



Wasit University
Repository

Wasit University Repository

repository.uowasit.edu.iq

دراسة تداولية-سيمائية لسرديات الاستدامة في الوسائل
الإعلامية المختارة الغربية والعربية

Pragma-Semiotic Study of Sustainability Narratives in Western and Arab Selected Media

-Alousi, Khalida Ismail Mahmood Al

إشراف: Prof. Fida Muhsin Almawla (PhD)

جامعة واسط — 2026

<https://repository.uowasit.edu.iq/handle/123456789/288>

حُمِّلَ هذا الملف من مستودع جامعة واسط

Downloaded from the Wasit University Repository — repository.uowasit.edu.iq

Republic of Iraq
Ministry of Higher Education and Scientific Research
Wasit University
College of Education for Human Sciences
Department of English



Pragma-Semiotic Study of Sustainability Narratives in Western and Arab Selected Media

A Thesis

Submitted to the Council of the College of Education for Human Sciences, Wasit University, in Partial Fulfilment of the Requirements for the Degree of Master of Education in English Language and Linguistics

By

Khalida Ismail Mahmood Al-Alousi

Supervised by

Prof. Fida Muhsin Almawla (PhD)

October 2026 A.D.

Jumada al-Awwal 1448 A.H.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿وَلَا تُفْسِدُوا فِي الْأَرْضِ بَعْدَ إِصْلَاحِهَا﴾

سورة الأعراف (56)

In the Name of Allāh, the Most Gracious, the Most Merciful

“Do no mischief on the earth, after it hath been set in order”

Surat Al-A‘raf (7:56)

(Ali, 1938)

SUPERVISOR'S CERTIFICATION

I hereby certify that the thesis entitled (**Pragma-Semiotic Study of Sustainability Narratives in Western and Arab Selected Media**) by (**Khalida Ismail Mahmood Al-Alousi**) has been prepared and written under my supervision at the Department of English, College of Education for Human Sciences, Wasit University as a partial fulfilment of the requirements for the degree of Master of Education in English Language and Linguistics.

Signature



Supervisor: **Prof. Fida Muhsin Almawla (PhD)**

Date: **25/10/2026**

In view of the available recommendations, I forward this thesis for debate by the Examining Committee.

Signature:



Name: **Prof. Hashim Aliwi Mohammed Al-Husseini (PhD)**

Head of the Department of English

الأستاذ الدكتور
هاشم عليوي محمد الحسيني
رئيس قسم اللغة الانكليزية

Date: **28/ / 2026**

EXAMINING COMMITTEES' CERTIFICATION

We hereby certify that we have read the thesis entitled (**Pragma-Semiotic Study of Sustainability Narratives in Western and Arab Selected Media**) written by (**Khalida Ismail Mahmood Al-Alousi**) and, as an examining committee, have examined the student in its contents and, in our opinion; it is adequate as a thesis for the degree of Master of Education in English Language and Linguistics.

Signature:

Name: **Prof. Hashim Aliwi Al-Husseini (PhD)**

(Chairman)

Date: **25**/10 /2026

Signature:

Name: **Asst. Prof. Hamid Tarad Lafta (PhD)**

(Member)

Date: **25**/10 / 2026

Signature:

Name: **Asst. Prof. Raed Dakhil Kareem (PhD)**

(Member)

Date: **28**/10 /2026

Signature:

Name: **Prof. Fida Muhsin Almawla (PhD)**

(Member and Supervisor)

Date: **25**/10 /2026

Approved by the Council of the College of Education for Human Sciences, Wasit University.

Signature:

Name: **Prof. Mahmoud Hamoud Arraq Al-Quraishi (PhD)**

Dean of the College of Education for Human Sciences / Wasit University

Date: **25**/10 / 2026

Dedication

To

My dear Mother

My dear Husband and Family

Acknowledgements

All praise and thanks are due to Allah Almighty for granting me the strength, patience, and guidance necessary to complete this thesis. His blessings and mercy have been a constant source of support throughout this academic journey.

I would like to express my sincere and profound gratitude to my supervisor, Prof. Fida Muhsin Almawla (PhD), for her exceptional guidance, invaluable advice, constructive feedback, and continuous encouragement throughout the preparation and completion of this thesis. Her expertise and support have been instrumental in shaping this work.

My sincere appreciation is also extended to Prof. Hashim Aliwi Mohammed Al-Husseini (PhD), Prof. Mazin Jassim Mohammed Al-Hilu (PhD), Prof. Enas Naji Khadim (PhD), Prof. Qassim Al-Ebadi (PhD), Prof. Khalida AL-Ghezzi (PhD), and Asst. Prof. Mohammed Nasser for their dedication, academic guidance, insightful discussions, and the knowledge they generously shared throughout my Master's studies. Their encouragement and scholarly contributions have greatly enriched my academic experience.

Finally, I would like to extend my heartfelt thanks to my family, friends, and colleagues for their endless support, patience, and encouragement. Their belief in me, understanding, and constant motivation have given me the strength to overcome challenges and successfully complete this journey. I am truly grateful for their presence and unwavering support.

To all those who contributed, directly or indirectly, to the completion of this work, I offer my sincere gratitude and appreciation.

TABLE OF CONTENTS

Dedication	II
Acknowledgements	III
TABLE OF CONTENTS.....	IV
LIST OF TABLES	VII
LIST OF FIGURES	VIII
LIST OF ABBREVIATIONS.....	IX
Abstract.....	X
CHAPTER ONE: INTRODUCTION.....	1
1.0 Background of the Study	1
1.1 Statement of the Problem.....	3
1.2 Research Objectives.....	4
1.3 Research Questions	5
1.4 Procedures of the Study	5
1.5 Nature and Limits	6
1.6 Significance of the Study	7
CHAPTER TWO: LITERATURE REVIEW	8
2.0 Introduction.....	8
2.1 Sustainability Narratives in Digital Media	8
2.1.1 <i>Concept and Dimensions of Sustainability</i>	9
2.1.2 <i>The Notion of Narratives in Environmental Discourse</i>	9
2.1.3 <i>Characteristics of Sustainability Narratives on Media</i>	10
2.2 Semiotics.....	12
2.2.1 <i>Multimodality</i>	13
2.2.2 <i>Multimodal Critical Discourse Studies (MCDS)</i>	16
2.2.3 <i>Multimodality of Media Discourse.</i>	18
2.3 Green Framing Theory (Narrative/Environmental Theory)	20
2.3.1 <i>Background and Development</i>	20
2.3.2 <i>The Concept of Framing in Media Studies</i>	21
2.3.3 <i>Major Environmental Frames</i>	22
2.3.4 <i>The Role of Framing in Shaping Sustainability Narratives</i>	25

2.4 Pragmatics.....	26
2.4.1 <i>Persuasive Pragmatics</i>	27
2.5 Cross-Cultural Perspectives in Environmental Communication	32
2.5.1 <i>Concept of Cross-Cultural Communication</i>	33
2.5.2 <i>Cultural Values and their Influence on Environmental Communication</i>	33
2.5.3 <i>Differences Between Arab and Western Sustainability Discourses</i>	35
2.5.4 <i>Cultural Influence on Semiotic Choices and Persuasive Strategies</i>	36
2.6 Pragma-Semiotic Approaches in Sustainability Narratives in Media.....	37
2.6.1 <i>The Interface of Pragmatics and Semiotics</i>	37
2.6.2 <i>Analysing Digital Discourse through a Pragma-Semiotic Lens</i>	39
2.6.3 <i>Integrated Framework for Sustainability Narratives</i>	40
2.7 Previous Studies.....	41
CHAPTER THREE: METHODOLOGY	46
3.0 Introduction.....	46
3.1 The Nature of the Study.....	46
3.2 Data Selection and Collection.....	48
3.3 The Source of the Data	50
3.4 Criteria of Data Collection.....	50
3.5 Procedures of Analysis	53
3.6 Theoretical Framework.....	55
CHAPTER FOUR: DATA ANALYSIS	59
4.0 Introduction.....	59
4.1 Group A, Western Samples.....	60
4.1.1 <i>Analysis of Sample 1: Ocean Plastic Pollution</i>	60
4.1.2 <i>Analysis of Sample 2: Fast Fashion Environmental Impact</i>	60
4.1.3 <i>Analysis of Sample 3: Waste Recycling / Circular Economy</i>	70
4.1.4 <i>Analysis of Sample 4: World Earth Day</i>	75
4.1.5 <i>Analysis of Sample 5: Wildfires and Transboundary Smoke</i>	80
4.1.6 <i>Analysis of Sample 6: Climate Protest</i>	86
4.1.7 <i>Analysis of Sample 7: Biodiversity Loss</i>	92
4.1.8 <i>Analysis of Sample 8: Deforestation</i>	97
4.1.9 <i>Analysis of Sample 9: Flood Disaster</i>	102
4.1.10 <i>Analysis of Sample 10: Glacier Melt (Western)</i>	108

4.2 Group B, Arab Samples	114
4.2.1 <i>Analysis of Sample 11: Water Pollution</i>	114
4.2.2 <i>Analysis of Sample 12: Dust Storms</i>	120
4.2.3 <i>Analysis of Sample 13: Mesopotamian Marshes</i>	126
4.2.4 <i>Analysis of Sample 14: Gas Flaring</i>	132
4.2.5 <i>Analysis of Sample 15: Solar Energy</i>	138
4.2.6 <i>Analysis of Sample 16: Date Palm Cultivation</i>	144
4.2.7 <i>Analysis of Sample 17: Desertification</i>	149
4.2.8 <i>Analysis of Sample 18: Shatt Al-Arab Salinity Crisis</i>	155
4.2.9 <i>Analysis of Sample 19: Drinking Water Poisoning</i>	161
4.2.10 <i>Analysis of Sample 20: Urban Flooding</i>	167
4.3 Statistical Analysis	173
CHAPTER FIVE: CONCLUSIONS, RECOMMENDATIONS, AND SUGGESTIONS	182
5.0 Introduction	182
5.1 Concluding Remarks of Research Question 1	182
5.2 Concluding Remarks of Research Question 2	184
5.3 Concluding Remarks of Research Question 3	184
5.4 Concluding Remarks of Research Question 4	185
5.5 Concluding Remarks of Research Question 5	186
5.6 Recommendations	188
5.7 Suggestions for Further Studies	188
REFERENCES	192

LIST OF TABLES

Table 3.1 Corpus Overview — Sample, Group, Environmental Issue, and Source.....	52
Table 4.1 Representational Metafunction — Type of Central Visual Actor.....	174
Table 4.2 Interactive and Compositional Metafunctions — Viewer Positioning.....	175
Table 4.3 Speech Act Theory — Directive Speech Act Realisation	176
Table 4.4 Proximisation Theory — Strategy Incidence.....	177
Table 4.5 Distribution of Dominant Core Green Frames.....	178
Table 4.6 Causal Interpretation — Locus of Attributed Responsibility.....	180

LIST OF FIGURES

Figure 3.1 An Eclectic Model for the Analysis	58
Figure 4.1 Ocean Plastic Pollution (Western).....	61
Figure 4.2 Fast Fashion Waste (Western).....	66
Figure 4.3 Circular Economy (Western).....	71
Figure 4.4 Earth Day / Climate History (Western).....	76
Figure 4.5 Wildfires (Western).....	81
Figure 4.6 Climate Protest, Fridays for Future (Western).....	87
Figure 4.7 Biodiversity Loss, Monarch Butterfly (Western).....	93
Figure 4.8 Deforestation (Western).....	98
Figure 4.9 Flood Disaster (Western).....	103
Figure 4.10 Glacier Melt (Western).....	109
Figure 4.11 Water Pollution, Tigris/Diyala (Arab).....	115
Figure 4.12 Dust Storms (Arab).....	121
Figure 4.13 Drought, Mesopotamian Marshes (Arab).....	127
Figure 4.14 Gas Flaring (Arab).....	133
Figure 4.15 Solar Energy (Arab).....	139
Figure 4.16 Date Palm Cultivation (Arab).....	145
Figure 4.17 Desertification (Arab).....	150
Figure 4.18 Shatt al-Arab Salinity (Arab).....	156
Figure 4.19 Drinking-Water Poisoning, Basra (Arab).....	162
Figure 4.20 Urban Flooding (Arab).....	168

LIST OF ABBREVIATIONS

CDA	Critical Discourse Analysis
IUCN	International Union for Conservation of Nature
MCDA	Multimodal Critical Discourse Analysis
MCDS	Multimodal Critical Discourse Studies
n	Number of Samples
NGO	Non-Governmental Organisation
RQ	Research Question
SDGs	Sustainable Development Goals
SES	Social and Environmental Systems
UAE	United Arab Emirates
UNEP	United Nations Environment Programme
WWF	World Wildlife Fund

Abstract

This study examines how environmental sustainability narratives are pragma-semiotically constructed in Western and Arab digital media, where meaning is built through the interaction of image and language. Although environmental facts are universal, their persuasive framing is culturally specific, and prior research has treated the textual and visual dimensions of environmental discourse separately, leaving a gap in integrated comparative accounts. The study therefore pursues five objectives: identifying the semiotic and visual strategies of environmental media posts; investigating their persuasive pragmatic strategies; analysing how environmental problems are ideologically framed; examining how image and text jointly construct sustainability messages; and identifying the similarities and differences between the two discourses, particularly in individualistic and collectivistic orientations. To this end, it develops an eclectic model, situated within Multimodal Critical Discourse Studies, that operates on three levels: semiotic, based on Kress and van Leeuwen's (2006) visual grammar; pragmatic, based on Searle's (1969) assertive and directive speech acts and Cap's (2013) proximisation theory; and framing, based on Entman's (1993) four framing functions, through which each sample's dominant Core Green Frame is identified. The model is applied to a purposive corpus of 20 multimodal samples (ten Western and ten Arab) drawn from institutional and news platforms, and the qualitative analysis is supported by descriptive frequency analysis. Findings show that Western discourse leans towards individualism and activism and makes greater use of demand images, whereas Arab discourse leans towards collectivism, state mediation, and infrastructural imagery; proximisation strategies occur in both corpora but are realised differently.

Keywords: pragma-semiotic analysis, multimodal discourse, sustainability narratives, comparative discourse analysis, media.

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Environmental communication increasingly relies on the interplay of language and image rather than on scientific reporting alone, and understanding this interplay requires analytical traditions capable of accounting for both verbal and visual meaning-making (Hansen, 2018). Social semiotics and multimodal discourse analysis have shown that the way environmental issues are framed, both visually and pragmatically, is central to how audiences come to understand them (Nisbet, 2009). As media has become a principal site of ecological debate, sustainability messages are now compressed into short multimodal posts that combine images, captions, and hashtags, a format that these semiotic and pragmatic traditions are specifically equipped to analyse (Pearce et al., 2014).

The framing of such stories to target particular audiences influences their persuasiveness, though this study does not measure or test audience-perceived effectiveness (Entman, 1993). The process of environmental framing is not a natural occurrence; however, it is a very culturally, politically, and socially contextualized process. According to Hofstede et al. (2010), environmental discourse in Arab culture would be expected to draw more heavily on collective values, state guidance, and religious vigilance, in contrast to Western culture, where persuasive appeals are more commonly rooted in personal responsibility and technological optimism (Dryzek, 2022). If this pattern holds, Western environmental discourse would be expected to feature a stronger appeal to individual action than Arab discourse — a contrast this study examines empirically in Chapter Four rather than assumes in advance. This cultural variation necessitates an in-depth academic

inquiry into the pragma-semiotic strategies employed in different cultures to convey the same global threat.

Furthermore, the advent of multimodal discourse has changed conventional means of environmental communication (Kress & Leeuwen, 2001). In contemporary climate discourse, significant importance is placed on the associations between images, symbols, and speech acts, rather than relying solely on scripted text as was the case in previous eras (Machin, 2013). Visual designs achieve their persuasive force through a distinct set of factors from those of verbal language: Searle (1969) accounted for how meaning and persuasion are constructed through speech acts in language, while Kress and van Leeuwen (2006) addressed the parallel, but not identical, construction of meaning through visual grammar. The layers of a post on solar energy or water conservation, for instance, are a complex semiotic construction. Further, the visual mode and the pragmatic force of the message combine to persuade the viewer, which requires an analysis that goes beyond simply reading the caption. It is also about assessing the strategies of persuasion and ideologies behind the disconnect between international environmental objectives and local cultural specificities (Dryzek, 2022).

Building on these traditions, this study undertakes a comparative pragma-semiotic analysis of sustainability narratives across Arab and Western digital discourses. Using the eclectic model developed in Chapter Three, the study deconstructs the multi-layered environmental discourse, examining how visual grammar, speech acts, and framing jointly shape audiences' environmental awareness, and thereby offers insight into the intercultural realities of sustainability communication in the twenty-first century.

1.1 Statement of the Problem

While international consensus on the urgency of environmental sustainability has grown (Hansen, 2018), this consensus obscures a persistent difference in how ecological discourse is actually framed and propagated across cultural settings. The issue is that the vast majority of environmental communication policies are created in the Western paradigm and are implemented on an international level, disregarding the socio-cultural and linguistic peculiarities of the non-Western communities, especially the Arab ones (Dryzek, 2022). Even though environmental science brings universal facts, the persuasive presentation of these facts is still culturally skewed and disjointed.

The multimodal nature of discourse is also a major problem in the digital arena, namely in digital media. As the literature reviewed in Chapter Two shows, the synergy between visual representation and linguistic persuasive strategies (speech acts and proximisation) in shaping environmental awareness remains under-researched. Existing scholarship tends to divide into either the textual analysis of environmental policy or the aesthetic analysis of green advertising imagery, rarely combining the two into a single pragma-semiotic approach capable of explaining cultural differences.

Moreover, there is also a big gap in the perception of the ideological framing of sustainability. As established in Chapter One, Arab and Western environmental discourses are expected to diverge along individualist/collectivist lines (Hofstede et al., 2010). However, without rigorous comparative analysis, it is not clear how these differing cultural orientations are actually realised at the level of ideological framing, or how they affect audience perception of environmental threats and solutions.

Thus, the gap this study fills is the lack of knowledge about the pragma-semiotic and comparative processes that play a role in digital environmental discourse. Without dismantling the dynamics between images and words that form green meanings in both Arab and Western cultures, scholars and communication experts overlook important clues about which strategies appeal to particular cultures and which ideologies they draw upon to influence audiences. This study aims to fill this gap with a systematic comparative analysis of such multimodal sustainability narratives.

1.2 Research Objectives

The primary objective of this study is to conduct a comparative pragma-semiotic analysis of environmental sustainability discourses in Arab and Western digital media. In pursuit of this broad aim, the study seeks to achieve the following specific objectives:

1. Identifying the semiotic and visual strategies employed in Arab and Western environmental media posts, with particular attention to how the metafunctions of visual grammar (representational, interactive, and compositional) construct ecological meaning.
2. Examining the persuasive pragmatic strategies underlying the linguistic dimension of sustainability narratives, specifically the dominant speech acts and proximisation strategies employed.
3. Analysing the ideological framing of environmental issues across the two discourses, focusing on how problems, causes, moral judgements, and treatment recommendations are constructed to persuade the audience.
4. Examining how the visual and textual components of each sample interact to jointly construct the intended sustainability message.

5. Identifying the principal similarities and differences between Arab and Western sustainability discourses, particularly with respect to individualistic and collectivistic cultural orientations.

1.3 Research Questions

In line with the objectives above, this study seeks to answer the following research questions:

1. What semiotic and visual strategies are employed in Arab and Western environmental media posts, and how do the metafunctions of visual grammar construct ecological meaning?
2. What persuasive pragmatic strategies — namely dominant speech acts and proximisation strategies — underlie the linguistic dimension of sustainability narratives?
3. How are environmental issues ideologically framed across the two discourses, in terms of problem definition, causal attribution, moral judgement, and treatment recommendation?
4. How do the visual and textual components of each sample interact to jointly construct the intended sustainability message?
5. What are the principal similarities and differences between Arab and Western sustainability discourses, particularly with respect to individualistic and collectivistic cultural orientations?

1.4 Procedures of the Study

In order to accomplish the objectives of the study and respond to the questions, the researcher adheres to a methodical series of tasks. To begin with, a corpus of 20 multimodal samples — drawn from institutional and news sources retrieved via Google — is purposively selected to represent Arab and Western environmental discourses. Second, an eclectic pragma-semiotic model is constructed that incorporates visual grammar, speech act theory, proximisation,

and framing theory. Third, a detailed qualitative examination of every sample is performed to unpack its visual and textual layers, revealing the similarities and differences between the two discourses in their underlying ideologies and producing the study's overall findings.

1.5 Nature and Limits

This study follows a qualitative-dominant design, supplemented by a descriptive quantitative frequency-analysis strand used in Chapter Four to tabulate the distribution of dominant frames and rhetorical devices across the corpus. It analyses a bilingual (Arabic-English), multimodal corpus using a pragma-semiotic approach to deconstruct environmental narratives. It discusses particular ideas of sustainability (renewable energy and water conservation) in a modern digital context. The information is confined to a purposive sample of 20 multimodal posts (ten Western and ten Arab), drawn from institutional and news platforms indexed through the Google search engine, which together constitute a comparison between Arab and Western settings. The analysis follows the four-stage eclectic model developed in Chapter Three (contextualisation, semiotic analysis, pragmatic analysis, and framing analysis); as with any qualitative coding scheme, these stages depend on the researcher's interpretive judgement and are not subject to statistical validation or inter-rater reliability testing. The study is limited, in terms of method, to the interaction between visuals and linguistic elements (captions and hashtags), and thus does not rely on quantitative measures of engagement or on analysis of audience reception, remaining focused instead on semiotic and pragmatic aspects. The posts and reports comprising the corpus were published between 2020 and 2026. Because all material was retrieved from content that organisations, institutions, and individuals had already made publicly available online, and no private accounts or personal data were accessed, the study raises minimal ethical concern regarding participant consent or privacy. Where sample captions or on-image text were originally in Arabic,

they are reproduced in the original alongside the researcher's own English translation in Chapter Four; all translations are the researcher's own unless otherwise noted.

1.6 Significance of the Study

The importance of this work comes from its being an integrated pragma-semiotic study of environmental communication that fills a key research gap in comparative multimodal studies. Deconstructing the collaboration of visual and linguistic elements in the creation of sustainability discourses. The research offers insight into how green issues are ideologically framed in Arab and Western online environments. Additionally, the research contributes to intercultural communication research by illustrating some of the ways in which global ecological threats are culturally localized to appeal to different audiences. Finally, the results are useful to linguists, environmental activists, and creators of digital content, enabling them to better comprehend the persuasive tools and cultural dynamics that shape sustainability discourse in a digitalised world.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Building on the background introduced in Chapter One, this chapter develops in depth the theoretical and empirical literature underpinning the pragma-semiotic analysis of sustainability discourses in selected media. The review is designed to develop a theoretical framework that incorporates sustainability communication, multimodal critical discourse studies, green framing theory, and persuasive pragmatics. It starts with the discussion of the understanding of sustainability narratives in the digital media, the definition of the central dimensions of sustainability, and the role of narratives in environmental discourse. The chapter then goes on to explore the area of semiotics, with multimodality and Multimodal Critical Discourse Studies (henceforth MCDS) as the key instruments in the analysis of visual and textual meaning-making tools. This chapter touches on comparative views on environmental communication as it compares Arab and Western discourses, in order to place the study in a global context.

2.1 Sustainability Narratives in Digital Media

The digital world has radically altered the manner in which the environmental issues are being communicated whereby the discourse is no longer centred on the traditional scientific report but on interactive discourse on media platforms. In this section, the conceptualization of sustainability, the nature of environmental discourse, and their peculiarities in the context of social networking sites are considered (Anderson, 2017).

2.1.1 Concept and Dimensions of Sustainability

Sustainability is a term that has been modified over the years. In the past, it developed as a response to the necessity to introduce a balance between economic growth and environmental protection (WCED, 1987). According to Goncalves and Machado (2023), the historical course of sustainability resulted in its materialization into the 17 Sustainable Development Goals (SDGs) of the United Nations, which is now applicable in numerous industries as a relevant model. Nevertheless, the use of these concepts has been described as problematic, with challenges of greenwashing and cherry-picking, in which an organization can choose to present information in a particular way to appear more sustainable than it actually is (Goncalves & Machado, 2023).

The area of sustainability has developed in the realm of modern media and is no longer limited to the issues of the environment only. The notion of sustainability on such social sites as Twitter has outgrown the sphere of managing natural resources. Ballestar et al.'s (2020) social listening review showed that sustainability has become inherent to the social sciences, which not only relates to the economic and social aspects but also involves environmental aspects. This change means that sustainability is built in a digital space as a multifaceted concept, with complex relationships among social equality, economic sustainability, and environmental safety (Ballestar et al., 2020).

2.1.2 The Notion of Narratives in Environmental Discourse

Narratives play a crucial role in how individuals and societies make sense of complex issues like climate change. Narratives are not merely stories; they are cognitive frameworks that serve to organise human experience. Helgeson et al. (2022), on the other hand, suggested that to monitor and evaluate critical sustainability and resilience issues, it is possible to collect and

analyze Digital Narratives, henceforth (DNs). According to Helgeson et al.(2022), it is possible to understand the new trends in perceptions, attitudes, norms, hopes, and fears of individuals and groups regarding sustainability transitions by observing temporal changes in the frequency, sources, and content of DNs.

Nonetheless, the communication of these narratives can give rise to what is termed narrative dissonance. Malena-Chan (2018) identified this disconnect — between the sense of urgency created by the climate crisis and the sense of detachment or paralysis in the public response — as narrative dissonance. The meaningfulness and approachability of climate change therefore necessitate the creation of stories that close this gap, making it personal and meaningful rather than abstract and remote.

2.1.3 Characteristics of Sustainability Narratives on Media

Media platforms have become the primary arena for the dissemination and negotiation of sustainability narratives. These platforms foster a unique "participatory culture" where users not only consume but also produce and circulate content (Jenkins, 2006).

Multimodality and Engagement: Media messages related to sustainability are inevitably multimodal and are mixed with text, images, and hashtags to achieve maximum interaction (O'Neill & Smith, 2014). In the analysis of digital discussions about the green economy in Qatar and Malaysia, Rabah et al. (2025) focused on the idea that media discourses are formed through a dynamic combination of regional and global factors. They discovered that digital discourses are not generic but instead mirror certain cultural and national priorities, including the emphasis on the transitions to the Green Economy in the developing countries.

Sentiment and Stance: These stories convey an emotional tone, which constitutes a critical analytical feature. Effrosynidis et al. (2022) identified climate change Twitter posts using multi-aspect analysis involving the stance, sentiment, and aggressiveness. They discovered that online discussions tend to polarise into specific communities and sentiment may be alarmist to the sceptical. The effect of the polarization becomes further worsened by the so-called echo chamber effect, in which users are exposed to information that confirms their existing beliefs (Cinelli et al., 2021).

Organizational Communication: Organizations are also central to the creation of these stories. Shin (2017) evaluated how organizations communicate their environmental sustainability via media. He indicated that these messages should be effective in terms of their substantiation and specificity. Vague environmental claims often lead to consumer distrust, whereas specific, evidence-based statements about a company's sustainability efforts foster more positive consumer attitudes and behavioral intentions (Atkinson & Rosenthal, 2014).

Global North-South Divides: Sustainability narrative characteristics also differ geographically. Damle and Krishnan (2025) examined climate change framing on YouTube and found a North-South divide. They analyzed 758 videos and found that Global North stories tend to focus on policy and carbon production. In contrast, Global South ones concentrate on development and the immediate effects of climate change on the livelihoods. This indicates that the narratives of sustainability on media are highly ingrained in the socio-political circumstances of the creators.

2.2 Semiotics

The study of signs and their meaningful application is known as semiotics, and it is the initial theoretical perspective of how non-language communication operates. The traditional linguistic analysis used in the digital media cannot reveal the entire range of meaning-making. This section discusses the multimodal change and how different semiotic elements are incorporated when building sustainability stories (Kress, 2010).

Barton and Gutiérrez-Antinopai (2020) confirmed that representations of sustainability and sustainable development have significantly transcended traditional textual definitions, manifesting themselves in complex visual models, images, and forms; These visual (semiotic) models are a crucial tool for revealing conceptual diversity and understanding the complex "metanarratives" that govern the dynamics of Social and Environmental Systems (SES), filling a gap that traditional linguistic analysis cannot address.

Semiotics is the scientific study of the properties of artificial or natural signaling systems. It refers to the study of signs and symbol systems in general within the field of philosophy. Other names for it include semiotic, semiology, signification, semeiotics, and semasiology. In combination, linguistic, philosophical, social, and psychological aspects of communication systems are studied in semiotics (Crystal, 2008).

In particular, Abbas and Kadim (2019), in a semiotic study of an unrelated domain (representations of terrorism), maintained that some significant philosophers have played important roles in the subject of semiotics, including Ferdinand de Saussure from the European school and Charles Sanders Peirce from the American school. Saussure's sign theory is known as the dyadic theory. The sign in Saussure's notion is generated by the interaction of the signifier

(sound pattern) and the signified (concept). The signifier is the shape of a sign that can be seen, observed, and perceived (especially by the senses), such as a visual representation of a tree or a book. Saussure's dyadic form has a second form: the signified. The signified is the notion or meaning (mental idea that the visible form represents (Beebe, 2004).

Leeds-Hurwitz (1993) showed that Saussure's concept of duality, which is part of the sign, is another important contribution. In particular, according to this theory which originally has been described by De Saussure, each sign consists of two parts, named signifier and signified. Thus, a signifier refers to an explicit and physical aspect of a sign; a material object of a kind that is apparent during communication. On the other hand, signified, is the implicit component of the sign. Briefly, in De Saussure's statements of sign, signifier refers to the sound image of a sign, while signified is its concept.

2.2.1 Multimodality

Multimodality is an interdisciplinary framework for understanding how meaning is constructed through the interaction of different semiotic resources, rather than through language alone. It is concerned with the whole variety of communicational forms that people utilise, such as image, gesture, gaze, and posture, and with how these modes combine and interact to produce meaning (Jewitt & Henriksen, 2016). Kress and van Leeuwen (2006) argued that, in contemporary communication, visual and verbal modes are no longer subordinate to one another but function as equally weighted, mutually reinforcing resources for meaning-making. This framework is directly relevant to the present study because sustainability posts across selected media are inherently multimodal, combining photographs or graphic designs with captions, hashtags, and other textual elements; understanding how these modes jointly construct meaning is a precondition for the pragma-semiotic analysis undertaken in Chapter Four.

2.2.1.1 Modes of Meaning

One of the key distinctions in multimodal research is that between mode and medium. According to Castaldi (2025), a mode is a codified way of producing and decoding meaning in a particular context of application, such as spoken language, written language, static image, or music, whereas a medium is the material or technical means through which that mode is transmitted, such as a screen, a smartphone display, or a piece of paper. In the corpus analysed here, for example, the WWF website post discussed as Sample 1 in Chapter Four uses two distinct modes — a photographic image and written caption text — delivered through a single medium, the website's interface. The distinction matters analytically because a medium's material properties afford some modal choices more readily than others. A smartphone screen's vertical scroll affords a caption that unfolds progressively as the viewer reads, whereas a static image is taken in as a single whole. A mode's affordances (discussed in Section 2.2.1.2) are therefore always exercised within, and partly shaped by, the medium through which it is transmitted.

These modes collide in the digital world. To take an example, any individual media posting usually follows a semiotically assemblage pattern in which text, emojis, and images engage in a communicative act that conveys a coherent message. This interaction endangers the historical hegemony of monomodal analysis and requires a model in which the visual and verbal modes are considered equally important in meaning-construction (Simungala et al., 2024).

2.2.1.2 Semiotic Resources

Semiotic resources are the actions, materials, and artifacts applied in communicative practices. Within Social Semiotics as a broader theoretical framework, these resources are understood as not predetermined; they are socially constructed and carry the potential to evoke the

history of their use and the affordances of a particular culture (Jewitt & Henriksen, 2016). Van Leeuwen's (2005) model, discussed below, operationalises this broader Social Semiotic framework specifically for the analysis of visual and multimodal digital content.

When examining the visual digital content, the Social Semiotic model by van Leeuwen offers a crucial change in perception of signs as a fixed object (like in the traditional Saussurean semiotics) into a movable semiotic resource. As per this model, semiotic resources, including color palette, typography, or emojis, do not have predetermined, universal meanings; they contain a meaning potential that develops as a result of previous usage or cultural norms. One of the key tenets of this model is the idea of affordance, which refers to the possibilities and potentials for meaning-making that a semiotic resource offers, shaped—though not strictly limited—by its material properties and cultural history. To illustrate, “green” in sustainability stories carries a culturally constructed meaning capable of conveying eco-friendliness, nature, or health. Nonetheless, this same meaning potential can be exploited, as in corporate greenwashing strategies, where green imagery is used to distract audiences from a corporation's unsustainable practices. By applying van Leeuwen's model, this study not only describes the image visually but also critically analyzes the extent to which digital creators exploit the semiotic potential of meaning and affordance in different semiotic resources to construct persuasive ideological discourses (Leeuwen, 2005).

Colours (green as a symbol of eco-friendliness), typography, and layout are not aesthetic decisions in the context of sustainability; they carry ideological implications. Adami (2013) went further to incorporate additional semiotic tools of digital texts, such as interactivity; Adami stated that interactive features (such as hyperlinks or like buttons) act as sites/signs that have a two-fold character. These are locations that allow doing something and forms that have meanings.

2.2.2 Multimodal Critical Discourse Studies (MCDS)

Multimodal Critical Discourse Studies (henceforth MCDS) is an expansion of Critical Discourse Analysis (henceforth CDA) to multimodal and visual texts. It explores the way in which power, ideology, and social identities are made and legitimized by non-linguistic means (Ledin & Machin, 2018).

2.2.2.1 Origins and Development of MCDS

The MCDS was based on the necessity to examine the growing visualization of the discourse in society. It is strongly shaped by the Grammar of Visual Design offered by Kress and van Leeuwen (2006), who claimed that the visual structures convey the message similarly to the linguistic grammar. According to a review made by Thuy (2017), this approach assumes that images are never innocent representations of reality, but rather, what the author calls interpretations, which form certain relationships between the beholder and the subject depicted.

The initial situation in MCDS involved the development of the field that was concerned with static media (print advertisements). However, recent scholarship shifted to dynamic digital media, combining the use of cognitive pragmatics and social semiotics to explain complex phenomena, such as, crisis construction and political legitimization (Cap, 2013).

2.2.2.2 Core Concepts

Key concepts in MCDS include representation, composition, and interaction (Kress & Leeuwen, 2006):

1. Representation deals with how actors and actions are depicted (environmental activists shown as heroes or disruptors).

2. Composition refers to the layout and salience of elements (what is placed in the center vs. the margins).
3. Interaction involves the "imaginary relationship" set up between the viewer and the image, often analysed through gaze and distance.

Forceville and Urios-Aparisi (2009) introduced the concept of "Multimodal Metaphor," where the target and source of a metaphor are rendered in different modes (a visual image of a melting earth mapped onto the verbal concept of "time running out").

In the Social Semiotic and Multimodal Approach, the model of Grammar of Visual Design suggested by Kress and van Leeuwen is the main analytical tool that is used to deconstruct visual meaning. The model is developed on the grounds of systemic functional linguistics of Halliday, and the three metafunctions are transformed into the visual world (Kress & van Leeuwen, 2006):

First, the representational metafunction discusses the manner in which the image forms the narrative or conceptual connections among the participants who are represented (whether an environmental activist is represented as an active or passive participant: an actor or a goal).

Second, there is the interactive metafunction that examines the rapport created between the image and the viewer by examining their features, including contact (gaze direction, requiring or offering information), social distance (close-up, long shot, which implies intimacy or detachment), and attitude (determined by camera angles, which displays power dynamics).

Third, the compositional metafunction explores the ways in which the visual components are compositionalized into a significant entity by means of information value (placing elements left/right or top/bottom), salience (size, color contrast), and framing (devices that connect or

disconnect elements). Based on this holistic framework, it is possible to deconstruct the way media images promote latent ideological positions on sustainability in a systematic fashion.

2.2.2.3 Ideology and Power in Environmental Visual Discourse

Images are a powerful means of naturalising ideologies. In environmental rhetoric, MCDS shows that certain visual decisions may either blur responsibility or, on the other hand, take action. In particular, Ben Ali (2022) showed that media influencers employ the visual discourse to create identities that mediate between the so-called traditional and global consumption patterns. On the same note, greenwashing in sustainability narratives is often based on visual euphemisms — nature imagery used to conceal corporate pollution. This is highly beneficial to corporate economic interests and serves to obscure the issue from public scrutiny (Goncalves & Machado, 2023).

2.2.3 Multimodality of Media Discourse.

According to scholars, the multimodal nature of media gives rise to a form of digital discourse that is inherently complex. Meaning in this digital space is not created by a single semiotic mode but rather through the interplay and collaboration among text, images, videos, hyperlinks, and hashtags (Jewitt et al., 2016). These individual parts are collaborative in the sense that they try to rewrite, root, or expound on one another to form valid and persuasive narratives. This inter-semiotic relationship can help users convey complex ideological messages and create issues like sustainability in a manner that is very emotionally appealing to target audiences. Thus, the discussion of media discourse assumes consideration of the joint use of such diverse modes to legitimise certain positions and influence public opinion (Bouvier & Machin, 2018).

2.2.3.1 Visual-Textual Integration in Media Posts

The connection between text and image on platforms, like Instagram, is not simple. Kruk et al. (2019) observed that text and image can combine to produce a new, third meaning, one more complex than the simple sum of the two parts. An instance of this is a photograph that has an ironic caption to completely twist the meaning of a seemingly serious photograph. This is essential in sustainability communication: a photograph of a solar panel (visual) along with a particular hashtag (textual) contextualises the technology within a specific political or social story (e.g., #EnergyIndependence vs #GreenScam) (Jang & Hart, 2015).

2.2.3.2 Semiotic Features of Media Content

Hashtags, filters, and emojis are the types of semiotic elements that are used in the content of media. Abdullah et al. (2024) emphasized that these features are not purely decorative but are otherwise helpful. In the process of analysing Instagram posts, they found that visual grammar, including the camera angle (high vs low) and social distance (close-up vs long shot), is strategically deployed to either create intimacy or exert power. In addition, media is participatory, and that means that the audience, too, becomes a part of the semiotic structure through comments and shares, which constitute an active assemblage of meaning which can be altered as time goes on (Simungala et al., 2024).

2.2.3.3 Multimodality as a means of Sustainability Narrative Communication.

Emotion and cognition can be used in multimodality to make sustainability stories a more convincing appeal to the audience. The illustrations can be used to produce instant emotional response (i.e., one feels sympathy with wildlife), and the text provides the rational background. Luca (2020) stated that knowledge of such multimodal strategies is crucial for decoding media

messages. In the context of the green economy, Rabah et al. (2025) found that multimodal narratives on media are significant in laying down national visions, as they combine economic rhetoric with visuals of contemporary modernity and nature to legitimise environmental policies.

2.3 Green Framing Theory (Narrative/Environmental Theory)

Having established how multimodal semiotic resources construct meaning at the level of the individual post, this section turns to framing theory, which explains how such semiotic choices are organised into a coherent interpretation of an issue at the level of the wider discourse. The Framing theory provides a critical perspective of how the issues of the environment are formulated, conveyed, and perceived in a social context. Contrary to a simple relaying of facts, framing entails the possibility of choosing and bringing out some part of reality with an aim of advancing a specific definition of a problem or a solution to that problem. This section tackles the theoretical foundations of framing and how it applies to environmental and sustainability debates (Nisbet, 2009).

2.3.1 Background and Development

The concept of framing in communication research has developed out of earlier psychological and sociological traditions to become a leading paradigm in media effects research. In his classical work on clarifying the paradigm, Entman (1993) defined framing as a process of choosing some things about a perceived reality and making them more salient in a communicating text in a way that facilitates a particular definition of the problem, a causal interpretation, a moral assessment, and/or a recommendation. This definition highlights that framing does not only focus on what is being told, but it is more about how information is packaged in a manner that influences the perception of the audience.

This was further elaborated by Scheufele (1999), who identified individual frames (mental schemas of the audience) in addition to media frames (attributes of the news itself). He developed a process model of framing, which consists of frame building, frame setting, individual-level processes of framing, and a feedback loop between audiences and journalists. Regarding environmentalism, this trend intends to propose that “sustainability is not a factual reality but a mediated reality that is created through the interplay of journalists, policymakers, and the population.” (Scheufele, 1999, p. 114).

2.3.2 The Concept of Framing in Media Studies

Framing is commonly studied in terms of power in media studies. According to Chong and Druckman (2007), framing effects are present when a communication alters the weightings of other considerations that people have. To illustrate, when discussing media, a problem can be perceived in various ways, and the framing process defines what attitude should prevail in the minds of the audience.

Boykoff (2011), writing on media coverage of climate change, argued that media portrayals serve as effective and significant bridges between people's lived experience and the abstract reality of climate change. He pointed out that journalistic practices, including a pursuit of what he calls balance, have the unwanted effects of capturing the attention of the public toward climate doubters in disproportion, as well as of framing the issues as a matter of uncertainty when science has reached a consensus on the matter. Framing is therefore at the focus of the study of media in the context of how the truth is negotiated in society (Boykoff, 2011).

The Media Framing Approach is based on the assumption that the media does not passively reflect reality but actively creates it by highlighting certain aspects of an issue over others. In order

to study this phenomenon thoroughly, researchers use solid framing models that disaggregate the process of building a message. In Entman's widely followed model, framing means selecting a few elements of a perceived reality and making them more prominent in a communicative text. According to this model, four functions characterise a successful frame: problem definition (what a causal agent is doing), causal interpretation (what forces are forming the problem), moral evaluation (what the agents and their effects are doing), and treatment recommendation (what solutions can be offered, and why). When this model is applied in the context of green framing, it becomes clear that various cultures interpret the extent of the environmental problem differently. An example is that an understanding of climate change as a technological problem specifies an entirely different treatment prescription (an investment in green energy) than an understanding of climate change as an ethical failure (which requires behavioral and moral changes) (Entman, 2004).

2.3.3 Major Environmental Frames

In addition to the structural analysis of media frames, the Cognitive Framing Model by Lakoff can offer a psychological explanation of how environmental discourses impact the audience's perception. Lakoff (2014) assumed that frames are not mere linguistic tools but neural circuits physically embodied in the brain. One of the guiding principles of this model is that, in case the scientific facts do not fit in with the pre-cognitive frame of a person, the facts are generally swept under the carpet or rationalized, and the frame is left undisturbed. In environmental communication, this model reminds us of the threat of speaking the language of the opponent. For example, when environmental safeguards are framed in terms of a regulatory burden or a cost, this triggers a cognitive model of economic constraint. Still, it does not trigger the moral and nurturing circuits when framed in terms of stewardship or health protection. The interpretation of digital

sustainability narratives on the Lakoff model is vital in the process of determining the underlying cognitive metaphor and system of morality that is being activated by the linguistic selections in the media posts (Lakoff, 2014).

Lakoff (2010) stated that environmental framing is not very effective as it does not consider the cognitive systems of the audience. He introduced the term "hypocognition" to describe the lack of the conceptual frames people need in order to make sense of facts alone. According to him, the frames employed by environmentalists tend to strengthen the view of their opponents in the world, like framing environmental regulations as expenses and not protection.

Nisbet (2009) divided the most common frames used in science communication into four categories: social progress, economic development, morality/ethics, and scientific uncertainty. In a particular study of sustainable energy in newspapers, Mohamed et al. (2020) discovered that the prevalence of the so-called frame of conflict is shifting to the increased presence of the so-called frame of consequence, that is, the economic and social effects of energy policies.

Moreover, Radwan et al. (2023) pointed out a unique framing pattern in the Arab media. Their analysis of Egyptian and Emirati newspaper coverage showed that sustainability is commonly presented in terms of international collaboration and regional leadership, namely the association of climate action with national pride and economic restructuring, and not necessarily ecological activism.

Drawing upon the aforementioned literature (Nisbet, 2009; Lakoff, 2010), this current study emphasizes the significance of the Core Green Frames as fundamental analytical tools for deconstructing environmental discourse. This five-frame typology adapts, rather than reproduces, Nisbet's (2009) four science-communication frames. The ethical frame develops Nisbet's

morality/ethics frame, reinforced by Lakoff's (2010) account of moral and nurturing cognitive frames; the economic frame corresponds directly to Nisbet's economic-development frame; and the scientific frame recasts Nisbet's scientific-uncertainty frame in positive terms — as reliance on empirical data and expert consensus, rather than as a frame of doubt. The activist frame extends beyond Nisbet's original four categories to capture the public-mobilisation and grassroots-action dimension prominent in media environmental advocacy, which was not a focus of Nisbet's newspaper-era typology.

The aesthetic frame is similarly an addition, included to align the typology with Green Framing Theory's broader treatment of nature appreciation as a distinct frame. These five categories are not claimed to be either exhaustive of all possible environmental frames or strictly mutually exclusive — Chapter Four's analyses identify a dominant frame per sample while noting auxiliary frames where relevant — but are treated as a deliberately bounded set suited to a corpus of 20 short multimodal posts. Nisbet's original typology was adapted rather than adopted directly because it was developed for extended newspaper science coverage rather than the compressed, visually driven, single-caption format analysed here, and because it does not on its own accommodate visual-symbolic appeals (aesthetic) or calls to collective action (activist) that recur in this corpus. The aesthetic frame is retained for theoretical completeness, matching Green Framing Theory's full typology, even though — as Chapter Four's findings show — it did not emerge as the dominant frame in either the Arab or Western sub-corpus of this particular study. Integrating these core frames is essential for this research because they provide a comprehensive and culturally adaptable lens through which to conduct the comparative analysis of the semiotic and pragmatic construction of sustainability narratives in Western and Arab selected media.

2.3.4 The Role of Framing in Shaping Sustainability Narratives

Framing plays a crucial role in determining how sustainability narratives are perceived and interpreted by different audiences. The way sustainability issues are presented can significantly influence whether they generate public support or encounter resistance. Nisbet's (2009) social-progress and economic-development frames demonstrated how sustainability can be communicated through a constructive and solution-oriented narrative rather than focusing solely on the threats associated with climate change or the economic burdens of addressing them. Presenting sustainability as an opportunity for innovation, clean-energy development, and economic progress can help broaden public engagement and strengthen support among diverse constituencies (Nisbet, 2009).

According to Damle and Krishnan (2025), geographic framing also followed stratification. In their research about YouTube stories, Damle and Krishnan (2025) found that there is a North-South divide the Global North speaks of the issue in terms of carbon emissions and policy, while the Global South speaks of the issue in terms of development priorities and livelihoods. The persuasive effectiveness of a sustainability narrative depends on its fit with this local cultural and economic framing.

Furthermore, according to Carvalho (2007), media discourses are considered to be “ideological cultures”, for a re-reading and reconstruction of scientific knowledge. The framing of climate change in the media, she explained, follows the “cycle of political attention,” where the urgency of the narrative fluctuates with the political agenda rather than the severity of the ecological crisis (p. 224).

2.4 Pragmatics

Pragmatics, which is sometimes denoted as the study of the utilization of language in context, offers the device used to comprehend not only what is articulated, but what is being done with words. Pragmatics, unlike semantics which focuses on the abstract sense of words, focuses on the communicative intentions of the speakers and the interpretative processes of the listeners. Mey (2001) stated that pragmatics is a science of language viewed in relation to its users and that meaning is socially constructed and inseparable from linguistic forms. Within the framework of sustainability discourses, a functionalist method to the study of the environmental messages enables the examination of the way in which the ecological messages are tailored to the attainment of specific communicative objectives, including the creation of awareness or behavioral change.

Media study, according to O'Keeffe (2006), is wide as it encompasses all representations of reality in written and non-verbal media, including newspapers and television. Spoken or written exchanges via a broadcast platform that are directed toward an absent reader, listener, or viewer are referred to as media discourse. Even if the discourse is directed at these recipients, they are frequently not able to respond instantly to the discourse's producers. The discourse, whether it be spoken or written, must be crucially geared towards the reading or listening/viewing audience, respectively. Media might be defined as a staged, public, recorded kind of communication. Media is a kind of communication, as stated above. In the same vein, Leech (1983) noted that in communication, pragmatics deals with the way participants employ language to reflect contextual and social variables as well as to bring a change in the addressee's thinking. It is viewed as concerned with potential meaning. In other words, pragmatics interprets how participants negotiate meaning in their interaction.

Moreover, Thomas (1995) pointed out that "pragmatic meaning is something which is constructed between speakers and hearers" (p.194). Keeping with this viewpoint, pragmatics views language as a form of action or a way of doing things with words. Actions, such as, promising, reporting, and so forth cannot be done without using words and such doings are the main characteristics of media discourse. Consequently, the pragmatic aspects, such as, presupposition, modality, and deixis stand as the participants' appropriate tools to construct meanings. Media reporters imply and suggest while recipients infer (Montgomery, 2007).

From Allan's point of view (1986), pragmatics is the study of interactional meaning which seeks to discover intended meaning among individuals. Pragmatics covers essential elements involved with the fundamentals and details of communicative values. As a matter of reality, pragmatics is a social science that seeks to establish a connection between language usage and form in addition to being a branch of linguistics.

2.4.1 Persuasive Pragmatics

The intersection of pragmatics and persuasion (also referred to as persuasive pragmatics) is the study of the influence of linguistic choices on the thoughts and behaviour of an audience (Halmari & Virtanen, 2005). It transcends literal semantics as it examines the dynamism of meaning construction in a situation by speech acts, implicatures, and politeness strategies. Through the knowledge of these pragmatic aspects, scholars can discover how communicators tactically navigate social relations, reduce audience resistance, and build credibility. Finally, persuasive pragmatics demonstrates that not only is the language a neutral means of exchanging information, but also a strategic instrument to direct the audience to a required belief, attitude, or action (Cockcroft et al., 2014). It is important to distinguish three related but non-equivalent domains

here, rhetoric treats persuasion as a strategic art of argument, and social psychology studies the cognitive and behavioural effects of persuasive messages on an audience.

Pragmatics — the domain this study applies — instead analyses how meaning in context (speech acts, implicature, deixis) is linguistically constructed to perform a persuasive function. This study identifies pragmatic strategies within the sampled captions; it does not measure whether those strategies produced an actual psychological or behavioural effect on any audience, a question that would require reception data this study does not collect. Within this pragmatic domain, persuasion is achieved through the cumulative effect of specific linguistic namely a directive speech act mobilises action, an assertive act builds factual credibility, and the choice of a more or less face-threatening politeness strategy calibrates how confrontational an appeal feels to its audience. This relationship is analytically relevant to sustainability posts specifically because such posts must establish the credibility of an environmental claim and move the audience toward a particular attitude or action within the confined space of a single caption, making the choice of pragmatic strategy central to whether a post persuades rather than merely informs.

2.4.1.1 Development of Persuasive Pragmatics

Social psychology or rhetoric has conventionally been the primary field of persuasion. Nonetheless, the current scholarship has helped to bridge the gap between communication and cognition. According to Taillard (2000), human communication is aimed at two things that are different in nature but related to be understood and to be believed. She observed that, although pragmatics has traditionally dealt with the former (how we derive meaning), it should also deal with the latter (how we come to accept information as accurate).

Such a change signifies the emergence of persuasive pragmatics, the transition to the analysis of separate speech acts instead of the explanation of cognitive processes that support the shift in attitude during communicative interaction (Taillard, 2000).

2.4.1.2 The Concept of Pragmatic Persuasion

Convincing within this context is not necessarily an act of manipulation; it is a multifaceted thought process. Ilie (2018) stated that the pragmatics-rhetoric interface centres on negotiating context-situated meaning. Persuasion is based on discursive and extra-discursive strategies that allow negotiating and re-negotiating intentions and expectations.

The psychological underpinnings of influence also warrant consideration, though as a social-psychological account distinct from the pragmatic analysis this study applies to its own data. Cialdini (2007), in his widely cited work on the psychology of persuasion, offered the following account of the mechanics of influence:

“The principles of influence... are not invented; they are discovered. They are fundamental psychological principles that direct human behavior... by understanding these principles and using them ethically, communicators can significantly increase the likelihood that their messages will be successful.” (Cialdini, 2007, p. 13).

This suggests that the pragmatic strategies analysed in this study may draw on such pre-existing psychological principles as Social Proof or Authority through specific linguistic and semiotic cues (Gass & Seiter, 2018); identifying these strategies in the corpus's captions demonstrates their presence as a persuasive design choice, not that they produced a measured psychological effect on any actual audience.

2.4.1.3 Key Persuasive Strategies

In the Persuasive Pragmatics Approach, Proximization Theory provides a very orderly cognitive-pragmatic framework of the process of persuasion in discourses based on threat, like the discourses around climate change. The model by Cap (2013) conceptualizes the idea of persuasion as a discursive process compelling the audience to imagine a threat that is far away as physically and personally close. This model exists in three interrelated dimensions. Spatial proximization is a set of linguistic decisions that reflect the threat (environmental degradation) as something that physically invades a deictic center (territory of the audience). Temporal proximization reduces the time between a disaster in the future and the present moment, and presents the threat as a crisis in the here and now, which must be addressed immediately. Axiological proximization constructs an ideological and moral conflict between the values of the in-group (the audience being addressed) and an out-group held responsible for the environmental threat, framing the issue not merely as physically or temporally urgent but as a matter of moral alignment. Cap's model was originally developed to analyse threat construction in political discourse, particularly the linguistic legitimization of pre-emptive action against an external adversary.

Applying it to environmental advocacy and news reporting assumes an analogous rhetorical logic that ecological degradation functions as an approaching threat warranting urgent counter-action. This study treats that application as a justified but non-trivial extension, since environmental crises, unlike the state-versus-state threats Cap's model was built around, typically implicate the audience's own conduct as a contributing cause rather than positioning them solely as a threatened in-group. This study further extends Cap's originally linguistic framework to the visual domain, a close or intimate camera framing of an affected subject is treated as a visual analogue of spatial proximation, and a distancing or aerial shot as its inverse. The reasoning is

that camera distance performs, at the level of visual composition, work comparable to what deictic language performs linguistically. Because linguistic deixis and camera distance remain different semiotic operations, Chapter Four's analyses distinguish, wherever both are present in a sample, which proximation effect is achieved through the caption's language and which through the image's composition, rather than treating the two as interchangeable evidence of a single effect.

Cap (2013) defined Proximization as a discursive process, according to which physically, temporally, and axiologically remote events and objects are introduced in the direct and negatively consequential sense of intrusion on the speaker and her addressee. The other appeal is the Social Proof. As Cialdini (2007) pointed out, people tend to perceive a behaviour as more appropriate in a given situation to the extent that they perceive others to have performed it. Measures such as 'likes' and 'shares' in the discourse of media serve as pragmatic indicators of social proof to users, indicating that a pro-environmental position is the social role model.

2.4.1.4 Persuasive Speech Acts in Environmental Discourse

The essence of pragmatic examination in the research paper rests on the theory of Speech Act, originally worked out by Austin but systematized by Searle. This model is based on the fact that language is not just used to explain reality but rather to act. According to Austin's original model, a speech act essentially consists of three acts, namely the locutionary act (the literal utterance), the illocutionary act (the intended communicative force, for example "advising, warning, commanding"), and the perlocutionary act (the psychological or behavioral response to the utterance). Beyond these three acts, speech act theory also accounts for implicature — the additional meaning a speaker conveys beyond the literal words used. A tweet that says "Global temperatures are rising" is hardly just a case of assertion (stating a fact) in the digital environmental discourse; pragmatically. It may rather be a directive (encouraging the audience to act) or a

commissive (a political institution promising to change policies). The effectiveness of such acts depends, to a large extent, on the so-called “felicity conditions,” namely, the authority of the media user perceived to be sincere. Using this model, the study identifies how media environmental messaging is pragmatically designed to move from an informative function toward a behaviour-directing one (Searle, 1969); this describes the illocutionary force encoded in the caption, not a measured behavioural effect on any audience.

It is the type of speech acts employed to perform persuasion. It is warning, advising, and commanding which takes center stage in environmental advocacy. The impact of such acts often depends on the perceived authority of the speaker. A speech act can be successful only if it satisfies certain conditions called “felicity conditions.” The speaker must have the authority and context appropriate (May, 2010).

According to Taillard (2000), persuasive communication succeeds when the audience not only understand the informative intention (what the speaker is saying) but also achieve the communicative intention by adopting the attitude or behavior desired. Therefore, a tweet on recycling is not only a statement of fact but also a directive speech act, which is to change the real-life behavior of the recipient.

2.5 Cross-Cultural Perspectives in Environmental Communication

Environmental communication is not practiced in a cultural vacuum. The cultural values and norms of communication patterns of societies determine how they comprehend, debate, and respond to issues of sustainability. This part looks into the theoretical approaches to cross-cultural communication and further extends this approach to the particular situation of environmental discourse, with its unique paths of Arab and Western narratives (Cox & Pezzullo, 2021).

2.5.1 Concept of Cross-Cultural Communication

Cross-cultural communication is the study of how individuals with divergent cultures formulate and receive messages. It is based on the fact that culture is a basic filter of cognition. One of the most widely cited definitions of culture was offered by Hofstede (2009, p. 34), who defined it as "the collective programming of the mind that distinguishes the members of one group or category of people from others," noting that it is always a collective phenomenon, though one that can be connected to different collectives.

This collective programming in the environmentalism context not only determines what should be regarded as an environmental problem but also what should be regarded as a proper solution. As an example, a message that is appealing to individual responsibility can work in one culture and fail in another where collectives are given priority (Milfont & Schultz, 2016).

2.5.2 Cultural Values and their Influence on Environmental Communication

As a theoretical framework to operationalize the Cross-Cultural Approach, the Cultural Dimensions model developed by Hofstede can be used as a basic means of comparing the values of a society. The present model states that profoundly ingrained cultural programming determines how society members process information and react to persuasive appeals. Two aspects of this model are especially relevant to environmental communication: Individualism-Collectivism (IDV) and Power Distance Index (PDI). In societies where individualism is prevalent, as in most Western cultures, the model predicts that the most persuasive stories are those focusing on individual responsibility, carbon footprints, and individual efficacy. By contrast, in collectivistic societies, including several Arab countries, the same model predicts that the most persuasive narratives are those aligned with group harmony, national pride, and the collective good. Also, in societies with

high Power Distance (where hierarchies are more readily tolerated), members are more likely to respond to top-down environmental directives from state or religious leadership than to grassroots activism. The application of the Hofstede model provides a systematic and predictable grid for determining the success or failure of certain pragmatic-semiotic decisions based on the crossing of cultural barriers (Hofstede et al., 2010).

Schwartz (2008) offered a more precise assessment through the concepts of Harmony and Mastery. He described the Mastery orientation, common in societies where ambition and success are cherished, as follows: "Mastery values promote active self-assertion to master, to direct, and to change the natural and social environment to achieve group or personal goals."

On the other hand, the values of harmony are the importance of belonging to the world as it is, trying to comprehend and enjoy it, but not transforming or using it. According to Schwartz, world at peace, unity with nature, and environmental protection are some of the essential values in a culture that is highly rated on the dimension of Harmony (Schwartz, 2008). The basic differences in these orientations determine whether sustainability is constituted as a technological issue to be mastered, as is common in Western discourses of industrialism, or a moral issue requiring harmony with nature, as found in some indigenous and Eastern discourses (Dryzek, 2022).

Because the present study relies on Dryzek's (2022) typology of environmental discourses to interpret its comparative findings, this typology warrants closer explanation here. Dryzek classified environmental discourses according to two axes whether they are reformist or radical in their view of existing social and economic structures, and whether they are prosaic (accepting industrial society's basic terms) or imaginative (envisioning a fundamentally different order). This produces discourse families ranging from Promethean and economic-rationalist discourses, which treat nature as a resource to be managed through markets and technological innovation and tend to

foreground individual and corporate agency, to survivalist and green radical discourses, which foreground collective responsibility, limits to growth, and a fundamental re-ordering of the relationship between society and nature. For the purposes of this study, the relevant contrast is between discourses that locate agency and responsibility at the level of the individual or firm — more characteristic of the Western Promethean/economic-rationalist tradition — and discourses that locate agency and responsibility at the level of the collective, the state, or the community, which this study associates with the more state-mediated and collectivist tendencies observed in the Arab sustainability narratives analysed in Chapter Four.

2.5.3 Differences Between Arab and Western Sustainability Discourses

Through empirical studies, it is noted that there exist significant disparities between Arab and Western environmental discourses, which are propelled by these underlying value systems. Western Narrative: "Policy and Individualism." In their comparative study of YouTube narratives, Damle and Krishnan (2025) found a North-South divide, comparing Western and non-Western approaches. They noted that the Global North (West) has created chiefly stories about carbon emissions and policy, emphasizing technical mitigation policy and holding governments to task through democratic pressure.

The Arab Narrative 'Development and Leadership'. In comparison, the Egyptian and Emirati media examined by Radwan et al. (2023) construct sustainability as a matter of state-directed modernisation and leadership rather than grassroots activism. In their research on the topic of Egyptian and Emirati newspapers, Radwan et al. (2023) discovered that sustainability is not often discussed as a grassroots activist cause. Instead, it is approached in the vein of the so-called international partnerships and regional leadership. They stated "When the Egyptian newspapers dealt with matters of finance, water, and agriculture, they managed to address those issues within

the framework of international cooperation. Emirati newspapers were devoted to clean energy and the transfer of global experience in the context of international relations and leadership of the region" (Radwan et al., 2023, p. 518).

This suggests a top-down strategy, in which sustainability is a project of modernity led by the state and not a bottom-up requirement of justice. Likewise, in their discussion on the discourses of the Green Economy in Qatar, Rabah et al. (2025) concluded that media discourses about the issue are relied on to justify state policies; in this process, economic rhetoric is intertwined with visual images of nature to create the impression of a modern and responsible country.

2.5.4 Cultural Influence on Semiotic Choices and Persuasive Strategies

The semiotic resources (images, colours, symbols) and persuasive strategies of media are also determined by culture. In the Arab setting, visual semiotics and identity are closely intertwined with sustainability communication, which through visual means often negotiates between traditional and globalised worldviews. In a Multimodal Critical Discourse Analysis of the influencers in the UAE, Ben Ali (2022) found that using visual options is a strategic instrument in identity formation. He discovered one of the motifs of the traditional versus the global, in which influencers refer to clothing (Hijab or Kandura vs Western clothes) to situate themselves. Speaking about the contemporary way of life or travelling (usually related to eco-tourism), such visual grammar as the camera angle and social distance are applied to create an aspirational image, which belongs to the global consumer culture and, at the same time, preserves the local cultural indicators (Ben Ali, 2022).

The combination of these elements is referred to as “multimodal assemblages” (Simungala et al., 2024) — the same underlying phenomenon that Section 2.2.1's discussion of multimodality

addresses at a more general level, here specified to the culturally hybrid case of Arab influencer content. Media discourses in multicultural settings do not take the shape of monoliths, but rather remain dynamic blends of different modes of semiotics. According to them, these collections enable the user to perform the task of traversing multiple identities, borrowing cues from other cultures, and making a hybrid tale (Simungala et al., 2024).

In terms of persuasion, this implies that guilt-based strategies (the so-called flight shame) might not be as effective in the Arab world as prestige- and national-pride-based ones (such as hosting COP28 as a symbol of regional leadership). Praising and announcing achievements are common speech acts of persuasive pragmatics in the Arab world, but warning and criticizing speech acts are ordinary in Western discourse (Radwan et al., 2023).

2.6 Pragma-Semiotic Approaches in Sustainability Narratives in Media

The complex and multi-layered nature of digital communication, especially within the context of sustainability challenges, requires a theoretical framework that is neither exclusively linguistic nor exclusively visual, but integrates both. A pragma-semiotic approach refers to the integration of a functional perspective of language i.e. pragmatics, and the structural perspective of signs, i.e. semiotics. It is a synthesis that is needed to analyse the discourse of media where meaning does not simply get encoded in text or image but enacted between the two in a given socio-cultural context (Yus, 2011).

2.6.1 The Interface of Pragmatics and Semiotics

The Pragma-Semiotic Approach is not just a combination of two forms of study but a shift in epistemology necessary for studying modern digital communication. Semiotics is a standalone model that provides a structural inventory of signs (the what), while pragmatics addresses

communicative intentions and contextual inferences (the why and the how). These two areas are bridged in a fully integrated pragma-semiotic model by treating visual and textual resources alike as acts of speech. According to this model, a picture is not a static image but an illocutionary act, functioning like a warning, command, or promise in words. Using this method in the context of media makes it possible to systematically study how interactions between modalities (a green icon, a hashtag, and a direct textual request) create pragmatic implicatures that go beyond the literal meaning of the individual elements. This model is crucial in analyzing sustainability narratives because it offers the methodological rigor to elaborate on how digitized multimodal artifacts are strategically structured to actualize persuasion in a given socio-cultural setting (Machin & Mayr, 2012).

In discussing the scope of pragmatics, Mey (2001) stated that it cannot be confined to oral language alone but must cover the entire human communicative context. Rather, he argued that a genuinely pragmatic analysis must take into account the societal conditions that govern language use. Applied to multimodal texts, this interface can enable the researcher to grasp the functioning of visual choices as speech acts. As an example, Adami (2013) proposed the notion of interactive sites/signs on the web. He claimed that digital elements are not fixed, that they have a two-fold character as semiotic and pragmatic:

“[Interactive sites/signs] have a two-fold nature, as places enabling actions producing effects and as forms endowed with meanings. They have also a two-dimensional functioning, syntagmatically on the page where they are displayed, and paradigmatically, opening to multiple text realizations based on choice” (Adami, 2013, p. 73).

This implies that in sustainability narratives, a "Like" button or a "Share" icon is not merely a technical feature but a pragma-semiotic device that invites the user to participate in a collective environmental stance (Adami, 2013).

2.6.2 Analysing Digital Discourse through a Pragma-Semiotic Lens

Media is a semiotic assemblage in which various modes are engaged to create complex meanings. Simungala et al. (2024) emphasised that these assemblages are not accidental; they are strategic constructions deployed to position identity and ideology. They discovered that users of media borrow signs of various cultural repertoires to develop hybrid narratives in the context of studying media discourses (Simungala et al., 2024). Pragmatically, this assemblage serves the purpose of controlling the contextual assumptions. The Relevance Theory of Sperber and Wilson (1986), which underpins their analysis, implies that the communication process is ostensive-inferential. The speaker (or poster) presents a stimulus (an image + text) that renders a given set of assumptions to be manifested mutually. This is empirically supported by Kruk et al. (2019) in their analysis of Instagram posts. They discovered that there is a phenomenon of multiplication of meaning; it is achieved when the text and the image are not repeated but give birth to a third, new meaning:

A caption might evoke an ironic contrast with the image, so neither caption nor image is a mere transcript of the other. Instead they combine... to create a new meaning that has a more complex relation to the literal meanings of text and image. (Kruk et al., 2019, p. 11)

In the context of sustainability, this is crucial. A picture of a green forest (visual mode) paired with a caption about corporate responsibility (textual mode) might generate a pragmatic

implicature of "hope" or, conversely, "skepticism" (greenwashing), depending on the specific pragma-semiotic arrangement.

2.6.3 Integrated Framework for Sustainability Narratives

A pragma-semiotic approach would enable the comprehensive study of the sustainability discourse in the Arab and Western worlds. It goes past the analysis of the number of keywords or description of pictures to the examination of how these pieces are put together to convince the other. In their examination of Instagram posts of female influencers, Abdullah et al. (2024) justified the relevance of this strategy. They demonstrated that visual grammar — such as gaze or camera position — is used to create a particular imaginary connection with the viewer, in effect performing a pragmatic act of invitation or demand (Abdullah et al., 2024).

Moreover, when Cap's (2013) Proximation Theory is applied within this multimodal framework, it can be used to understand the process of constructing threats. A pragma-semiotic analysis would look at the interplay between separate modes, such as the red tones of a heat map (semiotic) and the use of deictic words like "here" and "now" (pragmatic), which together make the threat of climate change feel as though it is happening directly to the audience.

To sum up, the pragma-semiotic approach is the methodological rigor needed to dismantle the "Digital Narratives" of sustainability (Helgeson et al., 2022). As Chapter Three's theoretical framework details, this approach does not stop at the semiotic and pragmatic levels discussed above: the framing level then organises the resulting persuasive strategies into an ideological structure (via Entman's four functions and the resulting Core Green Frame). It accepts that, in the digital age, persuasion is a product of the complex interaction among cultural values, semiotic resources, and practical plans.

2.7 Previous Studies

Previous studies on sustainability discourse have examined how environmental and sustainability concerns are represented through linguistic and multimodal resources across different cultural and media contexts. Reviewing these studies provides a foundation for the present cross-cultural analysis and helps determine the research gap addressed by this study.

Shin (2017) carried out a PhD dissertation on *Understanding Organizational Environmental Sustainability Messages on Social Media and Testing the Communication Effectiveness* studying the persuasive workings of organizational sustainability messages over Twitter, grounded in Attribution Theory. The dissertation examined a prominent issue in environmental communication, specifically questioning whether the public has become more cynical of “greenwashing.” Employing a combination of content analysis of corporate tweets and experimental surveys, Shin examined how message characteristics — in particular, “specificity” and “substantiation” — impact audience trust and behavioural intentions. The results showed that vague claims to be green often backfire, causing scepticism and negative attribution. Messages that are specific, concrete, and substantiated — that is, backed by evidence or third-party verification — considerably enhance credibility and lead to favourable attitudes. According to the study, a sound sustainability narrative must be more than just a statement. It should provide a credible counter-strategy to stakeholder scepticism through an appropriate level of “communicative proof.” Further research illustrates that the information quality of the narrative matters for persuasion.

Similarly, Effrosynidis, Sylaios, and Arampatzis (2022) published an article on *Exploring Climate Change on Twitter Using Seven Aspects: Stance, Sentiment, Aggressiveness, Temperature, Gender, Topics, and Disasters*. In a comprehensive computational study, using big

data analytics to analyze the climate change discourse on Twitter. Aware of the complex nature of public opinion in the online world, the authors conducted a machine learning and Natural Language Processing (NLP) study of a large dataset of tweets to analyse seven distinct dimensions, namely sentiment, stance, aggressiveness, and gender. The research emerged as empirical evidence for the claim of "echo chambers," suggesting that users tend to form closed networks with like-minded others which may bolster polarization. An important finding is the positive correlation between topic politicization and aggressive language; once atopic becomes politicized (rather than simply a scientific fact), the analysis showed a marked escalation in negative sentiment once users denied a policy or attacked an ideology. Moreover, the study uncovered variations in communication styles based on gender, with females being more supportive and less confrontational. The study made three key contributions: first, that media platforms are not neutral conduits for environmental information; second, that media must be viewed as a dynamic and continually shifting space; and third, that pragmatic features like tone and sentiment play a crucial role in shaping the reception of sustainability narratives.

In another study, Xu, Tan, Li, and Li (2023) focused on *Understanding Social Media Cross-Modality Discourse in Linguistic Space*, arguing that taking texts and images as independent items is a major methodological issue in digital discourse analysis. The authors proposed a novel framework for "Cross-Modality Discourse," arguing that the meaning on media is generated by the structural coupling of the visual and verbal modes. They constructed a large-scale dataset of 16,000 multimodal tweets, along with a fine-grained taxonomy of text-image relations occurring in these tweets, such as "entity-level insertion," where the text specifies an object appearing in the image, and "scene-level extension," where the text gives wider context not visible in the image. Caption analysis performed on a number of images revealed that, contrary to common assumption,

captions do not merely describe images; they often carry out complex pragmatic functions. Specifically, these captions “anchor” an image’s meaning, disambiguate its content or extend its meaning. By mapping this cross-modal relationship, the authors provided a theoretical grounding for understanding users' cognitive processing of multimodal data. This study is particularly relevant for analysing how sustainability narratives utilize visual evidence (photos of pollution) together with persuasive text and how they build coherent and compelling arguments.

Furthermore, Rabah, Safdar, Raiq, and Karkour (2025) examined *Digital Discourses of Sustainability by Analysing Social Media Narratives on Green Economy in Qatar and Malaysia*. In view of the scarcity of environmental communication research in the Global South, Rabah et al. (2025) comparatively examined how the “Green Economy” is discursively constructed on media in Qatar and Malaysia. This study is premised on the fact that sustainability narratives are not universal, but are embroiled in local socio-political contexts. Through a mixed-methods approach combining quantitative content analysis and qualitative Multimodal Critical Discourse Analysis (MCDA), the authors attempted to comprehend how digital actors ranging from government bodies to private organisations use X (formerly Twitter) and Instagram to justify state policies. According to the findings, these non-Western sustainability narratives are mainly “state-centric.” In comparison to the Western discourses, which feature grassroots activism or corporate critique, the Qatar and Malaysia narratives reframed environmentalism as part of a state-led modernisation and economic diversification programme. The research highlighted the strategic use of multimodal resources where futuristic green cities and technology images are coupled with text emphasising national pride and leadership. The visual-verbal synergy effectively “naturalized” certain political and economic ideologies by making the claim that the shift to a green economy is a state-driven achievement rather than a bottom-up demand for ecological justice.

In addition, Montufar, Vilema, Kohler, and Campoverde (2025) conducted quantitative analysis on *Transmedia Narratives and Environmental Education in the Digital Age: Quantitative Analysis of Public Perception of Climate change through Social Media*. The authors conducted a quantitative analysis of engagement and user perception on Instagram, TikTok, and X (formerly Twitter). According to the research, transmedia strategies were more effective than single-platform approaches for promoting deep engagement and environmental literacy. By tailoring the messaging to the specific affordances of each platform (the visual aesthetic of Instagram versus the short-form dynamism of TikTok), communicators could maintain a core message while delivering a heavily customised media strategy, creating a more immersive experience. The study concluded that the “medium is the message” in sustainability discourse: how a platform shapes the character of a message affects whether audiences perceive climate change as urgent and whether that perception motivates action.

Finally, Syakirah, Anwar, and Winoto (2025) published an article on *Environmental Communication in Social Media, Presenting A Bibliometric Study of Climate Change Discourse and Public Engagement*. Syakirah et al. (2025) examined how climate change communication research on media developed, taking a macro-level view through bibliometric analysis of works published between 2008 and 2024. The study mapped the intellectual trajectory of the field and identified patterns in the literature. The analysis indicated that the studies had shown an apparent shift of focus over time, moving from earlier studies that focused only on content analysis (what is being said) to later studies that focused more on network dynamics, polarization, and public engagement (how people react and interact). Most importantly, the study highlighted a geographical imbalance in the literature, noting that the vast majority of research focuses on Western contexts and there is relatively little understanding of the communication of sustainability

in other contexts. This finding provides a strong rationale for future studies on environmental communication to diversify their geographical and cultural focus.

The present study is premised on this body of literature. The previous studies reviewed in this section have dealt with the persuasive, multimodal, and cultural dimensions of sustainability communication largely in isolation from one another. Some of them concentrate on the persuasive features of sustainability messages, some on the relation between text and image in digital posts, and others on the regional and cultural specificity of sustainability narratives. However, none of them combines these dimensions within one comparative framework applied to Arab and Western media. The present study addresses this gap by adopting a pragma-semiotic approach in which the verbal and visual elements of each sample are analysed together, as they jointly perform speech acts and construct ideological frames in two cultural contexts. By comparing Western and Arab sustainability narratives, the study also responds to the call by Syakirah et al. (2025) for more geographical and cultural diversity in environmental communication research.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the methodology and the processes of analysis to be used in this study. It attempts to give a detailed account of the research design, data collection technique, and sample selection. Moreover, the chapter presents an eclectic model of analysis, specifically designed to explore the stories of sustainability on media. It incorporates pragmatic, semiotic, framing, and comparative theories to develop practical steps for deconstructing the sampled multimodal texts in the data interpretation chapter that follows.

3.1 The Nature of the Study

The pivotal idea of qualitative research is to investigate the phenomena and present them in a more in-depth, thorough, and descriptive way using non-numeric data. As opposed to the quantitative approach, where measurements and numbers are used to test hypotheses, qualitative research aims at explaining complex associations, personal experiences, and cultural and communal conventions. Such richness of description makes it the best instrument of comprehending human and social phenomena in their actual, multifaceted situations (Oranga & Matere, 2023).

Building on this, qualitative research is closely linked to the investigation of human experiences, thoughts, and feelings. This kind of research aims to generate exploratory information that answers how and why particular phenomena occur. This approach allows the researchers to discover new patterns, gain deep insights, and draw full conclusions with the help of narrative

forms and texts. These intuitions may be a strong basis to comprehend linguistic and social interactions, avoiding being limited to hard-and-fast statistical schemes (Ugwu & Eze, 2023).

The major strength of qualitative research is that it is carried out in a natural environment, in which the researcher studies the phenomena within the environment where they occur (in this case, media), in an endeavor to explain them through the meanings people associate with them. In this study, the researcher serves as the key instrument in gathering and analysing information. The researcher engages directly with texts and visual information to make sense of complex situations, rather than employing some automated measurement instrument or close questionnaire (Creswell, 2009).

Moreover, qualitative research can proceed inductively, deductively, or through a combination of both. This study follows the latter: it is deductive in that each sample is coded against the predetermined theoretical categories established in Chapter Three (visual metafunctions, speech acts, proximisation strategies, framing functions, and cultural dimensions), and inductive in that the specific comparative patterns — which categories recur, in what combinations, and with what cultural inflection — are identified only after comparing these codes across the Arab and Western sub-corpora, rather than being hypothesised in advance (Taylor et al., 2016). This combined approach enables the researcher to build a fuller picture that reflects the meaning of the data, offering deep, multidimensional insight into the phenomenon under study rather than confirming assumptions formed beforehand.

According to the above traits, the qualitative approach in the existing study fits perfectly well with the purpose of the research, which examines comparative sustainability narratives. The qualitative approach offers the most appropriate methodology for this study since it follows an analytical paradigm combining semiotics, persuasive pragmatics, and framing. It allows breaking

down the ideological meanings, analyzing speech acts, and understanding how images and texts (not numerical data) interrelate to form the Arab and Western environmental discourses, which are exactly at the heart of the qualitative research goals (Oranga and Matere, 2023).

3.2 Data Selection and Collection

This study's corpus was assembled through data selection rather than primary data collection: the researcher did not generate new data (e.g., through surveys or interviews) but instead identified and selected pre-existing, publicly posted multimodal content that met the study's criteria. This follows Wang's (2006) account of data selection as the process by which a researcher identifies reliable information from within a larger pool of available material. Of the general data-gathering methods catalogued by Gill, et al. (2008) — surveys, textual or visual analysis, and observation — this study relies on textual and visual analysis of existing content, not on surveys or observation. Qualitative selection is commonly evaluated against three interrelated standards: adequacy, saturation, and representativeness. Adequacy, per Maxwell (2005), refers to whether the volume and depth of data collected are sufficient to support the claims the researcher wishes to make; in this study, adequacy is addressed by requiring each of the 20 samples to carry both a substantial visual element and a substantial textual element (caption, on-image text, or hashtags), so that each sample can support a full pragma-semiotic analysis. Saturation, discussed further below, refers to the point at which no new information emerges from additional data; here, the ten-sample size for each of the Arab and Western groups reflects the point at which the recurring semiotic, pragmatic, and framing patterns identified across the corpus stopped yielding substantially new categories. Representativeness concerns the relationship between the sample and the broader population of environmental media content it stands in for. According to Maxwell (2005), researchers must attend to this relationship because a representative sample is one of the

means by which research results can be meaningfully generalised; in this study, representativeness is pursued by drawing equal numbers of samples from each cultural group across a comparable range of environmental themes (see Section 3.4).

Carton and Jones (2004) defined saturation as a stage of the research process when no new information is gained related to the existing information possessed by the researchers. Being more specific to this idea, without the achievement of saturation, the results of the researcher can be incomplete, biased, and even invalid. Moreover, saturation is used to determine whether the research has sufficient data to create a comprehensive picture of the phenomena under investigation. It is applied to particular samples, which are usually used in qualitative studies. The concept of saturation is commonly mentioned as a part of the requirements to evaluate the quality of qualitative research, as it implies the reliability of the data (Kaiser & Hennink, 2020). Data sufficiency is related to, but distinct from, adequacy and saturation: whereas adequacy concerns the depth of the data and saturation concerns the point at which new data stops adding information, data sufficiency, according to Denzin and Lincoln (2000), refers more narrowly to whether the researcher has enough data to achieve the study's specific objectives and answer its research questions. In this study, sufficiency was judged met once the 20-sample corpus (ten Western, ten Arab) allowed each of the five research objectives and research questions to be addressed with at least two samples per cultural group illustrating each of the semiotic, pragmatic, and framing categories under analysis.

The information related to this research was collected through purposive sampling, whereby the researcher selects specific texts and posts purposely to meet the objectives of the research and provide a significant amount of information about semiotic and pragmatic analysis. The collection method has been followed as per the required specifications, and it consisted of 20

multimodal samples (ten Western and ten Arab). Every sample comprises two inseparable and mutually-reliant parts: a visual part (an image or graphical design) and a textual part (a caption, additional sentences, and hashtags). In order to ensure comprehensive coverage of present-day digital discourse, the samples were drawn from a range of prominent media outlets and chosen to cover a large variety of valuable and current environmental matters, such as solar energy, water conservation, and other ecological-related concerns.

3.3 The Source of the Data

The ten Western samples were drawn from institutional and news sources (including the World Wildlife Fund, Greenpeace International, the European Commission, the United Nations, and outlets such as National Geographic and PBS NewsHour), whose content was located via the Google search engine. The ten Arab samples were drawn primarily from Arabic-language news platforms, including 964 Media Network, Al Jazeera Arabic, and Al Arabiya. These sources were selected because they are among the platforms most frequently used for environmental reporting in their respective regions and because their content is inherently multimodal, combining visual images, text, and (for the media posts) interactive hashtags.

3.4 Criteria of Data Collection

The criteria used to select the 20 multimodal samples were tied directly to the study's five research objectives and research questions. Each sample had to (a) contain both a substantial visual and textual element, enabling the semiotic analysis addressed by Objective 1/RQ1, (b) contain identifiable speech acts and proximation markers, enabling the pragmatic analysis addressed by Objective 2/RQ2, (c) engage an identifiable environmental issue capable of being assigned to a Core Green Frame, enabling the framing analysis addressed by Objective 3/RQ3, and (d) be clearly

attributable to either an Arab or a Western source, enabling the comparative analysis addressed by Objective 5/RQ5. To begin with, since the research is based on Multimodal Critical Discourse Studies (MCDS) (Kress & leeuwen,2006), it was crucial to confirm that each chosen sample contained both a specific visual element (a photograph or a graphic design) and a substantial number of linguistic elements (a long caption, textual elements included in the photo, and hashtags). The posts that did not include either of these modalities were filtered out because the eclectic model requires the cross-modal analysis of the interaction between the text and image.

Moreover, the chosen readings were required to directly deal with the current problems of the environment and sustainability. In order to give the general picture of the digital environmental discourse, the samples were selected to include an extensive range of topics, such as renewable energy, water conservation, the ecological impact of fast fashion, electric mobility, corporate greenwashing, and eco-tourism. This thematic diversity indicates that Green Framing Theory can be applied in a host of settings. In addition, given the comparative nature of the study to grasp the desired paradigms, the samples were rigorously categorized according to cultural origin. The selection of Western samples was premised on their rootedness in customary Western environmental ideologies, such as individualism and technological solutionism. Arab samples were instead chosen to genuinely reflect the region's sustainability narratives, which often highlight state-directed environmentalism, collective responsibility, or religiously informed ecological stewardship.

Furthermore, linguistic analysis is productive only if samples' textual elements are manifested through clear persuasive strategies. Thus, the chosen captions and texts were to be abundant in discernible speech acts, especially assertive and directive ones, and to exhibit discernible proximation strategies that serve to control the audience's perception and behaviour.

Finally, to ensure ethical adherence and methodological soundness, all data were drawn from legitimate, publicly available online sources: posts published openly by state institutions, prominent individuals, and non-governmental organisations, rather than from private or restricted communications. This ensures that the corpus represents genuine public environmental communication rather than content that was not intended for public circulation.

Table 3.1

Corpus Overview — Sample, Group, Environmental Issue, and Source

Sample	Group	Environmental Issue	Source / Platform
W1	Western	Ocean plastic pollution	World Wildlife Fund (website)
W2	Western	Fast fashion waste	Greenpeace International (website)
W3	Western	Circular economy	European Commission (website)
W4	Western	Earth Day / climate history	UN News (website)
W5	Western	Wildfires	UN Environment Programme (website)
W6	Western	Climate protest (Fridays for Future)	PBS NewsHour (news)
W7	Western	Biodiversity loss (monarch butterfly)	International Union for Conservation of Nature (website)
W8	Western	Deforestation	World Wildlife Fund (website)
W9	Western	Flood disaster	National Geographic (website)
W10	Western	Glacier melt	NASA Jet Propulsion Laboratory (website)
A1	Arab	Water pollution (Tigris/Diyala)	964 Media Network (news)
A2	Arab	Dust storms	Al Jazeera Arabic (news)
A3	Arab	Drought / Mesopotamian marshes	Al Jazeera Arabic (news)
A4	Arab	Gas flaring	Al Jazeera Arabic (news)
A5	Arab	Solar energy	Al Arabiya (news)
A6	Arab	Date palm cultivation	Al Jazeera Arabic (news)

A7	Arab	Desertification	Al Jazeera Arabic (blog)
A8	Arab	Shatt al-Arab salinity	Al Jazeera Arabic (news)
A9	Arab	Drinking-water poisoning (Basra)	Al Arabiya (news)
A10	Arab	Urban flooding	Al Jazeera Arabic (news)

3.5 Procedures of Analysis

An eclectic model of analysis is used to conduct a systematic and rigorous analysis of the data in Chapter Four, on the 20 samples, in the following consecutive steps:

1. **Contextualisation:** The image and text multimodal sample is introduced, and the context of this sample is defined, i.e., the digital platform, the target audience, and the environmental issue, to create a basis for the analysis.
2. **Semiotic Analysis:** The visuals are coded according to the three metafunctions of Kress and van Leeuwen (2006) — representational (identifying the actors and processes depicted), interactive (coding gaze, social distance, and camera angle to determine demand/offer status), and compositional (coding salience, framing, and information value).
3. **Pragmatic Analysis:** The caption text is coded using Searle's (1969) taxonomy, with the analysis focusing on assertive and directive speech acts, and using Cap's (2013) three-part model to identify spatial, temporal, and axiological proximisation markers that work to regulate audience behaviour and create a sense of urgency. For the identification of indirect directive force, an assertive utterance is coded as performing an indirect directive only when its communicative context supports the inference that the speaker intends to induce an identifiable future action by an addressee. The coding therefore considers the intended addressee, the action implied, and the contextual evidence supporting the directive

interpretation, rather than treating the presentation of environmental harm or urgency alone as sufficient evidence of a directive (Searle, 1975). Speech acts falling outside the assertive and directive categories, such as commissives, are recorded where they occur but are not the focus of the analysis.

4. **Framing Analysis:** Each sample is coded using Entman's (1993) four framing functions — problem definition, causal interpretation, moral evaluation, and treatment recommendation — and the Core Green Frame is inferred holistically from the pattern across all four functions, with particular weight placed on the moral evaluation and treatment recommendation functions, since these two most directly signal whether a sample's underlying logic is primarily ethical, economic, scientific, activist, or aesthetic. This coding allows a structured comparative analysis of which frames are more common or emphasised in the Arab versus Western sustainability narratives.
5. Discussing the results to draw concluding insights.
6. Proposing some recommendations and suggestions for more studies based on the examination of the relevant data.
7. Because this analysis was conducted by a single researcher, formal inter-coder reliability testing was not applicable. The criterion-based description given for each coding step above (Steps 2 to 4 — specific visual metafunction markers, named speech-act and proximisation categories, and Entman's four framing functions) is intended to make the path from observation to categorisation as transparent and traceable as possible in the absence of a second coder, so that each judgement in Chapter Four can be referred back to a stated criterion rather than an unstated impression.

3.6 Theoretical Framework

An eclectic model of analysis is chosen for the study. The researcher follows a multi-level approach whose three dimensions are semiotic, pragmatic, and framing. The models adopted by the study are as follows:

The analysis of the study is guided by Multimodal Critical Discourse Studies (MCDS), developed by Machin and Mayr (2012). MCDS serves as the overarching methodological orientation of the research rather than a fourth component alongside the semiotic, pragmatic, and framing levels described below: it supplies the critical stance (that meaning, ideology, and power are jointly constructed through linguistic and non-linguistic semiotic resources) within which Visual Grammar, Speech Act Theory, Proximisation Theory, and framing analysis operate as the specific analytical tools applied at each of the model's three levels. MCDS extends Critical Discourse Analysis (CDA) beyond language alone, examining how meanings, ideologies, and power relations are constructed through the combined effect of multiple semiotic modes — images, colour, layout, typography, and symbols — alongside linguistic resources. Machin (2016) argued that multimodal critical discourse studies should examine how ideological meanings are communicated through different semiotic resources, particularly visual and linguistic forms. Such an approach makes it possible to identify meanings and social practices that may otherwise appear natural or remain unnoticed. Ideological meanings are thus built into the construction of narratives across many formats, including photographs, graphic designs, captions, and hashtags. It is most suited to the analysis of media environmental content. The ideology of sustainability represented in Arab and Western digital discourse is unearthed through the lens of MCDS in this study (Machin & Mayr, 2012).

The researcher employs Visual Grammar as described in Kress and van Leeuwen (2006). The various metafunctions of visual grammar by Kress and van Leeuwen are representational, interactive, and compositional. The representational metafunction examines the narrative and conceptual organizations of the image, identifying the actors and what they are doing. The interactive metafunction looks at the relationship between the viewer and the image in terms of gaze, social distance and perspective. Compositional metafunction uses information value, salience, and framing to study visual elements' structures.

At the pragmatic level, the present study draws on Charteris-Black's (2014) framework of Persuasive Pragmatics. The study of Persuasive Pragmatics encompasses an analysis of the linguistic and rhetorical phenomena through which speakers and writers tailor their messages with a view to influencing the beliefs, attitudes, and behaviours of their targets. It does not only deal with identification of speech acts but also deals with consideration of wider rhetoric and discourse argumentative strategies which make a particular discourse persuasive in a particular social and cultural context (Charteris-Black, 2014). Persuasive Pragmatics, within environmental communication, enables the researcher to unveil how rhetorically constructed sustainability narratives can motivate pro-environmental behaviour, emotional appeal, speaker credibility, and audience mobilisation. This framework presents the essential umbrella under which the more specific pragmatic tools — namely Speech Act Theory and Proximation Theory — are applied and interpreted. The pragmatic level utilizes Searle's (1969) taxonomy of speech acts by placing emphasis on the assertive and directive ones. Assertives commit the speaker to the truth of a particular proposition, typically concerning matters of fact in the environment. Directives represent the speaker's attempt to get the hearer to do something. In sustainability campaigns, these directives are widely used to influence the behaviour of the population. The proximation theory

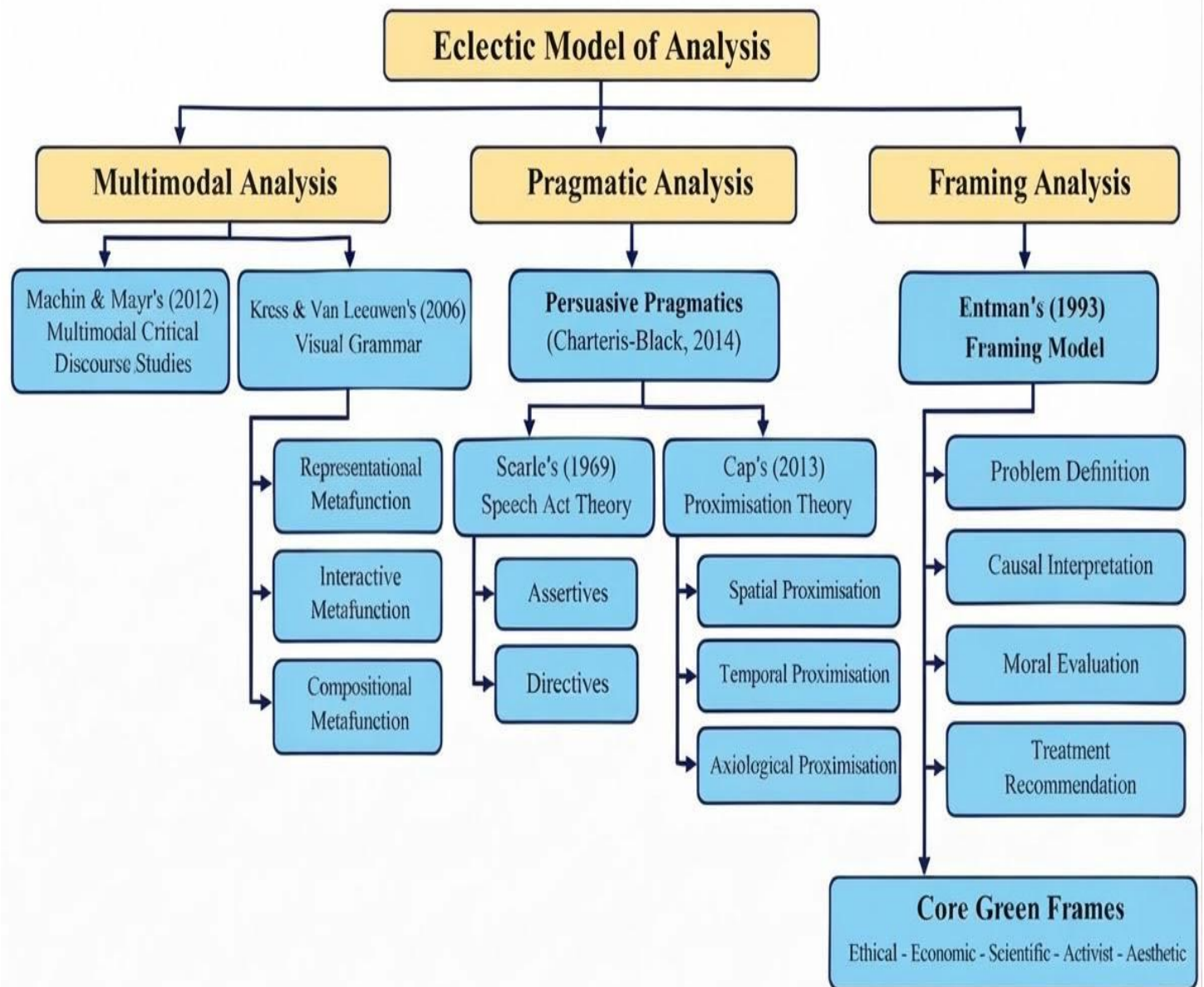
proposed by Cap (2013) is a theory that can indeed be divided into three different dimensions namely (1) spatial proximation (making the environmental threat physically nearer to the deictic centre of the audience), (2) temporal proximation (as close as possible, the threat is about to happen or already happens), and (3) axiological proximation (the creation of an ideological and moral conflict between the in-group and out-group values).

In terms of framing, Entman (1993) employed four functions to organise and structure environmental discourse. These are (1) problem definition, (2) causal interpretation, (3) moral evaluation, and (4) treatment recommendation. Problem definition separates a particular issue and specifies what a causal agent is up to; causal interpretation specifies the forces that are building the problem; moral evaluation evaluates the actors and their activities; and treatment recommendation provides a workable solution or predicts the future of the problem. While Entman's (1993) model provides the analytical functions to deconstruct the message defining problems and solutions, these functions ultimately serve to identify the specific Core Green Frame (Ethical, Economic, Scientific, Activist, or Aesthetic) prevalent in the post. This allows for a deeper comparative analysis between Arab and Western discourse.

The three levels are not independent analytical add-ons but form a single cumulative model. The representational and interactive choices identified at the semiotic level supply the material that the pragmatic level interprets as persuasive strategy (speech acts and proximation), which the framing level then organises into an ideological structure (the four framing functions and the resulting Core Green Frame). Each level was selected because it targets a distinct but complementary dimension of the same multimodal artefact — visual composition, linguistic persuasion, and ideological structure — none of which alone could account for how sustainability narratives construct meaning across Arab and Western media.

Figure 3.1

An Eclectic Model for Analysis of Environmental Sustainability Narratives in Media



CHAPTER FOUR

DATA ANALYSIS

4.0 Introduction

This chapter represents the analytical core of the present study, in which 20 purposively selected multimodal samples are systematically examined and divided into two groups. Group A consists of 10 Western samples, and Group B comprises 10 Arab samples. The data were collected from prominent institutional and news media platforms, in addition to digital environmental campaigns and news reports retrieved through the Google search engine. The selected samples address a broad range of environmental and sustainability issues, including plastic pollution, fast fashion, the circular economy, biodiversity loss, deforestation, glacier melting, wildfires, and climate change protests in the West, whereas the Arab context covers water pollution, dust storms, desertification, gas flaring, water salinity, drinking-water contamination, and urban flooding.

Following the construction of the eclectic pragma-semiotic model introduced in Chapter Three, each sample is analysed through four sequential stages, namely contextualisation, semiotic analysis, pragmatic analysis, and framing analysis. The semiotic dimension examines the visual elements through the three metafunctions of visual grammar, while the linguistic elements are investigated through the persuasive pragmatics framework, with particular emphasis on Speech Act Theory and Proximisation Theory. The framing analysis subsequently identifies the dominant Core Green Frame within each sample and examines it according to the four framing functions. Through this integrated analytical procedure, the chapter ultimately seeks to reveal how cultural values, ideological assumptions, and persuasive strategies contribute to shaping sustainability discourse differently across Arab and Western digital contexts.

4.1 Group A, Western Samples

4.1.1 *Analysis of Sample 1: Ocean Plastic Pollution*

"Every year, the world produces over 462 million tons of plastic. While plastic can be a useful material, 90% of it pollutes our planet. This is particularly true of single-use items such as plastic cutlery, packaging, and microplastics, which break off larger pieces of plastic like textiles. Currently, an estimated 9 million to 14 million tons of plastic waste end up in our oceans each year. Plastic waste has been found in all areas of the globe, from the deepest seas to the most remote mountains. It causes major harm to wildlife and ecosystems, disrupts the livelihood of millions of people, and poses significant risks to human health and the world economy. From people and wildlife to the communities and habitats they call home, solving the plastic pollution crisis is a challenge we all share. We need this for ourselves and for our world. WWF is fighting for a world with no plastic in nature, and we're not alone in this fight."

Figure 4.1

Ocean Plastic Pollution (Western)



World Wildlife Fund. (n.d.). Tackling global plastic pollution. Retrieved June 9, 2026, from <https://www.worldwildlife.org/initiatives/plastics>

4.1.1.1 Contextualisation

This sample comes from the authoritative online website of one of the most well-known and international environmental non-governmental organisations in the West - the World Wildlife Fund (WWF). The sample consists of one photo of a giant river otter with a transparent plastic bottle in its front flippers, while it is coming out of murky, brown-tinted water, and an extensive English-language caption warning about the global crisis of plastic pollution. This sample addresses the environmental issue revolving around plastic waste and the harms plastic waste and waste disposal have on aquatic ecosystems and wildlife. This is aimed at a global, English-speaking readership, though its actual reach is shaped by the particular nature of the Western environmental discourse tradition in which the sample is situated — in terms of its cultural

framing, rhetorical choices, and institutional voice, the WWF. The post not only draws attention to the issue, but also mobilises audiences to support WWF's anti-plastic campaign.

4.1.1.2 *Semiotic Analysis*

The image at the representational metafunctional level forms a potent narrative process, where the otter is acting and at the same time an affected participant. The animal is shown leaping towards and grasping a plastic bottle, seemingly inspecting or licking it, actively seizing and looking at an object that is completely outside of its natural habitat. The image of the wild animal, the part of nature that is depicted so unspoiled and innocent, interacting with the waste products of man-made human activity, is semiotically charged as this wild creature is a pure and innocent part of nature, whereas the plastic bottle symbolises manmade human activity that has totally disrupted nature. To the extent that the image shows this conceptual meaning, its ideological message of violation, of nature contaminated by human negligence, is not only transmitted through words, but in part—and perhaps even more significantly—without them.

The interactive metafunctional level is constructed as an offer image: rather than looking into the camera, the otter's gaze is directed at the plastic bottle, positioning the viewer as an onlooker offered the scene for contemplation rather than being directly addressed. The medium close-up shot conveys personal proximity and intimacy between viewer and animal, fostering empathy and emotional identification. The slightly low camera angle levels the viewer with the otter rather than diminishing its significance, drawing the viewer closer and framing it as a subject deserving of concern, advocacy, and a call to action to protect the animal.

At the compositional metafunctional level, the otter and the plastic bottle are juxtaposed at the centre of the frame in sharp focus, while the muddy riverbank and fragmented debris in the

background are intentionally rendered in soft focus, enhancing the salience of the two central elements. This is a compositional evocation of the central focus: the innocent animal and the polluting object. This ensures that the main two elements of the image, the innocent animal and the polluting object, stand out so that the viewer's eye is drawn consistently to the crisis the image is meant to communicate. The colors of the background are earthy and desaturated, with a brown overall tone, which is also made hazy by the dirt and sediment in the water. The ambient atmosphere of environmental degradation emphasized by the background provides a visual commentary on the environmental condition, walling up the overstated ideological message in the central theme of the image.

4.1.1.3 *Pragmatic Analysis*

At the pragmatic level, there are many persuasive strategies in the caption of this sample, both in terms of the speech act and the proximisation aspect. As is effective with rhetorical text, the essay's rhetorical authority is complemented by its emotionally mobilizing aspects to build a sound environmental argument.

From the point of speech acts, the caption uses a considerable number of assertive speech acts by means of which the speaker takes on the commitment of the truth of a number of alarming propositions related to the environment. An assertive provides the scientific foundation and factual sense of the image, creating a credibility for the world of science amid the more emotional image, "Every year, the world produces over 462 million tons of plastic", "an estimated 9 million to 14 million tons of plastic waste end up in our oceans each year", and "Plastic waste has been found in all areas of the globe, from the deepest seas to the most remote mountains". The assertives are used to build a credible, informed institutional voice in WWF. In addition to these, the caption incorporates directive speech acts, including those that engage the audience in a moral

responsibility: "solving the plastic pollution crisis is a challenge we all share" and "We need this for ourselves and for our world". Most of these speech acts could be perceived as acts of persuasion rather than direct orders, guiding the audience's behaviour without explicitly commanding it, but engaging him or her within WWF's advocacy.

In terms of proximation strategies, all three types are identifiable in this sample. Spatially, the image generates a strong effect of spatial proximation as it puts the viewer into the proximity of its visual and emotional world, not in a formal abstract space of an ocean in the distance, but instead in the proximity of a suffering, and aimed at the viewer, recognisable body of an animal. Bringing the threat from the outside inside the viewer's emotional experience of the environment, into the interior of environmental statistics. Temporally, the present tense verbs in the caption — "end up," "causes," "disrupts," "poses" — make the crisis appear as an emergency unfolding right now, rather than as a future hypothetical, presenting a sense of urgency that persuades the reader to pay attention and act now rather than later. Seeking to establish an axiological separation between the responsible agents of nature, represented in the represented subjects from the WWF and the audience that benefits from WWF's actions regarding the environment, and the outgroup of axiological agents – which in the present case are distinguished as "eco-unresponsibles," consumers of plastic wastes – the text's proselytizing component and the moral condemnations concerning them, are presented. This axiological polarity reaches its peak again in the words "WWF is fighting for a world with no plastic in nature, and we're not alone in this fight" which reinforce the idea of a moral responsibility of all parties to overcome and fight plastics in nature.

4.1.1. 4 Framing Analysis

The sample is analysed in the four framing functions, which help to form coherent and ideologically consistent environmental frames. The sample defines plastic pollution, specifically single-use plastics such as cutlery, packaging, and microplastics, as a global environmental crisis that poses a danger to wildlife, ecosystems, human health, and the world economy at the level of problem definition. The use of the visual element enhances the definition, and makes the otter with the plastic bottle a concrete, affectively resilient, 'representational' endowment of an abstract statistical problem formulated in the caption. When looking at causal interpretation, we consider the crisis to be the result of the disproportionate production and consumption of plastic in the world, according to the first number given in the text: "the world produces over 462 million tons of plastic" globally each year, and 90% of it pollutes the planet. This leads us to the conclusion that the cause is to be found in global industrial and consumer behaviour of human beings. The framing at the level of moral evaluation rests on an ethical assumption that human beings bear great responsibility towards the natural world and the burden of the harm inflicted on animals, including the otter, which represents a moral deficit that must be redressed. Rather than rational argument on the moral level, it is the power of the image in itself that is generated, which makes the moral dimension directly felt. Lastly, the treatment recommendation is promoted: implicitly there is a call for change from a global scale, through NGO advocacy and individual behaviour change because WWF is a global body "fighting for a world with no plastic in nature". Based on these four framing functions, the dominant Core Green Frame in this sample is the Ethical Frame because the discourse emphasises moral responsibility, wildlife welfare, and the intrinsic value of nature as its main persuasive logic.

4.1.2 Analysis of Sample 2: Fast Fashion Environmental Impact

"Fast fashion brands flood the market with cheap, trendy clothing at an unsustainable rate, creating enormous environmental and social harm. Despite their attempts at greenwashing (especially those involving the use of sustainability labels covering environmental or social aspects), their business model is fundamentally incompatible with true sustainability. Here are four key reasons why fast fashion will never be green. Fast fashion thrives on overproduction. Brands like Shein, Temu, Zara, and H&M release hundreds of new designs weekly, fuelling a culture of overconsumption. But what happens to the clothes once the trends fade? Millions of garments end up in landfills or are incinerated each year, with devastating environmental consequences. The fashion industry has a massive plastic problem that it outsources to countries in the Global South, where textile waste pollutes the environment. Ultimately, fast fashion will never be truly green. Its model is built on exploitation, of resources, workers, and consumers."

Figure 4.2

Fast Fashion Waste (Western)



Greenpeace International. Retrieved on (2025). *4 reasons why fast fashion will never be green.*

<https://www.greenpeace.org/international/story/73504/4-reasons-why-fast-fashion-will-never-be-green/>

4.1.2.1 Contextualisation

The second sample is taken from the official digital platform of one of the most well-known and influential Western environmental activist organisations, Greenpeace International. The sample includes a documentary photograph of two Greenpeace activists, a woman and a man, holding a vivid yellow banner with the hashtag "#END FAST FASHION" and the Greenpeace logo in the foreground and surrounded by a large coastal waste heap composed of mixed debris and discarded textile garments. The caption to the accompanying work underscores the ecological and social harms inflicted by the fast fashion industry, while challenging the credibility of corporate sustainability claims, and pointing to its structural root of overproduction. The focus of the sample is the ecological impact of fast fashion, based on waste production, plastic pollution and the exploitation of the communities in the Global South. Its audience includes policymakers, environmental activists and consumers in general around the world, who are primarily English-speaking. This is a sample of Western environmental activism in line with cultural framing, confrontational register and institutional identity that Greenpeace has established in the culture, including the dynamics of the film community, activism, and Greenpeace itself.

4.1.2.2 Semiotic Analysis

At the representational metafunctional level, the image forms a narrative process: the two activists are human actors and also symbolic participants within the environment they are protesting against. What surrounds them is not a mere background setting but a dominant representational force: a huge waste heap of cast-off clothes and scraps that surrounds them at every angle. The sea and the harbor can be seen in the background, adding a spatial dimension to the pollution to create a wider picture of the problem and contextualizing the textile waste with the broader aquatic environment, highlighting the systemic, transboundary nature of the crisis.

At the interactive metafunctional level both activists look directly into the camera and appear to be serious and focused, thereby forming a demand image that hopes to elicit viewer engagement, solidarity, and moral alignment. Their frontal gaze casts the viewer as a purported recipient of their protest action, and make him or her an accomplice to the protest action, not an onlooker. The medium-long shot focuses on the whole social setting, provides enough distance from the humans to enable the viewer to assimilate the full scale of the waste landscape, but also enough distance to attach any emotion to the humans in the middle.

At the compositional metafunctional level, the bright yellow banner is distinguished by its high salience, which immediately attracts the viewer's attention by contrasting with the dull grey-brown debris, which as a whole makes up the majority of the space but lacks visual impact, creating a sharp contrast with the banner. The central location of the two activists is surrounded and suffocated by the waste: they are confronted visually by it on all sides, the reference to the context and environment in which they live being even more powerful. The debris present throughout the picture serves to accentuate that the problems are quite large and are already beyond any reasonable control and require urgent systemic intervention.

4.1.2.3 *Pragmatic Analysis*

At the pragmatic level, the caption and visual text of this sample features a dense array and variety of persuasive strategies both on the level of speech act and proximisation. This style of writing is a mixture of factual accusation and moral condemnation, making an effective case against the fast fashion industry.

The text is composed primarily of assertive speech acts, with the speaker committing to a set of harmful facts about the industry. The sentences "Fast fashion brands flood the market with

cheap, trendy clothing at an unsustainable rate, creating enormous environmental and social harm," "Millions of garments end up in landfills or are incinerated each year," and "The fashion industry has a massive plastic problem that it outsources to countries in the Global South" are assertives that lend institutional credence and factual authority to the claims, substantiating the emotional image with reliable information. Furthermore, the call for systemic transformation is not a call to be qualified or to examine conditions, but it is a call for systemic change; the call for "#END FAST FASHION" is a call for direct change that is given to consumers, corporations and policymakers as a direct action and speech act. The final line of the caption "fast fashion will never be truly green" adds emphasis to the suspicion felt by the viewer of fast fashion being "greenwashed," and to the businesses' sustainability statements in general.

In terms of proximisation strategies, all three types can be recognised in this sample. The image is a visceral form of spatial proximisation: it immerses the viewer in the waste itself, transforming abstract overproduction statistics into something physical and inescapable. The present tense verbs in the caption — "thrives," "release," "end up," "pollutes" — cast the crisis as an unsolved, unfolding emergency that calls for action now rather than later. Here, the fast fashion industry and its corporate representatives are cast as the out-group responsible for greenwashing, while the victimised Global South and its communities are positioned as the in-group. The axiological judgement which is most direct is in the last line of the caption: "exploitation," – and not only of the environment but of people's conscience as well.

4.1.2.4 Framing Analysis

Through analysis of the four framing devices, it has been possible to see that the effectiveness of this sample is to construct an environmental frame of confrontation and one that has no intention of compromise in terms of ideas. The sample highlights – in problem definition –

that the overproduction model of the fast-fashion industry creates millions of tons of waste, contributing to polluted planet, pollution of oceans and beaches, and exploitation of natural resources and human labor. This photograph shows that waste as the product of that model is in the middle of the picture and further multiplies the capitalist model. With regard to the causal interpretation, the text clearly points to the strategies of key fashion enterprises as the cause. It mentions the actors that are playing Shein, Temu, Zara and H&M. These brands have hundreds of new designs per week! This in turn, leads to over-consumption with harmful ecological repercussions. Fashion in itself is proclaimed "fundamentally incompatible with true sustainability," and green talking points are untrue, and the business model is "built on exploitation." At the level of moral evaluation, the framing presents us with a categorical moral judgement. The treatment recommendation is embedded in the campaign's main directive: the system must end, not be reformed. Consumers are encouraged to boycott fast fashion, policymakers are called upon to regulate the industry, and we are invited to resist the culture of overconsumption it perpetuates. Drawing upon these four framing functions, an analysis of the sample reveals that the dominant Core Green Frame is the Activist Frame. Specifically, the discourse is constructed in a manner which centres protest, resistance, institutional confrontation and radical systemic transformation as opposed to reform.

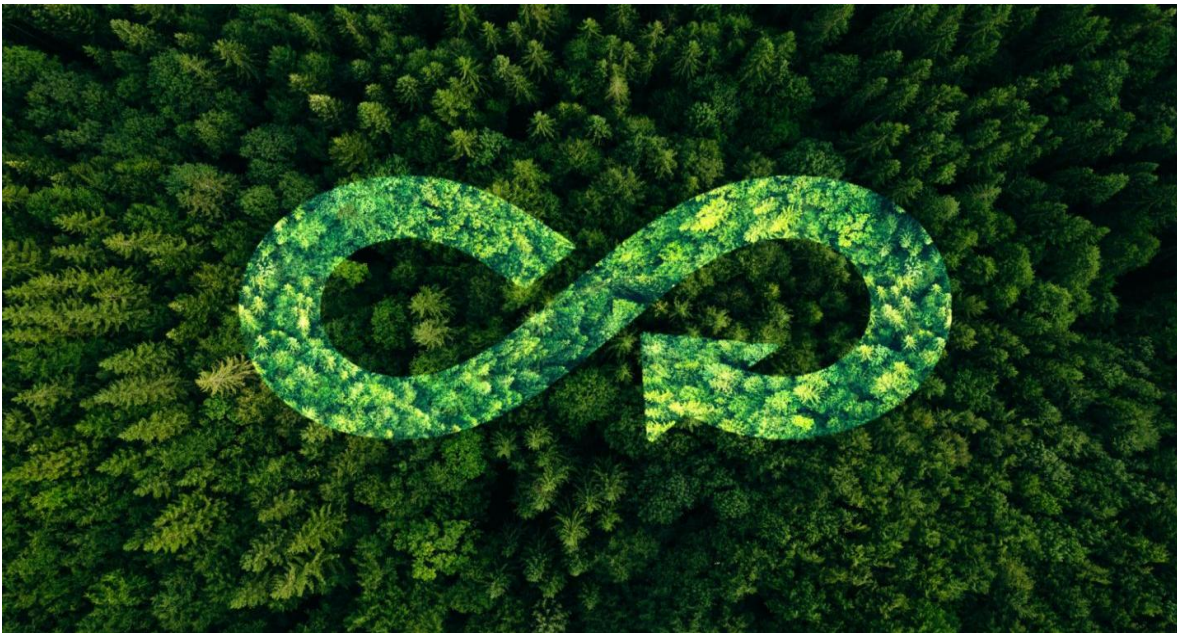
4.1.3 Analysis of Sample 3: Waste Recycling / Circular Economy

"Right now, Europe's circularity rate is about 12%, but the goal is to double it to 24% by 2030. This target is part of the EU's Clean Industrial Deal. The EU's Circular Economy Action Plan (CEAP), adopted in March 2020, is one of the main building blocks of the European Green Deal. It introduces legislative and non-legislative measures targeting the full life cycle of products. The plan aims to make the EU's economy fit for a green future, strengthen its competitiveness

while protecting the environment, and give new rights to consumers. The transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss."

Figure 4.3

Circular Economy (Western)



European Commission. (n.d.). *Circular economy*. Retrieved June 9, 2026, from https://environment.ec.europa.eu/strategy/circular-economy_en

4.1.3.1 Contextualisation

The European Commission, the executive body of the European Union, is the source of the third sample as it is taken from its official digital portal. Thus, it is an authoritative voice in the institutional sense of Western environmental governance. The sample is a digitally composed aerial image of a lush, densely green forest with a graphic of an infinity symbol with recycling arrows overlaid upon it. The infinity symbol is painted completely in similar green colours as the forest

below. The caption above describes the Circular Economy Action Plan (CEAP) and targets of the EU which forms part of the European Green Deal. The environmental issue that the sample intends to support is waste reduction and shifting from a linear to a circular economic model by 2050, which will help achieve climate neutrality. The audience is seen to be European citizens, policymakers, industrial actors and the international environmental community. The sample is embedded in the tradition of Western techno-managerial environmental governance by means of the institutional register and policy-oriented language and the European legislative context.

4.1.3.2 *Semiotic Analysis*

According to the representational metafunctional level, there is no human actor or narrative event represented in the image, thus it is wholly conceptual in its representational structure. Instead, the image forms a symbolic proposition with its two visual elements: the dense, healthy green forest shot from above, showing nature in an ideally abundant state, and the infinity-recycling symbol imposed on it, suggesting the principle of circular resource use. The two elements are joined together to convey a single unified concept: that circularity represents health and the renewal of nature. The bird's eye view gives the photograph a systemic overview, signifying that the shift to a circular economy is not a local or piecemeal effort but one that must occur at a landscape scale.

At the interactive metafunctional level of the image, the high-angle, bird's-eye perspective positions the viewer as an elevated, omniscient observer overlooking the symbolic proposition and the forest, performing a systemic-overview function distinct from the scale-of-damage or scientific-observation uses of aerial perspective found elsewhere in this corpus. Experiencing someone else's system is not about interpersonal intimacy or emotional demand but an invitation to think and see systems. The lack of any living subject in the shot means no gaze relationship is

established. Rather than offering emotional or evocative appeal, the image functions as a rational, symbolic argument.

At the compositional metafunctional level, the infinity-recycling symbol is located exactly at the centre of the image. The complete contrast to the organic nature of forest canopy is the perfect geometric form that is totally salient. The green tones carried over from the forest help reinforce a visual sense of circularity. Rather than being an artificial human concept, the visual treatment indicates that this idea is one that is found within nature itself. This image is simply aspirational, as everything in the frame is uniformly green in colour, without any evidence of damage, pollution, degradation and so on. Such an image builds a vision of environmental wholeness we can see through the circular economy.

4.1.3.3 *Pragmatic Analysis*

Through a register of institutional authority and policy rationality the caption of this sample operates pragmatically. It constructs the circular economy as being a logical necessity and a moral imperative for European governance using assertive speech acts and subtly embedded directives.

In terms of speech acts, the caption is constructed primarily around assertive acts that state the current situation and the intended direction of change. Statements such as "Right now, Europe's circularity rate is about 12%, but the goal is to double it to 24% by 2030," "The transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs," and "It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss" function as assertives that state the policy arguments as measurable, time-bound commitments. There are directive acts in the institutional language of the policy: the Circular Economy Action Plan "aims to make the EU's economy fit for a green future" and "introduces

legislative and non-legislative measures targeting the full life cycle of products" with the implicit direction of the European industry, consumer and Member State towards making the transformation to the circular economy.

There are all three types of proximation strategies found in the data. The aerial image creates a sense of nearness spatially by presenting the viewer as steward of the European natural landscape, and making the health of that landscape appear relevant to all and to oneself. The deadlines "24% by 2030" and "2050 climate neutrality" are powerful forms of temporal proximation, giving concrete form to abstract environmental goals by turning them into time-bound targets that draw urgency to the present. The axiological design denotes the achievement of a circular and green future. This future stands in contrast to the current linear economy within which the framework and its policies operate. The current economy creates pressure on the environment while causing biodiversity loss and climate instability. The European Union sees itself as the institutional in-group spearheading this shift, while those who oppose or drag their feet on the circular economy implicitly fall into the out-group.

4.1.3 4 *Framing Analysis*

Analysis of the four framing functions shows this sample produces a rational, policy-centred and optimistic environmental frame. According to the sample, Europe's inadequate circularity rate and the linearity of its economic model are the structural barriers that hinder the attainment of environmental sustainability and climate neutrality. The visual reinforces our definition of the circular economy as the solution, and the aspiration of circularity is as natural and abundant as the forest. In terms of causal interpretation, environmental pressure, biodiversity loss and climate instability are attributed to the failure of the linear economic model to recover and reuse resources through product lifecycles. The cause is located in systemic economic design rather

than in corporate malice or individual behaviour, consistent with the sample's policy-oriented and institutional register. The language of the moral evaluation is positive: the transition to the circular economy is presented as the rational, responsible, and forward-looking choice, without directly criticising any actor. The EU's framework is tacitly approved as the better and more beneficial solution than what is currently on track. The treatment recommendation is the most developed of any sample in this study. It proposes a complete policy agenda of legislative and non-legislative measures. It covers the full product lifecycle, includes quantified targets and will be integrated into the European Green Deal and 2050 climate neutrality strategy. From these four framing functions, it emerges that the dominant Core Green Frame operative in the sample is the Economic Frame, as the discourse foregrounds sustainable growth, competitiveness, job creation, and the industrial logic of resource efficiency as the central arguments for environmental action.

4.1.4 Analysis of Sample 4: World Earth Day

"The General Assembly designated 22 April as International Mother Earth Day through a resolution adopted in 2009, but the roots of the Day go back to the 1970s. That's when environmental protection was not yet a priority of national political agendas, but a growing movement took hold across the planet. In 1971, UN Secretary-General U Thant held a special ceremony at UN Headquarters in New York, proclaiming 22 April the world's first Earth Day. 'May there be only peaceful and cheerful Earth Days to come for our beautiful spaceship Earth as it continues to spin and cycle in frigid space with its warm and fragile cargo of animate life,' he said at the time. In 1972, the UN Conference on the Human Environment opened in Stockholm, marking the start of a global awareness of the interdependence between people, other living species and Earth. That landmark meeting, which drew leaders from 130 nations, also saw the establishment of World Environment Day on 5 June and the UN Environment Programme (UNEP).

Since then, the global movement rippled across the planet, with the UN helping to push the needle on environmental awareness one major conference at a time."

Figure 4.4

World Earth Day/climate history (western)



UN News. Retrieved on (2024, April 25). *Stories from the UN Archive: UN proclaims world's first Earth Day.* <https://news.un.org/en/story/2024/04/1149026>

4.1.4.1 Contextualisation

The fourth sample is from the UN News digital archive that details the history of International Earth Day which was proclaimed by the United Nations and its global significance. The sample consists of a photograph showing three young children holding handmade signs bearing urgent environmental slogans during an outdoor climate protest. Autumn trees and other protestors are clearly visible in the photograph. In a 1971 proclamation by UN Secretary-General U Thant, the UN would go on to host the foundational 1972 Stockholm Conference on the Human Environment, which creates the UN Environment Programme, with Earth Day being the bookend

important event. The accompanying caption narrates the rest. The environmental concern underlying this brief is the global movement for environmental protection and intergenerational climate justice, as illustrated by the decades-long history of Earth Day. The target audience refers to a diverse global readership, who are English-speaking and includes students, activists, policymakers, and international citizens. This sample is an example of how Western multilateral environmentalism and the modern young activist climate change movement converge in this context, one characterized by its institutional presentation in the UN and iconic imagery as a youth movement.

4.1.4.2 *Semiotic Analysis*

It presents a scene of three children as the main actors, all carrying and displaying handmade protest signs at the representational /metafunctional level. Even though all the children appear to be the 'protagonists' of the story, partly in their ways of expressing their protest, they are also symbolic. The children are the representatives of future generations. Their position with respect to climate change is among the most vulnerable. Similarly, they are among the most powerless in the political sphere. The direct address "DON'T MESS WITH MY FUTURE" addresses the world leaders, "THERE IS NO PLANET B" tells the leaders that there's no Earth of the future, and "ONE WORLD ONE CHANCE" is the most simple and concise message that fits a spatial and temporal urgency all in one.

The pedagogical images all three children present are strong, because at the metafunctional interactive level the three children are all looking the viewer in the eye, each with an animated, confident expression, thus establishing a powerful "witness" image, a "moral respondent" image. The absence of adult authority figures, combined with the children's youthfulness and openness, creates a strikingly strong relationship between the children and the viewer. The medium close-up

framing was used to create closeness – giving us the ability to see the children's faces as well as detail on the handmade signs. This enables them to get personally involved with their cause.

The image is structured at a compositional metafunctional level when three children are presented in an arrangement that is horizontal, at the centre of the image. Their most salient visual feature is their colourful signs. The handmade signs situate the children within a long tradition of political protest in defence of nature. The rich, bright colours of red, green, blue, and yellow create a striking visual burst, while the hues of the autumn trees echo the warm colours of fall itself, adding to the image's overall visual dynamism. The number of demonstrators in the background helps in the visual reading of the work as it seems they form a larger unit/movement; a collective social force behind the children and lending resonance to their individual voices.

4.1.4.3 *Pragmatic Analysis*

At the pragmatic level, this sample is notable for the stratification of speech acts across two separate textual registers, the slogans on the protest signs, which function as unmediated, direct speech acts, and the institutional narrative of the caption, which situates these acts within a mediated history.

Among the signs in this protest, those performing the most direct speech acts are the handwritten placards themselves. "DON'T MESS WITH MY FUTURE" is a prohibition or instruction directed to unnamed agents whose actions undermine the children's environmental future. "THERE IS NO PLANET B" functions as a forceful assertive. "ONE WORLD ONE CHANCE" combines assertive and directive force to establish the finality and irreversibility of environmental failure. Through the caption, assertive speech acts are used to establish historical and institutional facts, such as "The General Assembly designated 22 April as International Mother

Earth Day" and "In 1972, the UN Conference on the Human Environment opened in Stockholm, marking the start of a global awareness of the interdependence between people, other living species and Earth." Furthermore, through the quotation of the UN Secretary-General – "May there be only peaceful and cheerful Earth Days to come for our beautiful spaceship Earth" – we find the introduction of directive dimension through the use of the optative mood and the framing of the protection of the environment not only as a wish but obligation of all human beings.

The sample demonstrates significant sophistication in the utilization of all three proximisation strategies. The children's gaze, as well as the physical presence in the picture frame, brings home the long-term consequences of environmental failure in space and time. Because the youth is close to the threat, the abstract crisis becomes concrete and emotionally close. The caption's historical narrative extends from the 1970s to the present day. It establishes a timeline of increasing urgency. Thus, after more than fifty years of environmental awareness, the time for action is not just now, it's overdue. In axiological terms, the protest signs draw a clear moral boundary that regards the children and their innocent natural world as the in-group and the unnamed political and corporate actors whose decisions put that world at risk as the out-group. The words "DON'T MESS WITH MY FUTURE", which are directly addressed, name this out-group but do not identify it. This allows the viewer to populate it with whomever they wish. Moreover, they may choose any actor whose behaviour threatens environmental sustainability.

4.1.4.4 *Framing Analysis*

The sample creates frames to make sense of environment-people-nature relationships across generations, with strong ethical dimensions and grounding in history. The sample defines the global environmental and climate crisis as an injustice against future generations. This injustice is understood as threatening the natural world that children will inherit on the one hand. On the

other is an unjust denial of a peaceful and stable future as envisaged by the UN Secretary-General in 1971. This definition becomes manifestly clear through the protest signs. The defining of the problem is anything but ecological; it is deeply moral. The historical narrative in the caption, therefore, implies that for decades now, lack of political will and government action, despite increasing global awareness since the founding of Earth Day, has allowed this situation to unfold. The crisis must now be so advanced that children are taking to the public street to demand action from those in power. In terms of moral evaluation, the use of children as the central subjects within the image communicates the most powerful moral message possible: the destruction of the environment is an injustice against the innocent and the violation of the most basic form of intergenerational responsibility. The wording affirms this assessment through the Secretary-General's poetic and humanising language. The treatment recommendation suggested in the caption endorses multilateral environmental governance, a series of UN conferences, and the establishment of UNEP as the appropriate institutional means for global environmental protection. Further, the image endorses youth-led activism as a means to bring about necessary political change. The dominant Core Green Frame that is operative in the sample based on the four framing functions is the Activist Frame, with strong elements of the Ethical Frame, as the discourse is focused on youth protest and intergenerational justice and a moral obligation of the present generation to protect the world for those who will inherit it.

4.1.5 Analysis of Sample 5: Wildfires and Transboundary Smoke

"The impacts of wildfires, however, don't end once the last flame is extinguished. The harmful wedding of charred habitats and lingering smoke is a notable danger to human and environmental health. Estimates from studies in 749 cities across 43 countries suggest that wildfire smoke and air pollution causes over 33,000 deaths annually and impact the health of hundreds of

thousands of people. 'The area actually burned is often relatively small compared to the total area that a wildfire may impact,' says Sullivan. 'For example, the smoke from a 10,000-hectare wildfire could affect people living in an area 10 to 15 times that, people who may never even see the flames.' Wildfires are made worse by climate change through increased drought, high air temperatures, low relative humidity, lightning, and strong winds resulting in hotter, drier, and longer fire seasons. At the same time, climate change is made worse by wildfires, mostly by ravaging sensitive and carbon-rich ecosystems like peatlands and rainforests."

Figure 4.5

Wild Fires (Western)



UN Environment Programme. (n.d.). *As climate changes, world grapples with a wildfire crisis.*

Retrieved June 9, 2026, from <https://www.unep.org/news-and-stories/story/climate-changes-world-grapples-wildfire>

4.1.5.1 *Contextualisation*

The fifth sample is taken from the official digital news platform of the United Nations Environment Programme (UNEP), the leading global environmental authority in the UN system. The sample is a dramatic nighttime photograph of a large wildfire in which towering orange and red flames engulf vegetation. The dark silhouettes of grasses and a solitary utility pole can be seen against the intensely illuminated sky. The caption explores the transboundary health and ecological impacts of wildfires, utilizing multi-country scientific studies to quantify human mortality and showing the causal relationship between climate change and the intensification of global fire seasons. The growing wildfire crisis and its interconnection with climate change, air pollution, and ecosystem destruction is the environmental issue highlighted in this sample. The intended audience comprises a global readership of English-speaking policymakers, health professionals, environmental scientists, and the general public. The UNEP institutional framing, its reliance on scientific data and the global scale of the analysis situate this sample firmly in a Western science-led environmental communication tradition.

4.1.5.2 *Semiotic Analysis*

According to the representational metafunctional level, the image is devoid of any human actors or narrative participants. Fire is positioned by the image as a distinctly powerful and non-human agent of destruction which destroys everything that comes in contact with it. The entire upper two-thirds of the frame is in flames. The fire serves as a conceptual symbol for the elemental forces of environmental crisis that nonetheless causes immense fear. The symbolic dimension of the utility pole which dominates the centre of the image is particularly powerful. The pole is a product of industrial infrastructure and human technological progress. Yet, it is shown to be small, fragile and completely powerless against the surrounding fire. This visual codes the argument that

human civilisation itself is vulnerable to the environmental consequences of its own choices. The silhouetted vegetation represents the natural world in its final moments of consumption.

The absence of any human or animal subject at the interactive metafunctional level prevents any conventional gaze-based address from arising between image and viewer. Nonetheless, the spectacle of fire produces what is coded here as a demand-type image: although no represented participant looks directly at the viewer, the fire's overwhelming, inescapable visual force functions to solicit the viewer's direct engagement in the same way a human subject's direct gaze would. The sheer size and intensity of the blaze, along with its overwhelming chromatic dominance, lend it such a visual power that it cannot be dodged or overlooked. The viewer is neither compelled to enter into a form of emotional sympathy nor to stand in solidarity; rather, they are thrown back into a state of awe and dread. This confrontational visual approach is equally effective rhetorically, making the viewer account for the crisis 'as is' rather than through the mediation of a human or animal subject who might elicit sympathy.

At the compositional metafunctional level, the fire commandingly dominates the composition, as indicated by the large continuous area of deep orange, red and gold occupying the upper part of the frame against the absolute blackness of the night. The flames are complete and unchallenged, commanding attention instantly. The sharp contrast between the black foreground and the vulnerable natural and built environment underscores the magnitude of the fire. The absence of any cool or neutral colour, such as green, gives the overall picture a feel of constant intensity and danger. The viewer cannot spot a single patch of cool, calming colour, not even in the background. Thus, the overall effect is one of unrelenting devastation.

4.1.5.3 *Pragmatic Analysis*

Through the lens of pragmatics, the caption of the sample shows an exceptional degree of power and accuracy of assertive speech acts which make use of quantitative scientific evidence and expert testimony to build an unassailable empirical case for the severity of the wildfire crisis and its relationship to climate change.

Based on the speech acts, the most dominant act on the utterance is the act of assertion through which the speaker commits to empirical facts. The statement "Estimates from studies in 749 cities across 43 countries suggest that wildfire smoke and air pollution causes over 33,000 deaths annually" is one of the most impactful assertive acts in the entire corpus. This is because it combines the scale of its scientific base — 749 cities across 43 countries — with a specific mortality figure. This transforms the environmental crisis into a human catastrophe. The quoted phrase, "The area actually burned is often relatively small compared to the total area that a wildfire may impact," widens the spatial scope of the disaster while also bolstering the assertive's authority via attributed scientific testimony. The caption states that "Wildfires are made worse by climate change" and "climate change is made worse by wildfires". These phrases are classified as causal assertives. They involve a self-reinforcing cycle of environmental deterioration. Furthermore, the directive dimension is implicit rather than explicit. The circular causal logic in the text, therefore, directs audiences towards addressing climate change as the most fundamental intervention needed to break the cycle.

In this sample, all three types of proximation strategies work effectively. The nighttime wildfire image reaches into the sensory field of the viewer to bring an environmental threat that is usually far away closer to home. The picture caption reinforces spatial proximation with its revelation that wildfire smoke can affect "an area 10 to 15 times" the size of the fire itself. This

area, on wind-shifted days, includes millions of people who never see the flames directly. The consistent presence of "wildfires are made worse" and "the world grapples" indicates that this crisis is still very much a live one, something that is continuously happening and not a thing of the past. In axiological terms, the moral argument articulated in climate change and wildfires is basically a result of collective inaction on fossil fuels. Those that see and act on evidence form the in-group; those that are defined by environmental inaction and fossil fuel dependence form the out-group.

4.1.5.4 *Framing Analysis*

By analysing this sample using the four framing functions, an environmental frame is created which is scientifically rigorous and empirically grounded. At the level of problem definition, the sample increasingly recognises wildfires as a growing global crisis. The destructive impact of wildfires extends over and above burnt areas. For instance, smoke and air pollution threaten human health. Further, they destroy carbon-rich ecosystems. They also worsen climate change in a self-reinforcing cycle. The image presents the issue with visual immediacy; the fire's destructive power is now the only reality in the frame. When it comes to causal interpretation, the caption gives the most explicit and scientific causal analysis of any sample in this corpus. The caption states that drought, high air temperatures, low relative humidity, lightning and strong winds are the climate-driven factors that produce longer, hotter and more destructive fire seasons. It also highlights how wildfires themselves have come to be agents that worsen climate change by destroying peatlands and rainforests. At the level of moral evaluation, the 33,000 annual deaths attributed to wildfire smoke constitute the sample's strongest moral condemnation, implying that failing to address climate change is tantamount to choosing to let populations across the world suffer and die. It is not explicitly mentioned but the treatment

recommendation is implicit. The causal analysis leads to the conclusion that reducing fossil fuel emissions, and safeguarding carbon-rich ecosystems are the foundational interventions required to tackle the problem. Based on these four framing functions, the most dominant Core Green Frame that is operative in the sample is the Scientific Frame, as its discourse constructs its environmental argument mainly through quantitative data, multi-country research evidence, and expert scientific testimony, thereby representing empirical knowledge as the principal authority in understanding and responding to the wildfire crisis.

4.1.6 Analysis of Sample 6: Climate Protest

"Tens of thousands of climate activists around the world are protesting Friday and through the weekend to call for an end to the burning of planet-warming fossil fuels as the globe suffers dramatic weather extremes and record-breaking heat. The global demonstrations, led by the youth-led movement Fridays for Future, are taking place in cities across Europe, Asia, Africa and the Americas and are calling on world leaders to stop expanding fossil fuels and transition to renewable energy. The protests come after what scientists say was the hottest summer ever recorded globally, with extreme weather events, from catastrophic wildfires in Canada and Greece to devastating floods in Libya, highlighting the deadly consequences of climate change."

Figure 4.6

Climate Protest, Fridays for Future (Western)



PBS NewsHour. (2023, September 15). *Climate protesters worldwide call for end to fossil fuels amid escalating weather extremes*. <https://www.pbs.org/newshour/world/climate-protesters-worldwide-call-for-end-to-fossil-fuels-amid-escalating-weather-extremes>

4.1.6.1 Contextualisation

Sample six is from PBS NewsHour, a leading American public broadcasting news outlet. This text examines climate protests by Fridays for Future movement in September 2023. The image is an elevated wide-angle shot of a massive climate protest march filling an entire urban boulevard in a European city. Thousands of demonstrators are there. The protesters are all carrying green Fridays for Future flags. Also, they are carrying other banners and signs. The area all the way to the horizon is filled with protesters. In the forefront, there is a large white banner. It has a German slogan on it which reads "Nett hier. Aber wie lange noch?" In English, it means "Nice

here. But for how long?" Further, the caption tells us that global demonstrations are happening in Europe, Asia, Africa, and the Americas. As a result, they are all demanding the end of fossil fuel expansion and a transition to renewable energy. All this is happening in light of the hottest summer on record and a series of catastrophic extreme weather events. The primary environmental concern surrounding this sample is anthropogenic climate change, fossil fuel dependence, and the political demand for a transition to renewable energy. The target audience comprises the globally distributed English-speaking news audience including citizens, activists and policymakers. The register of the caption, which is journalistic, and an image of mass urban mobilisation place this sample at the conjunction of Western news media framing and the contemporary global climate justice movement.

4.1.6.2 *Semiotic Analysis*

The image at the representational metafunctional level invokes a strong narrative of collective human agency on an enormous scale. The thousands of protesters filling the boulevard from one side to the other form a unified collective actor. Their presence in such numbers constitutes the key event of the image: the event of public, organised resistance to political inaction on climate change. A narrative participant emerges in the foreground in the form of a banner that says "Nett hier. Aber wie lange noch?" ("Nice here. But for how long?") in German. It speaks directly to the viewer. The urban landscape around the march serves as the implicit referent of the word "here" suggesting that the city itself is being threatened environmentally. Throughout the crowd, various green Fridays for Future flags can be seen. These flags give the image a sense of identity and collective belonging. This image can be identified with a globally recognised movement.

At the interactive metafunctional level, the high-angle, wide-angle perspective enables the audience to appear as an aerial observer looking down on the march. This view doesn't create a typical gaze relationship between the protesters and the viewer, as no individual face is readable at this scale. Rather, it offers what may be described as a collective offer for viewing and evaluation, namely mass mobilisation. The elevated angle suggests the great size of the march in a way that a photograph taken at ground level would not do. The photograph also suggests that there is serious public demand for climate action.

At the compositional metafunctional level, the boulevard stretches across the full frame from foreground to the vanishing point of the horizon, and the human mass continues without break for what looks to be several city blocks. This compositional choice maximizes the salience of scale, with the number of participants as the leading and most persuasive visual argument. The foreground banner bears the highest salience of any textual element in the image. The white coloured surface and flame graphics that stand out in front of the thick human mass behind it creates an impact. The commercial buildings on both sides of the street are so high that they create a visual corridor which channels the viewer's eye right down the length of the march, giving a sense of unstoppable forward momentum.

4.1.6.3 *Pragmatic Analysis*

At the pragmatic level, the sample constructs its persuasive argument through two registers complementary to each other: the visual and textual force of the mass march and its banner, and the journalistically framed assertives and implicit directives of the news caption.

The foreground banner's German-language slogan "Nett hier. Aber wie lange noch?" ("Nice here. But for how long?") is complex and has a strong rhetorical quality as it combines an

assertive and directive act. It claims the urban setting is desirable now and that we must protect it before it loses that quality. The rhetorical question form gets the viewer involved in the argument and not just in the conclusion, which provokes cognitive and emotional engagement. In this respect, the news caption adds a series of assertives that place the protests in an empirical and political context: "Tens of thousands of climate activists around the world are protesting Friday", "scientists say was the hottest summer ever recorded globally", and then refer to "catastrophic wildfires in Canada and Greece" and "devastating floods in Libya" as material evidence of climate catastrophes escalating before our eyes. The caption indirectly urges world leaders to stop expanding fossil fuels and transition to renewable energy. It gives us an implication that it is logical for world leaders to comply with these demands given the importance of the scientific evidence the article advocates.

All three types of proximation strategies are powerful at play. Through the usage of the word "hier" (here), the image spatially brings the climate crisis into the immediate urban environment of the viewer. It effectively conveys the environmental degradation crisis as one that concerns the very streets and cities that people walk in every day. The geographical approach in the caption is further concretised through specific geographic sites of catastrophe that college students could identify as being Canada, Greece, and Libya. Through its reference to the "hottest summer ever recorded" and ongoing extreme weather events, the caption quite strongly conveys the sense that the protests are not designed to avert a crisis, but rather to respond to a crisis that is already happening, which is having devastating consequences. The Fridays for Future movement presented in the text has a clear moral connotation. It constructs an in-group of concerned citizens, scientists, and activists, set against an out-group of world leaders and fossil fuel industries who continue to expand carbon-producing infrastructure and whose inaction contributes to the crisis.

4.1.6.4 *Framing Analysis*

When analysed through the four framing functions, this sample creates an urgent political and movement-centred environmental frame. As the sample illustrates, the climate crisis is already manifesting in record temperatures, catastrophic wildfires, and devastating floods. The main drivers are fossil fuel dependence, and the lack of political leadership to continue the transition to renewable types of energy at a faster pace. The picture forcefully reinforces this definition by the degree of mass social mobilisation, which serves to make it clear that the political emergency of 'the problem' has already passed a certain limit at which it must be acted on immediately by the government. In terms of causal explanations for the caption, it attributes this to climate change, which is fast on-going due to the persistently high levels of fossil fuel consumption, despite a scientific consensus on the issue. This is a disaster scenario epitomised by scientific consensus: the cause is clearly shown and the effect is direct and straightforward. The moral judgement here holds world leaders who fail to act on fossil fuels responsible for the suffering caused by the extreme weather that burning fossil fuels produces. The protestors in the streets are the voice of society's conscience, implying that politicians bear responsibility. The question in the banner, "Nice here. But for how long?", encodes this moral evaluation with particular elegance. It implies that the quality of urban life is already under threat and that that threat stems from political inaction. The protests are unambiguous in demanding the cessation of fossil fuel expansion and a transition to renewable energy. A key demand is an end to fossil fuel expansion. The caption's journalistic framing positions these demands as rational, evidence-based, urgently necessary, thereby endorsing them. The analysis of the four framing functions reveals that the dominant Core Green Frame operative in this sample is the Activist Frame, with a reinforcing element of the Scientific

Frame. Here, the discourse combines the strong moral force of mass public protest with empirical evidence of climate impacts to create a politically urgent demand for systemic energy transition.

4.1.7 Analysis of Sample 7: Biodiversity Loss

"The migratory monarch butterfly (*Danaus plexippus plexippus*), known for its spectacular annual journey of up to 4,000 kilometres across the Americas, has entered the IUCN Red List of Threatened Species™ as Endangered, threatened by habitat destruction and climate change. The native population, known for its migrations from Mexico and California in the winter to summer breeding grounds throughout the United States and Canada, has shrunk by between 22% and 72% over the past decade. Legal and illegal logging and deforestation to make space for agriculture and urban development has already destroyed substantial areas of the butterflies' winter shelter in Mexico and California, while pesticides and herbicides used in intensive agriculture across the range kill butterflies and milkweed, the host plant that the larvae of the monarch butterfly feed on. Climate change has significantly impacted the migratory monarch butterfly and is a fast-growing threat; drought limits the growth of milkweed and increases the frequency of catastrophic wildfires, heat waves during breeding season can kill butterflies directly. 'Today's Red List update highlights the fragility of nature's wonders, such as the unique spectacle of monarch butterflies migrating across thousands of kilometres,' said Dr Bruno Oberle, IUCN Director General."

Figure 4.7

Biodiversity Loss, Monarch Butterfly (Western)



International Union for Conservation of Nature. (2022, July 21). *Migratory monarch butterfly now Endangered – IUCN Red List* [Press release]. <https://iucn.org/press-release/202207/migratory-monarch-butterfly-now-endangered-iucn-red-list>

4.1.7.1 Contextualisation

The seventh sample is taken from International Union for Conservation of Nature (IUCN), the world's leading scientific authority on the conservation status of species. The image shows a close-up macro photograph of a migratory monarch butterfly on some bright yellow goldenrod flowers. This sample's caption says that the butterfly has been listed as Endangered on the IUCN Red List of Threatened Species. The core environmental problem in this case study is biodiversity

loss. Climate change, intensifying farming practices, and habitat loss are especially to blame, and the monarch butterfly's numbers are falling at an alarming rate. The audiences are conservation experts, scientists, policy makers as well as the general public interested in environmental protection, who communicate in English. This sample is firmly in the orientation of “Western” conservation science communication, thanks to the institutional position of the IUCN, the scientific verbiage, as well as the global iconic status of the monarch butterfly.

4.1.7.2 *Semiotic Analysis*

At the representational metafunctional level, the monarch butterfly ranges from the simple act of resting on a goldenrod flower to feeding on it. The butterfly is depicted as a living participant in the natural world. It is also a strong conceptual symbol that frames the vulnerability of biodiversity and the exceptional threat this phenomenon faces from human activity. The splendid detail on the wings, and clarity of their orange, black and white patterning, send a message about the complexity of nature and irreplaceable beauty. The vitality depicted in the image can be contrasted with what is announced in the caption. The image sets up an implicit argument: what is shown as magnificent and flourishing is in fact disappearing.

At the interactive metafunctional level, the butterfly does not face the camera, but rather has its profile directed away from the viewer as it attends to the flower. This builds up an offer image that places the butterfly in front of the viewer so they can contemplate its beauty. The extreme visual closeness of a macro close-up allows the viewer to see closely the wing structure of the butterfly, the texture of the flower petals, and the relationship between the butterfly and its habitat. As a result of that closeness, a strong affective bond is forged with the butterfly so that the viewer becomes emotionally invested in its survival through contact, which the caption reveals to be under acute threat.

At the compositional metafunctional level, the butterfly is situated at the centre-left with wings open. The viewer's attention is on the butterfly, and it dominates other parts of the image. The soft, out-of-focus background of warm yellow and green tones depicts the lushness of nature, making the world seem rich and vibrant with life. The enchanting world presented stands in contrast to the text containing alarming statistics of population decline. The butterfly's wings delight with a warm colour scheme, boasting deep orange and cream hues edged in black. The visual contrast against yellow flowers is enhanced and the optimum salience makes the butterfly's natural splendour the first impression the image creates.

4.1.7.3 *Pragmatic Analysis*

The caption features mostly assertive acts of high scientific authority through which the speaker commits to a series of alarming empirical propositions about the monarch butterfly's decline. Expressions of the type: "has entered the IUCN Red List of Threatened Species as Endangered", "the native population has shrunk by between 22% and 72% over the past decade", or "Legal and illegal logging and deforestation has already destroyed substantial areas of the butterflies' winter shelter" are of the type assertive, for they cement the seriousness of the crisis through institutional scientific credibility. The IUCN Director General's quotations, e.g. "Today's Red List update highlights the fragility of nature's wonders, such as the unique spectacle of monarch butterflies migrating across thousands of kilometres," captures an assertive claim and places the biodiversity loss issue within a cultural and aesthetic framework. The IUCN Red List classification contains within it an institutional urgency that directs conservation bodies, governments, and individuals to act to protect biodiversity. It carries the full weight of the world's foremost conservation science.

In this sample, all three types of proximation strategies operate. The extreme close-up of the monarch butterfly has immediate spatial and emotional implications. It brings the abstract threat of global biodiversity loss within centimetres of the viewer. This means both the viewer and the butterfly, whose very existence is under threat, are positioned in the spotlight. The threat becomes immediate, concrete, personal and impossible to ignore as being far-away or theoretical. The caption promotes spatial proximation by asserting "up to 4,000 kilometres across the Americas". The geographic range implicated here positions the threat as pertinent to the whole of the North American continent. The evidence documenting a decline between "22% and 72% over the past decade" and the persistent patterns of use of present and present perfect, "has shrunk," "has significantly impacted," "is a fast-growing threat," constructs the crisis as an ongoing one, and one which is escalating, with no signs of stabilisation without urgent action. From a moral viewpoint, a boundary of innocence is drawn around the natural world, represented by the butterfly as a subject of protection, and a further ideological boundary is drawn against that which threatens it through agricultural expansion, urban development, and climate inaction.

4.1.7.4 *Framing Analysis*

Through the application of the four framing functions, the sample constructs a scientifically authoritative and emotionally resonant environmental frame. At the level of problem definition, the sample identifies the endangered status of the migratory monarch butterfly as a concrete and measurable manifestation of the current global biodiversity crisis, deploying one of the world's most beloved and iconic insect species as a symbol of the fragility of nature, and the extent of human-induced ecological loss. The picture illustrates the problem in aesthetic and emotional power, showing us a creature of exceptional beauty in a moment of natural vitality, though the caption reveals that it is in existential threat. The meaning of the caption has a multi-causal

interpretation in the sense of causality. Butterfly threats include illegal and legal logging, agriculture and deforestation, pesticide and herbicide application in intensive agriculture, and the compound effect of climate change through drought, wildfire, and heat waves. The causes lie in human land-use decisions, agricultural practices, and the systemic failure to address climate change. However, by using an economic and political rationale to mold the monarch butterfly as the perfect poster-child of "the fragility of nature's wonders", the IUCN Director General unwittingly moralizes our economic and political decisions, implying that the monarch's extinction may be a cultural and moral failing. The recommended action is embedded in the institutional role of IUCN. Red List classification is itself the most authoritative possible call for protective policy, habitat restoration, pesticide regulation, and climate action. Based on these four framing functions, the Ethical Frame is the dominant Core Green Frame which is operative in this sample as the discourse foregrounds the intrinsic value of biodiversity, the moral responsibility to protect natural wonders, and the irreplaceable cultural and ecological loss that their disappearance would constitute.

4.1.8 Analysis of Sample 8: Deforestation

"Deforestation is a particular concern in tropical rainforests because these forests are home to much of the world's biodiversity. In the Amazon alone, around 17% of the forest has been lost over the last 50 years, mainly due to forest conversion for cattle ranching. Deforestation in this region is especially rampant near more populated areas, roads, and rivers, but remote areas have also been encroached upon with the discovery of valuable resources like gold and oil. Deforestation can happen rapidly, such as when a fire sweeps through the landscape or the forest is clear-cut to make way for an oil palm plantation. There are several economic incentives in place that contribute to deforestation in the Amazon: Real estate speculation is a major driver. The price

of land in the Amazon can increase up to tenfold once the forest has been cleared. Amazon forests also suffer as global demand for products such as beef and soy increases."

Figure 4.8

Deforestation (Western)



World Wildlife Fund. (n.d.). *Deforestation and forest degradation*. Retrieved June 9, 2026, from <https://www.worldwildlife.org/threats/deforestation-and-forest-degradation>

4.1.8.1 Contextualisation

Sample eight is drawn from the official digital platform of World Wildlife Fund (WWF), the same institutional source as Sample 1. Western environmental NGOs are indeed entities with significant influence in global environmental discourse. This aerial-perspective documentary photograph shows a single baby elephant standing alone in a vast landscape of cleared and uprooted trees. Meanwhile, to the left, a thriving oil palm plantation extends across the hillside, with forested mountains in the background. The caption of the image discusses deforestation on a worldwide scale. In particular, it zooms in on the Amazon rainforest. It also discusses the economic

motivations for the loss of the richest terrestrial ecosystems in the world. This sample concentrates on deforestation and forest degradation, to which factors such as agricultural expansion, commodity demand, and land speculation contribute. This is aimed at people throughout the world who speak English and care about these matters. The target audience must be conservationists, consumers, policymakers, or just curious people. The WWF as an organisation and the globally recognised significance of tropical rainforests situate this example within the tradition of Western biodiversity conservation advocacy.

4.1.8.2 *Semiotic Analysis*

At the representational metafunctional level, the image shows a solitary baby elephant as the primary symbolic actor on the terrain of uprooted and discarded palm debris, which takes up most of the frame. Through a narrative participant, the elephant travels through the destroyed landscape to find a place to live. Above all, this is an effective conceptual symbol of a broader wildlife crisis caused by deforestation. The cleared land littered with remnants of vegetation stripped from the land represents the material aftermath of deforestation in the most shocking visual sense. In other words, it is a wiped-out ecosystem that no longer supports natural life and has been lost for industrial agriculture. The message of destruction of one less profitable ecosystem for the benefit of a more profitable one is embedded in the sharpness of visual contrast between the destroyed foreground and the greenery of plantation and mountain forest in the back.

At the interactive metafunctional level, the camera looks away from the elephant, whose little figure seems to be busy moving over the wrecked land rather than addressing the camera. This rear or profile orientation makes the viewer a witness to the miserable plight of the elephant. The viewer is not engaged in a mutual gaze with the elephant. The distance from which the elephant is shot — a small, solitary figure dwarfed by the scale of the surrounding destruction —

serves to maximise the emotional impact of its isolation and vulnerability. The viewer appears to survey the damage from a slightly higher angle, performing — as in the National Geographic flood sample (Sample 9) — a scale-of-damage documentary function rather than the systemic-overview or scientific-observation uses of elevation found elsewhere in this corpus. This gives the viewer a moral burden of what is visible and what is not.

At the compositional metafunctional level, the image is composed by a powerful visual contrast of the devastated foreground which occupies approximately two-thirds of the frame in muted browns and greys, versus the lush green of the plantation and the mountains in the upper background. Even though it is one of the smallest elements in the frame, the baby elephant has maximum salience through the incredible emotional power of its isolation. It is drawing the viewer's eye inexorably to its tiny size and position amid the wreckage of its habitat. The image's main compositional argument lies in the scale relationship between the solitary animal and the vast cleared terrain. The destruction is so complete, and so devoid of remaining life, that all that is left is a single individual lost in the rubble.

4.1.8.3 *Pragmatic Analysis*

Regarding speech acts, the caption employs a constant series of assertive acts based on statistical and empirical authority. This passage contains several other assertives. For example, "around 17% of the forest has been lost over the last 50 years, mainly due to forest conversion for cattle ranching," "The price of land in the Amazon can increase up to tenfold once the forest has been cleared," and "global demand for products such as beef and soy increases". These meaning-makers specify both the scale and the economic logic of the deforestation crisis. They may also establish an evidential basis for the emotionality brought in by the image. Thus, they are subject to further empirical verification. The text does not provide any direct messages, yet WWF's

institutionally assertive message may in fact create an implicit directive to modify consumer behaviours, advocate for policy change and support conservation – consistent with an advocacy organisation's messaging strategy.

Concerning the proximation strategies, spatial proximation plays primarily through the image, which brings the abstract global crisis of deforestation into the near visual and emotional proximity of the figure of the single baby elephant. The situation is thus composed to put the viewer in direct confrontation with a single vulnerable animal, and this animal's fate turns the caption's figures into a visceral, human, and moral encounter. The caption makes a connection between the picture of the Amazon and the audience's everyday choices. It refers to "global demand for products such as beef and soy," which indicates that even one's purchasing choices may be responsible for that degradation. This is a case of spatial proximation. The "last 50 years" which saw the ravaging of forests, as well as the use of present tense for economic drivers, creates a sense of urgency surrounding deforestation as an accelerating present-tense emergency, and not in the past. In axiological terms, a moral frontier has been drawn up between the natural world and its wildlife – the elephant as the innocent victim of economic exploitation – and the economic actors, real estate speculators, cattle ranchers and global commodity traders who, with their profit-driven decisions, destroy the world's most biodiverse ecosystems.

4.1.8.4 *Framing Analysis*

This sample builds an economically analytical and morally indicting environmental frame, examined through the four framing functions. According to the sample's problem definition, tropical deforestation, especially in the Amazon, is probably the worst ecological disaster in the world today. The cause is global economic demand, but local land speculation plays its part. So do the importation and commercialisation of Brazilian timber. The impact is catastrophic. Essentially,

any species that depends on intact forest ecosystems suffer as a result. This goes for local communities as well. The image gives one of the most emotionally impactful possible definitions of this problem by reducing its consequences to the figure of a single baby elephant lost in a field of destruction. In reference to causal interpretation, the caption refers to a number of intersecting economic drivers of cattle ranching, real estate speculation, global demand for beef and soy, resource extraction, and oil palm plantation expansion. The cause lies within the economic incentive structures of global commodity markets and land use policy. The image's moral judgement operates without any need for verbal text. Neither the baby elephant nor the devastated landscape requires any verbal text to deliver its message. The isolation and vulnerability of the baby elephant in the devastated landscape is itself an indictment of the economic decisions that produced it. The WWF's institutional advocacy context implicitly recommends treatments for regulatory reform and the reduction in global consumption of deforestation-linked commodities and the protection of remaining tropical forest ecosystems. According to these four framing functions, in this sample, the dominant Core Green Frame is the Ethical Frame. This is because the discourse emphasizes the intrinsic value of biodiversity, the moral consequences of economic exploitation of natural habitats, and deforestation being an irreplaceable ecological and emotional loss.

4.1.9 Analysis of Sample 9: Flood Disaster

"Flooding is one of the most common, and most destructive, natural disasters in the world. Triggered by heavy rains, storm surges, or rapid snowmelt, floods can strike with little to no warning. Climate change is fueling more intense storms, leading to heavier, faster rainstorms. Recent flash floods along the Guadalupe River in Texas killed at least 82 people with many still missing, amid the start of a predicted above-normal hurricane season. From rural towns to urban

centers, flooding is reshaping how we live, build, and prepare for natural disasters. Climate change is increasing the risk of floods worldwide, particularly in coastal and low-lying areas, because of its role in extreme weather events and rising seas. For every degree the atmosphere warms, it can hold about seven percent more moisture, meaning storm systems can drop more precipitation in a shorter time than before, dramatically increasing the likelihood and severity of flood events. Dam failures can also lead to flash floods, sending a sudden destructive surge water downstream."

Figure 4.9

Flood Disaster(Western)



National Geographic. (2025, July 7). What causes flash floods? Here's how they get so destructive so quickly. <https://www.nationalgeographic.com/environment/article/floods>

4.1.9.1 Contextualisation

The ninth example is obtained from National Geographic, one of the most widely recognised and trusted Western science and environmental media institutions. The photograph

appears to be an aerial documentary image of a flooded residential community. Numerous houses, roads, trees, and other infrastructure items are partially or entirely submerged under brown floodwater. It appears that some houses or structures have been destroyed while some debris is visible around the flooded area. The caption also addresses the global flood crisis that is worsening due to climate change. Above all, the caption focuses on the direct human cost of recent catastrophic flooding events, including the Texas flash floods along the Guadalupe River. The environmental concern highlighted in this sample is the increasing frequency and severity of flooding that is happening because of climate-driven extreme weather and rising seas. The audience is global, English-speaking scientists and policymakers, as well as the general public. National Geographic's journalistic authority, the caption's scientific precision, and the immediacy of the aerial image place this sample in the tradition of Western science-media environmental communication.

4.1.9.2 *Semiotic Analysis*

At the representational metafunctional level, the aerial view of the destroyed residential community appears to be the key representational subject of the image. The community as the human construction of houses, roads and other infrastructural features is what is visible. No individual human actors are visible. The community is the site and affected participant of environmental catastrophe. With no signs of humans, the viewer feels the emptiness and loss amid the floods, as if an entire community is missing from the scene. The structures that have been destroyed, the trees that have been downed, and the debris that have been washed away are material manifestations of extreme weather. These elements encode the argument that climate change is a present-tense force, already demolishing the conditions of human habitation, rather than a future risk.

At the interactive metafunctional level, the elevated aerial perspective distances the viewer from the scene, positioning them to survey the ruin from above. The fact that there are no living subjects in the image implies that a gaze relationship cannot take shape. The image is rather a sort of comprehensive environmental offer, displaying flood damage in totality for the viewer's confrontation and moral reckoning. Although the aerial distance might make the viewer more indifferent to the individual human tragedies of the flood victims, it maximises the viewer's understanding of collective loss by showing the full geographical span of the damage in one shot — a scale-of-damage documentary function comparable to the deforestation sample (Sample 8) but distinct from the systemic-overview or scientific-observation uses of aerial perspective found elsewhere in this corpus.

At the compositional metafunctional level, the flood waters fill the frame entirely, being brown materials that completely fill the edges of the image and occupy every part of the composition. The frame is covered with destroyed houses and stripped-off trees, with no one element dominating. The distribution of the disaster produces an impression of all-encompassing and indistinct destruction. It also deprives the eye of any visual comfort or point of reassurance. The muted and desaturated colors of browns and greys running throughout the image, except for the little remaining green, indicate environmental destruction and human loss. The aerial view certainly proves that the flooding is much worse than the ground-level photograph suggests. The scale is such that it cannot be an illusion or be downplayed in any way.

4.1.9.3 *Pragmatic Analysis*

The caption contains high-authority assertives, while escalating a sense of scientific urgency and direct human cost. "Flooding is one of the most common, and most destructive, natural disasters in the world." This statement does not merely state that flooding may happen; it also

conveys how widespread the issue is. "Recent flash floods along the Guadalupe River in Texas killed at least 82 people with many still missing": the statement performs the function of quotation as it grounds the more generic global claim in a specific locale and enumerates the human cost. "For every degree the atmosphere warms, it can hold about seven percent more moisture": the scientific mechanism - one which is verifiable - crucially contextualizes the emotional resonance of the image. Through these past and present assertions about flooding, the readers have learned not just that flooding is devastating, but that it has likely killed nearly one hundred people relatively recently, and one important reason for this is climate change. The directive insinuated in the caption's end quote – that atmospheric warming is "dramatically increasing the likelihood and severity of flood events" – is a forward-looking assertion that calls on the audience to consider the appropriate response to the evidence presented, namely climate change mitigation, improved disaster preparedness, etc.

With regard to proximation strategies, all three are functioning with considerable force. The aerial shot places the viewer above a destroyed residential community, creating a strong sense of proximity to the flood crisis. This positioning makes the threat of flooding feel much more immediate and personal, as the viewer sees the all-too-familiar sight of ruined houses, roads and neighbourhoods. This spatial proximation is enhanced by the caption's naming of the Texas Guadalupe River floods as a specific, recent, geographically located event, which places this global crisis in an identifiable American community. The Texas floods are described as "recent" while the "start of a predicted above-normal hurricane season" positions disaster as a present-tense emergency with a worsening future trajectory. Such references create a sense of urgency that cannot be deferred. Through a values lens, a moral boundary is established between the industrial fossil fuel enabling forces of climate change, which is cast as the out-group responsible for the

floods, and the "from rural towns to urban centers" communities which is positioned as a collective innocent victim whose lives and environments are being reshaped by a crisis they did not individually create.

4.1.9.4 *Framing Analysis*

This sample gives rise to a crisis-centred, scientifically grounded, and humanly consequential environmental frame when analyzed using the four framing functions. At the level of problem definition, the sample cites flooding as one of the world's most common and destructive natural disasters, which is becoming more severe and frequent due to climate change and has direct and measurable consequences on human life, infrastructure and communities around the world. The problem is depicted here with horrific clarity; the entire community has been swept through the floodwaters. The absence of human life also confirms that nothing is left behind to testify. In the domain of causal interpretation, the caption has a clear scientific explanation of the cause and effect of climate change on flooding; specifically, it locates the cause in atmospheric warming's increased capacity for moisture retention and its role in producing heavier, faster rainstorms in addition to rising seas which exacerbate flooding risk for coastal and low-lying areas. With 82 deaths in the Texas floods, the sample's most potent moral indictment is at the level of moral evaluation. The human cost of climate inaction is real, attributable and cannot be politically abstracted from the concrete decisions that cause it. This scientific causal analysis shows what practice the world must adopt for reducing the risk of floods. The priority is to reduce emissions to address climate change. The other is to invest in improved disaster preparedness. The Scientific Frame is found to be instrumental among the four framing functions analyzed in this sample. It is the dominant Core Green Frame. The Ethical Frame functions in an auxiliary capacity. The argument is combined with specific mortality data, which gives the otherwise precise scientific

causal analysis a more human moral weight, creating an urgent and evidence-based argument for climate action.

4.1.10 *Analysis of Sample 10: Glacier Melt (Western)*

"Seven of the regions that dominate global ice mass losses are melting at an accelerated rate, a new study shows, and the quickened melt rate is depleting freshwater resources that millions of people depend on. The largest contributors to sea level rise in the 20th century were melting ice caps and glaciers located in seven other regions: Alaska, the Canadian Arctic Archipelago, the Southern Andes, High Mountain Asia, the Russian Arctic, Iceland and the Norwegian archipelago Svalbard. This ice loss contributed a total of 13 millimeters (0.5 inches) in global sea level rise between 2002 and 2019, and the rate has increased from 0.7 millimeters per year in 2002 to 0.9 millimeters per year in 2019. The quickened melt rate is potentially affecting not just coastlines but agriculture and drinking water supplies in communities around the world."

Figure 4.10*Glacier Melt (Western)*

NASA Jet Propulsion Laboratory. Retrieved on (2020, June 1). *Ice melt linked to accelerated regional freshwater depletion*. <https://www.jpl.nasa.gov/news/ice-melt-linked-to-accelerated-regional-freshwater-depletion/>

4.1.10.1 Contextualisation

The NASA Jet Propulsion Laboratory, America's leading government institution for space and Earth science research, one of the most authoritative scientific voices on climate monitoring globally, is the tenth and final Western sample. This is an aerial view of a huge glacier (a mass of ice) which is flowing between the snow-capped mountains. The glacier is breaking at its terminus. It is calving into the water below. The caption appears to be that of a news article informing about a new study that is looking into the accelerated melting rates of seven major global ice regions. It

also states that this phenomenon could lead to sea level rise, as well as to the depletion of freshwater resources. The glacier melt represents a measurable, accelerating consequence of climate change, which poses a risk to coastal communities, agricultural systems, and drinking water supplies across the globe. The intended audience is a global audience of English-speaking scientists, policymakers, environmental advocates and general members of the public. The professional credibility of NASA, the accuracy of satellite-based scientific data and the spectacle of the glacial setting place this case firmly at the top of Western science-led environmental communication.

4.1.10.2 *Semiotic Analysis*

The glacier itself is the primary environmental subject represented in the image at the representational metafunctional level. The caption states that it is an extensive natural structure of remarkable size and geological significance that is increasingly threatened by climate-driven warming. The image's entire representational world consists of the glacier, the mountains, and the water into which the ice is calving. The glacier's terminus is the region where the ice breaks up into different irregular forms, with blue-white ice fragmenting along the water. This encoding reveals the silent yet visible power of dissolution and loss. Because the glacial landscape consists of fields of snow and mountains, nature affords the glacier the grandeur of a thing of nature – and with it the melting of something that is geological and planetary in importance.

At the interactive metafunctional level, the elevated aerial perspective offers the viewer a distant and surveying position over the ice mass, as well as the gradual disappearance. Unlike the systemic-overview function of the circular economy sample's aerial shot (Sample 3) or the scale-of-damage function used in the flood and deforestation samples (Samples 8 and 9), no conventional gaze relationship is established here, and the image functions instead as a scientific offer,

presenting the full scale and condition of the glacial system for the viewer to contemplate, comprehend, and respond to morally. The glacier's immense size in relation to the nearby mountains is simultaneously impressive and alarming. It is not only a magnificent sight but also a powerful reminder of the glacier's vulnerability. The viewer feels like a witness to a natural wonder that is on the verge of disappearing because of human-induced forces.

At the compositional metafunctional level, the image shows a cool, serene palette of white snow and blue-white ice area with a pale blue sky. The effect is one of a utopian world, pristine, otherworldly and so on. It is lovely but also carries a para-argument that this landscape is exceptionally valuable in natural and planetary terms. Its loss would be irreversible and incalculable. The glacier's calving terminus is the most salient point within the frame as this is the juncture where melting is actively occurring and the viewer is directed to the exact site of the crisis. The size of the mountains beside the glacier reminds us of the geological magnitude of what is at stake – the viewer becomes acutely aware of what is being lost to decades of accelerating warming.

4.1.10.3 *Pragmatic Analysis*

The speech acts of the caption can be marked out by the precision and institutional authority of its assertive speech acts. It takes specific quantitative data from a NASA satellite study. Accordingly, it presents the magnitude, speed, and implications of global ice loss with utmost scientific authority. "This ice loss contributed a total of 13 millimeters in global sea level rise between 2002 and 2019, and the rate has increased from 0.7 millimeters per year in 2002 to 0.9 millimeters per year in 2019." This is an assertive of the highest scientific authority, verifying a direct measured data point and a narrative of acceleration. The opening statement, "Seven of the regions that dominate global ice mass losses are melting at an accelerated rate," serves, like a geography lesson, to establish the extent, but also the temporal urgency of the crisis as the main

assertive of the caption. The directive aspect is present in the concluding remark of the caption which states that the accelerated melt rate is "potentially affecting not just coastlines but agriculture and drinking water supplies in communities around the world." This assertive implicitly directs the audience to see glacier melt as a direct, present threat to the most basic requirements of life on earth.

All three types of proximation strategies are very powerful in this sample. The aerial image allows the viewer to "get up close and personal" with the calving glacier terminus, visibly showing the ice actively melting in this remote location. The caption creates a strong additional act of spatial proximation, linking the glacier melt in the Arctic and mountain regions to "communities around the world", including agricultural systems and drinking water supplies of those far removed from any glacier. The specific data points of 2002 and 2019, in their timescale, reveal a story of measurable acceleration. Viewed through this lens, climate-driven ice loss becomes a quantified, time-stamped trajectory of worsening crisis. The moral argument states that the all-important freshwater resources being lost due to glacier melt are resources "that millions of people depend on." The argument makes a moral claim that failure to act on climate change is destroying the water supply of millions on purpose. This means it is a direct threat to human existence across the globe.

4.1.10.4 *Framing Analysis*

The environmental frame here is data-driven and global in significance when viewed through the four framing functions. The accelerated melting of glaciers across seven major global regions is a direct and measurable consequence of climate change. This is significantly impacting sea level rise and the depletion of freshwater resources that millions of people rely on for agriculture, drinking, and other uses as well as threatening coastal communities. Experiencing a

glacier calving spectacularly shows us physically what ice loss means and, therefore, is more emotionally affecting. The image, therefore, defines the problem. The implication of global climate change and warming is assigned by the caption in its causal interpretation. According to NASA study data, scientists have found that melt rates are increasing, and that is a scientifically established reality. This data has been measured by satellite and quantified over decades. The depletion of freshwater resources for “millions of people” at the point of moral evaluation might represent the clearest moral indictment against climate inaction. Melting ice is not simply an aesthetic, ecological or moral tragedy, but a threat to the most fundamental conditions of human life and food security worldwide. The treatment recommendation is implicit in NASA institutional context meaning that aggressive climate change mitigation is required to slow the acceleration of ice loss as well as protect the freshwater systems that global agricultural and human communities depend on. Based on these four framing functions, the dominant Core Green Frame operative in this sample is the Scientific Frame as the discourse builds all its reasoning through quantitative satellite data, institutional scientific authority and empirical measurement. The dominance of the technological capacity of space-based Earth observation becomes the primary source of knowledge and urgency in confronting glacier melt.

4.2 Group B, Arab Samples

4.2.1 Analysis of Sample 11: Water Pollution

كما وثقت شبكة 964 نفوق أطنان من الأسماك في مشاريع الأسماك العائمة في نهر دجلة من الصويرة، حتى منطقة «عكاية شمالي الكوت، نتيجة التلوث القادم من نهر ديالى ودجلة، فيما تعهدت مديرية زراعة واسط بتعويض المتضررين بعد إحصاء الكميات. وكانت لجنة الزراعة والمياه النيابية قد وجهت بتشكيل فريق لمتابعة الأضرار البيئية وتعويض المزارعين ومربي الثروة السمكية في حوض دجلة نتيجة التلوث الحاصل في مياه نهر ديالى. ما حصل هو تسرب مجاري الرستمية إلى نهر ديالى، إلى جانب رواسب في نهر دجلة نتيجة الأمطار الأخيرة وارتفاع المناسيب، وهذه الرواسب صعدت على سطح النهر.»

"Network 964 documented the death of tonnes of fish in floating fish farms on the Tigris River from Suwayra all the way to the Alkayya area north of Kut, as a result of pollution coming from the Diyala and Tigris rivers. The Wasit Agriculture Directorate pledged to compensate those affected after counting the quantities. The Parliamentary Agriculture and Water Committee had directed the formation of a team to follow up on environmental damage and compensate farmers and fishery breeders in the Tigris basin as a result of the pollution occurring in Diyala River waters. What happened was the seepage of Rustamiya sewage into the Diyala River, alongside sediments in the Tigris resulting from recent rains and rising water levels — sediments that rose to the surface of the river."

Figure 4.11*Water Pollution, Tigris/Diyala (Arab)*

964 Media Network. Retrieved on (2026, April 14). *The most widely shared image: The government's explanation of the Tigris, Diyala River, and the strange colours* [News report]. <https://964media.com/670733/>

4.2.1.1 Contextualisation

The eleventh sample, and the first of the Arab corpus, comes from 964 Media Network, an Iraqi digital news outlet that is widely used in Arabic media. This is an aerial photograph showing the confluence of the Tigris and Diyala rivers, where the two rivers' colouration is dramatically different. The first river, the Tigris, shows turbid brown water. The other river, the Diyala, shows dark, visibly contaminated water. The photograph shows agricultural land on the banks of both rivers. The accompanying bilingual caption reports on the mass death of fish in floating fish farms

along the Tigris River in Wasit province. The pollution is due to the seepage of the Rustamiya sewage system into the Diyala River, which took place along with disturbance of sediments due to the recent rainfall and rising water levels. The environmental issue at the centre of this case study is water pollution and its impacts on the fishing and farming communities of the Tigris basin. The Arabic-speaking Iraqi public, including farmers, fishery breeders, and government officials, is the target audience. This regional approach to reporting, focus on governmental response and institutional compensation, and the Iraqi geographical specificity of the sample make it a clear instance of Arab state-centred environmental communication.

4.2.1.2 *Semiotic Analysis*

At the representational metafunctional level, the aerial image features the centre representational subject of the confluence of two river bodies of distinctly different colours which argues robustly for severe water contamination without a single word of explanation. One waterway exhibits a warm brownish-tan hue typical of naturally turbid river flow. The other is established as a dark, almost black tone that visually encodes severe pollution. The agricultural green fields on either side of the river provide an important contextual perspective by linking the polluted waterway directly to the livelihoods of the farming communities which depend on it and making the stakes of the environmental crisis an ecological as well as an economic one. The aerial perspective reveals how pollution is not merely a localised occurrence but rather a landscape-scale environmental reality impacting an entire river system alongside its agricultural ecosystem.

At the interactive metafunctional level, the elevated aerial perspective positions the spectator as a distanced, observational witness to the environmental crisis below; there is no gaze relationship with any human or animal subject. As with the NASA glacier sample (Sample 10), this aerial view performs a scientific-observation function: the image serves as an environmental

offer, providing visual evidence of contamination for the viewer's assessment and moral reckoning, rather than a systemic overview or scale-of-damage documentation. Due to the complete absence of any human presence in the shot, the viewer is forced to read the river and its condition, which makes the stark chromatic contrast between the two bodies of water the only communicative act of the image.

At the compositional metafunctional level, the image is composed along the powerful visual contrast of the two water colours, which bisects the centre of the frame on a diagonal, creating a sharp compositional boundary between contamination and natural flow. This chromatic divide demands maximum salience and makes a straightforward visual statement about the seriousness of the pollution crisis. The green agricultural fields flanking the river serve as a strong counterpoint, underscoring the economic loss to the community's productive landscape as a result of the environmental damage.

4.2.1.3 *Pragmatic Analysis*

The caption's primary structure is made of assertive speech acts delivered in the institutional voice of a local Iraqi news network and appealing to documented field evidence and official governmental statements. The assertion "Network 964 documented the death of tonnes of fish in floating fish farms on the Tigris River from Suwayra all the way to the Alkayya area north of Kut" is a primary assertive, which establishes the geographic scale and material severity of the pollution crisis by means of an eyewitness journalistic authority. The communication in question starts off with a causal assertive: "What happened was the seepage of Rustamiya sewage into the Diyala River, alongside sediments in the Tigris resulting from recent rains and rising water levels." This causal assertive ties the emotional impact of the mass death of fish to a specific and identifiable mechanism. Directive speech acts are embedded in the institutional responses cited,

for example the direction of the Parliamentary Agriculture and Water Committee to establish an environmental follow-up team or the commitment of Wasit Agriculture Directorate to compensate affected farmers, presented as directive acts by state authority rather than individual advocacy. As such, they reflect the Arab institutional tradition of embedding environmental responses within collective governmental action rather than individual advocacy, as is more common in the West.

In terms of proximation strategies, spatial proximation is created with quite a high degree of geographic specificity through both the image and the caption. The aerial photo puts the viewer over the spot, making the pollution physically close and visually inescapable. The spatial proximation of the item is reinforced by the naming of the affected stretch from Suwayra to Alkayya north of Kut. Identifying where the crisis is taking place in terms of the narrower corridor of Iraqi territory allows readers to know it immediately. The caption portrays the crisis as a present and ongoing emergency, through its references to processes that are currently happening, including the seepage of sewage and the rising of sediments. This creates the impression of events unfolding before the viewer, requiring immediate governmental intervention. The farming and fishing community of the Tigris basin, positioned as the innocent economic victim of the pollution, is made the target of moral affiliation at the axiological level. The Rustamiya sewage infrastructure and its institutional mismanagement, in turn, are cast as the causal out-group, whose failure is held responsible for violating the livelihoods and environment of riverside communities.

4.2.1.4 *Framing Analysis*

Investigating the message of this sample through the four framing functions shows that this message produces an environmentally urgent and institutionally responsive frame characteristic of Arab state-directed environmental discourse. The pollution of the Tigris and Diyala rivers is defined at the level of the problem as a consequence of the infiltration of sewage and the

contamination of sediments. It is an acute environmental and economic crisis that has caused mass death of fish and the direct harm of farming and fishing communities throughout Wasit province. The aerial image clearly presents the problem in a way that is immediately visual and geographically defined, framing the contamination as something that exists at the landscape scale rather than at the point scale. The caption offers a technical description: sewage from the Rustamiya system seeped into the Diyala River, while the recent rains and the rise in river levels caused the sediment to be disturbed. It states that both the leakage from an official sewage system and the disturbed sediments together caused the crisis. The positioning of the affected farmers and fishery breeders in the complaint brings forth the issue of mismanagement of water resources in their crop yield and fish breeding respectively. At the level of moral evaluation, the producers are positioned as victims of failure of the water management infrastructure. The Parliamentary Committee and Wasit Agriculture Directorate are positioned as the moral agents who are responsible for addressing the harm and compensating the victims. The formation of a parliamentary follow-up team and the governmental pledge of compensation reflect the resolution-oriented disposition of the relevant Arab environmental discourse. This is evident in the deployment of and reliance upon state authority in the hope of resolving problems and bringing about collective governmental action. According to the analysis of the four framing functions, the dominant Core Green Frame in the sample is the Ethical Frame, supplemented by elements of the Economic Frame. The discourse foregrounds the moral responsibility of the state to protect its citizens and natural resources and the material economic losses suffered by farming and fishing communities due to water pollution.

4.2.2 Analysis of Sample 12: Dust Storms

وفقاً لتقديرات مرصد "العراق الأخضر" فإن العراق يتكبّد خسائر تُقدَّر بنحو مليون دولار يومياً نتيجة العواصف الترابية، وذلك في قطاعات متعددة أبرزها الصحة والزراعة والنقل والخدمات. في عام 2023 وحده، سجّل العراق 158 يوماً من العواصف الترابية، بحسب رئيس لجنة الصحة والبيئة في البرلمان العراقي، الدكتور ماجد شنكالي، الذي أكد للجزيرة نت أن هذه الظاهرة تسببت بارتفاع كبير في عدد الراقدين بالمستشفيات، وأثرت سلباً على الزراعة والمحاصيل من خلال تسريع «وتيرة التصحر».

"According to estimates by the 'Green Iraq' observatory, Iraq incurs losses of approximately one million dollars daily due to dust storms, across multiple sectors — most notably health, agriculture, transport, and services. In 2023 alone, Iraq recorded 158 dusty days, according to the head of the Health and Environment Committee in the Iraqi Parliament, Dr. Majid Shankali, who confirmed to Al Jazeera Arabic that the phenomenon has caused a significant rise in hospital admissions and negatively affected agriculture and crops by accelerating desertification."

Figure 4.12*Dust Storms (Arab)*

Al Jazeera Arabic. Retrieved on (2025, May 12). *Iraq loses one million dollars daily due to sandstorms* [News report]. <https://www.aljazeera.net/ebusiness/2025/5/12/-العراق-يخسر-مليون-دولار-يومياً-بسبب-sandstorms>

4.2.2.1 Contextualisation

The twelfth sample is Al Jazeera Arabic. One of the most widely watched, and institutionally authoritative pan-Arab news networks has reported on the severe economic, health, and agricultural consequences of dust storms in Iraq. Within the sample is a street-level photograph taken in an Iraqi urban neighbourhood showing a dust storm that envelops everything — buildings, power lines, vehicles — so opaque in the thick orange-brown haze that very little is visible. The accompanying bilingual caption, citing data from the Green Iraq Observatory and testimony from

the head of the Parliamentary Health and Environment Committee, indicates that Iraq incurs losses of approximately one million dollars daily due to dust storms which had 158 dusty days in 2023 alone. The selected environmental issue is chronic and intensifying dust storms, their multi-sectoral economic consequences, and overall integration into desertification processes in Iraq. The target audience consists of the Arabic-speaking regional public, including Iraqi citizens, policymakers and public health officials, and the broader Arab world. The caption outlines this sample's institutional sourcing, economic framing, and parliamentary authority that position it within the tradition of Arab state-aligned environmental journalism.

4.2.2.2 *Semiotic Analysis*

The illustration depicts an Iraqi urban street completely covered by a thick dust storm at the representational metafunctional level. Thick orange-brown haze has rendered buildings, power lines, and moving vehicles, almost invisible, as they are reduced to mere silhouettes due to dust. The urban infrastructure, the power poles and cables, and the vehicles collectively function as the affected participant, a community and its built environment overwhelmed by an environmental force of extraordinary density and reach. The illustration depicts the dust storm as not merely a meteorological phenomenon above the city, but as the dominant and active subject of the scene, namely, an environmental agent that has seized control of urban space and caused daily life to be suspended.

At the interactive metafunctional level, the image establishes no conventional gaze-based address due to the absence of identifiable human or animal subjects. Nonetheless, the storm is coded here as a demand-type image: its totalising, inescapable visual density functions to directly confront and solicit the viewer's engagement, in the same way a represented participant's direct gaze would in a conventional demand image. The suffocating density of the haze and erasure of

the built environment create an insider-out perspective of stifling enclosure and threatening danger that cannot be avoided. Crucially, unlike the elevated aerial views of many other samples in this corpus, and like Walker Evans' photographs of the Great Dust Bowl, this street-level perspective of the dust storm allows the observer to feel like one is inside the storm rather than above it. Hence, the viewer can experience the environmental crisis depicted in a peculiarly immediate and physical manner.

At the compositional metafunctional level, the image is filled from edge to edge with the monochromatic orange-brown palette of the dust, which neutralizes colour contrast, depth and visual clarity of the entire image. There is no space in the frame for any other colour, making the edges of the subject and the background indistinct. The power lines that run horizontally as well as diagonally in the upper portion of the image are one of the few identifiable structural elements, their geometry creating a sense of fragile order against the formless density of the surrounding haze. The caption that follows quantifies the cost to economic activity of the urban mobility disruption that these shapes of vehicles visible through the storm communicate. Nowhere in this image is there an open sky, a horizon, or room to breathe. In fact, its very composition creates a suffocating visual atmosphere that physically enacts the environmental experience this picture documents.

4.2.2.3 Pragmatic Analysis

According to speech acts, the caption is built around assertive acts which belong to an institutional source, in this case of a parliamentary and governmental nature, bringing together quantified economic data with health and agricultural impacts. The main claim, "Iraq incurs losses of approximately one million dollars daily due to dust storms, across multiple sectors," shows the economic seriousness of the phenomenon with one single, very memorable statistic. This grounds

the environmental problem in concrete material terms that a general Arabic-speaking audience can immediately grasp. The statement that "In 2023 alone, Iraq recorded 158 dusty days" provides yet another quantitative anchor which temporally and statistically grounds something that may otherwise be viewed as seasonal. The attribution of these facts to the head of the Parliamentary Health and Environment Committee lends institutional authority to the assertives. This practice borrows from the Arab discourse convention. The latter grounds environmental claims on expertise linked to the government or the state and not to claims or the advocacy of civil society that is constructed independently.

In terms of proximation strategies, the spatial proximation occurs principally through the street-level image that ushers the viewer into the dust storm's sensory reality rather than dwelling at a distance. The all-encompassing orange haze, the hidden buildings, and the barely visible vehicles all bring the environmental crisis into one's physical body and psychological space. The caption embeds the economic data on Iraq in a specific, named national territory, thereby bringing the crisis proximate and identifiable to the Arabic-speaking Iraqi readership. The 2023 referentiality of the phrase "2023 alone", coupled with the continuous economic losses cited in the present tense, contextualises the dust storm phenomenon as an emergency that is chronic, worsening, and being experienced in the present, embedded in the daily life of Iraqi communities. In axiological terms, a moral divide is created between the Iraqi population and agricultural communities, who are cast as victims of the dust storms, intensifying desertification, and climate change, and an out-group held responsible for the phenomenon's intensification.

4.2.2.4 *Framing Analysis*

The analysis of this sample by means of the four framing functions develops an environmental frame which is economically focused and institutionally grounded. This is very

much in the tradition of Arab state-centred environmental discourse. The sample considers dust storms to be a chronic and intensifying environmental crisis. Moreover, it has severe multi-sectoral economic consequences for Iraq. For instance, the nation loses approximately one million dollars daily across health, agriculture, transport, and services sectors, among others. In addition, dust storms adversely impact public health, which manifests in the form of rising hospital admissions. Through vivid imagery, the image highlights the problem with the dust storm in question and how it has rendered a whole urban space uninhabitable and disorienting. According to the caption in terms of causal interpretation, it gets worse because of accelerating desertification, a reference to the broader regional effects of climate change, land degradation, and falling water levels in Iraq's major rivers. At the moral evaluation level, the framing of Iraq's crisis implicates the state and parliamentary institutions as responsible agents for overseeing and intervening within the crisis. Thus, the engagement of the Health and Environment Committee provides evidential framing of governmental awareness and accountability. The economic framing of the problem includes a treatment recommendation: by quantifying the multi-sectoral daily losses, the argument implicitly recommends sustained governmental investment on desertification control, agricultural protection, public health infrastructure, and so on as required responses. On the basis of these four framing functions, the Economic Frame is the dominant Core Green Frame operative in this sample. This is due to the fact that the discourse foregrounds the financial and sectoral losses caused by dust storms as its main persuasive logic. It urges an environmental action logic within the frameworks of national economic protection and state-directed development in the actor's politics.

4.2.3 Analysis of Sample 13: Mesopotamian Marshes

ويواجه العراق نذر أزمة مائية مجدداً، بعد أن عانى الأمرين من انخفاض حاد وصلت تهديداته مياه الشرب في « السنوات الماضية، ناهيك عن شح مياه السقي للمزروعات لكل مناطق العراق الوسطى والجنوبية. وفي منتصف مارس/آذار 2023، أعلنت وزارة الزراعة العراقية خروج نحو نصف الأراضي الزراعية في عموم مدن البلاد من الإنتاج، نتيجة الجفاف الذي ضرب البلاد بين سنوات 2020 و 2023 بسبب تراجع مناسيب نهري دجلة والفرات وشح الأمطار، وهو ما عطل استغلال 27 مليون دونم زراعي ».

"Iraq is once again facing the threat of a water crisis, having already endured a severe drop in water levels that reached drinking water supplies in previous years — not to mention the scarcity of irrigation water for agricultural areas across central and southern Iraq. In mid-March 2023, Iraq's Ministry of Agriculture announced that nearly half of the country's agricultural land had gone out of production as a result of the drought that struck between 2020 and 2023, caused by falling levels of the Tigris and Euphrates rivers and low rainfall, disabling 27 million dunums of farmland."

Figure 4.13*Drought, Mesopotamian Marshes (Arab)*

Al Jazeera Arabic. Retrieved on (2024, August 21). *What lies behind the water and drought crisis in southern Iraq?* [News report]. <https://www.aljazeera.net/news/2024/8/21/-أزمة-المياه-ماذاوراء-والجفاف-جنوبي>

4.2.3.1 Contextualisation

The thirteenth sample was taken from Al Jazeera Arabic that discusses the severe water and drought crisis impacting agricultural land in Iraq and the broader Tigris-Euphrates basin. The sample includes a documentary photograph depicting a man dressed in traditional Iraqi black attire standing on a vast, entirely dry, and cracked earth field while looking down on an abandoned and decaying wooden boat stranded on the dry ground. In a statement released in March 2023, Iraq's Ministry of Agriculture said that the drought between 2020 and 2023, resulting from declining levels of the Tigris and Euphrates rivers and scarce rainfall, disabled 27 million dunums of farmland, rendering nearly half of Iraq's agricultural land out of production. The environmental issue at the heart of the sample is water scarcity and drought crisis in Iraq and its impact on the

country's farming communities and ancient water-dependent civilisational heritage. The targeted audience is the Arabic-speaking regional and international audience including Iraqi citizens, farmers, policymakers and the broader Arab world. The combination of a deeply symbolic visual representation with an institutionally grounded caption positions this sample as one of the most culturally and emotionally resonant in the Arab corpus.

4.2.3.2 *Semiotic Analysis*

The image offers one of the most symbolically powerful visual constructions in the entire corpus at the representational metafunctional level. A man in traditional Iraqi black abaya and headscarf stands on a completely dry, cracked and barren expanse of earth while looking down at the old and rotting wooden boat lying on the dry land. A boat is a watercraft, a vessel specially designed for movement in water. It is stuck on dry land. its wooden frame is decaying and collapsing. The man acts as a contemplative witness who stands for the communities whose water-dependent way of life and productive environment have been ruined by the drought crisis. The boat is the central symbolic actor: the remnant of a water-based civilisation stranded on a land from where all water has entirely disappeared. The water crisis here is framed not as an environmental statistic but as the destruction of a way of life that has existed for thousands of years on the Tigris-Euphrates basin.

At the interactive metafunctional level, the actor does not face the camera but looks down upon the abandoned boat, constructing an offer image which orients the viewer as a witness to the man's contemplation and not as one who undergoes a reciprocal gaze. This downward orientation creates a layered gaze structure: the man looking at the boat, the viewer looking at the man. This layering draws the viewer into a shared moment of mourning/disbelief. The medium-long shot contains more than enough stature to situate the human figure and the boat in the context of the

vast, waterless landscape such that the emptiness of the environment is the most defining and most devastating reality.

At the compositional metafunctional level, the deserted vessel to the lower foreground, the broken wooden boat, which is the main point of salience, emerges with warm, decayed colours before the flat grey-brown earth. The man in the middle ground stands behind it and is dressed traditionally in a dark manner. The vertical element he creates anchors our eyes allowing us to move our gaze from the boat to the human witness and lastly the barren horizon. The level horizon has no water, no vegetation, no life at any direction. The flatness of the landscape in this part of the composition achieves the greatest impact by absence. It makes the total disappearance of any water here the strongest visual statement.

4.2.3.3 *Pragmatic Analysis*

Through the prism of speech acts, the caption performs assertive acts which are endowed with institutional authority and geographic specificity and these refer to verifiable governmental data and ministerial announcements regarding the water crisis. The statement that "Iraq's Ministry of Agriculture announced that nearly half of the country's agricultural land had gone out of production as a result of the drought that struck between 2020 and 2023" is a powerful institutional assertive which gives official government weight to the scale of the crisis. The additional claim that the decreasing Tigris and Euphrates levels and lack of rainfall are "disabling 27 million dunums of farmland" produces quantifiable agricultural damage, turning a hard-hitting image into a verifiable statistical measure of economic and humanitarian damage. The directive dimension is implicit. It is implied in the scale of the ministerial announcement and magnitude of the figures presented. Together, they form an implicit call to action on urgent water policy reform and international cooperation on transboundary river resources.

Regarding proximation strategies, spatial proximation allows us to touch a place inscribed with our common human destiny in a manner that stresses powerfully on image. The desiccation of landscape or total loss is constructed here. Not just diminished, rather the water has vanished from the narrative altogether. Only dry earth is left behind as the crumbling remnant of a water-dependent civilisation. The most powerful spatial proximation device in the Arab corpus is the boat stranded on dry land, i.e. something that is usually in water is positioned on dry land. This device functions to make water scarcity more material and actual. The mention of the central and southern regions of Iraq and the Tigris and Euphrates rivers in the caption makes the crisis both intelligible and affective to an Arabic-speaking readership. Between the years 2020 and 2023, as well as the present perfect tense constructions, are used to construe drought not as a historical event but as something that is ongoing. According to the authors, the protagonists of the narrative are the agricultural communities of central and southern Iraq who are pensively depicted as victims of a water crisis beyond their individual control. Conversely, the antagonists are the out-group entities responsible for the depletion of the Tigris and Euphrates. The out-group are the forces of transboundary water mismanagement and climate change. Specifically, upstream damming policies that curtail access to Tigris and Euphrates water resources and impact agricultural production.

4.2.3.4 *Framing Analysis*

This sample has comparatively the strongest emotional frame and most symbolic richness in the environmental frame under the four framing functions. The sample at the level of problem definition refers to the water and drought crisis of Iraq as an existential threat to the agricultural system of the country, the traditional communities and the ancient water-dependent civilisations of the Tigris-Euphrates basin. The image problematizes the abandoned boat on dry earth. Loss of

water is not spoken of just as a statistic. It has resulted in the destruction of a way of life. Most importantly, the boat indicated the loss of an entire civilisation with immeasurable cultural depth. The caption defines the causes of the crisis as the low levels of the Tigris and the Euphrates as well as low rainfall between 2020 and 2023. Additionally, there is an implication to upstream water diversion and regional climate change as adding causative factors. The framing characterizes the farming communities of central and southern Iraq as victims of systemic failure in regard to transboundary water governance and climate resilience. The statement issued by the Ministry of Agriculture indicates that the state recognizes the moral and humanitarian stakes involved. The assessment of governmental data presented indicates that an implicit treatment recommendation is for an urgent water policy reform and international negotiation over Tigris-Euphrates resources and investment in drought-resilient agriculture. By these four framing functions, we find the dominant Core Green Frame operative in this sample to be the Ethical Frame. The focus of the argument, which is an ode to the damage being inflicted on our rivers, is the loss of a traditional, water-dependent way of life that is being encoded as a moral and civilisational tragedy. When experts state that a river is “dying,” they imply that the river is being murdered. This is a serious indictment especially regarding their narrow understanding of nature.

4.2.4 Analysis of Sample 14: Gas Flaring

«نقل تقرير نشرته صحيفة الإندبندنت البريطانية عن خبراء أن حرق الغاز المصاحب لاستخراج النفط يعدّ العامل الرئيسي لتلوث المناخ، ويشكل خطراً داهماً على صحة الذين يعيشون في الجوار، مسبباً الإصابة بالربو وأمراض الرئة والجلد والسرطان. وذكر التقرير أن العراق يعد من أكثر الدول ممارسة لهذه العمليات في العالم، والبصرة هي المنطقة الأكثر تضرراً في البلاد. ووفقاً لرئيس بلدية نهر عمر، ارتفعت معدلات الإصابة بالسرطان على مدى العقد الماضي بنسبة 50%، بوجود 150 حالة ضمن 1600 ساكن».

"A report published by the British newspaper The Independent quoted experts as saying that the flaring of gas associated with oil extraction is the primary driver of climate pollution and poses an imminent danger to the health of those living nearby, causing asthma, lung and skin diseases, and cancer. The report noted that Iraq is among the countries most engaged in these operations in the world, with Basra being the worst-affected region. According to the mayor of Nahr Umar, cancer rates have risen by 50% over the past decade, with 150 cases among 1,600 residents."

Figure 4.14*Gas Flaring (Arab)*

Al Jazeera Arabic. Retrieved on (2021, April 19). *Experts sound the alarm: The situation in Iraq is catastrophic due to associated gas flaring* [News report].

<https://www.aljazeera.net/news/2021/4/19/إندبندنت-الغيوم-السامة-تخنق>

4.2.4.1 Contextualisation

The fourteenth sample is from Al Jazeera Arabic, citing an investigative report first published in the British newspaper The Independent on the severe health and environmental consequences of gas flaring associated with oil extraction in Iraq. The reference illustrates a documentary photograph of a young Iraqi boy standing on the bank of a body of water at dusk. This small figure stands alone in the foreground. The background features multiple oil flares that

are burning furiously at an industrial facility across the water. They reflect on the water's surface below. According to a bilingual caption, expert testimony and local health data reveal that gas flaring is the primary driver of climate pollution in oil-producing regions of Iraq. Moreover, it is directly linked to alarming cancer rates in communities residing near flaring sites in Basra province. The sample revolves around the environmental issue of public health and ecological crisis that the gas flaring operations create in southern Iraq. The intended audience of the platform experts are the Arabic-speaking regional and international audience including Iraqi citizens, policymakers, and public health professionals as well as the wider public of the international community. The study's distinctive comparative communicative dimension emerges from its confluence of Western journalistic authority and pan-Arab media reach, as well as local health statistics.

4.2.4.2 *Semiotic Analysis*

At the representational metafunctional level, the image features a young Iraqi boy as the central symbolic actor. Additionally, the image is also powerful due to its contrast with the war and strife taking place in Iraq. Further, it alludes to the boy's displacement as he finds himself juxtaposed against these ominous flames. The fire, which has multiple towers of violent orange flames, is seen in its water. The boy stands caught between the blaze of fire above and its reflection below. The boy is both a narrative participant, a member of the community living in close range to the flares, and the most powerful conceptual symbol. He is the child who represents innocence, vulnerability, and future generations. He lives in close physical range to the industrial process that caption says causes cancer, respiratory disease, and environmental contamination in his community. The strongest, most morally devastating representational argument of the image lies

in the contrast between the small, still, solitary figure of the child and the towering, violent, plural flames of the industrial flares.

The boy gazes at the flares across the water, facing away from the camera. At the interactive metafunctional level. With this orientation, the image creates an offer image and positions us behind the child's viewpoint and thus, the boy's experience of living next to gas flaring at an industrial site. The viewer and the boy both stare at the same flames, their eyes locked with each other. As a result of this act of seeing, the observer is not just looking at the boy. He is taking the boy's position, and through the boy's gaze, he is looking at the environmental reality the boy encounters every day. The medium shot provides enough space so that we can capture, in one shot, the spatial and the moral relationship which exists between the child, the water, and the industrial flares.

At the compositional metafunctional level, the image overall is dominated by the warm fiery orange and gold colours generated by the flares which with the bright white flame on the upper half of the image, is essentially duplicated below by reason of its water reflection. The small dark figure of the boy occupies the lower foreground at water level essentially between the fire and the viewer. The main compositional argument concerns the scale relationship between the child and industrial infrastructure. The boy is dwarfed by the dominating flares, which visually encodes the powerlessness and vulnerability of one community member confronts with the overwhelming industrial forces which govern his life and environment, and harm his health. The darkened sky at dusk signals an ominous atmosphere that leads to a feeling of threat rather than promise.

4.2.4.3 *Pragmatic Analysis*

As per speech act theory, the caption is founded on expert testimony and quantified local health data in the form of assertive acts. The utterance wielded the authority of an international newspaper and a pan-Arab news network. It is stated that "the flaring of gas associated with oil extraction is the primary driver of climate pollution and poses an imminent danger to the health of those living nearby, causing asthma, lung and skin diseases, and cancer". This functions as a powerful primary assertive which frames gas flaring as hardly being an industrial by-product but rather a direct and medically documented threat to human life. The mayor of Nahr Umar's health statistic - "cancer rates have risen by 50% over the past decade, with 150 cases among 1,600 residents" - is what gives the claim a community-level effect. It converts the health claim, which is otherwise abstract, into a concrete and devastating reality. The directive dimension is contained in the journalist framing of these facts as a wake-up call; the caption works as an implicit directive to the Iraqi governmental authorities and the international community to treat gas flaring as an urgent public health and environmental justice issue.

The image effectively achieves spatial proximation by putting the viewer behind a child who is physically surrounded by the flames and toxic emissions of gas flaring. As a result, a statistic about cancer has been given the visible presence of a lived reality experienced by a specific person in danger and not just a number. The online copy reinforces spatial proximation by naming Basra and Nahr Umar as specific geographic sites of the crisis. It thus makes the environmental damage locally legible and emotionally immediate for Iraqi and Arab readers. Over the past decade, cancer rates are on the rise. The way they phrase the ongoing health risks associated with gas flaring shows it is a chronic and worsening crisis. It shows it is not a historical episode, but rather an ongoing situation. In terms of values, the discourse creates a sharp moral boundary

between the communities of Basra, who are placed as the victims of the industrial process and the oil industry and regulatory actors whose extraction exposes these communities to life-altering health consequences. The oil industry is cast as the ideological out-group responsible for the environmental and health injustice depicted.

4.2.4.4 Framing Analysis

Through evaluating four framing functions, the most morally urgent and emotionally devastating environmental frame of the Arab corpus is constructed by this sample. The gas flaring associated with oil extraction in Iraq is identified at the problem definition stage as a dual crisis: a primary driver of climate pollution and an immediate and measurable source of severe health harm for communities living in proximity to flaring sites, especially in Basra province. Through the figure of a child standing before industrial flames, the image portrays the problem, encoding the health crisis as a fundamental injustice against the most innocent and vulnerable members of the affected community. Gas flaring operations are responsible for a health crisis, as suggested by the caption. Additionally, Iraq is considered among the world's most active practitioners of this process, while Basra, Iraq, is the worst-affected region. Besides, the reason which the caption identifies is oil extraction and lack of adequate regulatory constraints over this. The statistic of 150 cancer cases among 1,600 residents, representing a 50% increase over a decade, is certainly the most powerful moral condemnation. In fact it is the strongest moral condemnation in the Arab corpus at the level of moral evaluation. Certainly, the health of a community is being systematically destroyed by an industrial process which works exclusively in the service of national and international economic interests, at the direct cost of local lives. The treatment recommendation may be drawn from the sheer weight of expert testimony and health data which is that gas flaring should either be strictly regulated or eliminated, investment in gas capture infrastructure should be

made and health costs must be borne by the affected communities. The Ethical Frame is the dominant Core Green Frame operating in this sample which emerges from the four framing functions. Due to the devastating health impacts of gas flaring on local people, the discourse highlights these. The state and the oil industry both must bear the moral responsibility for these communities. Furthermore, it constructs the whole system as unjust for extracting national wealth at the cost of the health and lives of its most proximate and vulnerable citizens.

4.2.5 Analysis of Sample 15: Solar Energy

ماضون في مشاريعنا المستقبلية وخاصة مع شركة توتال الفرنسية التي تنفذ حالياً مشروعاً بطاقة 1000 ميغاواط "«
لحل الاختناقات في تأمين الطاقة الكهربائية من خلال منظومات الطاقة الشمسية في محافظة البصرة." ويسعى العراق إلى توليد
20% من إجمالي طاقته الإنتاجية من مصادر متجددة للمساعدة في تخفيف الضغط على محطات الكهرباء التي تعمل بالطاقة
«الهيدروكربونية في البلاد»

"We are pressing ahead with our future projects, particularly with the French company TotalEnergies, which is currently implementing a 1,000-megawatt project to resolve electricity supply bottlenecks through solar energy systems in Basra province.' Iraq is seeking to generate 20% of its total energy production from renewable sources to help ease pressure on the country's hydrocarbon-powered electricity stations."

Figure 4.15*Solar Energy (Arab)*

Al Arabiya. Retrieved on (2025, September 21). *Iraq begins operating its first solar electricity generation plant* [News report]. <https://www.alarabiya.net/aswaq/oil-and-gas/2025/09/21/-العراق-يبدأ-تشغيل-اول-محطة-لانتاج-الكهرباء-بالطاقة-الشمسية>

4.2.5.1 Contextualisation

The fifteenth sample is obtained from Al Arabiya which is among the most widely circulated pan-Arab television and digital news networks. The piece relates to the inauguration of Iraq's first solar electricity generation plant along with the broader national renewable energy strategy. The sample shows a documentary photo of two male workers wearing high-visibility yellow safety vests and white hard hats in the midst of long, parallel rows of solar panels on a flat,

arid desert landscape. An Iraqi official says that Iraq will work on a solar project in coordination with TotalEnergies. The target is the installation of solar panels capable of producing 1,000 megawatts of power. The project will be developed in Basra province. Furthermore, Iraq is aiming for 20% of energy to come from renewables. This sample's environmental issue is Iraq's transition toward renewable energy as a solution to the country's chronic electricity supply crisis and its over-reliance on hydrocarbon-powered generation. The target audience includes the Arabic-speaking regional and international audience. It also includes Iraqi citizens, investors, and policymakers as well as the Arab world. This specific sample's developmental register, institutional voice, and state-directed framing place it firmly within the tradition of Arab governmental environmental and energy communication.

4.2.5.2 *Semiotic Analysis*

The image at the representational metafunctional level portrays it two male workers as the human actors. They moved forward in between the rows of solar panels. Furthermore, it encodes a narrative of purposeful, organised, state-directed industrial action. Different in nature to the protest imagery or wildlife photography of the Western corpus, this image shows human beings not as victims of environmental harm or advocates for change, but as professional agents of technological deployment. They are workers implementing a governmental energy solution to the nation. The rows of solar panels that stretch out to the horizon are the dominant structural element of the image which reflects the scale, ambition and systematic nature of the renewable energy project as state infrastructure.

At the interactive metafunctional level, the two workers have been photographed from a slightly elevated perspective and are not looking toward the camera. Their activity at work generates an offer image that suggests the development of renewable energy is a process that is

already underway rather than one that is merely aspirational. The viewer is cast as a spectator to an action - an institutional one - with an invitation to witness and acknowledge the state's energy modernisation. The somewhat elevated perspective allows the entire solar installation to be understood and locates the workers in the context of an ambitious national developmental project, through which the audience can understand the state's infrastructural investment.

At the compositional metafunctional level, the visual is organized by the strong, converging geometric lines of the rows of solar panels that are arranged to meet in the background in a perspective which quickly recedes to the distance. The two workers, located at the midpoint of the panels, act as a human scale to gauge the scale of the project as a whole. With their relatively small-looking figures positioned against the rows of panels, the ambition and scope of this infrastructure project is evident. The muted, hazy palette of the overcast desert sky and sand beneath – and the serious, pragmatic feel they offer – are a far cry from the aspirational natural imagery of the Western circular economy sample. This is an engineered solution to the arid climatic and geographic conditions of southern Iraq.

4.2.5.3 Pragmatic Analysis

In terms of speech acts, this caption combines assertive speech acts with implicit directive speech acts. The confident, forward-looking register of state-directed developmental discourse is reflected in these two speech acts. The Iraqi government official's primary assertion has a dual role as an institutional commitment and a public announcement of governmental intent. "We are pressing ahead with our future projects, particularly with the French company TotalEnergies, which is currently implementing a 1,000-megawatt project to resolve electricity supply bottlenecks through solar energy systems in Basra province," said the official. The supplementary assertive that "Iraq is seeking to generate 20% of its total energy production from renewable sources"

establishes a national policy target. Thus, the solar project is a project of the government and not merely an isolated initiative. The government has a plan for a systematic energy transition strategy. The language of institutional determination has a directive dimension. The phrase "we are pressing ahead" contains an implicit directive to investors, partner companies and overseas observers. It suggests that Iraq's commitment to renewable energy is solid, active and under a defined governmental plan.

Concerning proximation strategies, spatial proximation is materialized through the image with concretizing the abstract policy of energy transition in the physical reality of a concrete existing and operational solar installation embedded in the Iraqi desert. The design of the visual aids the project viewer to place oneself into its space between the rows of solar panel with the workers along-side, making possible the energy transition visible, tangible, and already in progress. The caption reinforces spatial proximation by identifying the project in Basra province, the very region flagged in Sample 14 as being the most damaged in terms of environment and health in Iraq. This creates an implicit spatial link between the gas flaring crisis and state renewable energy response, both occurring in the same geographic and community context. Constantly using "is currently implementing", "are pressing ahead" in the present continuous tense presents the renewable energy development as an ongoing active process which has already commenced rather than a future goal thus generating confidence and institutional momentum. The message in the text constructs a positive in-group identification, sharing the power over technology with the Iraqi state, its governmental actors, and its international partners, and positioning them all as the agents of technological progress and national development, with fossil fuel dependence and electricity insecurity as the out-group that the solar project wants to overcome.

4.2.5.4 *Framing Analysis*

An analysis via the four framing functions shows that the sample constructs a developmental, state-directed, technologically optimistic environmental frame that is distinctively Arab institutional one. The sample identifies electricity supply bottlenecks and over-dependence on hydrocarbon-powered generation as the first order national problem to which the solar project is designed to contribute solutions. This framing as a practical solution to a concrete problem of infrastructure bottlenecks rather than primarily as a solution to climate change as an ethical or ecological issue. The image provides context through the visual experience of an operational solar installation where professional workers are working. The solution not the problem is the main representational subject of the sample. The caption suggests that the energy crisis in Iraq is a result of the country's past dependence upon hydrocarbons infrastructure for energy. Diversification away from hydrocarbons through renewable energy is therefore the apparently state-sanctioned and pragmatically wise response. As per moral evaluation, the framing shows the Iraqi state and its governmental actors as responsible, forward-thinking agents of national development who are engaged on the international renewable energy scene for pragmatic energy reasons and demonstrate their commitment to the sustainable future of the country. The treatment recommendation is the clearest and most concrete of any sample in the Arab corpus: a specific 1,000-megawatt solar project with TotalEnergies and a national target of 20% renewable energy generation amount to a quantified, institutional prescription for the energy transition for Iraq that is already under active implementation. Drawing on these four framing functions, the dominant Core Green Frame operative in this sample is the Economic Frame. This is because the discourse foregrounds renewable energy development essentially as a solution to a problem of national

energy infrastructure and supply. Thus, it frames sustainability with reference to state-directed economic development and energy security, rather than ecological or ethical imperatives.

4.2.6 Analysis of Sample 16: Date Palm Cultivation

وأشار إلى أن زراعة النخيل لم تَر نجاحاً لأسباب عديدة منها أن برنامج الحكومة غير مفهوم، فالعراق يحتل الآن « المرتبة الخامسة في الدول العربية. وأوضح حسون أن العراق يفتقر إلى البرنامج والمصانع الكبيرة القادرة على التصدير لمنتجات التمور كعسل التمر "الدبس"، مؤكداً أنه ليس لدينا تصدير بالمعنى الحقيقي للمنتجات المصنعة إلا بكميات خجولة من القطاع الخاص».

"He noted that date palm cultivation has not seen success for many reasons, among them that the government's programme is unclear — Iraq now ranks fifth among Arab countries. Hassoun explained that Iraq lacks programmes and large factories capable of exporting date products such as date molasses 'dibs', stressing that there is no real export of processed products except in modest quantities from the private sector."

Figure 4.16*Date Palm Cultivation (Arab)*

Al Jazeera Arabic. Retrieved on (2025, February 20). Iraq aspires to the world's date throne after launching a new date palm cultivation strategy [News report].

<https://www.aljazeera.net/ebusiness/2025/2/20/عراق-تمور-مجهول-نخيل>

4.2.6.1 Contextualisation

Sample sixteen comes from Al Jazeera Arabic and speaks about Iraq's renewed strategy for date palm cultivation. And the structural obstacles that prevent Iraq from reclaiming its historical status as a leading global date producer. The picture includes a landscape photo of a dense row of mature date palms along the bank of a calm waterway. The calm water reflects their images, with

clouds overhead at golden hour. The caption below, in both Arabic and English, contains the assessment of an agricultural expert, Hassoun, who said that the weak performance of Iraq's date palm sector is due to the lack of clarity of governmental programming, the absence of large-scale processing factories and Iraq's fall to fifth place among Arab date-producing nations. The environmental problem in this case study is the decline of date palm cultivation in Iraq and it touches on a culturally and ecologically significant agricultural sector. In addition, it focuses on what caused the failures of policies aimed at reviving the date palm sector in Iraq. The target audience is the Arabic-speaking regional audience, including agricultural stakeholders, investors, policymakers, and citizens connected to Iraq's traditional date-growing heritage. Presented on one hand through institutional critique evident in expert testimony and on the other through developmental framing, this sample is placed in the tradition of Arab agricultural and economic environmental discourse.

4.2.6.2 *Semiotic Analysis*

Within the representational metafunctional level, the visual shows a tall, thick row of mature date palms that are the central representational subject, since their trunks appear to rise in a continuous line along the riverbank. These palms have dense green undergrowth below. The absence of any human actors enables the date palms to serve as the primary symbolic and ecological presence in the frame. The palm trees display a natural abundance, maturity and continuity that contradicts the caption's narrative of agricultural decline and institutional failure. In the only trace of human cultivation in the landscape, a small wooden structure – perhaps a simple shelter or watch post – is nestled amongst the palms at the water's edge. In the calm water below, the perfect mirror reflection of the trees creates a doubling effect that visually emphasizes the natural fertility and beauty of Iraq's traditional palm-growing landscape.

In the interactive metafunctional level, the absence of human or animal subjects means that there is no conventional gaze relationship between the image and the viewer. The image serves the purpose of aesthetics and contemplation. It invites the viewer to appreciate the visual beauty and ecological maturity of the palm grove instead of confronting them with a demand for emotion or morality. The calm yet close-in viewpoint at eye-level at the water's surface looking across to the palm-lined far bank places us in a position as if we were spectators of a scene of natural tranquillity.

At the compositional metafunctional level, the image is organised around a horizontal band of dense green palm foliage which runs across the centre of the frame, with the sky in soft blue and white above and still, reflective water below creating balance in one symmetrical composition. The striking vibrant green colours of the rich vegetation and its reflection leaves us with a powerful impact of natural fertility and aesthetic harmony. Many would find this impact in contradiction to the caption which speaks of underdeveloped industry and lost economic opportunity. This an implicit visual argument that asserts that the asset in question, the date palm landscape, is rich and intact, and that the crisis spoken of in the caption is a crisis of governance and economic strategy, not a crisis of resources.

4.2.6.3 *Pragmatic Analysis*

With regard to speech acts, the caption is mainly delivered through assertive acts using expert testimony. Hassoun's argument identifies the underlying structural causes of Iraq's date sector, which is performing significantly below its potential. The mentioned assertion "date palm cultivation has not seen success for many reasons, among them that the government's programme is unclear" attributes the failure of the sector to an institutional failure and not to an environmental failure or a natural failure. Presented with the further assertive "Iraq now ranks fifth among Arab countries," which gives a precise comparative statistic, albeit a painful one, we may note that this

quantifies the extent of the country's marked loss of standing in date production. The indication as a supplementary assertive "there is no real export of processed products except in modest quantities from the private sector" diagnoses the lack of industrial capacity to be a key structural weakness. The directive dimension is present all through; the cumulative weight of the experts' critiques is an implicit call – for clearer governmental programming and investments in processing infrastructure and expanded export capacity.

When it comes to proximation strategies, spatial proximation works through the image, which signifies an intact and flourishing palm landscape, and the caption on the other hand, which locates the crisis in terms of Iraq's position among Arab nations and export infrastructure, thus national and regional economic stakes are made legible. The caption's reference to a "new date palm cultivation strategy" alongside the diagnostic present tense, "lacks," "has not seen success," creates an impression of crisis as an ongoing, unresolved failure in policy, which a new strategy aims to address in the future. In terms of values, the discourse draws a line separating the unclear and underperforming governmental programme, which is placed the cause of the stagnation of the sector, from the underutilised natural and agricultural potential of the country, represented by the flourishing palm grove, placed the resource being wasted through institutional inaction.

4.2.6.4 *Framing Analysis*

When this sample is studied using the four framing functions, it produces a developmental and policy-critical environmental frame which is starkly different from the crisis-oriented discourse of other Arab samples. Iraq's date palm sector has badly lagged behind so much that it has slipped to fifth place among Arab nations and has no ability to export. In essence, it is not an ecological disaster at all; it is the failure to make economic and institutional use of an intact natural resource. The image reinforces this framing because it shows an environment with palm trees. It

states that any fault lies not with nature but with policy and industry. In terms of causal interpretation, the caption states that the stagnation of the sector is a result of a failure to address the uncertainty of governmental programming and the absence of large-scale processing factories for the export of date molasses and other value-added products. The framing implicitly critiques the government for poor planning and demands better institutional functioning at a moral evaluation level. However, it falls short of the urgent moral condemnation seen in samples referring to pollution or health crises. As is often the case, the treatment recommendation is found to be at least partly embedded in the overall context of the article, as referenced in its title which talks of a "new date palm cultivation strategy." In substance, this would mean clearer governmental programming, expansion of processing facilities, and boosting of the private sector investment to enhance export capacity. Based on these four framing functions, the dominant Core Green Frame operative in the sample overall is the Economic Frame. That is, the discourse foremost puts on the table national agricultural competitiveness, export potential and industrial development, as the persuasive logic, the discourse puts environmental resource management within a state-directed frame for economic strategy.

4.2.7 Analysis of Sample 17: Desertification

يعاني العراق من انخفاض حاد ومقلق في مناسيب نهري دجلة والفرات، الشريانين الحيويين اللذين يعتمد عليهما « أكثر من 90% من سكان البلاد للحصول على المياه. التصحر ليس مجرد ظاهرة بيئية، بل هو محرك لتدهور اقتصادي واجتماعي. العواصف الترابية والرملية أصبحت أكثر تكراراً وشدة، وتغطي مدناً بأكملها بالغبار لأيام، مما يتسبب في مشاكل صحية خطيرة ويزيد من تآكل التربة الخصبة المتبقية. لقد فقد العراق مساحات زراعية شاسعة لصالح الصحراء، وتشير التقديرات إلى أن هذه الظاهرة مستمرة في التوسع

"Iraq is suffering a sharp and alarming decline in the levels of the Tigris and Euphrates rivers — the two vital arteries upon which more than 90% of the country's population depends for

water. Desertification is not merely an environmental phenomenon; it is a driver of economic and social deterioration. Dust and sandstorms have become more frequent and intense, covering entire cities in dust for days, causing serious health problems and accelerating the erosion of what fertile soil remains. Iraq has lost vast agricultural areas to the desert, and estimates indicate that this phenomenon continues to expand."

Figure 4.17

Desertification (Arab)



Al Jazeera Arabic. Retrieved on (2025, November 6). *Iraq's drought: Climate change threatens the land of Mesopotamia* [Blog post]. <https://aljazeera.net/blogs/2025/11/6/-المناخ-العراق-تغير-جفاف>
 يهدد-أرض

4.2.7.1 Contextualisation

The seventeenth sample comes from Al Jazeera Arabic in blog format. The article speaks about the escalating desertification crisis threatening Iraq's agricultural land and water security. The sample contains a picture of an almost dried irrigation channel under a concrete water control structure. The structure's empty arched gates are visible in the background. The scattered shallow puddles and exposed cracked mud have a fair bit of garbage scattered about it. Overall, the water flow has almost completely come to a stop. The accompanying caption reads: "Iraq is suffering a sharp and alarming decline in the levels of the Tigris and Euphrates rivers, the two vital arteries upon which more than 90% of the country's population depends for water," while desertification is being described as a driver of economic and social deterioration, accompanied by increasingly frequent and severe dust and sandstorms. The environmental problem which is the focus of this sample is desertification and the depletion of Iraq's two principal rivers. The output is useful for the Arabic-speaking regional and international audience including Iraqi citizens, environmental policymakers and the broader Arab public. The blog format's explanatory, almost editorial register and its statistical and ecological detail position this sample within the tradition of Arab analytical environmental journalism.

4.2.7.2 Semiotic Analysis

At the representational metafunctional level, the image depicts a water control structure with multiple arched gates, most of which are empty, and a channel reduced to scattered shallow puddles of water amid exposed, cracked mud. The structure was purposely designed and built to manage and distribute water flow. Surely, it represents a symbolic trait as well. Notably, it is human infrastructure rendered purposeless by the absence of the very resource it was constructed to regulate. The litter strewn across the desiccated channel bed adds a second layer of environmental

degradation. This suggests that not only has the waterway dried but waste is also being dumped here, intensifying ecological harm. The presence of almost no flowing water beneath the gates is the main visual message of the image: a water management system that has been trapped by the very desertification crisis described in the caption.

At the interactive metafunctional level, there are no human or animal actors in the image. As such, the image works as an environmental offer. It also offers the depleted channel and its infrastructure for the viewer's direct observational assessment. The framing of the documentary is very simple and plain and shows the particular structure and its dry channel from a low, ground-level vantage point. In this sense, it offers an impression of unmediated factual observation despite the straightforward representations. Similarly, the caption that accompanies the image provides a diagnosis and analysis rather than an appeal to pathos.

At the compositional metafunctional level, the image has been partitioned horizontally. The upper portion of the image carries an elevated concrete structure, and in contrast, the lower part is occupied by the exposed cracked channel bed with shallow puddles in the middle. This compositional division creates a visual narrative of vertical contrast: with human engineering above – environmental depletion below – with the small remaining patches of water holding little salience surrounded by the more dominant grey and brown tones of dry mud and litter. The structure's frame is repeat architecturally designed with a succession of empty arches that reinforce visually the scale and systemic nature of the water shortage. Hence, it indicates that this is not a single channel but representative of many. Likewise, it is also not a channel that is rendered unserviceable. Desertification crisis in the larger scope is rendering an entire water infrastructure ineffective.

4.2.7.3 *Pragmatic Analysis*

Concerning speech acts, the caption executes a dense sequence of assertive acts that establish notably the empirical scale and the systemic consequences of the desertification crisis. The phrase "Iraq is suffering a sharp and alarming decline in the levels of the Tigris and Euphrates rivers, the two vital arteries upon which more than 90% of the country's population depends for water" serves as a foundational assertive. The assertive through a single telling statistic fixes national stakes of the crisis as near-universal. The strong assertion, "Desertification is not merely an environmental phenomenon, it is a driver of economic and social deterioration" does important rhetorical work here, as it extends the issue not just to ecology but also to economy and social welfare, thus expanding the moral and political stakes in the debate. Moreover assertives, "Dust and sandstorms have become more frequent and intense, covering entire cities in dust for days," and "Iraq has lost vast agricultural areas to the desert," help with an empirical case demonstrating specific and vivid consequences. The cumulative weight of this evidence suggests we need national environmental policy intervention because desertification has expanded.

Concerning proximisation strategies, the image achieves spatial proximisation through the direct and unfiltered portrayal of a specific identifiable water structure almost reduced to dry. The abstraction of declining rivers is thus given a visible and local materiality. The caption makes this point by referring to dust storms "covering entire cities". Thus the geographical scope of the crisis extends from rural waterworks to the urban spaces where most of Iraq's people reside. Temporally, the claim that "this phenomenon continues to expand" frames desertification as an active, accelerating and ongoing process rather than a stable one, generating a forward-looking sense of urgency. From an axiological perspective, the discourse delineates a clear separation between two entities. First, the Iraqi population is collectively structured as the vulnerable in-group that relies

on the Tigris and Euphrates for survival. Second, climate change and water mismanagement — along with the construction of transboundary dams — are cast as the out-group responsible for the rivers' decline.

4.2.7.4 *Framing Analysis*

Through analysis of the four framing functions, this sample constructs a systemic and analytically comprehensive environmental frame. According to the sample, the falling levels of the Tigris and Euphrates rivers results in desertification. This environmental crisis has become a national problem. It has environmental, economic and social dimensions. It also threatens the water security of more than 90% of Iraq's population. The image supports this definition through a representation of infrastructure that lacks purpose in the absence of water, metonymically a reference to the failure of the country's water systems more broadly. The caption infers that declining river levels are behind the crisis. It does not name specific actors be they institutional or political. It places the cause within a wider category: regional and global climate change and transboundary water management issues. When experts assess a problem, their views are essential for the public. This explains why the framing of desertification is often up to the experts with little room for the public to contribute. "vast agricultural areas" are being lost along with "serious health problems" and dust in the city. These experts make these assessments which characterise desertification as a problem of development and generality, not just some victims. This underscores the scale of the collective harms that desertification is bringing about. The text's diagnostic structure itself contains the treatment recommendation. It indicates that once desertification is recognised as an socio-economic and not just a physical phenomenon, a similarly comprehensive policy response must follow. Based on those four framing functions, the dominant Core Green Frame operative in this sample is the Scientific Frame complemented by Economic Frame as the

discourse constructs its argument through empirical hydrological and demographic data on the one hand and, on the other, frames the consequences of desertification in explicitly economic and social terms.

4.2.8 Analysis of Sample 18: Shatt Al-Arab Salinity Crisis

يواجه سكان محافظة البصرة جنوب العراق خطراً بيئياً يتمثل في ارتفاع اللسان الملحي في مياه شط العرب، فضلاً عن معاناتهم من ارتفاع درجات الحرارة التي تبلغ أحياناً 51 إلى 53 درجة مئوية. وواصلت نسبة الملوحة ارتفاعاً كبيراً في بعض مناطق محافظة البصرة متجاوزةً المواصفات المسموح بها لمياه الاستخدام أو مياه الشرب. ويضيف العيداني أن سكان قضاء شط العرب يبلغ تعدادهم ما يقارب 650 ألف نسمة، وكل هذه الأسر لم تصلها المياه الصالحة للشرب، مشيراً إلى أن مستشار محافظ البصرة أكد أن اللسان الملحي في شط العرب "ملف دولي بسبب ارتباطه بموضوع الإطلاقات المائية القادم من تركيا وإيران، وهو خارج صلاحيات الحكومة المحلية".»

"The residents of Basra Governorate in southern Iraq face an environmental danger in the form of rising saline intrusion in the waters of Shatt al-Arab, in addition to enduring temperatures that sometimes reach 51 to 53 degrees Celsius. Salinity levels continued to rise significantly in some areas of Basra Governorate, exceeding the permitted standards for usable or drinking water. Al-Aidani adds that the population of Shatt al-Arab district numbers approximately 650,000 people, and none of these families have received safe drinking water. He notes that an advisor to the Basra Governor confirmed that the saline intrusion in Shatt al-Arab is 'an international file because it is linked to the issue of water releases coming from Turkey and Iran, and is outside the jurisdiction of the local government.'"

Figure 4.18*Shatt al-Arab Salinity (Arab)*

Al Jazeera Arabic. Retrieved on (2021, July 27). *Rising salinity of Shatt al-Arab: An environmental catastrophe threatening Basra residents* [News report].

<https://www.aljazeera.net/misc/2021/7/27/ارتفاع-ملوحة-شط-العرب-كارثة-بيئية-تهدد>

4.2.8.1 Contextualisation

The eighteenth sample is sourced from Al Jazeera Arabic, reporting on the escalating salinity crisis affecting the Shatt al-Arab waterway in Basra Governorate, southern Iraq. The provided sample is a photograph of a wide expanse of choppy greenish-grey water under a cloudy sky. It shows industrial structures and buildings with palm trees on the far shores. This sample shows the vast scale of the affected waterway. According to the accompanying bilingual caption, the citizens of Basra are confronted with an intensifying intrusion of saltwater into Shatt al-Arab

waters due to extreme heat conditions. The residents are facing scorching temperatures ranging from 51 to 53 degrees Celsius. Moreover, the salinity of these waters is surpassing the permitted standards for drinking and general use. Consequently, around 650,000 people from Shatt al-Arab district are deprived of access to safe drinking water. In this context, a local official has mentioned that this is an international issue. Furthermore, the official has attributed this problem to the water releases from upstream countries, namely Turkey and Iran. The environmental concern at the core of this instance is water salinity and the transboundary water politics of southern Iraq affecting access to drinking water. The targeted audience is the Arabic-speaking regional and international audience including Iraqis, regional governments and international diplomatic observers. The explicit invocation of transboundary geopolitics in this instance makes it an important manifestation of the international dimension of Arab environmental discourse.

4.2.8.2 *Semiotic Analysis*

According to the representational metafunctional level, a wide area of choppy greenish-grey water functions as the dominant representational subject. In other words, the rough surface and murky colouration of the water allow for the visual encoding of the compromised quality of the waterway described in the caption. The distant shoreline, with its industrial structures and scattered buildings, places the water within inhabited, economically significant space, giving human stakes to otherwise dispassionate expanses of water. No human beings and or animals are in the frame, the water, in its degraded colour and texture, becomes the central and singular subject of environmental concern.

Without a live subject in the frame, there is no gaze relationship, which would make the image interactive on the metafunctional level. Rather, the image is an environmental offer that shows a visibly compromised waterway so that the viewer can make up his own mind about it.

The eye-level perspective at the water's surface, looking across its choppy expanse towards the distant shore, puts us in the scale and texture of the affected waterway, creating a sense of coming face to face with an environmental issue too large for a single easily grasped frame to contain.

At the compositional metafunctional level, one can see that the image is clearly dominated by the water which is greenish-grey in colour. It takes over almost the entire image frame and its murky, opaque coloration is clearly the central visual evidence of salinity and pollution crisis which the caption speaks about. The choppy texture of the water surface in the foreground also adds a restless and unsettled element to the image that visually suggests that the crisis is unsettled and precarious. Looking out over the water from this vantage, the shoreline on the horizon occupies a much thinner band at the top of the picture. The weight of the image is not in the coastline, but the water. The water is more dominant than the coastline. The picture speaks of an environmental crisis which is more powerful and more dominant than human settlements which exploit the water. Yet, the same water is a crisis for human settlements too.

4.2.8.3 *Pragmatic Analysis*

In terms of speech acts, the caption is a series of assertion, assertive acts, that escalates in its act orientation, and this danger combines more than just environmental and demographic factors. It adds a geopolitical dimension too. The statement "The residents of Basra Governorate in southern Iraq face an environmental danger in the form of rising saline intrusion in the waters of Shatt al-Arab" is the main assertion of the report; whereas the other assertion, namely that the temperatures are "reaching 51 to 53 degrees Celsius", increases the environmental severity, which is another alarming information. The demographic assertive, "the population of Shatt al-Arab district numbers approximately 650,000 people, and none of these families have received safe drinking water," is perhaps the most devastating single statement of the entire Arab corpus, it

establishes both the scale and totality of the disaster in precise quantitative terms. The most rhetorically significant speech act in this extract is arguably the directly quoted statement attributed to an advisor of the Basra Governor, which states that the saline intrusion is "an international file because it is linked to the issue of water releases coming from Turkey and Iran, and is outside the jurisdiction of the local government." This functions rhetorically as a potentially powerful assertive that diagnoses the real cause of the crisis, but it is also performing an implicit directive by calling on international and national diplomatic actors, rather than the local administration, to resolve the underlying transboundary water dispute.

With respect to proximation strategies, the spatial proximation functions via the expansive, immersive image of the impacted waterway, and also through the caption's explicit reference to "Turkey and Iran" as the upstream sources of the crisis, extending the geographical scope of this environmental problem beyond Iraq into international relations. The phrase "continued" rising salinity in the caption temporalizes this crisis. It is made to seem like an ongoing and worsening trajectory. Not a stable or resolved condition. The discourse has particular interesting axiological structures. The population of Shatt al-Arab district is constructed as innocent victim in-group. The local government is absolved from blame explicitly through the statement of the quoted advisor. This displaces the true out-group upon the international and transboundary actors, Turkey and Iran, identified as responsible for the water release policies. This is a distinctly Arab discursive pattern, identifying the environmental causality in the realm of international politics and not in local affairs or individual behaviour.

4.2.8.4 *Framing Analysis*

This sample creates a geopolitically inflected and humanitarian environmental frame when analysed through the four framing functions. At the level of problem definition, the sample

registers rising salinity in Shatt al-Arab waters and extreme heat as an environmental threat that has deprived an entire district of approximately 650,000 people of access to safe drinking water. In this way, the sample defines the crisis as an environmental, public health and humanitarian threat simultaneously. Interpretation of the Image: A very large and turbulent waterway, the quantity of which is visibly degraded, demonstrates through scale that the size of the water body is equally connected to the size of the human problem it produces. The infographic is remarkably direct and politically significant in terms of causal interpretation. It ascribes the blame for the crisis directly to "water releases coming from Turkey and Iran." This offers an alternative interpretation, one which attributes to the regional transboundary water politics something that is more like a domestic environmental failure. The framing at the level of moral evaluation is notable for explicitly pushing blame away from the local Iraqi government. After all, its very own representative is quoted saying that the issue lies "outside the jurisdiction of the local government." This creates a moral framing in which both Basra's population and its local government are presented as victims of externally determined, international water policy. The definition of the problem as "an international file" contains the treatment recommendation. This definition implies that the necessary mechanism for resolution is diplomatic negotiation and international cooperation, not to reform the local administration. According to the four functions of the framing, the dominant Core Green Frame operative in this sample is the Ethical Frame, because the discourse foregrounds the humanitarian severity of denying an entire population access to safe drinking water while also embedding that moral claim into a framework of regional and international political responsibility characteristic of Arab transboundary environmental discourse.

4.2.9 Analysis of Sample 19: Drinking Water Poisoning

كشف وفد مفوضية حقوق الإنسان في العراق توثيقه 18 ألف حالة مرضية حتى الآن في محافظة البصرة، توزعت « بين أمراض الجهاز الهضمي والمغص المعوي الحاد. وعزت المفوضية أهم أسباب التلوث البيئي إلى قلة الإطلاقات المائية المخصصة لمحافظة البصرة، ورمي النفايات في شط العرب، وكذلك تحويل مجرى نهر الكارون عن مصبه الرئيسي، ما أدى إلى كارثة إنسانية كبيرة في المنطقة سببت هلاك المزروعات وولدت مخاطر كبيرة على الأفراد. كما أعلن مدير دائرة ماء البصرة عن توقف ضخ المياه في منطقة البراضعية بعد اكتشاف طحالب سامة، عزا ظهورها إلى ارتفاع نسبة الملوحة مع الانخفاض التدريجي في درجات الحرارة.»

"A delegation from the Iraqi Human Rights Commission documented 18,000 illness cases so far in Basra Governorate, distributed between digestive system diseases and acute intestinal colic. The Commission attributed the main causes of environmental pollution to low water releases allocated to Basra Governorate, dumping of waste into Shatt al-Arab, and the diversion of the Karun River from its main estuary — all of which led to a major humanitarian catastrophe in the region, destroying crops and generating significant risks to individuals. The director of Basra Water Authority also announced the suspension of water pumping in the Baradiyah area after the discovery of toxic algae, attributing their appearance to rising salinity levels coinciding with a gradual drop in temperatures."

Figure 4.19*Drinking-Water poisoning, Basra (Arab)*

Al Arabiya. Retrieved on (2018, August 30). *"Lethal" water and toxic algae in Basra: 18,000 poisoning cases* [News report]. <https://www.alarabiya.net/arab-and-world/iraq/2018/08/30/-مياه-قاتلة-وطحالب-سامة-في-البصرة-18000-حالة-تسمم>

4.2.9.1 Contextualisation

The nineteenth sample is sourced from Al Arabiya. There are thousands of cases of people afflicted by water-related illnesses reported in Basra Governorate, according to the Iraqi Human Rights Commission. A photograph showing a heavily polluted urban waterway with its banks entirely engulfed in an enormous accumulation of garbage, old furniture and other waste, while the river itself displays a greenish, algae-tinted surface, and residential buildings and date palms

seen at the far bank. The accompanying bilingual caption states that 18,000 illness cases, mainly digestive diseases and acute intestinal colic, have been documented in Basra. It blames the shortage of water releases, dumping of waste into Shatt al-Arab and the diversion of the Karun River, as well as the discovery of toxic algae that led to the suspension of water pumping in Baradiyah. Water contamination is the environmental issue focus of this sample because of its clear, direct, and measurable impact on public health in Basra. The Arabic-speaking regional and international audience is the target audience. Iraqi citizens, human rights observers, and public health officials are our target audience. The combination of human rights institutional authority and concrete epidemiological data make this sample one of the most evidentially grounded in the Arab corpus.

4.2.9.2 *Semiotic Analysis*

At the representational metafunctional level, the image is a depiction of an urban waterway, with the bank of the river transformed into an immense accumulation of garbage, discarded furniture, cardboard and other refuse, which runs the entire length of the visible shoreline. The green surface of the river in the image is due to the presence of algae growing on the waters. The river functions as the affected participant in the image – a body of water, whose natural function is compromised due to the waste along its edge. The river has lost its normal function of being a source of life and sustenance. The visual landscape near the creek's mouth tells a revealing story: residential buildings line the polluted bank, while date palms stand on the cleaner opposite shore. This illustrates the unequal and localised distribution of environmental harm in Basra.

According to the interactive metafunctional level, even while there are houses close to the contaminated waterway, the absence of any human actor in the frame enhances the sense of contamination. No singular human figure is necessary to communicate contamination as the scale of contamination is so extensive and because human presence itself is far too structurally

embedded in the contamination for any one to be necessary. The image acts as an environmental offer which provides visible evidence of waste accumulation and water degradation for the viewer's direct assessment without imposing that assessment through an emotional demand structure.

At the compositional metafunctional level, the left bank, rendered in unstable chaotic colours of browns, greys, and the faded colours of the discarded materials carried by the river, is densely cluttered and strewn with waste. There is a far bank with palm trees and buildings in calmer greener colours. This compositional division helps the viewer make a strong visual argument that the damaged environment is not equally distributed, as waste is already in the immediate foreground, while a single shore in the background remains intact. The sheer quantity of garbage, and its proximity to the water's edge, makes contamination the most conspicuous ecological fact of the image. The pollution's source and immediacy are the least ambiguous thing about the caption that accompanies it.

4.2.9.3 *Pragmatic Analysis*

Essentially, in terms of speech acts, the caption consists almost entirely of assertive acts which are institutionally authoritative. These are taken from the documentation of a human rights commission and direct governmental statements. A foundational assertive reads: "A delegation from the Iraqi Human Rights Commission documented 18,000 illness cases so far in Basra Governorate." This gives us the measure of the scale of the public health crisis, through an institutional verification of a statistic of significant epidemiological weight. The causal assertive, attributing the contamination to "low water releases allocated to Basra Governorate, dumping of waste into Shatt al-Arab, and the diversion of the Karun River from its main estuary," provides a precise, multi-factor diagnostic account linking the health crisis to specific, identifiable

environmental mechanisms. The further assertive regarding the discovery of toxic algae and the subsequent "suspension of water pumping in the Baradiyah area" represents a concrete, real-time consequence. In other words, the suspension helps convert the general problem of pollution into an operational emergency in real-time affecting water access for certain communities. The Human Rights Commission's documentation contains a directive dimension embedded in its institutional weight, functioning as an implicit call for governmental remediation, water allocation reform, and international diplomacy over the diversion of the Karun River.

Regarding proximation strategies, the visual image creates spatial proximation of exceptional intensity, as the viewer is located at the water's edge, surrounded by an overwhelming accumulation of waste material. The statistic of 18,000 illness cases is rendered as a concrete and sensible material reality instead of remaining an abstract figure. The message is strengthened through its naming of Basra Governorate and the Baradiyah area which locates the crisis in identifiable Iraqi communities. The phrase "so far" temporally frames the 18,000 documented cases as provisional, with the number most likely still climbing. This implies the situation is an ongoing one and the damage has not been measured yet. From the axiological standpoint, it can be noted that the discourse delineates a clear moral boundary from the population of Basra, which is represented in the discourse as the humanitarian catastrophe's victims specifically being "destroyed crops and generated significant risks to individuals," and the water mismanagement and waste dumping practices and the upstream diversion of the Karun River that are constitutive of the causal out-group.

4.2.9.4 Framing Analysis

When assessed using the four framing functions, this particular example creates one of the most evidentially severe and humanitarian environmental frames in the Arab corpus. The sample

defines water contamination in Basra as a major public health catastrophe. The sample mentions that there have been 18,000 documented illness cases in the area. Moreover, the source defines the disaster as "a major humanitarian catastrophe", defining it in medical, environmental and humanitarian terms. The image reinforces this definition as the waste accumulation portrayed is so extensive that it visually overwhelms the urban waterway from which the affected population draws its water. As we consider the causal interpretation of this caption, it is remarkable for its detailed multi-causal account. Insufficient water releases, waste dumping and diversion of the Karun River are identified as three main mechanisms producing the crisis. An additional factor is identified as the contribution of toxic algae to the crisis due to rising salinity. At the level of moral evaluation, the clear characterisation of the situation as a "major humanitarian catastrophe" brings with it a specific moral judgement: the crisis is not presented here as an unfortunate environmental event but rather as a failure with clear and measurable human impacts in terms of illness, crop destruction and water insecurity. The treatment recommendation is built into the institutional weight of the Iraqi Human Rights Commission's documentation and the emergency suspension of contaminated water pumping by the Basra Water Authority, and is directed towards greater water allocation, waste management reform and settling the Karun River diversion issue. The dominant Core Green Frame operative in this sample is the Ethical Frame when the sample is viewed through the lens of the four framing functions. This is because the discourse emphasizes the devastating humanitarian and public health impact on the people of Basra when viewing the environmental contamination. Most of the framing seems to view environmental contamination as a moral and human rights crisis of the first order.

4.2.10 Analysis of Sample 20: Urban Flooding

وشهدت محافظات بغداد وصلاح الدين وكركوك والسليمانية هطولاً غزيراً ومستمراً للأمطار في أول موجة مطرية « شديدة منذ نحو شهرين. وفي بلد عانى الجفاف وتراجع الأمطار خلال السنوات الثلاث الماضية، يتلقى العراقيون الأمطار الغزيرة بإيجابية لأثرها على الزراعة واحتياطات المياه والأنهار. لكنها في المقابل تؤدي إلى غرق الشوارع بالمياه وتزيد من الانقطاع المتكرر للتيار الكهربائي، نظراً لتهالك البنية التحتية عقب عقود من الحروب والإهمال. وانتقد مدونون ونشطاء عدم «جهوزية الجهات المعنية للتعامل مع الحالة الجوية، بالرغم من إمكانية التنبؤ بها مسبقاً».

"The provinces of Baghdad, Salah al-Din, Kirkuk, and Sulaymaniyah witnessed heavy and sustained rainfall — the first severe rain wave in approximately two months. In a country that has suffered from drought and declining rainfall over the past three years, Iraqis receive heavy rain positively for its effect on agriculture, water reserves, and rivers. However, it simultaneously leads to flooded streets and increased frequent power cuts due to deteriorating infrastructure following decades of war and neglect. Bloggers and activists criticised the relevant authorities' lack of readiness to deal with the weather conditions, despite the possibility of predicting them in advance."

Figure 4.20*Urban Flooding (Arab)*

Al Jazeera Arabic. Retrieved on (2023, March 9). *Floods in Iraq: Rain drowns streets and homes and kills a mother and her two children* [News report].

<https://www.aljazeera.net/news/2023/3/9/فيضانات-في-العراق-الأمطار-تغرق>

4.2.10.1 Contextualisation

In the twentieth and final sample of the Arab corpus, a report from Al Jazeera Arabic regarding severe flooding affecting multiple Iraqi provinces is presented. The flooding took place after the first significant rainfall event in approximately two months. The image shows a young man in a blue hooded jacket walking a bicycle through a flooded urban street, as brown floodwater

rushes by and the lower portions of nearby vehicles become submerged. The flood also impacts decorative plants and street furniture, while other stranded vehicles can be seen in the background. According to the accompanying bilingual caption, after heavy rains in Baghdad, Salah al-Din, Kirkuk and Sulaymaniyah, these areas got relief from drought. The public response though is mixed: while there is relief about water resources, there is anger over flooded streets and electrical outages because the infrastructure is crumbling. Moreover, bloggers and activists are highlighting how authorities were warned about the weather, so the lack of preparedness is shocking. Urban flooding caused by heavy rainfall interacting with degraded infrastructure following decades of conflict and institutional neglect is the current environmental issue of this case study. The targeted groups are the Arabic-speaking Iraqi and regional public including citizens, civic commentators, and policymakers. The strain of this sample on resource valuation and institutional inadequacy is particularly sophisticated as it addresses welcomed rainfall against criticised infrastructural failure, giving us an insight into Arab environmental discourse.

4.1.2.10.2 Semiotic Analysis

At the representational metafunctional level, the image shows a young man as its primary human actor whose body is angled forward in the physical effort of pushing a bicycle through fast-moving floodwater that inundates the street to roughly knee height. The man's determined posture and innocuous activity of manoeuvring his own transport through a flood identifies him as an ordinary Iraqi citizen responding directly to the inadequacies of the city's infrastructure. The torrent of brown water, itself an environmental force, swallows up vehicles, ornamental plants and street furniture, encoding the flooding's suddenness and disruptive power. The vehicles in the background show things have been disrupted for everyone, not just the solitary character. Definitely community-wide disruption and not isolated to just one case.

At the interactive metafunctional level, the man's gaze is directed downward and forward toward the immediate task at hand rather than the camera. This construction of the image is one which presents his struggle to the viewer for observation and empathetic engagement rather than direct address. This averted gaze, alongside the visible physical effort of the actor's posture, creates an impression of authentic, unstaged documentary realism rather than artifice. It more firmly positions the spectator as witness to the unmediated experience of an ordinary citizen facing extraordinary environmental disruption to everyday urban life. The medium-distance, street-level perspective enables the viewers to see the depth of the floodwater concerning the man's body and the wider urban context of the water-logged road and stranded vehicles around him.

At the compositional metafunctional level, the flood photo represents the flooded street leading to the back with a diagonal thrust. The man and his bicycle are positioned in the right-of-centre foreground occupying the position of the primary point of salience. The muddy brown water dominates the lower two-thirds of the frame. The vivid blue of the man's jacket, in particular, provides strong chromatic contrast against the brown floodwater and the muted greys of the surrounding urban environment, ensuring that the human figure remains distinguishable from the flood and its overwhelming features. The presence of parked cars and street furniture which occupy the mid-ground or background fortifies the notion of an ordinary urban streetscape which has been thoroughly disrupted by floodwater that arrived unexpectedly.

4.2.10.3 *Pragmatic Analysis*

The caption pre-dominantly revolves around assertive acts demonstrating the meteorological facts of the rainfall event. It also talks about the social paradox surrounding it. Heavy and sustained rainfall has occurred in the provinces of Baghdad, Salah al-Din, Kirkuk, and Sulaymaniyah, "the first severe rain wave in approximately two months." It is first and foremost a

strong and sustained rain wave. The claim that "Iraqis receive heavy rain positively for its effect on agriculture, water reserves, and rivers" is an unusual evaluative assertive that frames heavy rain, which in other Arab samples is associated with crisis and damage, as welcomed given the years of drought. This is an important subtlety as it distinguishes this sample's framing from disaster narratives that we have seen above. The subsequent assertive, "it simultaneously leads to flooded streets and increased frequent power cuts due to deteriorating infrastructure following decades of war and neglect," redirects the argument towards an institutional critique. It asserts that the rains are not responsible for this damage but rather the failure of infrastructure. The caption features the reported criticism of "bloggers and activists" which refers to the "lack of readiness" of relevant authorities "despite the possibility of predicting" the weather conditions. This statement can be seen as a civic directive, implicitly demanding improved institutional preparedness and accountability.

In terms of proximation strategies, the spatial proximation is achieved through the image directly depicting an ordinary citizen wading through floodwaters at an identifiable urban street, thus rendering the caption's recounting of provincial flooding immediately comprehensible and personally embodied. The event takes place in the provinces of Baghdad, Salah al-Din, Kirkuk, and Sulaymaniyah. The description of the rain as "the first severe rain wave in approximately two months" gives this event a specific and recent temporal anchorage. In contrast, "decades of war and neglect" pushes the temporal frame backwards and builds infrastructural vulnerability as something that has a long-accumulated historical condition, not a sudden failure. Rain is not endowed with danger, but rather a precious resource after a long drought whose moral condemnation is directed towards the relevant authorities that did not prepare for it well in advance,

and thus turned from a natural good into a public nuisance and frustration. "Bloggers and activists" are then portrayed as the civic voice that expresses this moral condemnation.

4.2.10.4 *Framing Analysis*

Using the four framing functions to analyze this sample creates a distinctively dual environmental frame displaying ecological gratitude and infrastructural critique. In the problem definition level, the sample understands that the problem is not rainfall, which is considered "good" and welcome after many years of drought. The issue is the degraded condition of urban infrastructure in Iraqi cities that transforms the rather positive environmental event into flooding of streets and disruption in power supply. Compared to other samples in the Arab corpus, where environmental phenomena themselves constitute the threat, the problem definition in this case is noticeably different. The graphic depicts this in an intricate fashion as a layman faces hardship whose visible distress emanates from the practical ramifications of inadequate drainage and electrical infrastructure on the streets, and not the downpour. The flood and blackouts were caused by the infrastructure that has decayed "following decades of war and neglect". Consequently, the cause lies within a protracted history of war and institutional underinvestment, rather than a recent failure nor the natural incidence of rain. The critique of the unpreparedness of the government and institutions at the moral evaluation level. A moral critique of the rain itself, or of the people who have to deal with it is absent. Rather, this is heightened through the reported voices of "bloggers and activists." The civic criticism in the caption above, moreover, reinforces the treatment recommendation: Knowing the weather would be bad in advance, there is probably a call for better institutional preparedness and infrastructural investment implied too. The dominant Core Green Frame operative in this sample is the Economic Frame, reinforced by elements of the Ethical Frame. Analysis reveals material consequences of decades of underinvestment in infrastructure,

alongside a moral critique of institutional accountability and civic preparedness in response to predictable environmental events.

4.3 Statistical Analysis

The examination undertaken throughout this chapter takes place within the mainly qualitative, descriptive-analytical paradigm outlined in Chapter Three. A more comprehensive quantitative analysis provides a systematic means of putting together the recurrent features observed in the 20 multimodal samples. The tables below do not simply tabulate one-off observations; rather, they are organised to correspond to the three main dimensions of the eclectic model presented in Chapter Three and illustrated in the accompanying model diagram. The three main dimensions are Multimodal Analysis (the representational, interactive and compositional metafunctions of visual grammar), Pragmatic Analysis (Speech Act Theory and Proximation Theory), and Framing and Comparative Analysis (Entman's framing functions and the resulting Core Green Frames). The three components have been given two tables to each one of them so that the Western and the Arab corpora can be systematically compared component by component rather than through a scattered choice of unrelated variables.

Each of the 20 samples was discussed in Sections 4.2.1 and 4.2.2 was assigned codes for the categorical variables defined in each component, and frequency counts were made separately for the Western (Group A) and Arab (Group B) corpora. With a purposively selected sample size of ten texts for each cultural group, the figures stated below represent merely a descriptive frequency analysis and not one meant for any kind of inferential statistical test. Percentage differences reported between the two corpora should therefore be read as descriptive patterns observed within this specific 20-sample corpus, not as evidence of statistically significant or generalisable comparative differences; no significance testing (such as chi-square or Fisher's exact

test) has been applied, given the small, purposively selected sample size. Their purpose is to render the comparative tendencies which arose inductively from qualitative analysis visible in summarised numerical form, and to thus offer quantitative support for the comparative analysis built in Chapter Five.

Table 4.1

Representational Metafunction — Type of Central Visual Actor

Actor Type	Western Samples (n = 10)	Arab Samples (n = 10)
Human actor(s)	3 (30%)	4 (40%)
Animal actor	3 (30%)	0 (0%)
Non-animate / no living actor (landscape, infrastructure, natural force)	4 (40%)	6 (60%)

Each sample's main visual participant is classified according to its nature as a human actor, animal actor, and non-animate participant, to include landscape, body of water, and piece of infrastructure, drawing from the representational metafunction of visual grammar. The most important asymmetry which is revealed is the complete absence of animal actors in the Arab corpus, against 30% in the Western corpus where use of river otter, monarch butterfly and baby elephant as effector of emotional response in the face of ecological crisis. A strategic employment of wildlife to embody unseen environmental damage is present in the WWF- and IUCN-sourced material. However, this device does not recur in any of the Arab samples.

Human actors appear with roughly the same frequency in both corpora, three Western samples against four Arab samples; their narrative role, however, differs qualitatively across the two groups. Human actors in Western samples tend to occupy advocacy or activist roles whereas human actors in Arab samples more often occupy observational, vocational, or testimonial roles. The higher incidence of non-animate or unpopulated imagery in the Arab corpus, 60% against 40% in the West, further reflects a visual register weighted more heavily toward documentary landscape and infrastructure than toward either human or animal protagonists.

Table 4.2

Interactive and Compositional Metafunctions — Viewer Positioning

Metric	Western Samples (n = 10)	Arab Samples (n = 10)
Demand image (direct gaze soliciting viewer engagement)	3 (30%)	1 (10%)
Offer image (no direct address; viewer positioned as observer)	7 (70%)	9 (90%)
Aerial or elevated vantage point	5 (50%)	2 (20%)
Ground-level or eye-level vantage point	5 (50%)	8 (80%)

Here, the interactive and compositional metafunctions are combined. Together, they determine how the viewer is positioned with respect to the image. There is the interactive metafunction, which distinguishes demand image and offer image, and the compositional metafunction. It is considered here through camera vantage point. The Western corpus has three demand images, the otter, the Greenpeace activists and the protesting children, each recruiting the viewer into a relationship of direct moral or emotional address, while there is only a single such

instance in the Arab corpus. The Arabic corpus, on the other hand, makes use of the offer image almost exclusively. The viewer is distanced and positioned as an evidentiary witness rather than a respondent solicited into an advocacy relationship.

The vantage-point data reinforce this pattern from a different angle. The Western corpus adopts an aerial or elevated viewpoint in half of the cases, including NASA's glacier, National Geographic's flood, the EU's Forest and the wide-angle protest march. Thus, these are regularly systemic and often institutional accounts. By contrast, the Arab corpus is grounded at eye level or street level in 80% of its samples, leading to an immediate on-the-ground documentary register that places viewers within the lived environment of the crisis, rather than above or outside it.

Table 4.3

Speech Act Theory — Directive Speech Act Realisation

Realisation Type	Western Samples (n = 10)	Arab Samples (n = 10)
Explicit directive (direct imperative or unmediated command)	2 (20%)	0 (0%)
Implicit directive (embedded within institutional, narrative, or assertive framing)	8 (80%)	10 (100%)

Based on Searle's taxonomy of illocutionary acts, a categorization of the directive force of each sample as explicit, which was an unmistakable imperative addressed to the reader, without qualification, or implicit, where the directive force could be inferred only by reference to the

surrounding institutional or assertive framing. Throughout this 20-sample corpus, only two samples contain a related directive in this strict sense. That is, the Greenpeace banner "#END FAST FASHION" and the Earth Day protest sign "DON'T MESS WITH MY FUTURE". Both fall in the Western corpus.

No similar unmediated imperative appeared in any of the Arab corpus. Every Arab sample routes directive force instead through either reported institutional commitment or quoted official's statement, or through cumulative evidentiary weight of statistical and testimonial claims, a pattern which is consistent and without exception across all ten Arab samples, and which suggests the presence of a discourse convention where the call to action is the prerogative of the institution rather than a direct appeal to the individual reader.

Table 4.4

Proximisation Theory — Strategy Incidence

Proximisation Strategy	Western Samples (n = 10)	Arab Samples (n = 10)
Spatial proximisation	10 (100%)	10 (100%)
Temporal proximisation	10 (100%)	10 (100%)
Axiological proximisation	10 (100%)	10 (100%)

According to Proximisation Theory framework, three dimensions of Proximisation spatial, temporal and axiological are identified in both the Western and Arab corpora. This should not be interpreted as evidence of a universal pragmatic pattern, provided the small and purposively

selected corpus. Rather, the findings denote only that all three strategies are present in the specifics sample examined.

How these strategies are enacted is the comparative distinction, not whether they are deployed or not. In Western spaces, this idea of spatial proximisation is usually constructed through an emotionally intimate close-up framing of a single human or animal victim as in the case of the otter or the monarch butterfly. In contrast, in Arab spaces this is usually constructed through the precise naming of provinces, rivers, and administrative districts, Suwayra, Kut, Basra, Nahr Umar, that anchor the crisis within a nationally shared collective territory.

In the West, it appears that it is common to construct a moral boundary between a citizenry or NGO sector that cares about the environment and an exploitative corporate out-group. By contrast, in the Arab corpus, it is more common to construct such a boundary between the Iraqi citizenry and either domestic infrastructural failure or, in a substantial minority of samples, an externally located transboundary actor.

Table 4.5

Distribution of Dominant Core Green Frames

Core Green Frame	Western Samples (n = 10)	Arab Samples (n = 10)
Ethical	3 (30%)	5 (50%)
Economic	1 (10%)	4 (40%)
Scientific	3 (30%)	1 (10%)
Activist	3 (30%)	0 (0%)

Aesthetic	0 (0%)	0 (0%)
-----------	--------	--------

When all 20 samples were framed using Entman's four framing functions, the dominant Core Green Frame was recorded for all 20 samples. The Western corpus distributes its dominant frames relatively evenly across the ethical, scientific, and activist categories, each accounting for three of the ten samples, reflecting a discourse in which moral appeal, empirical authority and civic mobilisation apply as roughly co-equal persuasive registers. The table's most striking figure is the complete absence of the Activist frame from the Arab corpus, compared to its 30% share in the West. This indicates that no Arab sample framed its treatment recommendation around protest or grassroots confrontation with authority.

The Arab findings are more orientated towards the Economic frame, 40% as opposed to the Western findings 10%. Moreover, the Ethical frame is the largest single category in both corpora, suggesting that moral framing serves as a common rhetorical anchor, even though the overall ideological architecture, individual mobilisation in the West, state-directed development in the Arab corpus, diverges radically within the two discourse communities. Notably, the Aesthetic frame did not emerge as the dominant frame in any of the 20 samples in either corpus. Within this purposively selected sample of crisis- and policy-oriented environmental content, appeals to natural beauty rarely function as the primary organising frame; this frame may be more prominent in other genres of environmental communication, such as ecotourism or nature photography, that are not represented in this corpus.

Table 4.6*Causal Interpretation — Locus of Attributed Responsibility*

Locus of Causal Attribution	Western Samples (n = 10)	Arab Samples (n = 10)
Corporate, industrial, or market actors	5 (50%)	1 (10%)
Governmental or institutional structures (domestic)	2 (20%)	4 (40%)
Climatic-systemic mechanisms (no single named agent)	3 (30%)	2 (20%)
Transboundary or international political actors	0 (0%)	3 (30%)

This table isolates Entman's causal interpretation function specifically, categorizing the main causal agent explicitly or implicitly named in each sample's framing analysis into one of four categories. In its assessment of responsible parties, 50% of the Western corpus attributes causal responsibility to identifiable corporate, industrial, or market actors, such as named fashion brands, cattle ranching and commodity demand, fossil fuel expansion. By contrast, only one Arab sample does the same, the gas-flaring case. No source in the Western corpus blames the policy of a named foreign state for its environmental crisis, which is a categorical absence in the causal repertoire of the Western corpus.

The Arab corpus indicates the reverse emphasis: causal responsibility is mostly laid at the door of domestic governmental or institutional structures: uncertain ministerial programming; ageing infrastructure; historical under-investment; and, in three of the ten samples, explicitly in the policies of neighbouring states, with the water release actions of Turkey and Iran and the

diversion of the Karun River chief among them. According to the quantitative analysis, there is a long category of transboundary causal attribution which does not have any collateral in a Western corpus. This is considered as a comparative distinction that is one of the most apparent and consequential. The Arab environmental discourse routes responsibility for ecological harm through the collective and geopolitical and not through the individual or corporate, as will be returned to in Chapte Five.

A methodological caveat applies to this table's corporate/industrial versus governmental/institutional distinction: Arab Sample 4 (gas flaring) attributes causality to "the oil industry," which could reasonably be coded as a corporate/industrial actor, yet oil extraction in Iraq typically involves substantial state ownership or partnership, blurring the line between the two categories. The percentages below reflect coding decisions made on a case-by-case reading of each caption's own framing of responsibility (state policy versus named commercial activity) rather than a bright-line institutional classification, and this grey area should be kept in mind when interpreting the corporate/industrial percentages reported for the Arab corpus.

CHAPTER FIVE

CONCLUSIONS, RECOMMENDATIONS, AND SUGGESTIONS FOR FURTHER STUDIES

5.0 Introduction

This chapter provides the conclusions of the analysis conducted in Chapter Four. Through an eclectic pragma-semiotic model, the analysis covered 20 multimodal samples of sustainability narratives, ten drawn from Western media and ten from Arab media. The purpose of this chapter is to provide an answer to each of the five research questions posed in Chapter One, which are answered in separate sections:

1. What semiotic and visual strategies are employed in Arab and Western environmental media posts, and how do the metafunctions of visual grammar construct ecological meaning?
2. What persuasive pragmatic strategies — namely dominant speech acts and proximation strategies — underlie the linguistic dimension of sustainability narratives?
3. How are environmental issues ideologically framed across the two discourses, in terms of problem definition, causal attribution, moral judgement, and treatment recommendation?
4. How do the visual and textual components of each sample interact to jointly construct the intended sustainability message?
5. What are the principal similarities and differences between Arab and Western sustainability discourses, particularly with respect to individualistic and collectivistic cultural orientations?

5.1 Concluding Remarks of Research Question 1

Based on the semiotic analysis that was carried out throughout chapter four, the study surmises that while both Arab and Western sustainability narratives share certain representational and interactional compositional vocabulary through salience, framing and colour contrasts, the images in the two discourses have significantly different representational and interactional purposes. At the representational level, the central figure in the Western corpus is most frequently a non-human animal actor. Examples include the river otter in Sample 1, the monarch butterfly in Sample 7, and the baby elephant in Sample 8. This pattern is entirely absent from the Arab corpus. By contrast, the central figures in the Arab corpus are predominantly landscapes, bodies of water, or pieces of infrastructure affected by environmental stress, as illustrated in Samples 1, 7, and 8. Western samples have more instances of the demand image, which seems to require an interaction where the focus of the text's gaze directly seeks the focus of the reader/participant's gaze, with a multiplicative 3-fold higher rate than the Arab corpus (30% against 10%). In comparison, the Arab corpus more often employs the offer image (90%), the author's gaze aiming at the eye of the reader/participant in an intermediate stance, as evidence rather than advocacy. Both corpora use salience and chromatic contrast to similar rhetorical effect. In contrast, the characteristic vantage point in both corpora is different: the Western corpus is almost always elevated (aerial, over-the-shoulder, or bridge-level), providing a systemic, institutional picture of the crisis in 50% of samples. The Arab corpus, on the other hand, is almost always at eye level or street level, producing an immediate, on-the-ground documentary register in 80% of samples. This same contrast is observed in the Arabic corpus, favouring evidence of working and failing infrastructure or clean and dirty water resources (Samples 1 and 7), over the Western corpus, which favours a juxtaposition of innocence and destruction (elephant vs plantation cleared; otter vs. dirty water).

5.2 Concluding Remarks of Research Question 2

In the context of illocutionary forces studied, the analysis confirms that assertive speech acts are the most prevalent in both corpora. In the Western samples, they perform the functioning to establish emotionally charged imagery in the groundings of scientific or statistical authorities (one-million-dollar daily loss of Sample 1, 33,000 annual deaths of fire—Sample 5). However, in the Arab samples, they establish locally specific environmental harm in the groundings of governmental or parliamentary authority (one-million-dollar daily loss of Sample 2, 18,000 cases documented of illness of Sample 9). The directives, found in all 20 of the 20 samples, are by contrast realised completely differently in the two corpora. Explicit and unmediated directives, as in the Greenpeace banner of Sample 2 and the Earth Day protest sign of Sample 4, can be found in only two of the 20 samples. In each of the Arab samples, by contrast, the directive is communicated by means of a report, institutional commitment, official statement, or policy response. Concerning the implementation of the proximation, the study finds that all three proximation strategies—spatial, temporal, and axiological—are at work across the two corpora. The difference between the two cultures does not relate to which types of proximation are employed but to how the spatial, temporal and axiological proximations are implemented. This means that Western spatial proximation is usually achieved through emotional proximity in close-up frames of a single human or animal victim, while Arab spatial proximation is usually achieved through the exact naming of provinces, rivers, and administrative districts that anchor the crisis within a collectively shared national territory.

5.3 Concluding Remarks of Research Question 3

Based on the four framing functions used in analysing the texts, the study concludes that the problem-cause-judgment-treatment connections created in the Western and Arab sustainability

discourse differ greatly. In half of the corpus (Shein, Temu, Zara, and H&M in Sample 2; global beef and soy demand in Sample 8), environmental problems are perceived and analyzed primarily through an ethical/moral lens, and the cause is assigned to a specific corporate, industrial, and/or market entity. The evaluation of the situation is also moral by directly condemning and calling to action where the actors responsible for the problem. Arab samples, on the other hand, identify environmental issues primarily as direct threats to citizens' health, livelihoods and water security (Samples 1, 4, 8, and 9), and attribute the responsibility and causative mechanisms very differently, including in domestic governmental/institutional failures in four samples. They are further identified in climatic-systemic mechanisms in two, and, crucially, in transboundary political actors who are in another country's sphere of action and outside Iraq's reach in three (Samples 7, 8, and 9). They are explicitly with respect to the upstream water policy of Turkey and Iran cited in Sample 8 and the diversion of the Karun River cited in Sample 9, a type of causal attribution not directly mentioned in the Western corpus. Contrasting this 40%-to-10% Economic-frame advantage in the Arab corpus with the complete absence of the Activist frame confirms that the Arab corpus constructs environmental responsibility as a matter of state-directed governance, rather than individual or civil-society agency.

5.4 Concluding Remarks of Research Question 4

In terms of the interaction between text and image, the study finds that, both in the two corpora, captions and image do not replicate one another, but they complement and support each other as it were by offering a persuasive means that cannot be offered with single modality. The image, employing affective immediacy and moral salience, is complemented, in the Western corpus, by the source-backed authority of the statistics/accounts in the caption, e.g. for Sample 1, the statistic is “462 million tons,” and for Sample 8, the economic description of land speculation

and commodity demand. The corpus shows that the anchoring relationship is, if anything, more evident in the Arab corpus where the images used for the offer are much more heavily reliant on the caption to fulfil the rhetorical purpose. The dried irrigation channel of Sample 7, for instance, only acquires its rhetorical weight when the caption adds the statistic that more than 90% of the country's population relies on the Tigris and Euphrates. Moreover, the abandoned boat of Sample 3 is in fact a symbolic icon for loss when the statistic (27 million disabled dunums of farmland) is added to the caption. The study therefore confirms that translating visual symbolism into ideologically actionable meaning is a basic mechanism in both corpora, not just a supplemental feature of either discourse.

5.5 Concluding Remarks of Research Question 5

Before drawing this conclusion, it is important to note that the Western and Arab sub-corpora differ not only culturally but also institutionally. The Western corpus mixes NGO/advocacy sources (WWF, Greenpeace), intergovernmental sources (UN, European Commission, NASA), and news media, whereas the Arab corpus is drawn predominantly from news media. Because news discourse and NGO/activist discourse follow different conventions regardless of the culture producing them, some of the patterns below may be attributable in part to this source-type imbalance rather than to cultural difference alone; the conclusions that follow should accordingly be read as provisional and source-conditioned pending a more source-matched corpus. The overall result of synthesizing the findings of the above with the two typologies of corpora as described in the cultural and environmental discourse found throughout this study would indicate that the predominant distinction between the two is an individualistic, civil-society-oriented attitude in the first sample set, in contrast to a collectivistic, state-mediated attitude in the second. This distinction is best seen as a central feature of the two, rather than as only one particular aspect. This is found

incrementally across four patterns. First, the Western corpus is more often framed from either the Activist frame or explicit directive speech acts, but the Arab corpus at no point carries these other frames beyond third-party news media as institutional communicator — a pattern that may partly reflect the genre and institutional source of the Arab sample (predominantly news reporting, with no NGO or grassroots-activist source comparable to the Western corpus's WWF and Greenpeace material) rather than a purely cultural difference. Second, the Western corpus contains a greater number of self-published, institutional directions to individual citizens (80% against 0%). Third, the Western corpus contains a higher number of demand images that seek to induce an individual emotional response (20% compared to 1% in the Arab corpus). Fourth, the Western corpus tends to locate causal responsibility in identifiable corporate or industrial actors in half of its samples, against only one Arab sample, for which there is no Western equivalent. The study does not conclude that there is a difference in the level of concern about the environment: both traditions demonstrate similarly high levels of urgency, evidential rigour, and moral seriousness. The difference lies only in where the "body" of an environment to be acted upon is located. In the Western tradition, it is found in the self-sufficient individual, the active incarnation of civil society, and named corporate actors. In the Arab tradition, it is found in the collective of the state and its institutions, and, where its concern extends beyond its own borders, its neighbouring states.

Lastly, in its methodology, this study demonstrates that the eclectic pragma-semiotic model introduced in Chapter Three, based on (MCDS), visual grammar, persuasive pragmatics, the framing functions, and the Core Green Frames typology is analytically sound and applicable across two very different discourse communities in terms of language, institutional structure, and rhetorical convention. Across all 20 samples, the coding was consistent enough to establish a

coherent Core Green Frame, identify all three proximisation strategies, and apply the visual and pragmatic metafunctions across the full range of institutional, NGO, and news-media sources.

Furthermore, the additional variables, camera vantage point, directive realisation, and the locus of causal attribution, easily admitted clean and consistent classification in every sample, together suggest that the model is in fact a genuinely portable instrument for the comparative analysis of multimodal environmental discourse. This should lead to continued development and application of the model for the continued studies proposed in Section 5.7 below, as well as its sterling capacity to be transferred outside the thematic scope of this thesis that applies sustainable development themes.

5.6 Recommendations

The recommendations below are drawn directly from the conclusions presented in Section 5.1. In keeping with the educational orientation of this thesis, they are addressed mainly to those engaged in the teaching and study of English language and linguistics.

1. Departments of English in Iraqi universities would benefit from bringing authentic multimodal texts into their reading and discourse analysis courses. The analysis has shown that a sustainability post does not convey its message through the caption or the image separately, but through the relation between them (Sections 5.1.1 and 5.1.4). Students trained exclusively on written texts may therefore lack the analytical tools needed to interpret such material adequately. Instructors may use image and caption pairs to show how a caption anchors the interpretation of an image, how a direct or averted gaze positions the viewer, and how size, colour, and placement give one element priority over another.

2. It is recommended that pragmatics syllabi give more attention to indirect directive force. In eight of the ten Western samples and in all ten Arab samples, the analysis identified directive force that was realised indirectly, through statements of fact, reported official positions, or the accumulated weight of statistical evidence, rather than through an imperative (Section 5.1.2). Such cases illustrate the distinction between explicit directives and indirect directives recovered from context, a distinction that a course introducing directives mainly through imperative forms leaves unaddressed. Proximisation may also be introduced as a practical analytical category, as it enables students to explain how a distant environmental threat is presented as near, current, and morally relevant to the reader.
3. Teachers of critical reading and media literacy are encouraged to make the attribution of responsibility a central question in the analysis of news texts. The two corpora differ less in how seriously they treat environmental harm than in whom they hold accountable for it. Half of the Western samples name corporate or industrial actors, while the Arab samples point more often to domestic institutions or to neighbouring states, and one of them (Sample A8) explicitly clears the local government of responsibility (Section 5.1.3). Entman's four framing functions provide a clear and teachable procedure for exposing such choices, helping students to read environmental reporting as a set of selections rather than as a neutral record of events.
4. Researchers undertaking cross-cultural comparisons of media discourse should ensure that the corpora under comparison are matched for source type and genre. In the present study, the Western samples were drawn from non-governmental, intergovernmental, and news sources, whereas the Arab samples came mainly from news media. Consequently, some of the reported contrasts, notably the absence of the Activist frame from the Arab corpus, cannot be attributed

to cultural orientation with full confidence (Section 5.1.5). Controlling for genre at the stage of data selection would allow cultural differences to be identified on firmer ground.

5. Postgraduate researchers who apply an analytical model beyond the type of discourse for which it was originally designed are advised to justify each adaptation explicitly. This study extended Cap's (2013) proximisation model from political threat discourse to environmental texts and to the visual mode, and it modified Nisbet's (2009) frame typology to suit short multimodal posts (Sections 2.3.3 and 2.4.1.3). Such adjustments are often necessary, but their validity depends on their being stated and argued for openly, so that examiners and later researchers can judge whether the adapted categories still capture what they are intended to capture. Explicit coding criteria are also needed to address ambiguous cases and support consistent application of the adapted categories.

5.7 Suggestions for Further Studies

For anyone interested in conducting research related to the present study, the following titles are proposed:

1. A Multimodal Critical Discourse Analysis of Greenwashing Strategies in Western and Arab Corporate Social Media.
2. Proximisation Strategies in Arabic and English COP Climate Summit Coverage: A Comparative Pragmatic Study.
3. A Cross-Cultural Pragma-Semiotic Study of Sustainability Narratives in Arab and Western Television Advertising.
4. Visual Framing of Water Scarcity in Gulf and North African Digital News Media: A Multimodal Approach.

5. A Pragma-Semiotic Analysis of Sustainability Discourse on TikTok among Arab and Western Youth Influencers.
6. Religious and Ecological Rhetoric: A Pragmatic Study of Islamic Environmental Discourse on Social Media.
7. Gender Representation in Environmental Activism Imagery: A Cross-Cultural Multimodal Study of Arab and Western Campaigns.
8. A Diachronic Pragma-Semiotic Study of Iraqi Environmental Discourse Before and After the 2003 War.
9. Core Green Frames in Climate Fiction: A Comparative Study of Arabic and English Eco-Novels.

REFERENCES

- Abbas, A. H., & Kadim, E. N. (2019). Crimes of terrorism on innocent Iraqis from (2014) to (2016): A semiotic study. *International Journal for the Semiotics of Law*, 32(1), 187–206.
- Abdullah, M. F., Adam, E. A., & Ahmed, M. A. (2024). A multimodal critical discourse analysis of selected English and Arabic young female Instagram posts. *Journal of Al-Farahidi's Arts*, 9(4), 61–71. <https://doi.org/10.25130/jaa.9th.4.6>
- Adami, E. (2013). *A social semiotic multimodal analysis framework for website interactivity* (NCRM Working Paper No. 02/13). MODE, Institute of Education, University of London.
- Al Arabiya. (2018, August 30). "Lethal" water and toxic algae in Basra: 18,000 poisoning cases [News report, in Arabic]. <https://www.alarabiya.net/arab-and-world/iraq/2018/08/30/>
- Al Arabiya. (2025, September 21). *Iraq begins operating its first solar electricity generation plant* [News report, in Arabic]. <https://www.alarabiya.net/aswaq/oil-and-gas/2025/09/21/>
- Al Jazeera Arabic. (2021, April 19). *Experts sound the alarm: The situation in Iraq is catastrophic due to associated gas flaring* [News report, in Arabic]. <https://www.aljazeera.net/news/2021/4/19/>
- Al Jazeera Arabic. (2021, July 27). *Rising salinity of Shatt al-Arab: An environmental catastrophe threatening Basra residents* [News report, in Arabic]. <https://www.aljazeera.net/misc/2021/7/27/>
- Al Jazeera Arabic. (2023, March 9). *Floods in Iraq: Rain drowns streets and homes and kills a mother and her two children* [News report, in Arabic]. <https://www.aljazeera.net/news/2023/3/9/>

- Al Jazeera Arabic. (2024, August 21). *What lies behind the water and drought crisis in southern Iraq?* [News report, in Arabic]. <https://www.aljazeera.net/news/2024/8/21/>
- Al Jazeera Arabic. (2025, February 20). *Iraq aspires to the world's date throne after launching a new date palm cultivation strategy* [News report, in Arabic]. <https://www.aljazeera.net/ebusiness/2025/2/20/>
- Al Jazeera Arabic. (2025, May 12). *Iraq loses one million dollars daily due to sandstorms* [News report, in Arabic]. <https://www.aljazeera.net/ebusiness/2025/5/12/>
- Al Jazeera Arabic. (2025, November 6). *Iraq's drought: Climate change threatens the land of Mesopotamia* [Blog post, in Arabic]. <https://aljazeera.net/blogs/2025/11/6/>
- Ali, A. Y. (1938). *The Holy Qur-an: Text, translation & commentary* (3rd ed.). Shaikh Muhammad Ashraf.
- Allan, K. (1986). *Linguistic meaning* (Vols. 1–2). Routledge & Kegan Paul.
- Anderson, A. A. (2017). *Effects of social media use on climate change opinion, knowledge, and behavior*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190228620.013.369>
- Atkinson, L., & Rosenthal, S. (2014). Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust. *Journal of Advertising*, 43(1), 33–45. <https://doi.org/10.1080/00913367.2013.834803>
- Ballestar, M. T., Cuerdo-Mir, M., & Freire-Rubio, M. T. (2020). The concept of sustainability on social media: A social listening approach. *Sustainability*, 12(5), 2122. <https://doi.org/10.3390/su12052122>

- Barton, J. R., & Gutiérrez-Antinopai, F. (2020). Towards a visual typology of sustainability and sustainable development. *Sustainability*, 12(19), 7935. <https://doi.org/10.3390/su12197935>
- Ben Ali, A. (2022). A multimodal critical discourse analysis of selected Instagram posts of local UAE social media influencers. *Egyptian Journal of Mass Communication Research*, 81, 1-37.
- Bouvier, G., & Machin, D. (2018). Critical discourse analysis and the challenge of social media: The case of news texts. *Review of Communication*, 18(3), 178–192. <https://doi.org/10.1080/15358593.2018.1479881>
- Boykoff, M. T. (2011). *Who speaks for the climate? Making sense of media reporting on climate change*. Cambridge University Press.
- Cap, P. (2013). *Proximization: The pragmatics of symbolic distance crossing*. John Benjamins Publishing Company.
- Carton, R. B., & Jones, C. W. (2004). *Measuring organizational performance: Metrics for entrepreneurship and strategic management research*. Edward Elgar Publishing.
- Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Re-reading news on climate change. *Public Understanding of Science*, 16(2), 223–243. <https://doi.org/10.1177/0963662506066775>
- Castaldi, J. (2025). *Linguistics, media discourse and multimodality* [Lecture notes]. Canterbury Christ Church University.
- Charteris-Black, J. (2014). *Analysing political speeches: Rhetoric, discourse and metaphor*. Palgrave Macmillan. <https://doi.org/10.1007/978-1-137-36833-1>

- Chong, D., & Druckman, J. N. (2007). Framing theory. *Annual Review of Political Science*, 10, 103–126. <https://doi.org/10.1146/annurev.polisci.10.072805.103054>
- Cialdini, R. B. (2007). *Influence: The psychology of persuasion* (Rev. ed.). HarperCollins e-books.
- Cinelli, M., De Francisci Morales, G., Galeazzi, A., Quattrociocchi, W., & Starnini, M. (2021). The echo chamber effect on social media. *Proceedings of the National Academy of Sciences*, 118(9), e2023301118. <https://doi.org/10.1073/pnas.2023301118>
- Cockcroft, R., Cockcroft, S., Hamilton, C., & Hidalgo Downing, L. (2014). *Persuading people: An introduction to rhetoric* (3rd ed.). Palgrave Macmillan.
- Cox, J. R., & Pezzullo, P. C. (2021). *Environmental Communication and the Public Sphere*. SAGE.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). SAGE.
- Crystal, D. (2008). *A dictionary of linguistics and phonetics* (6th ed.). Blackwell.
- Damle, S., & Krishnan, R. (2025). *Framing climate change on YouTube: North-South divides in narratives and public engagement*. arXiv. <https://arxiv.org/abs/2512.08183>
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2000). *Handbook of qualitative research* (2nd ed.). SAGE Publications.
- Dryzek, J. S. (2022). *The politics of the earth: Environmental discourses* (4th ed.). Oxford University Press.
- Effrosynidis, D., Sylaios, G., & Arampatzis, A. (2022). Exploring climate change on Twitter using seven aspects: Stance, sentiment, aggressiveness, temperature, gender, topics, and disasters. *PLOS ONE*, 17(9), e0274213. <https://doi.org/10.1371/journal.pone.0274213>

- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58.
- Entman, R. M. (2004). *Projections of power: Framing news, public opinion, and US foreign policy*. University of Chicago Press.
- European Commission. (n.d.). *Circular economy*. Retrieved on June 9, 2026, from https://environment.ec.europa.eu/strategy/circular-economy_en
- Fisher, W. R. (1987). *Human communication as narration: Toward a philosophy of reason, value, and action*. University of South Carolina Press.
- Forceville, C. J., & Urios-Aparisi, E. (Eds.). (2009). *Multimodal metaphor*. Mouton de Gruyter.
- Gass, R. H., & Seiter, J. S. (2018). *Persuasion: Social influence and compliance gaining* (6th ed.). Routledge.
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, 204(6), 291–295. <https://doi.org/10.1038/bdj.2008.192>
- Gonçalves, T. D., & Machado, J. S. (2023). Origins of the sustainability concept and its application to the construction sector in the EU. *Sustainability*, 15(1), 633. <https://doi.org/10.3390/su15010633>
- Greenpeace International. (2025). *4 reasons why fast fashion will never be green*. <https://www.greenpeace.org/international/story/73504/4-reasons-why-fast-fashion-will-never-be-green/>
- Hall, E. T. (1976). *Beyond culture*. Anchor Books.

- Halmari, H., & Virtanen, T. (Eds.). (2005). *Persuasion across genres: A linguistic approach*. John Benjamins. <https://doi.org/10.1075/pbns.130>
- Hansen, A. (2018). *Environment, media and communication* (2nd ed.). Routledge.
- Helgeson, J., Glynn, P., & Chabay, I. (2022). Narratives of sustainability in digital media: An observatory for digital narratives. *Futures*, 142, 103016. <https://doi.org/10.1016/j.futures.2022.103016>
- Hofstede, G. (2009). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, 2(1). <https://doi.org/10.9707/2307-0919.1014>
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). McGraw-Hill.
- Ilie, C. (2018). Pragmatics vs rhetoric: Political discourse at the pragmatics-rhetoric interface. In C. Ilie & N. R. Norrick (Eds.), *Pragmatics and its interfaces* (pp. 85-119). John Benjamins Publishing Company.
- International Union for Conservation of Nature. (2022, July 21). *Migratory monarch butterfly now endangered – IUCN Red List* [Press release].
- Jang, S. M., & Hart, P. S. (2015). Polarized frames on "climate change" and "global warming" across countries and states: Evidence from Twitter big data. *Global Environmental Change*, 32, 11–17. <https://doi.org/10.1016/j.gloenvcha.2015.02.010>
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.

- Jewitt, C., & Henriksen, B. (2016). Social semiotic multimodality. In N.-M. Klug & H. Stöckl (Eds.), *Handbuch Sprache in Multimodalen Kontext* (pp. 145–164). De Gruyter.
- Kaiser, B. N., & Hennink, M. M. (2020). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.
- Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. Arnold.
- Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.
- Kruk, J., Lubin, J., Sikka, K., Lin, X., Jurafsky, D., & Divakaran, A. (2019). *Integrating text and image: Determining multimodal document intent in Instagram posts*. arXiv. <https://arxiv.org/abs/1904.09073>
- Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication*, 4(1), 70–81. <https://doi.org/10.1080/17524030903529749>
- Lakoff, G. (2014). *The all new don't think of an elephant!: Know your values and frame the debate*. Chelsea Green Publishing.
- Ledin, P., & Machin, D. (2018). Multimodal critical discourse analysis. In J. Flowerdew & J. E. Richardson (Eds.), *The Routledge handbook of critical discourse studies* (pp. 60–76). Routledge.

- Leech, G. N. (1983). *Principles of pragmatics*. Longman.
- Leeds-Hurwitz, W. (1993). *Semiotics and communication: Signs, codes, cultures*. Lawrence Erlbaum Associates.
- Luca, I.-S. (2020). A multimodal discourse analysis in media. *Romanian Journal of English Studies*, 17(1). <https://doi.org/10.1515/RJES-2020-0009>
- Machin, D. (2013). What is multimodal critical discourse studies? *Critical Discourse Studies*, 10(4), 347–355. <https://doi.org/10.1080/17405904.2013.813770>
- Machin, D., & Mayr, A. (2012). *How to do critical discourse analysis: A multimodal introduction*. SAGE Publications.
- Malena-Chan, R. A. (2018). *Making climate change meaningful: Narrative dissonance and the gap between knowledge and action* [Master's thesis, University of Saskatchewan].
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). SAGE Publications.
- Mey, J. L. (2001). *Pragmatics: An introduction* (2nd ed.). Blackwell Publishing.
- Milfont, T. L., & Schultz, P. W. (2016). Culture and the natural environment. *Current Opinion in Psychology*, 8, 194–199. <https://doi.org/10.1016/j.copsyc.2015.09.009>
- Mohamed, S., Yusoh, H., & Ghazali, W. N. W. (2020). Framing sustainable energy: A comparative analysis of Malay and English newspapers in Malaysia. *International Journal of Asian Social Science*, 10(6), 295–306. <https://doi.org/10.18488/journal.1.2020.106.295.806>
- Montgomery, M. (2007). *The discourse of broadcast news: A linguistic approach*. Routledge.

- Montufar, G. R., Vilema, M. D. I., Kohler, J. R. L., & Campoverde, G. A. A. (2025). Transmedia narratives and environmental education in the digital age: Quantitative analysis of public perception of climate change through social media. *International Journal of Environmental Sciences*, 11(65), 751.
- NASA Jet Propulsion Laboratory. (2020, June 1). *Ice melt linked to accelerated regional freshwater depletion*. <https://www.jpl.nasa.gov/news/ice-melt-linked-to-accelerated-regional-freshwater-depletion/>
- National Geographic. (2025, September 11). *What causes flash floods? Here's how they get so destructive so quickly*.
- Media Network. (2026, April 14). *The most widely shared image: The government's explanation of the Tigris, Diyala River, and the strange colours* [News report, in Arabic]. <https://964media.com/670733/>
- Nisbet, M. C. (2009). Framing science: A new paradigm in public engagement. In L. Kahlor & P. Stout (Eds.), *New agendas in science communication* (pp. 40-67). Taylor & Francis.
- O'Keeffe, A. (2006). *Investigating media discourse*. Routledge.
- O'Neill, S. J., & Smith, N. (2014). Climate change and visual imagery. *WIREs Climate Change*, 5(1), 73–87. <https://doi.org/10.1002/wcc.249>
- Oranga, J., & Matere, A. (2023). Qualitative research methodologies: Characteristics, strengths, and limitations. *International Journal of Academic Research and Reflection*, 11(2), 15–28.
- PBS News Hour. (2023, September 15). *Climate protesters worldwide call for end to fossil fuels amid escalating weather extremes*.

- Pearce, W., Holmberg, K., Hellsten, I., & Nerlich, B. (2014). Climate change on Twitter: Topics, communities and conversations about the 2013 IPCC Working Group 1 report. *PLOS ONE*, 9(4), e94785. <https://doi.org/10.1371/journal.pone.0094785>
- Pezzullo, P. C., & Cox, J. R. (2021). *Environmental communication and the public sphere* (6th ed.). SAGE.
- Rabah, S., Safdar, G., Raiq, H., & Karkour, S. (2025). Digital discourses of sustainability: Exploring social media narratives on green economy in Qatar and Malaysia. *Journalism and Media*, 6(4), 189. <https://doi.org/10.3390/journalmedia6040189>
- Radwan, A. F., Mousa, S., & Gjylbegaj, V. (2023). Discourse on sustainability and environmentalism in the Arab news media: Challenges for uncontested agenda. *Kurdish Studies*, 11(3), 518–529. <https://doi.org/10.58262/ks.v11i3.038>
- Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication*, 49(1), 103–122.
- Schwartz, S. H. (2008). *Cultural value orientations: Nature and implications of national differences*. State University Higher School of Economics Press.
- Searle, J. R. (1969). *Speech acts: An essay in the philosophy of language*. Cambridge University Press.
- Searle, J. R. (1975). Indirect speech acts. In P. Cole & J. L. Morgan (Eds.), *Syntax and semantics*, Vol. 3: *Speech acts* (pp. 59–82). Academic Press.
- Shin, S. (2017). *Understanding organizational environmental sustainability messages on social media and testing the communication effectiveness* [Doctoral dissertation, University of Alabama].

- Simungala, G., Jimaima, H., & Nkhata, L. (2024). Social media discourses as multimodal assemblages. *Journal of Multicultural Discourses*, 19(3), 229–243. <https://doi.org/10.1080/17447143.2025.2511745>
- Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition*. Blackwell.
- Syakirah, N., Anwar, R. K., & Winoto, Y. (2025). Environmental communication in social media: A bibliometric study of climate change discourse and public engagement. *The Journal of Society and Media*, 9(1), 203–240. <https://doi.org/10.26740/jsm.v9n1.p203-240>
- Taillard, M.-O. (2000). Persuasive communication: The case of marketing. *Working Papers in Linguistics*, 12, 145–174.
- Taylor, S. J., Bogdan, R., & DeVault, M. (2016). *Introduction to qualitative research methods: A guidebook and resource* (4th ed.). John Wiley & Sons.
- Thomas, J. A. (1995). *Meaning in interaction: An introduction to pragmatics*. Longman.
- Ugwu, C. N., & Eze, V. H. U. (2023). Qualitative research techniques: A comprehensive review. *IDOSR Journal of Computer and Applied Sciences*, 8(1), 31–38.
- UN Environment Programme. (n.d.). *As climate changes, world grapples with a wildfire crisis*. Retrieved on June 9, 2026, from <https://www.unep.org/news-and-stories/story/climate-changes-world-grapples-wildfire>
- UN News. (2024, April 25). *Stories from the UN archive: UN proclaims world's first Earth Day*. <https://news.un.org/en/story/2024/04/1149026>
- van Leeuwen, T. (2005). *Introducing social semiotics*. Routledge.

- Wang, X. (2006). *Understanding rich and complex data: Data collection in qualitative research*. Academic Press.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.
- World Wildlife Fund. (n.d.-a). *Tackling global plastic pollution*. Retrieved on June 9, 2026, from <https://www.worldwildlife.org/initiatives/plastics>
- World Wildlife Fund. (n.d.-b). *Deforestation and forest degradation*. Retrieved on June 9, 2026, from <https://www.worldwildlife.org/threats/deforestation-and-forest-degradation>
- Xu, C., Tan, H., Li, J., & Li, P. (2023). *Understanding social media cross-modality discourse in linguistic space*. arXiv. <https://arxiv.org/abs/2302.13311>
- Yus, F. (2011). *Cyberpragmatics: Internet-mediated communication in context*. John Benjamins.

المستخلص

تتناول هذه الدراسة كيفية تشكّل سرديات الاستدامة البيئية تداولياً-سيمائياً في الوسائل الإعلامية الرقمية الغربية والعربية، حيث تُبنى الدلالة من خلال تفاعل الصورة واللغة. ومع أن الحقائق البيئية عالمية الطابع، فإن تقديمها الإقناعي متباين ثقافياً، وقد تناولت الدراسات السابقة البعدين النصي والبصري للخطاب البيئي كلاً على انفراد، مما ترك فجوة في الدراسات المقارنة المتكاملة. ولذلك تسعى الدراسة إلى تحقيق خمسة أهداف: تحديد الاستراتيجيات السيميائية والبصرية في المنشورات الإعلامية البيئية؛ واستقصاء استراتيجياتها التداولية الإقناعية؛ وتحليل كيفية التأطير الأيديولوجي للقضايا البيئية؛ وفحص كيفية تضافر الصورة والنص في بناء رسائل الاستدامة؛ وتحديد أوجه التشابه والاختلاف بين الخطابين، ولا سيما في التوجيهين الفردي والجماعي. ولتحقيق ذلك، تطوّر الدراسة نموذجاً توافقياً ينطلق من الدراسات النقدية للخطاب متعدد الوسائط، ويعمل على ثلاثة مستويات: سيميائي يقوم على النحو البصري عند كريس وفان ليوين (2006)؛ وتداولي يقوم على الأفعال الكلامية الإخبارية والتوجيهية عند سيرل (1969) ونظرية التقريب عند كاب (2013)؛ وتأطيري يقوم على وظائف التأطير الأربع عند إنتمان (1993)، التي يُستدل بها على الإطار الأخضر الأساسي المهيمن في كل عيّنة. ويُطبّق النموذج على مدوّنة قصدية تضم عشرين عيّنة متعددة الوسائط (عشر غربية وعشر عربية) مأخوذة من منصات مؤسسية وإخبارية، ويُدعم التحليل النوعي بتحليل إحصائي وصفي للتكرارات. وتُظهر النتائج أن الخطاب الغربي يميل إلى الفردية والاحتجاج ويُكثر من الصور الطالبة للتفاعل، في حين يميل الخطاب العربي إلى الجماعية والوساطة الحكومية وصور البنى التحتية، مع حضور استراتيجيات التقريب في المدونتين كلتيهما واختلاف طرائق تحققها.

الكلمات المفتاحية: التحليل التداولي-السيمائي، الخطاب متعدد الوسائط، سرديات الاستدامة، التحليل المقارن للخطاب، الوسائل الإعلامية.



جمهورية العراق

وزارة التعليم العالي والبحث العلمي

جامعة واسط

كلية التربية للعلوم الإنسانية

قسم اللغة الإنكليزية

دراسة تداولية-سيمائية لسرديات الاستدامة في الوسائل الإعلامية المختارة الغربية والعربية

رسالة مقدمة

الى مجلس كلية التربية للعلوم الانسانية، جامعة واسط
جزءاً من متطلبات نيل درجة الماجستير- تربية في اللغة الإنكليزية وعلم اللغة

من قبل

خالده اسماعيل محمود الالوسي

بإشراف

أ.د. فداء محسن مطر المولى

جمادى الأولى ١٤٤٨ هـ

تشرين الأول ٢٠٢٦ م