial	Revolution in the late 1800s,
in the early 20th century,	industrial	whalers drove most of Antarctica
And often these large-	industrial	facilities or roadways were what
outnumber white ones as the	Industrial	Revolution coated tree trunks in
°C above the pre-	industrial	average and the continued loss
2.7 degrees Fahrenheit) over pre-	industrial	times. Now, some climate experts
is getting hotter. Since the	Industrial	Revolution—an event that spurred
to generate electricity or power	industrial	manufacturing will need to be
in 10 years in pre-	industrial	times now occur some three

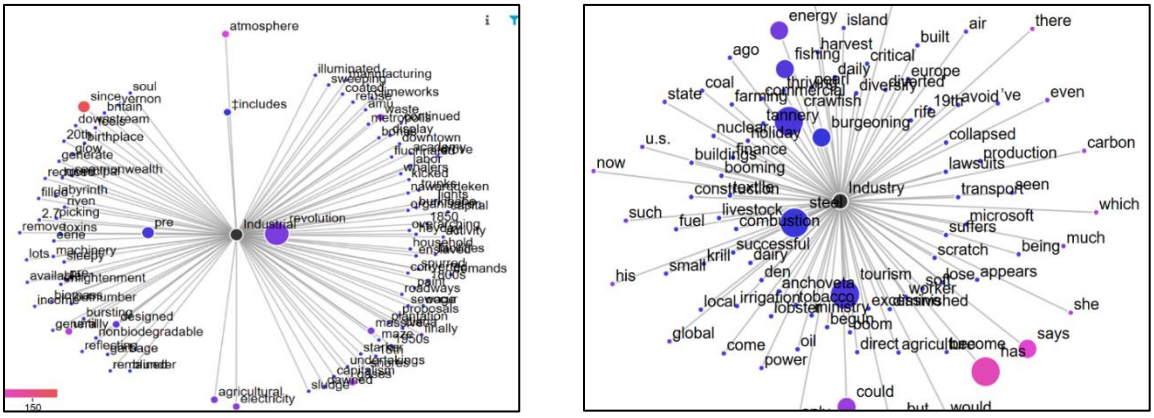
the heights of the crawfish	industry	's harvest schedule. But this
But this year, the crawfish	industry	's boom times have gone
to work in the tourism	industry.	The only road to remote
supplies India's booming construction	industry,	but excessive mining disrupts... Read
Includes efficiency gains in buildings,	industry,	transport, and power generation †Carbon
a scruffy, boisterous den of	industry,	built on buttons. "Back then
my food." After the pearl	industry	collapsed in the 1950s, many
for stabilizing the climate, the	industry	would need to expand on
's more, the U.S. livestock	industry	is rife with techniques that
years of experience in the	industry.	A soft-spoken man who
India's emissions come from	industry,	which is under increasing regulatory
to the iron and steel	industry	as a source of emissions,
help jump-start a global	industry,	Microsoft has promised to invest
comparable to the successful tobacco	industry	lawsuits that resulted in billions
lobster reproduction—the lobster-fishing	industry	appears to be flourishing. But
needed to start such an	industry	from scratch, and, as with
hopes to spur a commercial	industry	that one day could remove
but 60 years ago, local	industry	diverted the rivers feeding the
even nurture a small dairy	industry.	They've fed it to
most others in the krill	industry	to avoid fishing near penguin
But now the	industry	has begun attracting serious money,
such private investment the burgeoning	industry	has seen so far. The
replacing those in the coal	industry.	Direct air capture remains the
he argues, is that the	industry	suffers from a classic chicken-
the launch of the oil	industry	could become similarly known for
gathers to convince the finance	industry	that carbon plants aren't
for the country's energy	industry	to diversify from oil dependence.
emissions from fossil fuel combustion,	industry,	agriculture, and waste sources declined
feed a thriving tannery	industry,	the 19th-century painter Thomas
up. [Laughs] The nuclear power	industry	in Europe and the U.S.
going to stop the holiday	industry,"	he says. "What you can
to understand what the tourism	industry	was," says Ami. "But it
Ami's faith in his	industry	are being enacted at a

In reviewing the corpus, it is evident that the industry/industrial discourse predominantly focuses on harnessing the natural resources for human production. Terms such as ‘industrial revolution’, ‘industrial emissions’, and ‘industrial waste’ are frequently recurring in the text. These words are also substantiated by their collocation with economic progress, technological development, and infrastructure expansion. The impact of industrial development and expansion has often been acknowledged in the text as adversely impacting the ecosystem, causing disruption or pollution; these are also depicted as secondary to the industrial demands.

From an ecolinguistics perspective, this is a destructive discourse because it promotes the idea that the environment exists mainly to promote human well-being through industrial development. For example, terms such as ‘fishing industry’, ‘industrial agriculture’, and booming construction industry’ reveal human activities as economic ventures in which environmental preservation and protection are secondary.

Figure 5.2

GraphCol – Industrial *Industry*



Above is the graphic representation of collocates of industry and industrial as contained in the corpus. Depiction of the ‘pre-industrial’ era as a baseline consideration suggests a tacit approval of the destruction and environmental degradation caused by modern industry, despite clear evidence related to industrial damage resulting in climate change. By pointing to the harmful impact of industrial paradigms, these articles in National Geographic Magazine criticize “anthropocentrism” and emphasize the need for sustainable industrial expansion. This CDA, therefore, signposts how language is used to

assess industrial discourse as detrimental to the ecology and climate on earth, which is similar to Arran Stibbe's ecosophy

5.2.1.3 Tourism

Table 5.3

Tourism

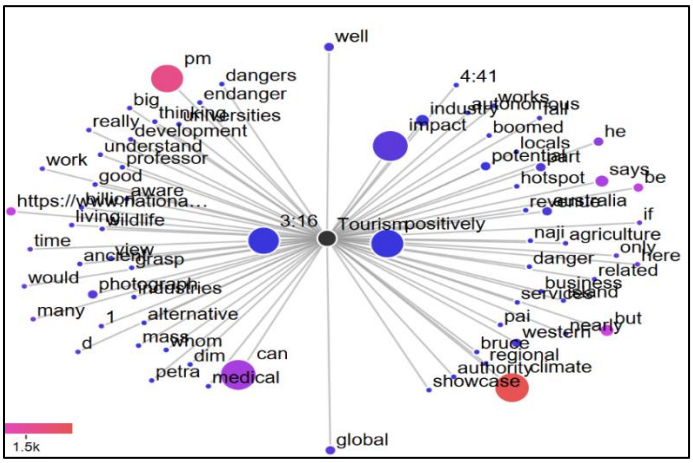
Left	Discoruse	Right
I N D I A	Tourism	has boomed in recent years
Can	tourism	positively impact climate change in
line of climate change. Can	tourism	here be part of a
include aquariums, universities and the	tourism	industry. At island resort Soneva
held a dim view of	tourism,	but he's more pragmatic
technology, is well aware that	tourism	and related services contribute to
are also thinking about how	tourism	can be part of a
began to understand what the	tourism	industry was," says Ami. "But
sustainability, the impact of mass	tourism	and the danger of rising
	Tourism	works well for us because
many of whom grasp its	tourism	potential. Naji and her peers
ocean, the dangers of wildlife	tourism,	the global impact of climate
Reygadas, a professor of Alternative	Tourism	at the Autonomous University of
How Aboriginal people are using	tourism	to tell their stories in
these states have really good	tourism	potential," Pai says. Another idea
Fall color is big time	tourism	he says. "If more people
has turned into a global	tourism	hotspot. Nearly a million visitors
archaeological site would endanger the	tourism	business locals have come to
expert at the Petra Development	Tourism	Regional Authority, the agency that
as $1 billion in	tourism	revenue. But fall is getting
repercussions for many industries, like	tourism	and agriculture, but also for

Tourism collocates are displayed in the table above. The examination of the 110 articles corpus reveals a recurring discourse in which nature, environment, and cultural sites are

framed as sources of human enjoyment and economic gain. Use of terms such as ‘tourism industry’, ‘tourism hotspot’, and ‘tourism revenue’ emphasizes growth and profitability in the tourism industry. At the same time, the text also shows relegation of increased pollution due to tourism, disruption in the habitat, and commodification of the local/indigenous/aboriginal cultures as secondary concerns. When National Geographic Magazine articles show concerns about ‘mass tourism’ and the ‘dangers of wildlife tourism’, this dominant discourse often emphasizes how tourism can be managed and harnessed appropriately, instead of questioning the premises of this growth-centric human activity.

Figure 5.3

Graphcol - Tourism



Graphcol above shows collocates of ‘tourism’ in the corpus of 110 articles published in the National Geographic Magazine. The purely anthropocentric view of this discourse makes it a destructive discourse from the ecolinguistics point of view. Local/indigenous and aboriginal cultures have been placed as commodities to be viewed and explored, rather than their intrinsic, pristine value. Use of phrases like ‘tourism boom’ and ‘tourism potential’ easily casts tourism sites as commodities for sale and tourism as a universal good, perpetuating the notion that a continuous growth in the number of visitors is not only desirable but is also inevitable.

Tourism discourse in the corpus tends to standout as profit-centric approach to human activity, neglecting deeper ecological and cultural impact and considerations, which

is against the ecosophy of Arran Stibbe by promoting how tourism can be expanded or capitalized on, National Geographic Magazine can inadvertently highlight practices which degrade cultural authenticity, and damage ecosystems, underscoring a need for a critical view of such narratives.

5.2.1.4 Consumerism

Table 5.4

Consumerism

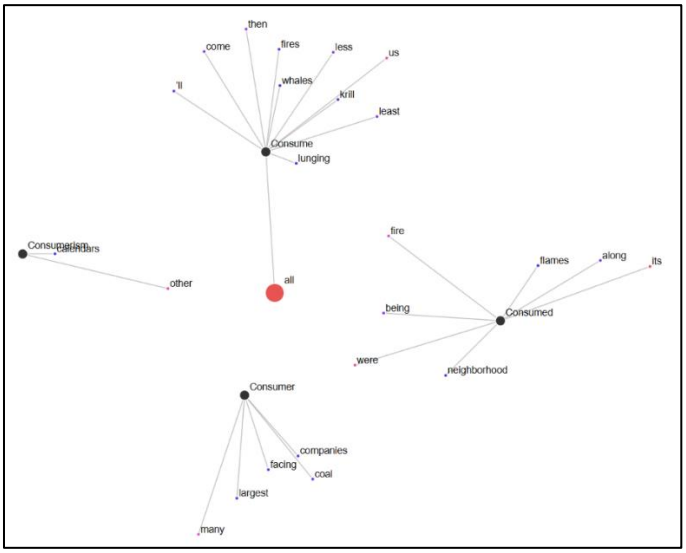
Left	Discourse	Right
earlier, as the neighborhood was	consumed	by one of the dozens
home next door were being	consumed	by flames. N O T
everything that the fire has	consumed	along its path—from rubber
governed by clocks, calendars and	consumerism	the other by sunrise, seasons
it is also the largest	consumer	of coal, and is financing
the political community, with many	consumer	facing companies pledging to go
Before 1970, megafires—fires that	consume	at least 100,000 acres—were
the counterargument: Fine, we'll	consume	less, but your country has
their prey—which they then	consume	by lunging open-mouthed through
I think can come and	consume	us all. And I think
penguins, seals, and whales all	consume	krill—and so do we.

The CDA of the term consumerism (and its variants) reveals a distinct usage of this term whereby it operates both literally and metaphorically, highlighting the destructive dimensions of consumerism as a practice. As shown in the table above, the corpus frequently compares and contrasts the interaction between human activity and nature through consumerism. For example, natural disasters such as wildfires consume wildlife

and the ecology and physiology of life on earth as human-driven processes, where the industry and communities are shown as consumers. The intertextuality (Fairclough, 1993, pp. 193-217) shows an overlap between the natural cycles and an all-encompassing desire for consumerism in today's society.

Figure 5.4

Graphcol – Consumerism



The above figure shows Graphcol for consumerism. In the text, consumerism has not only been described as an act of market transaction, but it is also shown as a force present everywhere that takes away resources, drives environmental degradation, and shapes socio-economic structures. Phrases such as 'largest consumer of coal' and reference to 'consumer-facing companies' point to the economic engines that promote extractive industries and environmental exploitation. The repeated use of 'consume' indicates an inbuilt, almost predatory trend where both living beings and systems are burdened by consumption, showing a loss of control and failure to return to nature. This discursive framing aligns closely with Stibbe's critique that consumerism functions as a destructive ecolinguistic discourse. It normalizes an exploitative model by examining non-stop economic growth, marginalizing sustainability and ethical considerations.

The language in the above-mentioned destructive discourses reflects a worldview where economic and industrial domains dominate and perpetuate the non-stop cycle of

consumerism. In the process, the ecological, environmental, and climatic damages are reduced to secondary concerns. The next sub-section is a discussion of ambivalent discourses.

5.2.2 Ambivalent Discourses

Stibbe (2015, pp. 29-30) defines ambivalent discourses as the discourses that may be considered beneficial or positive, but still may be problematic. These include green advertising, green-speak, sustainability, conservation, and environmentalism. He argues that these discourses originate from the same society that is generating the destructive discourses. At a much deeper level, these discourses might contain a motive that might not be suitable for societal benefits, and may have originated from the same political and commercial interests as the destructive discourses. However, as a researcher, one must focus on these discourses from a pragmatic point of view and critically examine them for their good and bad aspects. For this research, only two ambivalent discourses are being analyzed below.

5.2.2.1 Technology

Table 5.5

Technology

Left	Discourse	Right
the environment, climate change and	technology	is well aware that tourism
the interlopers adopted the Indigenous	technology	and expertise and sent out
bit as important as foreign	technology	and expertise. “We have chosen

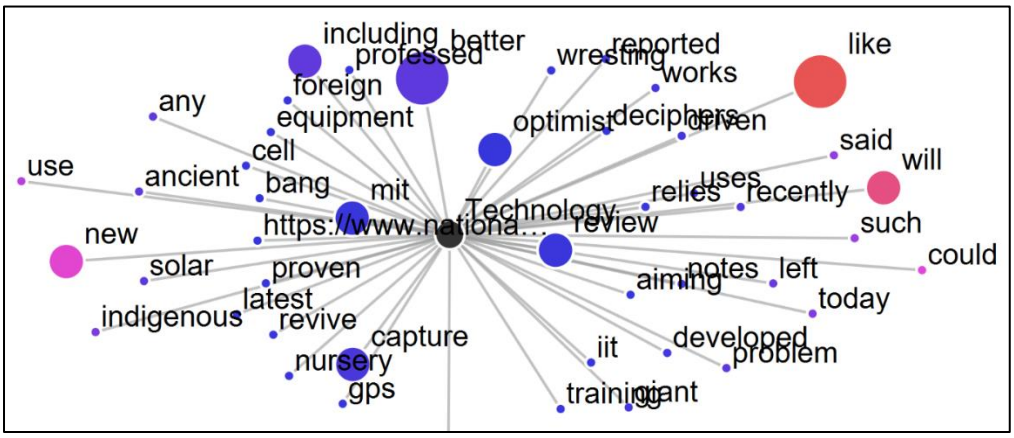
At the Burkina Institute of	Technology	in Koudougou, designed by celebrated
Institute of Aquatic Science and	Technology	reported in 2017 that up
Then, spurred by science and	technology	as well as cheap coal
at the Burkina Institute of	Technology	a technical college. Teachers at
the finish line. Because the	technology	to do that is unproven,
at the Florida Institute of	Technology	notes that it doesn't
Leslie Dewan wants to revive	technology	from the 1960s to solve
at the Indian Institute of	Technology	(IIT) in Mumbai, Solanki is
a center for solar cell	technology.	Aiming to kick-start a
you're working to use	technology	to expand environmental education opportunities
include a youth perspective and	technology	to how environmental education is
state capital. Using the latest	technology	to be green and efficient,
at the Indian Institute of	Technology	in nearby Dhanbad with years
at the Massachusetts Institute of	Technology	said in 2019 that models
Foundation, which funds education, equipment,	technology	training, and vehicles for firefighters
for racing ahead. The MIT	Technology	Review published a pair of
another yet-to-be-proven	technology	driven approach to climate change
upheavals and the advance of	technology	Wresting their living from the
deforestation. The promise of new	technology	Better technology will help reduce
promise of new technology Better	technology	will help reduce emissions from
of transport. "We have the	technology	today to rapidly move to
the carbon program director for	technology	giant Microsoft, she had a
year by ProPublica and MIT	Technology	Review, based on a previous
and the role education and	technology	can play in moving the
retention. For now, whiz-bang	technology	like the "direct air capture"
to grow food. Yet the	technology	of carbon removal remains inordinately

Wurzbacher, says direct-air-capture	technology	will plummet in price, just
Island Mussels is developing nursery	technology	at its indoor facility for
to highlight one of the	technology	's limitations, at least in
think this is really a	technology	problem so much as it
a world leader in the	technology,	which he said would help
research required to bring the	technology	up to the scale that
or adopt direct-air-capture	technology.	Recently $1.2 billion was
carbon removal refers to any	technology	that removes carbon dioxide from
question is not whether the	technology	works, but what price society
"I'm a	technology	optimist," Lackner tells me, "but
Klaus Lackner, the self-professed	technology	optimist. "We can provide the
specific plants, to see which	technology	uses water most efficiently. And
and sandstorms imperil it. Ancient	technology	could be the key to
turning to ancient solutions, including	technology	left behind by the people
changes could drive advancements in	technology	for climate control systems, which
the largest manufacturer of solar	technology	in the world, but it
modern electronics, such as GPS	technology,	that is less likely to
Bangladesh University of Engineering and	Technology	's Institute of Water and
your cat telling you? New	technology	deciphers meows M AGA Z
need every solution possible, including	technology	like artificial intelligence (AI). Seeing
way forward—ironically, with a	technology	developed, then shelved, by the
rate of innovation in the	technology,	I have no doubt that
deputy minister of science and	technology.	What's next? For the
seriously: geoengineering. This type of	technology	relies on manipulating the Earth
largely a result of better	technology	such as Doppler radar. There

The table above shows collocates of ‘technology’ as appearing in the text of 110 articles in the National Geographic Magazine. Technology appears as ambivalent ecolinguistics discourse – one that appears solution-oriented and progressive yet capable of obscuring deep environmental concerns. These texts highlight technological capacity to offset Climate Change, reduce emissions, and support conservation efforts. Frequently appearing words such as ‘direct air capture’, ‘carbon removal’, and ‘solar cell technology’ position this discourse as a critical tool in transitioning societies towards sustainability. Simultaneously, pairing technology with ‘growth’ (a destructive discourse) raises some questions about the true intent of technological developments. Similarly, the use of ‘innovation’ and ‘expertise’ suggests confidence and the possibility of overcoming environmental, ecological, and climate-related issues.

Figure 5.5

Graphcol – Technology



The Graphcol above shows collocates for technology as appearing in the National Geographic Magazine select articles. Technology, when portrayed as the sole avenue for environmental solutions, can be viewed as problematic. This tends to downplay the destructive discourses and structural flaws closely associated with the technology, such as economic inequality, consumerism, and unsustainable lifestyles. Technology is also associated with economic growth, giving the impression that more advanced market-driven solutions will automatically resolve ecological challenges. Such an orientation tends to reinforce a techno-centric worldview, where root causes of environmental, climate-related,

and ecological problems, such as overconsumption, resource extractions, or inadvertent power challenges, remain unresolved.

Moreover, the language surrounding technology tends to be more optimistic, presenting it as a solution for all problems. Use of terms such as ‘technology optimist’, ‘unproven technology’, or ‘technological problem’ argues that with sufficient funding, technology will eventually find an answer to all our ecological issues. While technological innovation and a reliance on emerging technologies can help mitigate the impact of Climate Change, one cannot completely neglect the role of native wisdom and social, cultural, and ethical dimensions. Therefore, technology’s representation in these articles, though often positive, can subtly reinforce economic, growth-driven paradigms that perpetuate the existing problems rather than resolve or mitigate the ecological concerns.

5.2.2.2 Green

The table below is the representation of ‘green’ in the corpus composed of 110 National Geographic Magazine articles published between January 2016 and August 2024.

Table 5.6

Green

Left	Discourse	Right
sister. Under her homemade emerald	green	dress hanging off of her
would be, how walkable and	green	our cities would be.” Newsletters
plants that can serve to	green	the landscape and allow underground
to carry water and the	green	revolution from the Punjab south
were exquisite strips of psychedelic	green,	fields and orchards in which

are hemmed with the iridescent	green	fringe of new plant life—
aspect of the natural world:	green	for coca leaf chewed by
white for snow and ice,	green	for the coca leaves traditionally
anticipate breakthroughs such as the	green	revolution, which spread new plant
the sunlit slopes like a	green	tide and draped the forest
silt in the reservoirs. The	green	revolution in the 1960s and
flames cutting through a lush	green	forest. The images are emotive,
Wattle seeds — when they're	green	you can foam them up,"
which ranked areas from A ("	green	or most suitable for investment)
You just don't see	green	in the areas that were
to reduce violent crime? Create	green	spaces. E N V I
system has rendered the ancient	green	channels of the Indus tributaries
an early warrior in the	green	revolution. High-yield seeds, fertilizers
sun drops over her tiny	green	domain, Yadav shares her tea
the Myanmar border, rage white.	Green	hills speak the sibilant language
Tswalu's otherwise ruddy dunes	green	and lush. The Kalahari is
They wanted action on a	Green	New Deal, government policy that
who announced the first statewide	green	new deal?! we did! View
canopies bare, turning a lush,	green	landscape into a muddy expanse
It's meant to be	green-	plum season right now, but
country a leading manufacturer of	green	hydrogen. The bulk of hydrogen
is derived from fossil fuels.	Green	hydrogen is made by splitting
and solar, which are intermittent,	green	hydrogen can be stored for
energy and electrolyzers come down,	green	hydrogen is expected to become
clean molecule—and that is	green	hydrogen," he says. The idea

the latest technology to be	green	and efficient, the smart... Read
fired power plants, and using	green	alternatives as fuel. At a
pine owned by timber company	Green	Diamond. Hundreds of miles north,
had a special interest in	Green	Diamond's Klamath East forests:
CO2 that Microsoft had paid	Green	Diamond to remove by increasing
rigorous than most. So was	Green	Diamond, and a California state
difficulties are increasing. Dhaka has	green-	lit the construction of a
tolerant trees stands as a	green	wall, absorbing storm surges and
shallow turquoise waters, and emerald	green	coasts is quickly changing as
organisms contain chlorophyll, the bright	green	pigment that helps plants make
measurable shift in blue and	green	wavelengths, an approximation for the
of miles it rolls through	green	wilderness, taking in the snowmelt
current. Chad Brown shows Stephen	Green	(front) how to fly-fish
the pale pink and faded	green	of old church fronts lined
fire. The vice president at	Green	Diamond would not normally have
at least this summer before	Green	Diamond can begin a thorough
now, all eyes are on	Green	Diamond as officials await assessment
In the meantime,	Green	Diamond is at work trying
multilateral institutions such as the	Green	Climate Fund. Countries make their
bright white bodies crouched in	green	forests or brown brush or
and I strolled through cool	green	fields of wild parsnip and
he said, handing me the	green	leaf from a glacier lily.
twice as much compared with	green	areas. Researchers estimate that increasing
tree coverage and investing in	green	urban infrastructures could reduce mortality
summer, their leaves produce a	green	pigment called chlorophyll that captures
Trees stop producing chlorophyll, the	green-	producing pigment in their leaves,

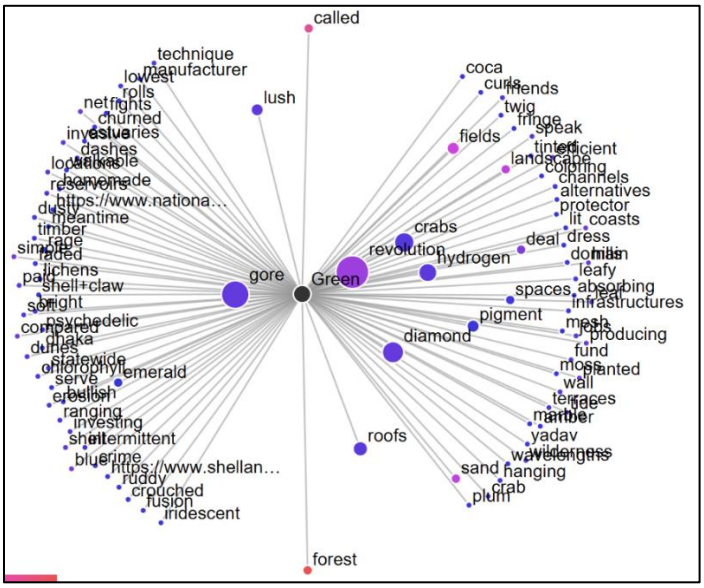
carbohydrates that remain in their	green-	tinted leaves before the first
teamed up to build a	green	crab business called Shell+Claw. Green
green crab business called Shell+Claw.	Green	crabs, an invasive species, live
live mostly in estuaries. (Invasive	green	crabs: If you can't
else? If you can't beat them eat them	Green	crabs were introduced into the
stabilizes riverbanks and fights erosion.	Green	crabs also eat clams, historically
mitigate the damage caused by	green	crabs while creating another source
are at their lowest when	green	crabs are molting in late
immediately take the soft-shell	green	crabs to high-end seafood
while. Like cold fusion or	green	hydrogen, it is a moon
quarter-inch spines of the	green	and amber globular species C.
Gillespie, managing director of Southern	Green	Gas, a renewable energy start-
someone adding several dashes of	green	food coloring to the beige
beige beach tableau. All this	green	sand wasn't being imported
an urgency to it." The	green	sand in Long Island is
aviation's struggle to go	green	for the October 2021 issue.
she holds up a dusty	green	twig of atriplex, Kristina Toderich,
also somewhat more bullish on	green	energy jobs replacing those in
as the mines churned more	green	fields to gray, Albrecht named
are invasive grasses and lichens.	Green	moss is growing three times
it in, the net's	green	mesh curls over itself, cocooning
father told him stories of	green	terraces planted with wheat in
of the presence of our	green	leafy friends. CHEN: So having
Day, as celebrated by the	Green	Protector in schools across Rwanda.
being sited in those locations—	green	spaces, trees. And often these
Al Gore: The	Green	Revolution Is 'Unstoppable'
pumps and pesticides of the	green	revolution have depleted precious reserves
Buildings with	green	roofs, like this one in
five-color code ranging from	green	(no risk) to magenta (extreme
sense of white roofs, or	green	roofs that have foliage and
actually a very simple technique.	Green	roofs can be installed anywhere,

The table above is the portrayal of collocates of 'green' – a discourse that appears eco-friendly on the face of it; however, it can mask deeper complexities. On the one hand, green is used to depict the best of nature, including fields, lush landscapes, and sustaining wildlife, and reinforces the vibrant nature. On the other hand, it also represents

environmental initiatives such as ‘green hydrogen’, ‘green revolution’, ‘green energy’, and ‘green new deal’, projecting optimism with shades of economic development.

Figure 5.6

Graphcol - Green



From the ecolinguistics point of view, a green label can serve as a sound solution to the environmental problems; however, it may not completely address the issues. For example, micro-level recycling movement encourages people to recycle plastic to prevent any more harm to the ecology; however, it does not advertise reduction in consumerism as a solution to pollution. Similarly, green hydrogen or green energy are portrayed as breakthrough solutions without deliberately acknowledging the environmental footprints of production or the much wider socio-cultural impact this might have, especially on indigenous communities.

Moreover, the green governmental policies that inspire people to adopt environmentally sustainable practices, sometimes function as ‘greenwashing’ wherein the language of sustainability portrays these as green on the surface, whereas these policies follow progressiveness. By focusing on the inspirational interpretations of green, many destructive discourses are masked, such as consumerism, inequitable resource distribution, and ecological limitations.

Ambivalent discourses also receive a fair share of criticism because these tend to treat plants, animals, rivers, mountains, and other parts of nature as commodities for consumption and not as ecology to be protected. National Geographic Magazine articles portray some of its discourses fitting the definition of ambivalent discourses as mentioned above. The next sub-section details some of the beneficial discourses.

5.2.3 Beneficial Discourses

As contended by Stibbe, there is a need in ecolinguistics to go beyond criticism of the discourses and point out the gaps in how these discourses create and disseminate knowledge. There is a need to search for the discourses that communicate ideologies to actively encourage people to protect life and systems that support life (Stibbe, 2015). The literature also posits that, unlike the destructive or ambivalent discourses existing in an unsustainable society, the behaviors that promote responsible and sustainable behaviors are more likely to exist and spread. “The purpose of analyzing beneficial discourses is to promote them as useful alternative ways of telling stories about the world and help them to become widespread, even if they are currently relatively unknown” (p. 30). It is important to keep these ideologies aligned to the ecosophy of the research at hand, which in this case promotes the lives and well-being of humans and other species, renounces and limits consumerism, vouches for justice, and works towards resilience.

5.2.3.1 Indigenous

The data from National Geographic Magazine reflects the term ‘indigenous’ as a beneficial ecolinguistic discourse, which is similar to traditional ecological knowledge and Arran Stibbe’s ecosophy mentioned in the book. For example, ‘Future looks in indigenous hands’ The lexical choices used in the articles position indigenous people as custodians of nature, often framing them as protectors of these sacred peaks or highlighting their deep-rooted connection to the land and ecosystem. The discourse actively promotes ideologies that encourage the protection of biodiversity and sustainable management of natural resources, which can be seen through the use of roles assigned to indigenous people, such as ‘environmental stewardship’ and ‘land guardianship’. The frequent use of collocates like protectors, stewardship, and futures represents a positive association with indigenous wisdom, positioning it as a counterbalance to the harmful practices of modern industrial

society. This framing suggests that the solution to environmental degradation is in revisiting and integrating indigenous practices and perspectives. This discourse presents terms that empower indigenous communities and promote their expertise in environmental management.

This beneficial discourse is completely opposite to the narratives that indicate nature as a resource of exploitation. In the data, indigenous people are not portrayed as passive victims but as knowledgeable identities who have managed landscapes for centuries, maintained cultural practices, and safeguarded ecosystems. ‘indigenous women know plants. ’ It promotes indigenous knowledge as an integral part to tackle the climate change issue, preserving natural resources, and bringing harmony in the ecosystem. For example, the use of ‘indigenous weather forecasting.’ National Geographic Magazine articles not only reinforce a constructive narrative but also support a more inclusive, culturally sensitive approach to global environmental solutions. ‘We’re both part of the same ecosystem. We are nature, and nature is us. And that’s an indigenous concept that, for me, is quite beautiful. ’ Another representation of indigenous knowledge and practice challenges dominant modern paradigms and encourages the integration of diverse indigenous sustainable practices into broader conservation efforts. ‘Guided by the traditional knowledge to preserve the forest means practicing living knowledge, we read the country and align indicators from soil to the sky’.

5.2.3.2 Aboriginal

As argued in the literature, Aboriginal rangers are the owners of the land and its caretakers (Read, 2000). The discourse regarding ‘aboriginals’ in the National Geographic Magazine articles emerges as a beneficial ecolinguistic discourse that supports the ideologies and values necessary for the conservation of natural resources and sustaining life on earth. The corpus consistently presents Aboriginal people as custodians and protectors of the environment, emphasizing their deep-rooted connection with nature through phrases like ‘Aboriginal Gameledes’ (custodians) and references to the ‘Aboriginal Land Act.’ These lexical choices highlight the relationship of Aboriginal people with nature, portraying their culture and practices not as remnants of the past but as a dynamic source of knowledge that offers sustainable practices for the conservation of

natural resources. There is a recognition that Aboriginal people have maintained a harmonious relationship with their surroundings through these practices, which are not harmful to the ecosystem but rather are beneficial. For example, recurring reference to how 'Aboriginal people fight fire-with fire' and use controlled burning to prevent destructive bushfires underscore an intimate understanding of ecological cycle. 'we practice cultural fire management to keep our spirit, soils and vegetation intact' Such practices contrast sharply with modern methods and exemplify how indigenous knowledge can provide valuable alternatives to conventional approaches that often lead to environmental degradation and climate change. 'Adapting using 'ancient wisdom' The authorities who manage Petra and the surrounding area have put in place extensive training programs and evacuation drills to make sure park staff are prepared for floods.'

The discourse indicates the diversity within Aboriginal cultures by noting that 'there is no single Aboriginal culture. This recognition of diversity not only confirms the richness of indigenous traditions but also resists homogenizing narratives that strip these communities of their unique identities. 'Aboriginal people have a foot in both the present and the past- one governed by clock, calendars, and consumerism, the other by sunrise, season, and stories'. By highlighting various practices – from sustainable harvesting and land management to culturally rooted tourism initiatives. The data shows a construct of a narrative where indigenous ways of living are important for preserving biodiversity and ecological balance. It promotes the idea that the knowledge of Aboriginal people is crucial for protecting natural systems, suggesting that indigenous methods can guide broader societal shifts toward sustainability. To resist the destructive practices and to continue to implement alternative beneficial practices, it is important to support and integrate indigenous ecological principles into policy and community planning. The discourse of Aboriginal custodianship not only counteracts exploitative practices but also lays the groundwork for a more resilient, inclusive, and ecologically sound future for all life on earth.

5.2.3.3 Local Communities

In the data, the discourse of 'local communities' foregrounds the important role of locally rooted voices and practices play in the conservation and sustainability of the natural

resources on the planet. This discourse is beneficial for life on earth because it actively promotes the values that recognize local communities as custodians of their environment and are gifted with immense knowledge of the land. For example, ‘ancient planting timetable’, ‘millennia-old idiom August for reducing the grapes and producing the dates’, similarly, another example is ‘September is the month of moving the buffalo from the water’, ‘Coptic Calendar of farmers of Sudan.’

When the language emphasizes phrases like ‘their own voices’ and ‘from their local communities,’ it not only validates indigenous knowledge and cultural heritage but also positions these groups as essential communicators of sustainable practices and resilient ways of living. For instance, references to regions such as northeastern Afghanistan’s Panjshir province suggest that local communities are not only cable of managing their environment responsibly but are also vulnerable toexternal forces- indicating the need to empower them further. ‘by building off of indigenous groups and other cultures and communities that can live in harmony with the natural world, I think that we’re able to build a better future.’ This discourse highlights how areas managed by local communities and indigenous people are portrayed as havens of sustainability. It further advocates for a model of environmental management that is both participatory and adaptive, promoting practices that have been refined over generations.

The emphasis on local management and communities signifies that when communities are actively involved in decisions, when ‘it was often decided by the local communities’, and when their voices are heard, they are better positioned to adapt to challenges such as climate change and resource depletion. Their deep, place-based knowledge, whether it be in the form of traditional ecological practices or in the innovative revival of ancient land management techniques, offers a sustainable alternative to exploitative models of industrialization, consumerism, economic growth, and extensive agriculture. To continue these practices, actions are needed that include legal and political support for local land rights, capacity-building initiatives, and platforms for intercultural dialogue that honor and integrate local wisdom. Policies must be reoriented to resist harmful practices by investing in community-based conservation efforts and by recognizing the indispensable role of local knowledge in promoting ecological balance. For instance, ‘adapting using ancient wisdom’, the authorities who manage Petra and the

surrounding area have put in place extensive training programs and evacuation drills to make sure park staff are prepared for floods. There is another reference to ‘Nile side wisdom’. Ultimately, the beneficial discourse of local communities celebrates a perfect and harmonious connection with nature. For example, ‘First ray of sun at dawn to wait with devotion and return purified, we are born’, ‘humans were so grateful for rivers, made them into divinities.’ ‘Melting water has healing power. ’ Local communities have respected nature and safeguarded their environment for generations. ‘The Indus, celebrated from ancient times in sacred Sanskrit hymns’, and the example ‘rivers are fathers and mothers’.

5.2.3.4 Nature

Nature is essential for human existence. The discourse of nature in the data is considered a positive, life-affirming discourse, clearly reflected through the lexical choices made to portray nature. For example, ‘as subsistence so many rely on nature’s bounty’, ‘seaweed is salvation’, and ‘blessed with holy water’. The corpus reveals how language can construct nature not merely as a resource to be exploited but as a pristine entity. Examples include ‘handsome trout,’ ‘nature is beautiful and innocent, ’ and ‘frogs are particularly sacred because they sing to the water. The data also emphasizes a harmonious relationship between humans and the natural world. For example, when the text says, ‘I want nature to be omnipresent’ and ‘see ourselves as part of nature, and nature is a part of us,’ they challenge the conventional dichotomy that places humans as separate from or superior to other species and the environment. This reimaging fosters an ideology of respect, interconnectedness, and responsibility towards the earth. ‘No species lives in isolation. Furthermore, references to studies published in the journal Nature, such as those noting that ‘climate change has upended nature’s timing’ or ‘nature’s capacity for adaptation,’ serve to remind readers that nature is dynamic and resilient. ‘Cacti now represent a new frontier of survival, one offering surprising lessons. These examples emphasize that while nature can recover from disturbances, its processes are delicate. For instance, ‘timing is everything in nature. Ecological process lives and die by the clock. Phrases like ‘restoring nature, ‘nature-based solutions, ’ and ‘nature’s resilience’ promote an active engagement with natural systems, encouraging actions that support regenerative practices rather than destructive ones.

To continue these beneficial practices, the discourse calls for integrating local and indigenous knowledge into broader conservation strategies, reinforcing environmental education, and creating awareness programs that have nature-friendly solutions. Governments and organizations must prioritize the protection of natural habitats, implement policies that reduce harmful emissions, and support research that deepens our understanding of nature's delicate processes. In doing so, the beneficial discourse of nature builds a foundation for a resilient ecosystem and sustainable human development, ensuring that the life-sustaining systems of our planet are preserved for future generations.

5.2.3.5 Writing and Art

The National Geographic Magazine articles represent 'writing and art' as a powerful positive discourse that encourages creativity as an essential component for educating and spreading awareness about environmental issues such as climate change. By highlighting different modes of expression such as songwriting, essay composition, storytelling, performing, and visual art, the data shows how creative practices can serve as a promotion for indigenous wisdom and a sustainable lifestyle. For example, 'storytelling is a powerful tool and storytelling with a purpose is encouraged'. Another instance, phrases like 'his songwriting skills helped create the tune' and 'writing' recently in the journal Nature highlight the use of writing to articulate environmental issues, making scientific findings accessible and emotionally resonant. These creative expressions make the audience perceive environmental challenges, such as climate change, through a more personal and culturally embedded lens, developing a deeper connection with the natural world. The corpus also emphasized how art has the capacity to transform perception. While reference to 'rock art sites' serves as a reminder of the long cultural history of indigenous groups, descriptions like 'the delicate art of catching fog' inspire an intimate appreciation of nature's breathtaking beauty. Art is positioned as a means of cultural transmission that not only preserves history but also encourages sustainable practices when the text states that 'traditional owners make all the decisions about animal monitoring and rock art protection.' Furthermore, instances such as 'Latino neighborhoods have mastered the art of homemade shade solutions' demonstrate how community innovations can result in localized, inventive responses to environmental challenges such as extreme heat that combine aesthetic expression with necessity.

This beneficial discourse is important in challenging dominant discourses such as consumerism and economic growth at the cost of the exploitation of natural resources, which consider nature as a product. This discourse expresses the relationship between humans and the environment through gestures, verbal, and written communication. ‘TV show ‘new world or no world’ expressed the human relation with nature, ‘our mother earth is rotting with the residue of our good life,’ another instance ‘human could not continue to thrive while so many other creatures suffered’. The act of turning ‘climate data into art’, whether it be visual or performing art, is not just an exercise in creativity; it is an effort to reframe our understanding of environmental information, transforming abstract numbers into culturally meaningful symbols that can be understood by a broader audience.

Supporting platforms that spread local perspectives and artistic expressions is crucial for maintaining these beneficial discourses of the environment. Local and indigenous communities can be empowered by funding community-based creative activities that play a role in raising awareness of environmental issues such as climate change, and enacting laws that incorporate artistic perspectives into environmental planning for conservation and sustainability. By encouraging discourses that value sustainability, cultural variety, and peaceful cooperation with nature, such projects would discourage harmful discourses toward the environment. In the end, the constructive discourse of ‘writing and art’ not only increases our understanding of the environmental issues but also lays a strong foundation for adapting the practices that will safeguard the planet’s ecosystem.

5.2.3.6 Music

The discourse of ‘music’ in the articles from National Geographic Magazine is an effective portrayal of a beneficial ecolinguistic discourse, one that actively promotes the ideologies necessary for sustaining life on earth. The corpus portrays music not just as a performing art but also as a form of cultural expression, environmental activism, and the dissemination of indigenous knowledge. Phrases like ‘spreading music through South Africa, Lesotho, Zimbabwe’ and ‘Conservation Music’s K2K program’ will highlight how music is used to motivate group action for nature conservation and to overcome cultural gaps. ‘Themes of conservation in her lyrics.’ The data demonstrates how music has the

power to unite people and establish common cultural and emotional narratives that support conservation initiatives for environmental systems. References such as ‘African musicians use songs to protest’ highlight music’s ability to mobilize communities, creating shared emotional and cultural narratives that promote the efforts to protect natural systems.

Additionally, the discourse emphasizes that music is a vital tool for preserving and celebrating indigenous culture. Terms like ‘skilled accordionist of traditional chicote music’ and the mention of a ‘uniquely Zambian style of music called kalindula, which features fast rhythms’ illustrate how traditional musical forms provide an insight into ancestral knowledge and a sustainable way of living with the environment. By presenting these cultural expressions as central to community identity and resilience, the corpus highlights that indigenous musical traditions offer valuable insights into sustainable living practices that modern, destructive approaches lack.

The text further explains that music is more than just an aesthetic hobby; rather, it is an emotional instrument that has the power to alter perceptions. Statements such as ‘Music is an emotional tool’ and ‘the most moving piece of music you have ever heard’ imply that music can express complex issues like climate change into visceral experiences. This translation from abstract idea into an emotionally charged artwork has the potential to inspire people to build a connection with environmental conservation efforts and motivate them to engage in protective actions for the natural world. It is important to fund projects that combine ancient musical expressions with contemporary environmental advocacy if we want to promote this beneficial discourse. Supporting community-driven music programs, facilitating workshops that include indigenous musical practices with conservation education, and promoting cross-cultural collaborations are essential strategies. These actions can help save cultural heritage while promoting a balanced ecosystem. Ultimately, by elevating music as a medium that both celebrates indigenous culture and galvanizes environmental stewardship, the discourse not only reinforces the intrinsic value of the earth’s living system but also provides a transformative pathway toward resisting destructive practices and nurturing a sustainable future.

5.2.4 Summary

The section above shows the CDA of the destructive, ambivalent, and beneficial discourses as manifested in the 110 select articles in the National Geographic Magazine. The next section, besides analyzing the Paris Agreement discourses, also examines the concord and discord between the two corpora.

5.3 Paris Agreement Vs National Geographic Magazine – Concord and Discords

As mentioned above, the Paris Agreement was signed in December 2015. To correspond with this treaty and for a CDA of the articles by one of the most prestigious publications, National Geographic Magazine, 110 articles related to Climate Change were selected. The sections above presented an ecolinguistics analysis of these articles from the ecosophical and analytical perspective drawn from Stibbe (2015). This section first presents and briefly analyzes destructive, ambivalent, and beneficial discourses in the agreement. To ascertain the relationship, concords, and/or discords between the Paris Agreement and the articles, a summary is included at the end.

5.3.1 Discourses in the Paris Agreement – Concord and Discord

The Paris Agreement is not a voluminous document, and the corpus contains 7404 words that have been summed up in 1032 tokens (representing repeated words as one). The corpus was analyzed and searched for discourses using keywords included in the CDA of the articles for destructive, ambivalent, and beneficial discourses. It is important to note at the beginning that, in order to prevent the parties from realigning or upsetting the agreement process, policy documents are crafted extremely carefully (Falkner, 2016; Freeman & Maybin, 2011; Geden, 2016; Holsti, 2015).

5.3.1.1 Destructive Discourses

Analyzing the Paris Agreement corpus for destructive discourse, a critical tension is created by the use of “economic” discourse. By calling for ‘undertaking economy-side absolute emission control’ and ‘to move over time towards economy-wide emission reduction or limitation, the Agreement embeds climate action inside the dominant economic discourse. This reference to the economy is a replica of the economic discourse

analyzed in the destructive discourses contained in the National Geographic Magazine articles. As mentioned earlier, the economic discourses portray sustainable development through economic growth, using nature and life-supporting systems as commodities, promoting exploitation. In so doing, the Agreement departs from the narrative by seeking to reintroduce the economy as a tool for sustainability. Rather than mentioning economic growth as a worrisome trend adversely impacting the sustainability and life on the planet, it frames economic activity as a means to achieve systematic emission control. Resultantly, the economy has been recalibrated as a support system rather than undermining the life support system of Earth, as part of the traditional destructive discourses.

Secondly, the Paris Agreement implicitly reflects consumerism by associating patterns of production and 'consumerism' with the 'lifestyles of the developed countries'. Although the Agreement aims for sustainability, a reference to 'consumption' reveals a market-oriented, growth-driven perspective reflecting destructive discourses aligned with the articles of National Geographic Magazine. This reference risks normalizing the 'lifestyles' of the developed countries, resulting in excessive resource extraction and industrialization.

5.3.1.2 Beneficial Discourses

The Paris Agreement also incorporates beneficial discourses focused on 'local', 'communities', and 'indigenous' solutions. The Agreement places local, community, and indigenous knowledge as a vital asset for climate resilience, which is in complete concordance with the beneficial discourses observed in the 110 National Geographic Magazine articles. Advocacy for capacity-building at subnational and local levels and prioritizing the rights of vulnerable groups, including indigenous populations, the Agreement reinforces the idea of sustainable practices originating from the grassroots level and indigenous wisdom. This domain mirrors the beneficial discourses mentioned in the articles in National Geographic Magazine and as mentioned by Stibbe (2015). The portrayal of the local/indigenous communities as the flag-bearers of traditional ecological knowledge and protectors of nature is in concordance with the findings of this research in the CDA of the National Geographic Magazine. Both texts resonate and promote

empowering local communities and respecting traditional ways of life, which are critical for fostering systemic environmental and sustainable futures.

5.3.1.3 Ambivalent Discourse

The only ambivalent discourse mentioned excessively in the Paris Agreement is that of 'technology', meriting CDA to find its relationship with the articles of the National Geographic Magazine.

Table 5.7

Technology – Paris Agreement

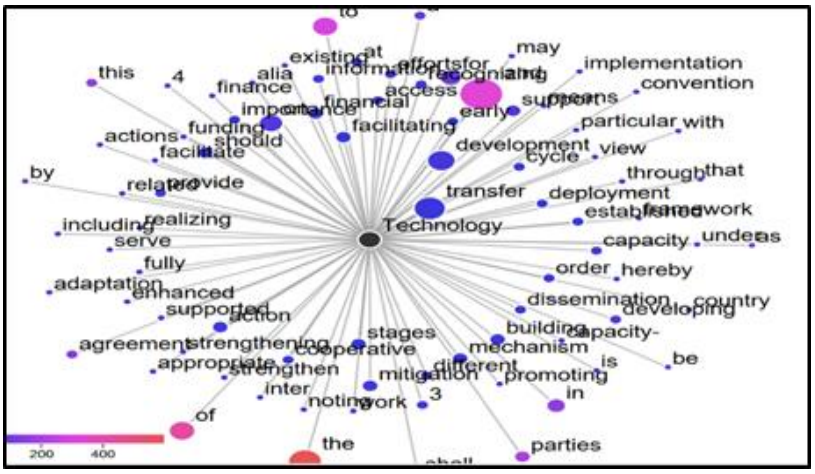
Left	Discourse	Right
inter alia, mitigation, adaptation, finance,	technology	transfer and capacity- building, as
the importance of fully realizing	technology	development and transfer in order
Parties, noting the importance of	technology	for the implementation of mitigation
this Agreement and recognizing existing	technology	deployment and dissemination efforts, shall
shall strengthen cooperative action on	technology	development and transfer. 3. The
development and transfer. 3. The	Technology	Mechanism established under the Convention
serve this Agreement. 4. A	technology	framework is hereby established to
to the work of the	Technology	Mechanism in promoting and facilitating
and facilitating enhanced action on	technology	development and transfer in order
appropriate, supported, including by the	Technology	Mechanism and, through financial means,
development, and facilitating access to	technology,	in particular for early stages
for early stages of the	technology	cycle, to developing country Parties.
for strengthening cooperative action on	technology	development and transfer at different
at different stages of the	technology	cycle, with a view to

efforts related to support on	technology	development and transfer for developing
mitigation actions, and should facilitate	technology	development, dissemination and deployment, access
should, provide information on financial,	technology	transfer and capacity-building support
should provide information on financial,	technology	transfer and capacity-building support
to funding and transfer of	technology,	Recognizing that Parties may be

The Paris Agreement repeatedly refers to 'technology' – an ambivalent discourse as argued in the literature (Lomborg, 2003; Ridley, 2012). Technology has been presented as a solution to be adopted to mitigate and reduce the impact of environmental degradation and climate change. On the surface level, the Agreement emphasizes capacity building, transferring technology, and cooperation in technology essential to achieving the climate goals. The use of phrases such as 'technology development and transfer', and facilitating access to technology' points to the vitality of these concepts for resisting Climate Change and for achieving the desired goals of the treaty. However, these solutions might trigger economic competition and market-driven solutions over systematic transformations. By positioning technology as a central tool to address Climate change challenges, the Agreement avoids addressing the underlying core issues of consumerism, production, and lack of social cohesion.

Figure 5.7

Technology in Paris Agreement



The figure above shows the Graphcol for the use of the term ‘technology’ in the Paris Agreement. The terms prominently collocated to technology include ‘transfer’ stages, development, and developing, etc. This ambivalence is echoed in the same discourse found in National Geographic Magazine articles, portraying technology both as an ecological disruption and a promising tool for a solution. While the articles appreciate technological innovations such as direct air capture and renewable energy solutions, they are also criticized for failing to address the deeper structural issues. “Sucking CO2 out of the air is a diversion from a far urgent task, radically cutting CO2 emissions”

A disproportionately heavy reliance and reference to technology in the Paris Agreement corpus is noticeably aligned with this duality. It offers hope and a solution for transformation on one hand, but risks showing technology as the dominant fix for all Climate Change issues. To further this argument, there is a need to take holistic approaches that integrate technological advancements with the systematic, structural, and societal changes.

To offset the impact of destructive and ambivalent discourses in the Paris Agreement and align these more with the beneficial discourses, there is a need to prioritize social cohesion, harmony, and equity aligned with the indigenous wisdom, recalibrating economic and technological models, ensuring a reduction in consumerism, and complementing beneficial discourses for transformative Climate action. This research shows that there is a need to critically assess the role of ambivalent and destructive discourses, signifying the need to align these towards the larger benefits of life on Earth. This CDA is also a reminder that while technological innovations are indispensable, these need to be synthesized with the framework that supports life on earth rather than reinforcing and promoting economic or growth-oriented consumerism that has historically contributed to ecological degradation.

5.4 Summary

This chapter analyzed the National Geographic Magazine's select articles to understand the (destructive, ambivalent, and beneficial) discourses as postulated by Stibbe (2015). This chapter found that all three discourses are amply present in these articles. However, more beneficial discourses were observed in this analysis. Similarly, although

the Paris Agreement is an official document, mostly using legal language, some destructive (economic) discourses and beneficial discourses were observed. In concordance with the articles, the Paris Agreement also propagated ‘technology’ as a dominant ambivalent discourse. The succeeding conclusion chapter summarizes the findings and the dissertation.

CHAPTER 6

CONCLUSION

This research aimed to conduct a corpus-assisted ecolinguistic CDA of National Geographic Magazine from 2016 to 2024 and the Paris Agreement on Climate Change. Using Stibbe's analytical lens and adopting the concept of beneficial, ambivalent, and destructive discourses, this research examines National Geographic publications in concord/discord with the Paris Agreement.

This research endeavored to understand how public perception and understanding of Climate Change issues have been framed by examining the discourses in the 110 articles published to correspond with the Paris Agreement from January 2016 to August 2024. This corpus-assisted CDA is grounded in Arran Stibbe's ecosophy, the framework adapted from Arran Stibbe's 2015 book *Ecolinguistics: Language, ecology and the stories we live by*. This research concludes that the language is not a passive mode of communication but is an active and vibrant agent constructing, framing, disseminating, and reinforcing narratives and discourses around Climate Change and other environmental issues.

This analysis reveals a complex and multifaceted corpus constituting 295,559 words from 110 articles and 7400 words from the Paris Agreement. The corpora not only present scientific data and policy recommendations but also synthesize indigenous wisdom, traditional knowledge, cultural practices, emotional responses, and shared responsibility. The use of scientific and legal language in both corpora contributes to public understanding that the frames in environmental communication are complex, multifaceted, technology-loaded, and embedded in ecological ethics.

One of the significant findings of this research is the way beneficial discourses have been constructed and dominate both corpora. These discourses have shown a concordance within and among these two corpora and include vital aspects such as indigenous knowledge and urgency in collective action to mitigate Climate Change. Similarly, descriptors pointing to the protection of the integrity of the ecosystems, sustainability, saving the planet, and rights of the indigenous people are closely aligned to the legal language used in the Paris Agreement and foster ethical discourses. On the contrary, this

research also identified ambivalent discourses promoting technology, industrial agriculture, and other conflicting ideologies. The discourse of technology in both corpora stands out, aspiring to achieve carbon neutrality and reverse global warming.

The presence of the dominant destructive discourse - economics- in both corpora has been a visible mark of this research. This research finds that while technology and economic frameworks are vital to climate action, their framing needs continuous examination to ensure that, instead of economic growth, a reduction in consumerism is likely to have a more sustainable and environmentally friendly impact.

Moreover, this research also finds that the framing of the Climate Change discourse in the articles published in the National Geographic Magazine is excessively intertwined with the use of metaphors. This research also finds that metaphors have been used to strengthen the arguments in the simplest possible manner for public understanding and to nurture beneficial discourses. Appreciating the excessive use of metaphor, this research conducted a rigorous metaphor analysis and recommends further studies on exploring the role of metaphors in environmental research and issues related to Climate Change.

In this research, corpus-assisted methodology has been invaluable in deconstructing and segregating destructive, ambivalent, and beneficial discourses. A qualitative exploration and understanding of collocates, concordances, and Graphcol features of the LancsBox X corpus tool has been instrumental in not only a comprehensive understanding of a large data set (almost 295,559 words). This study has also opened future avenues for the researchers to use such explicit and user-friendly tools for analyzing large data sets, especially the ever-increasing Climate Change and Environment studies related literature, and expand the corpus to other media, conducting reader-response studies to examine actual perception changes, or applying mixed methods to deepen quantitative support. This empirical evidence gathered by synthesizing two distinct yet interrelated corpora has also significantly contributed, and extended the boundaries of ecolinguistics as an expanding dimension of linguistics. There were a few limitations to the study; metaphors and action words had to be found by repeated reading of the corpora. The Corpus tool is not designed to search for metaphors.

This study has evidenced that Climate Change and environmental concerns in National Geographic Magazine are dynamic sites of collaboration, responsibility, and contestation. Framing of these issues ranges between humane approaches of indigenous discourses to more radical aspects of urgent and powerful calls for action. This research also offers evidence for the policy makers to examine the core issues underlying the surface issues, and how the developed world is supporting global efforts to mitigate the overall impact of Climate Change and environmental degradation.

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ANNEX A

List of Corpus Articles

S/No.	Article Title	Words
1	Society of the Snow' would've gone differently in today's climate	1,974
2	100 Practical Ways to Reverse Climate Change	3,263
3	2023 was our hottest year yet. What other milestones did we reach_	1,937
4	A water crisis looms for 270 million people as South Asia's glaciers shrink	5,040
5	Aboriginal women are reclaiming traditions of fire	2,088
6	African musicians use song to protest a world marred by climate change	1,592
7	Al Gore_ The Green Revolution Is 'Unstoppable'	2,073
8	Andean glaciers are melting, reshaping centuries-old Indigenous rituals	2,185
9	Another summer of extreme heat is ahead—and you'll feel every degree of it	2,722
10	Another weapon to fight climate change_ Put carbon back where we found it	6,971
11	Are there real ways to fight climate change_ Yes_	1,574
12	Are you having a 'vampire summer'_ Here's how to make it healthy_	1,997
13	As climate change alters beloved landscapes, we feel the loss	3,320
14	As climate change shrinks the Sundarbans, lives are washed away	2,838
15	Camping with Custodians in Western Australia_ How Aboriginal people are using tourism to tell their stories	5,193
16	Can tourism positively impact climate change in the Indian Ocean_	2,406
17	Climate Change and Water Woes Drove ISIS Recruiting in Iraq	2,955
18	Climate change comes for a favorite summer pastime_ fishing	5,480
19	Climate change is hitting the heart of Cajun country—through its crawfish	2,268
20	Climate Change is Killing Thousands of Years of Indigenous Wisdom	2,258
21	Climate change is roasting the Himalaya region, threatening millions	2,181
22	Climate change may be pushing rainforests to a breaking point	2,410
23	Climate change will shift the oceans' colors, study predicts	1,390
24	Colombia's President_ 'We Are Destroying Mother Earth'	1,181

25	Could seaweed be the 'fastest and least expensive' tool to fight climate change_	2,758
26	Cranberries, a Thanksgiving staple, are feeling the pinch of climate change	3,476
27	Earth's shifting magnetic poles don't cause climate change—the conspiracy theory debunked	2,103
28	Epic floods leave South Sudanese to face snakes, disease, and starvation	2,272
29	Episode 1_ Cooling cities by throwing shade	5,933
30	Episode 35_ What you do counts	6,153
31	Extreme heat can be deadly – here's how to know if you're at risk	1,892
32	Extreme heat is the future. Here are 10 practical ways to manage it_	2,168
33	FEMA uses outdated flood maps—and Americans are paying the price	2,334
34	Fight Climate Change by Suing Polluters, Says Climate Scientist James Hansen	1,897
35	For this Somali refugee, beauty has a purpose	3,134
36	Greenhouse gases, facts and information	1,944
37	Have we been talking about climate change all wrong_	2,069
38	High consumption by some nations puts all of us at risk	2,608
39	How animals are adapting to the rise of wildfires	2,039
40	How artificial intelligence can tackle climate change	1,553
41	How Australia's Aboriginal people fight fire—with fire	4,211
42	How climate change disrupts fall foliage	2,492
43	How climate change supercharges wildfires in the West	2,636
44	How warm oceans supercharge deadly hurricanes	1,231
45	In Afghanistan, climate change complicates prospects for peace	3,763
46	In Antarctica, climate change is having surprising impacts	6,720
47	In France, wine takes on the flavor of climate change	2,158
48	In India, clean water is out of reach for many	971
49	In India, there's water everywhere, and nowhere	5,190
50	India is reinventing its energy strategy—and the climate may depend on it	6,687
51	Indigenous protectors of these sacred peaks have kept others out—till now	4,314
52	Inequality is decreasing between countries, but climate change is slowing progress	2,324
53	Is 'weather whiplash' our new normal_	1,881
54	Leonard DiCaprio on Interviewing Obama, the Pope	934

55	Let’s not waste this crucial moment_ We need to stop abusing the planet	5,720
56	Listen to 30 years of climate change transformed into haunting music	1,539
57	Los Angeles confronts its shady divide	3,582
58	Meet the harp seal—one face of the climate crisis	2,357
59	Mexico’s cowboys struggle to maintain a traditional lifestyle	3,836
60	Nature is out of sync—and that’s reshaping everything, everywhere	4,610
61	Nuclear engineer Leslie Dewan has a plan for clean energy	922
62	On Climate Change (and Everything Else), We’re on the Side of Facts	986
63	One cheap way to fight climate change_ Dispose of old CFCs_	2,516
64	Polar bears are trying to adapt to a warming Arctic. It’s not working_	1,741
65	Polluters are using forests as ‘carbon offsets.’ Climate change has other plans_	4,371
66	Reflecting on a year of storytelling with a purpose	998
67	Rising heat puts the Kalahari’s ecosystem on the edge of survival	5,376
68	Rome wasn’t built for today’s climate. Is there time to save it_	2,357
69	See why these 10 rivers are vital to Asia's survival	1,127
70	Serving on the frontlines of climate change	1,316
71	Some of the World's Biggest Lakes Are Drying Up. Here's Why_	5,322
72	Striking Photos Show The People v. Climate Change	738
73	The extraordinary benefits of a house made of mud	4,805
74	The Fascinating Ways People Are Adapting to Climate Change	906
75	The Gulf of Maine is warming fast. What does that mean for lobsters—and everything else_	5,214
76	The Inuit strive to keep their culture alive as ice melts	2,045
77	The leaders of the Youth Climate Strike are ready to tackle climate change head-on	3,570
78	The link between extreme weather and climate change has never been clearer	1,862
79	The Little Ice Age was brutal. How did people survive_	1,891
80	The New Climate Change Activists May Surprise You	1,252
81	The staggering scale of glacier melt demands swift climate action	1,750
82	The surprising tricks cacti use to survive the harshest climates on Earth	3,544
83	The world’s historic sites face climate change. Can Petra lead the way_	2,490
84	These caves mean death for Himalayan glaciers	2,375

85	They Migrate 800 Miles a Year. Now It’s Getting Tougher_	3,732
86	This ancient society tried to stop El Niño with child sacrifice	2,251
87	This ecofeminist inspires young people to take action	866
88	This hot pepper is surviving Italy's extreme heat wave	1,772
89	This is what the world could look like in 2070	2,043
90	To save monarch butterflies, these scientists want to move mountains	2,129
91	We’re concerned about the Great Lakes—and you should be too	1,084
92	What are the effects of global warming_	1,426
93	What climate change means for the future of coffee, cashews, and avocados	2,617
94	What is El Niño—and will it lead to more snow this winter_	2,491
95	What the Aral Sea might teach us about life after disaster	2,129
96	What the World Would Look Like if All the Ice Melted	1,545
97	What's the oldest tree on Earth—and will it survive climate change_	3,297
98	Which cities will still be livable in a climate-altered world_	1,991
99	Why call recent disasters ‘natural’ when they really aren’t_	2,058
100	Why climate change is still the greatest threat to human health	3,563
101	Why cold weather doesn’t mean climate change is fake	1,166
102	Why it’s important to tell stories that inspire action, not despair	1,136
103	Why protecting mangroves is key to mitigating climate change	927
104	Why we still don’t fully understand the tornado-climate change relationship	1,267
105	Why we won't avoid a climate catastrophe	4,285
106	Wildfires are making their way east, where they could be much deadlier	1,905
107	Wildfires took her home. She returned on an outlaw mission to salvage a family treasure	4,067
108	With their future at a crossroads, young Americans are shattering voting records	2,396
109	World climate change report card_ These countries are meeting goals	3,399
110	You're not imagining it—winters are getting warmer	1,758
	Total Words	**295,559**

ANNEX B

List of Descriptors: National Geographic Magazine

1	Solutions are crucial
2	With a gun to our heads, we can stop driving and flying.
3	Campaign for a law that would grant personhood – and rights to the Indus
4	Practicing living knowledge
5	Put carbon where we found it.
6	Seaweed is salvation
7	Radically cutting carbon dioxide emissions.
8	Reverse global warming
9	Prevent deforestation
10	Reduce meat consumption
11	Swap four wheels for two.
12	Using music to convey a message about adapting to and preventing climate change
13	Bring together communities
14	Cut future emissions
15	Silver bullet for the problem
16	Achieving carbon neutrality
17	Work together
18	Accelerate the process of protecting.
19	Priority
20	As soon as possible
21	Immediate
22	Significant need
23	Special responsibility
24	Balance in the ecosystem
25	Resilience
26	Conserve and enhance sustainability
27	Fostering sustainable development
28	Protect the integrity of the ecosystem.
29	Aggressive efforts
30	Restore nature to protect the planet.
31	Fighting and adapting to climate change
32	Bold plans
33	Aboriginals using tourism to tell their stories
34	Humans in balance with their surroundings
35	Help arrives in a hurry.

36	Special responsibility to protect biodiversity
37	Accelerate the process
38	Sustainable ways of development
39	Avert climate disaster
40	Multipronged solution
41	Surefire strategies
42	Potentially elegant solution
43	Swiftly cutting emissions
44	All being together to avoid climate change.
45	Trees are like the little workhouses or lungs.
46	Collective actions
47	Gratifying relationship with the natural world
48	Be in touch with the natural world.
49	Combat
50	Fight climate change
51	Suing polluters
52	Awareness
53	Educate
54	Understanding and protecting positive climate-related activities
55	Urge governments
56	Take drastic actions
57	Quicker adoption of climate solutions
58	Return to traditional practices.
59	Ancient practice becomes reality.
60	Combine customary knowledge with modern tools.
61	The land needs its children and grandchildren to care for it.
62	If we respect our mother nature, she will listen to us, and will come back to normal.
63	More talking to nature
64	More singing to nature
65	Save the planet
66	Balancing the pursuit of economic growth with the need to curb carbon emissions
67	Pledge to net zero emissions
68	Share the responsibility for the problem.
69	Everybody must share the burden.
70	We need to go beyond ascribing blame.
71	Learn to listen to the sounds of the country and our old people.
72	Stop abusing the planet.
73	Protecting these ecosystems can also benefit biodiversity, providing a win-win for nature.
74	Carry out solemn devotion to restore balance to the natural world.
75	Develop an equitable response.

76	Dramatically reduce carbon emissions.
77	Choose your own simulator (outfit in a game)
78	Climate reparations
79	Discovering your own path is far more convincing and activating.
80	To encourage people to focus more on the future
81	Thinking ahead
82	New plan for clear energy
83	Driving a sense of urgency
84	Reporting “we are on the side of the facts,” “we are on the side of the planet.”
85	Lead the world (America)
86	Systematic change- the way we treat the earth
87	Stop abusing the planet.
88	Expanding our environmental coverage across publishing platforms
89	Committed to helping you understand how best to care for this planet
90	Will continue to report – factually and fairly
91	Providing compelling views
92	Using forests as “carbon offsets”
93	Sensible approach
94	Radical solutions
95	Incredibly ambitious projects
96	A carefully coordinated, comprehensive plan
97	Adaptation strategy
98	Devising effective measures
99	Pragmatic approach
100	Eat less meat and more vegetables.
101	Reduce, reuse, and recycle
102	Buying fewer items
103	Unplug- chargers, appliances.
104	Buy local
105	Taking a stand against climate change
106	Nature needs a little help.
107	Grappling to adapt
108	Strikes to save the planet
109	Role to play in confronting climate change
110	New ways to act – and act out about climate change(podcast)
111	Step up their own game.
112.	Move with greater urgency and cap warming.
113	We need political will.
114	Scientists want to copy the resilient plants' methods to help engineer our future.
115	Take more active measures.
116	We have to look towards the future.
117	Require commitment

118	Adaptation will be phenomenal.
119	Fast action
120	“Do we have the will to turn our way of life upside down? Because that is what it is going to take.”
121	Earth Day (1970) did exactly what I had hoped for; it was truly an astonishing grassroots explosion,” Nelson.

ANNEX C

List of Descriptors – Paris Agreement 2015

1	Differentiate responsibilities and respective capabilities
2	Effective and progressive response
3	Best available scientific knowledge
4	Specific needs and special circumstances of the developing parties
5	Taking full account of special needs and special situations
6	Funding transfer of technology
7	Emphasizing the intrinsic relationship
8	Equitable access to sustainable development
9	Safeguarding the food security
10	Recognizing the fundamental priority
11	Taking into account the imperfections of a just transition
12	Acknowledge common concerns of humankind.
13	Respect, promote, and consider their respective obligation.
14	Indigenous people, local communities, migrants, children, and the disabled
15	Recognizing the importance of conservation
16	Noting the importance of ensuring the integrity of all ecosystems
17	Protection of biodiversity
18	Importance of the concept of “climate justice”
19	Affirming the importance of education, training, public awareness, public participation, public access to information, and cooperation at all levels
20	Engagements of all levels of government and various actors
21	Recognizing the sustainable lifestyles and suitable patterns of consumption and production
22	Play an important role.
23	Strengthen the global response to the threat of climate change.
24	Pursuing efforts
25	Increase the ability to adapt.
26	Making finance flows consistent.
27	Reflect equity
28	Undertake and communicate ambitious efforts.
29	Achieving the purpose
30	Progression over time
31	Need to support developing countries.
32	Effective implementation
33	Achieve long-term goal
34	Reach the global peaking of greenhouse gas emissions as soon as possible.
35	Undertake rapid reductions
36	Best available science

37	Achieve a balance between anthropogenic emissions.
38	Prepare, communicate, and maintain successive nationally determined contributions.
39	Pursue domestic mitigation measures.
40	The aim of achieving the objectives
41	Determined contributions
42	Reflect its highest possible ambition.
43	Reflecting common but differentiated and respective responsibilities
44	Continue taking the lead by undertaking an economy-wide absolute emission reduction target.
45	Enhancing mitigation efforts
46	Encouraged to do more overtime
47	Higher ambition
48	Adaptation action
49	Clarity, transparency, and understanding
50	Relevant decisions
51	Consider common time frames.
52	Removal
53	Nationally determined contributions
54	Promote environmental integrity
55	Appropriate existing methods and guidance under the convention
56	Strive to formulate
57	Take actions to conserve
58	Implement and support
59	Policy approaches
60	Enhancement of forest carbon stocks
61	Sustainable management
62	Reaffirming the importance of incentivizing
63	Pursue voluntary cooperation
64	Cooperative approaches
65	Contribute to the reduction.
66	Deliver an overall mitigation.
67	Implementation of the convention
68	Adaptation
69	Determined contributions promote sustainable development
70	Ensure environmental integrity
71	Relevant decisions
72	Traditional and local knowledge
73	Apply robust accounting
74	Encourages taking actions