EXPLORING THE LINGUISTIC DIMENSIONS OF PEPA LAW IN PAKISTAN: A CRITICAL ANALYSIS OF SUSTAINABLE DEVELOPMENT DISCOURSE

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ABSTRACT

The analysis of linguistic dimensions in legal framework holds significant importance but has relatively received little attention. There are some studies which acknowledge the importance of language in the socio-economic contexts but the influence of language within legal texts such as Pakistan Environmental Protection Act (PEPA) are not specifically addressed. This research aims to fill this gap by analyzing the PEPA law using the Fairclough's three-dimensional model. The research intends to explore the role of language towards promoting environmental sustainability. This research study follows the qualitative analysis to analyze the PEPA law using Fairclough's model of Critical Discourse Analysis. Official document of PEPA was used for the analysis and a three-layer examination was performed comprising of textual analysis, processing analysis and social analysis. This research uncovers the underlying structures and ideologies so that they can be better understood for the interpretation of these environmental laws. The findings highlight the discursive strategies and linguistic structures that influence the success of the PEPA law. It also studies the power relations existing between different stakeholders involved in promoting environmental sustainability. By using the CDA, the study shows what improvements can be made to strengthen the communication and coordination between the actors which are responsible for the environmental protection in Pakistan.

Keywords: PEPA Law, Environmental governance, Legal discourse, Language analysis, Sustainable development

1. INTRODUCTION

The relationship between legal frameworks and language is important for effective environmental policies and governance. The Pakistan Environmental Protection Act (PEPA) was created in 1997 as a significant response to environmental problems by the government of Pakistan (Jabbar and Pasha, 2014). Despite its significance, so far not enough attention has been given to the linguistic aspects of PEPA, particularly how the wording used in this act influences sustainable development thinking and practice within governance. Fairclough's Critical Discourse Analysis (CDA) provides a useful methodology for such an investigation because it looks at how language constructs and maintains power relations as well as social practices (Fairclough, 2013). CDA investigates how ideology is reflected in and shaped by texts which can show what the audience interpret them, i.e., policy implementers or stakeholders affected by it towards whom they direct certain attitudes or behaviors with regard to their own interests (Wodak and Meyer, 2016).

1.1. Background

Climate change has become an urgent global concern of the 21st century, and its effects are being discussed in many quarters. Climate change refers to the long-term changes caused in the environment usually because of human activities such as deforestation, burning fossil fuels and industrial process (Nasir et al., 2022). These actions have severe consequences on the Earth's environment and to address these impacts some steps should be taken, and some policies should be made. Pakistan is also affected by the climate change and ranks fifth on the Global Climate Risk Index in 2020 (United Nations Development

Programme, 2023). To tackle these changes all the stakeholders involved need to work together.

Pakistan needs to promote environmental sustainability, and language plays a crucial role in communicating these ideas (Wang et al., 2023). The research examines the Pakistan Environmental Protection Law (PEPA), 1997, law to investigate how it contributes towards the idea of sustainable development. PEPA includes a total of 35 sections that discuss the laws related to environmental conservation and sustainable development (Ehtasham et al., 2021). This study explores the language, terminologies, rhetorical devices, and frames in the PEPA law using ecolinguistics.

1.2. Problem Statement

Most of the existing studies were based on the analysis of books, advertisements or other texts. These studies show how language shapes public understanding of climate change and sustainability. However, none of them has investigated the language in legal frameworks that might either promote or impede a discourse on sustainable development. This research fills this gap by conducting an ecolinguistic analysis of the language used in the PEPA law in Pakistan. It seeks to find out whether and to what extent different wording choices influence people's grasp of sustainable development as a concept within this document. It is critically important to understand the impacts of the language components as the effectiveness of these laws is heavily dependent on how effectively the public understands and engages with the concepts presented in them. This knowledge is very important for policymakers, legal experts, and environmentalists in refining legal language and communication techniques to improve environmental governance.

1.3. Research Objectives

    i.   To analyze and document the language options in Pakistan's environmental laws that reflect and shape sustainable development awareness.

    ii.   To analyze linguistic strategies in framing environmental problems in legal documents

    iii.   To evaluate the impact of linguistic framing on the interpretation and implementation of environmental laws.

1.4. Research Questions

    i.   In what ways do linguistic choices within Pakistan's environmental legislation reflect and mold the discourse on sustainable development?

    ii.   What linguistic strategies are employed when framing environmental problems through legal documents?

    iii.   What impact does these strategies have on interpreting or implementing them as part of law protecting our environment?

1.5. Significance of the Study

Anjum and Fraser (2021) conducted a study to investigate vulnerabilities associated with slow-onset events caused by climate change in Pakistan. The research looks at vulnerabilities from multiple angles which include social, psychological, institutional as well physical aspects; however, most studies have concentrated only on physical vulnerability due to climate change while ignoring psychological social, and institutional ones that interact with such slow onset events.

This research shifts focus beyond physical vulnerability alone by considering the psychological impacts of social dynamics as well institutional weaknesses aggravating slow onset disaster effects of climate change. It illustrates the complexity of vulnerability in the climate change context in Pakistan. It also points out the need for identification recognition and response to specific groups at risk among Pakistani communities; thus, drawing attention

towards marginalized populations like those who historically faced relocation are from low socio-economic backgrounds experience gender-based discrimination or have a migration history.

LITERATURE REVIEW

Language is a tool for communication, and it helps us build new relationships and convey put thoughts and ideas. It can also be seen as filter through which people see things as language also builds narratives of the people so it can be used to influence people's perception about the environmental issues, how urgent they are and what can we contribute as an individual to fix these issues. Different language choices reflect the different opinions of people about the environment and nature. Apart from being mere tools for transmitting information, words shape our thinking or even responses towards any given issue profoundly.

In some languages, there is an abundance of words that describe natural images indicating closeness while others lack specific terms that indicate distance. Additionally, public opinion, policy-making, and environmental activism can be affected by the language used in environmental discussions. Therefore, it is important to grasp this complex link between language and environment because together they shape our shared approach to conserving nature and fostering sustainable development (Sapir, 1912).

Pakistan's environment ministry was formed as a response to the concerns raise against Stockholm Declaration (1972). Pakistan's environment ministry drafted Pakistan Environmental Protection Ordinance (PEPO) in 1983 (Ahsan and Khawaja, 2013). PEPO aimed to regulate pollution and ensure public safety standards (Arrow et al., 1996). Over a period of time different policies and acts such as National Environmental Action Plan (NEAP), the Pakistan Environmental Protection Act (PEPA) of 1997, Environmental Impact Assessment (EIA), and initiatives like CLEAN Central Laboratory for Environmental Analysis were introduced which clearly reflects governments effort to implement environmental protection laws in Pakistan (Mukhtar, 2023). PEPA (1997) provides a comprehensive framework which addresses multiple environmental concerns and provides solutions and laws to regulate those issues (Mukhtar, 2023).

The main roles PEPA offers are as following:
1. Ensuring NEQ enforcement
2. Setting air, land, and water quality standards
3. Instituting pollution control systems
4. Conducting regular surveys, monitoring, and inspections
5. Estimating cleanup costs and rehabilitation
6. Certifying and endorsing labs for environmental testing
7. Promotes environmental education (Mukhtar, 2023).

PEPA contains laws to regulate the management of hazardous materials by stating laws for the proper disposal and storage of these materials and addresses the risk they pose to public health. The main focus of the PEPA law is waste management, recycling and reusing to minimize the negative effects on the environment in order to protect the environment and for human well-being. This highlights Pakistan's commitment to integrating global practices and ensuring to follow the trends of environmental management.

The Pakistan Environmental Protection Act (PEPA) shows Pakistan's effort and commitment towards the sustainable development and helping protect and improve the environment. PEPA is a comprehensive framework that addresses a wide range of environmental concerns providing in detail the power and authorities of different stakeholders and also instruction, guidelines and policies, aligning with the international

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standards, to help regulate the environment. Environmental laws usually use language containing jargon and technical language which is difficult for everyone to understand. This might lead to ambiguity and confusion which makes it difficult to implement. If the laws are complex, it might discourage people from engaging with environmental issues. Simplifying these laws is crucial as might attract the public to engage more with these laws as everyone will be able to understand and follow them. Understanding and studying the environmental laws will help identify the existing gaps and improve policy enforcement. This analysis of legal language is important to create effective policies to support environmental sustainability. Multiple research studies (LeVasseur, 2014; Nasir et al., 2022; Shafique, 2017; Yuniawal et al. 2017; Zahoor and Janjua, 2020) have been conducted to study the relationship between environment and language in different contexts.

Valvason (2021) investigates how cultural contexts influence the discourses related to environment and ecology. The main aim of this study is to understand how different cultures shape the language around sustainable development within the context of ecological discourse analysis. The study compares discourses on environmental conservation presented in British, Hungarian, and Italian cultures and how these ideas are distinctively present in these cultures, the word choice, the underlying themes and ideologies and their impact on the audience. The study reveals how cultural differences impact how the message of environmental sustainability is conveyed in different cultures and how there is a need for a nuanced understanding of these ideologies across diverse cultures.

Nasir et al. (2022) investigated how print media advertisements influence ecological discourse and how the language used in those advertisements shape the ecological narratives. The study analyzed newspapers published between 2019 and 2021and applied Stibbe's (2015) and Kress and Leeuwan's (2006) frameworks. The research found that these advertisements use language such feature to make persuasive ecological messages to promote conversations to spread awareness about sustainable development.

Using the Stibbe-inspired framework as well, Khan and Mustafa (2023) take an eco-linguistic approach to analyze climate change reports in Pakistan. In a qualitative investigation, they analyze the language of these reports to expose tacit ecological beliefs and representational practices of environmental crisis. It examines how environmental ideologies are produced by how framing, appraisal, and erasure work in such documents. One finding is that non-human agents have been consistently erased throughout selected report texts--a dominant pattern, it seems. The research shows that though the negative messages are more impactful on the attitude of the people regarding climate change as they take it more seriously but omitting the key information might play a harmful role in discussion.

Hajer and Versteeg (2005) explores how discourse analysis applies to environmental politics and hoe discourse shapes political realities through language. The study highlights three key strengths of discourse analysis: its ability to uncover the role of language in shaping politics, its disclosure of how language is deeply intertwined with practices, and its capacity to elucidate mechanisms and answer 'how' questions. The article concludes by outlining the challenges faced by discourse analysis. Given the evolving landscape of policymaking, there is a need for analysts to identify new arenas of politics and scrutinize the emerging political dynamics within these arenas.

Miles and Azzouzi (2020) conducted an analysis of an eco-documentary "Whining of the Blue Lagoon" directed by Lahoucine Faouzi. What this research does is look at how fear and threat expressions in these ordinary witnesses' narratives within this documentary can be used to strengthen argumentation. Fear and threat appeals were examined by the researchers with a model called 'perceived severity and perceived susceptibility' which found that they

are widely used for constructing stories based on someone's spoken account who is not an expert or authority figure. The findings of this investigation have important implications for makers of eco documentaries, governments/non-governmental organizations (NGOs) involved in environmental protection work as well as future studies that would analyze different linguistic features found in documentaries about human-caused degradation of nature.

Smith (2006) built upon this by using CDA to explore methods of resolving disputes over environments specifically looking into the Native Vegetation Conservation Act 1997 in NSW. Critical Discourse Analysis (CDA) was applied as a method for analyzing stakeholder narratives to evaluate conflicts and offer insights that could be helpful in mediation or policymaking. Media releases from reputable sources were analyzed to reveal the underlying assumptions and strategies of the stakeholders.

Yuniawan (2017) conducted a study which examined environmental conservation from news texts from Indonesian mass media and collected data through oral and written texts, images and online content related to environmental conservation issues. The study was carried through descriptive qualitative approach to analyze the literature, documentation and comparisons from various Indonesian media resources. The research showed that the key linguistics elements such as base words; derivative words; noun phrases; verbal phrases; and adjective phrases among others are used in these eco texts according to their lexicons. The theoretical implications of this research extend beyond language learning, journalism and public policy and enriches both the theoretical and practical aspects of this field.

The environmental legislations such as PEPA has been less explored though they hold crucial importance in the environmental governance. There have been studies that looked at language within socio-economic context, but they did not specifically address its significance within legal texts. This research will apply Fairclough's critical discourse analysis (CDA) to understand how language in PEPA impacts sustainable development discourse and governance practices in Pakistan. Existing literature does not provide a detailed study of grammar, vocabulary, semantics and cohesion which are part of components of language within legal texts that relate to environmental policy communication and implementation.

3. METHODOLOGY

3.1. Introduction

The methodology section discusses the techniques, procedures and tools that are used for data collection and data analysis. It serves as a roadmap and explains how the study aims to address the research questions and ensure the reliability of the study. This study focuses on analyzing the PEPA document through the lens of Fairclough's three-dimensional model of Critical Discourse Analysis. The study analyses words, phrases, and expressions used by PEPA (1997) to bring out their hidden meanings as well as power relations that exist between different actors involved in environmental protection activities According to the Fairclough CDA model theoretical ideas can be connected with real-life situations to uncover these.
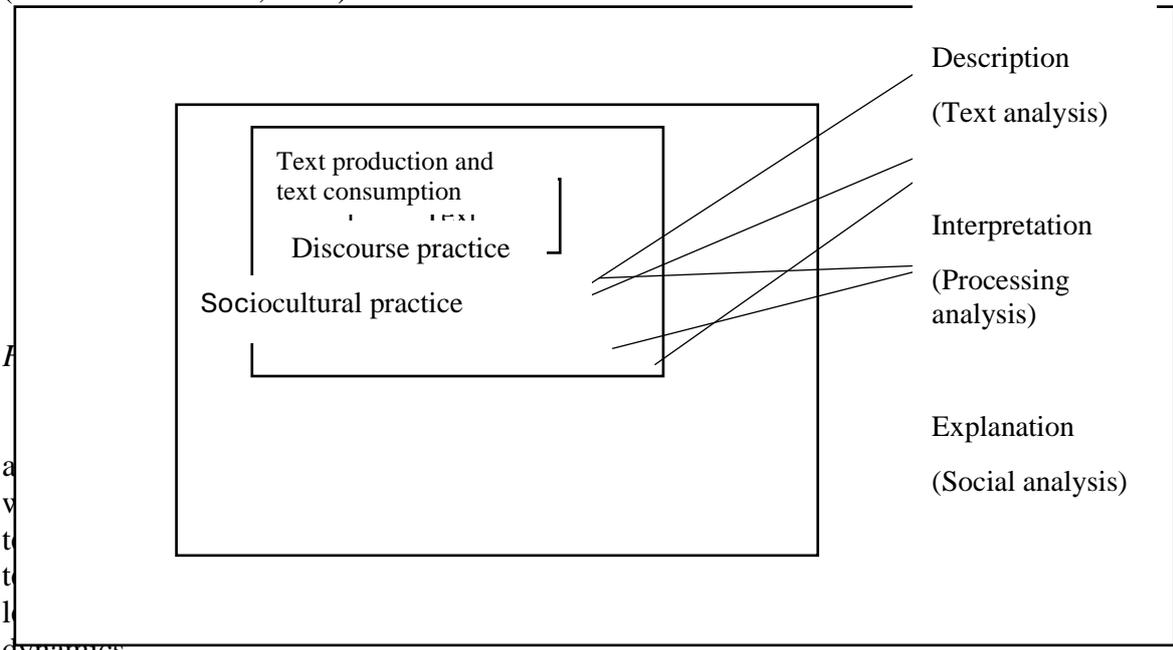
3.2. Theoretical Framework

The theoretical framework is the conceptual basis upon which this study rests. This crucial part sets up a framework for analyzing data by asking questions about them and then interpreting them in light of theories or models that have been proposed for investigation. In this section many theoretical perspectives are considered and brought together to give context to the work being done; guide the interpretation of findings and facilitate a deeper understanding of the research phenomena.

This wide-ranging examination of various theories provides a good starting point for discussing how law affects language use within different environments. The overall idea behind this research is to combine theory with practice when looking at Pakistan's sustainable development discourse. One could argue that it would be important because we can not only see what people say but also understand better why they say it if we know what kind of language they are using.

3.3.1. Fairclough's Three-Dimensional Model

The Fairclough's three-dimensional model which was developed on 1970s is based on the relationship between language and the society. This model provides a different approach towards the language as it not only considers the constituents of the language but also the social aspects that help shape the perception of the language
(Sriwimon and Zilli, 2017).

Description
(Text analysis)

Text production and
text consumption

Discourse practice

Sociocultural practice

Interpretation
(Processing
analysis)

Explanation
(Social analysis)

dynamics.

The second layer of the model is discourse practice, and it looks at the text while also considering the broader social contexts that influence the understanding the text as in different context and setting language serves different purposes. These different purposes are influenced by different beliefs and ideologies just by changing the stylistic choices.

The third dimension for the Fairclough model is the social analysis. This entails investigating societal structures; hierarchies and power relationships along with their impact on the way languages are created, employed or interpreted in particular societies (Zhou and Qin, 2020). Language use is thus mediated by historical culture politics which give meaning to its expressions. When societal norms overlook linguistic features associated with gender, they tend to stereotype individuals making them not contented about themselves any longer (Zhou and Qin, 2020). Through this process, we see how discourses construct societal ideologies while old beliefs continue to dominate discussions.

Fairclough's model is based on the interplay of three dimensions, text analysis, discourse practice, and sociocultural context that are shown to mutually influence each other. In other words, it is through analyzing linguistic elements in texts that one can understand discourses better. In various areas and disciplines, Fairclough's model is used. For instance, linguistics redefines the way discourse analysis is done and provides an all-inclusive system for understanding how language creates societies. It has been adopted by sociology, politics,

media studies, and many others thereby informing studies on power relations, communication skills as well as means of implementation of social transformations (Zhou and Qin, 2020). The model can be employed in the analysis of different discourses to expose the role played by language in creating images or reproducing existing societal structures.

3.3. Research Approach

This is the research approach that acts as the framework that guides how strategy, methodology, as well as tools, are applied to conduct in-depth investigations. It sets out systematic methodology, data collection methods, and analytical techniques employed in answer to particular research questions or objectives. The chapter defines the research design, theoretical underpinnings, and reasons for methodological choices in a manner that ensures an all-encompassing and organized exploration of the matter.

This study explores the linguistics aspects of PEPA law using Fairclough's Critical Discourse Analysis (1995) model. The research follows qualitative analysis and investigates in detail the underlying ideologies and power relations of the law (Cropley, 2023). The qualitative approach follows a constructivist or interpretivist perspective that states that reality is shaped and changed by human experiences and interactions. According to Cresswell and Clark (2007), qualitative research helps provide detailed insights and provides an elaborative answer to the research question. It uses methods like observation, interviews and other document analysis to collect rich data. This analysis is used in this study to evaluate the legal document of PEPA to explore both its explicit meaning and implicit connotations in that discourse. Cresswell (1997) prefers qualitative analysis over quantitative approach as it explores the subject in depth and uses different sources to explore all multiple aspects of the text to be analyzed. This study offers a deeper understanding of the text of PEPA law by using qualitative analysis.

3.4. Data Collection and Data Analysis

The data collection and data analysis chapter discusses the methods, the tools and techniques that are used to collect the data, organize it and analyze the collected data. The chapter also discusses how the data was collected to ensure the validity and reliability of the research. It explains the reasoning behind selecting the methods of research and how they align with the study's objectives so that all of the aspects of the study are covered (Amadebai, 2023). The credibility of the research is greatly affected by the method of research and how the data is collected, and this part of the study discusses the approach towards the study in detail.

3.5. Qualitative Approach

The study uses qualitative methodology that follows interpretivist paradigm to comprehensively analyze the language of PEPA. Thomas (2003) favors the qualitative approach as the detailed analysis allows to study the social aspects of the text. Qualitative analysis also helps understand the text beyond the surface while also considering the context and the multiple interpretation of the legal language (Thanh and Thanh, 2015). This paradigm allows the researchers to understand how individuals relate to their environment and how it shapes their understanding of the text (McQueen, 2002). This study uses qualitative analysis, particularly Fairclough's model of Critical Discourse Analysis (CDA) to study the underlying layers of meaning in PEPA document.

The qualitative framework enables to dig deeper into the socio-political implications because of the linguistic features used in the PEPA. It involves going beyond mere description of language patterns to unearth wider societal impacts that may be attached to them. In other words, different realities are formed based on different people's perspectives regarding them (Pascale, 2011). Using a qualitative method will help identify subtle language

tactics employed within legislative text; Secondly, this research will explore how language is used to present sustainable development goals vis-à-vis environmental preservation imperatives contained in PEPA. Therefore, through this approach, much attention is given to understanding the complexity involved in using words when making laws for conservation purposes at the national level.

3.6. Selection of Data

The main focus of this research centers around a thorough examination of PEPA itself therefore it becomes very important what should or not be included during the selection process especially while dealing with such kind legislative texts. Therefore, this calls for a careful search to identify the most recent and contextually appropriate versions of these materials so as not to end up with outdated information.

The use of latest version of PEPA in this research has several implications. Firstly, it ensures that the analysis done is based on the current legal situation thereby accommodating any new amendments, updates, or modifications made over time in light of changing social environmental, and legal circumstances.

Secondly, the analysis helps to better understand the document by looking at the language used in PEPA and the legal aspects that the law wants to communicate. By focusing on the relevant factors that might affect the perception of these laws in the particular context of Pakistan, the study aims to align it with the present day environmental problems faced by Pakistan which keep on changing du to the interconnectedness among the different parts of it (Katz et al., 2020).

3.7. Pattern of Analysis

The analysis of the PEPA document by using Fairclough's three-dimensional model is a step-by-step process which requires investigation of PEPA through three layers. The first layer is the textual analysis in which the linguistic features of the text are inquired into. It involves identifying the legal terminologies used, the word choice, the sentence structure and the rhetorical devices. The aim is to find out how important linguistic aspects such as use of formal language or passive voice impact in shaping the meanings of the laws presented in the document and how it helps communicate them better. The second layer, the discursive practice layer uses the Fairclough's model to explore the underlying power relations and ideologies in the PEPA law document. The goal of the analysis of this layer is to understand how the power and authority of different stakeholders is presented in the text and what effect they have on the comprehension of the reader. It also explores the broader like accountability, fostering cooperation and building partnership among different stakeholders. Finally, the third layer, which is the social practice analysis contextualizes the PEA law in the broader sociopolitical and economic context in Pakistan's environmental policy. It focuses on the historical factors that are involved in the drafting process of the text. It also discusses how the societal attitude affects the implementation of these laws on a broader level.

3.8. Expected Contributions and Relevance

Fairclough's model helps understand how language shapes communication and this study uses this model to analyze the PEPA law to uncover how the language used in this law helps communicate the environmental policies and practices. By analyzing the language of the document, it can be deduced how it affects public perception, attitude and behaviors of environmental issues and the actions. The model suggests that when creating environmental policies, it is important to consider what words to choose so that it resonates with the cultural values and perspectives and that it promotes collective action and responsibility. Using inclusive language is important for bridging the gaps and fostering cooperation among the different stakeholders.

In summary, Fairclough's model shows how language shapes environmental policies and how it helps engage the public and improve the environmental policies to make them more effective. If the language is used carefully, it can help communicate the policies better and ultimately help with environmental sustainability.

4. DATA ANALYSIS

4.1. Textual Analysis

PEPA is analyzed using Fairclough's three-dimensional model to explore ideologies, dominant discourses of the act and the power relations that is reflected through the language used. It also examines how the document reflects the social and cultural context and the references of other relevant documents.

4.1.1. Themes

The following section highlights the themes contained in the PEPA document which symbolizes the different aspects of environmental governance.

- **Regulatory Framework:** Throughout the document the roles and responsibilities of different regulatory bodies are discussed in detail. This subject also demonstrates a commitment to the development of a legal framework that enhances systematic monitoring. This structure controls activities that might cause negative environmental effects taking a due care approach towards protecting the environment.
  For example,
  "The Federal Environmental Agency is established to enforce the provisions of this Act and to formulate and implement environmental quality standards." (PEPA, Section 4)
  "The Act outlines the responsibilities of various regulatory bodies in managing and enforcing environmental laws, including the setting of environmental standards and monitoring compliance." (PEPA, Section 7)

- **Pollution Control Measures:** PEPA includes specific measures to be taken for each type of pollution. Pollution control measures are designed as per intent and are targeted at identified sources specifically. Air pollution emission standards have been set by it for example while discharge effluent guidelines outline water pollution procedures, pesticide use, and chemicals are regulated within soil pollution issues. The theme contributes to comprehensive ways on how they can reduce effects arising from pollution by focusing on sources before they happen.
  For example,
  "The Act mandates the establishment of standards for air and water quality and requires the implementation of measures to control and reduce pollution." (PEPA, Section 10)
  "Specific guidelines for managing air emissions, wastewater discharge, and hazardous substances are detailed to control pollution from various sources." (PEPA, Section 11)

- **Waste Management:** Waste management is an important aspect of the Act that can help prevent harm to the environment. Sustainable practice such as waste reduction, recycling, safe disposal, etc. is encouraged under this act. PEPA provides procedures for handling hazardous wastes; therefore, reducing its effect on ecosystems, public health, and general environment quality.
  For example,

"The Act requires the development and implementation of strategies for the proper management of waste, including reduction, recycling, and safe disposal." (PEPA, Section 14)

"Waste management procedures for handling hazardous waste and minimizing its impact on the environment and public health are outlined." (PEPA, Section 15)

- **International Cooperation:** PEPA recognizes the importance of international cooperation because environmental problems go beyond national boundaries. This theme emphasizes collaboration with neighboring countries as well as international organizations in resolving ecological challenges. It underscores mutual responsibility and joint endeavors aimed at addressing worldwide ecological issues.

   For example,

   "The Act recognizes the need for international collaboration to address environmental issues that transcend national borders, including cooperation with neighbouring countries and international organizations." (PEPA, Section 21)

   "It underscores the importance of aligning national environmental policies with international agreements and conventions." (PEPA, Section 22)

- **Sustainable Development:** The concept of sustainable development runs through all parts of PEPA which implies looking at the whole picture; this addresses social, economic, and cultural aspects besides the environmental approaches. The legislation advocates for present-day growth models that recognize future generations' aspirations. This reflects good intentions toward progress without forgetting about our environment.

   For example,

   "PEPA promotes sustainable development by integrating environmental considerations into economic and social planning, ensuring that present activities do not compromise the needs of future generations." (PEPA, Section 33)

   "The Act advocates for development practices that balance economic growth with environmental protection and social equity." (PEPA, Section 34)

4.1.2. Analyze the Vocabulary

Analyzing layers of words used by PEPA goes beyond semantics into how the lexicon aligns with legal traditions, scientific trends, and international balancing acts. This analysis provides helpful insights into the way laws tackle different aspects of the environment. The brief analysis is as under:

- **Technical and Specialized Vocabulary:** PEPA uses technical terminologies to ensure that the rules are communicated with clarity and to maintain a formal tone. This can been seen by the usage of terms like "pollution control measures (section 6 and section 11)," "environmental impact assessment (section 12)," and "sustainable development (section 4)" shows the usage of context specific and technical vocabulary.

- **International Cooperation and Obligations:** To show that PEPA in also connected with the international cooperation and takes into account the international standards for environmental protection. Usage of words such as "international standards" in the section 3, 10 and 32 clearly reflect this connection. This usage reflects Pakistan's commitment to the international agreements.

- **Public Participation:** By using terms like "public Consultation" (section 14) or "community engagement" (throughout the act), the act highlights the importance of public engagement in order to make this act successful.
- **Use of multiple synonyms:** The act uses synonyms for the same word which ensures that the framework is both precise and flexible and not only emphasizes the idea but also makes sure that it is understandable for every audience. This reduces the chances of misinterpretation and improves clarity of the text. For example, lease, buying, acquiring, owning, holding, improving, using, all these terms refer to the same idea but are used together to stress these principles.

In summary, PEPA carefully chooses vocabulary to address the technical and environmental aspects of the act. It ensures authority, precision and clarity while stating these laws so that the idea of environmental stainability is successfully communicated.

4.1.3. Syntax and Grammar

Syntax refers to the grammar that is used in the discourse and plays a crucial part in shaping the discourse. This study also evaluates the syntax and grammar of PEPA using Fairclough's model and investigates the underlying sociopolitical realities.

- **Hierarchical Structuring:** PEPA follows hierarchical structuring and divides the document into sections and sub-sections making it more readable and it becomes easier for the reader to find the relevant information this way. For example, section 1 provides the title for the act, its scope and introduction which provides a very systematic start for the document.
- **Conditional Statements:** a lot of conditional sentences are used in the document throughout to clearly state the conditions or the exceptions. For example, in the section 7, the powers of federal agency are described and using the conditional sentences the act provides the situation here it can be applied.
- **Enumerations for Clarity:** Enumerative structures can be found throughout the act in defining and stating the roles of different stakeholders involved. This choice in syntax helps enhance the clarity and minimizes the chances of any confusion for the reader,
- **Formal Language for Legal Authority:** The document uses a balances sentences structure to accumulate all kind of readers. Formal language is mandatory in legal discourses to imply authoritative tone and so is used throughout the PEPA to project dominance. Similarly, passive voice is used to make the act formal and objective so that it can be interpreted the same by everyone. For example, the usage of "shall be utilized" in section 9(4). This sort of language well matches the tone of a legal document. Use of modal verbs throughout PEPA emphasizes the obligation of some parties to follow certain provisions.

4.1.4. Tone and Style

The PEPA maintains a formal and authoritative tone across the entire text, aligning with the established norms of legal documentation. Throughout the document, there is consistent formality which establishes a professional and serious tone suited to the subject matter.

For example:

"The Authority shall prepare, maintain and revise as necessary a national conservation strategy for sustainable development and environment and publish such strategy." Reference: Section 6(2) (f)

The language demonstrates legal precision by utilizing specific terms like "shall," "May," and explicit references to sections and subsections. This precision is crucial for clearly articulating laws and regulations within legal frameworks.

For example:

"The Agency shall prepare and maintain a national directory of environmental consultants and organizations engaged in environmental auditing." Reference: Section 7(2) (a)

Objectivity is a key feature, with a focus on presenting facts, rules, and procedures straightforwardly, avoiding subjective opinions or emotional language. The use of an impersonal style, often using passive voice constructions, reinforces objectivity by emphasizing actions and obligations over individual actors.

"Environmental impact assessments are required for all proposed projects exceeding specified thresholds." (PEPA, Section 12(1))

Authoritative language underscores the power and responsibilities of entities like the Federal Agency, the Council, and Provincial Agencies. The document prioritizes clarity and unambiguity by providing clear definitions for key terms and employing a structured syntax to minimize interpretation errors. Technical terms relevant to environmental protection and legal concepts are incorporated for precision and specificity in the regulatory context.

For example:

Statement: "The Federal Agency is vested with the authority to issue directives for the enforcement of environmental regulations nationwide." (PEPA, Section 7(1))

4.1.5. Rhetorical Devices

Using Fairclough's Three-Dimensional Model for analyzing rhetorical devices in PEPA can provide insight into persuasive techniques employed in this legislation document. Rhetoric devices make expression more interesting and also influence information delivery as well as perception formation. The purpose of this analysis is to unpack how these instruments frame power dynamics within environmental governance discourse.

The document of PEPA uses multiple rhetorical styles to help improve the text clarity and make it sound more authoritative. For instance, Enumeratio helps build a comprehensive framework by enhancing the clarity as it helps break down complex ideas into more manageable parts. In the document of PEPA this technique can be seen in section 2 to define various terms to help understand the document better. For example, it defines the terminology "Environmental Quality Standards (EQS)" which specifies the permissible limits for the pollutants in air, this definition of such terms in the start helps the reader to comprehend the scope and application of the act better.

Another Literary device used in the document is Anaphora which is the repetition of a word or a phrase throughout the document primarily for emphasizing a certain idea. It is used when explaining the roles and function of different stakeholders in section 5, such as the repetition of the word federal agency when stating its functions to highlight its crucial role and to emphasize on the crucial part they play in upholding the environmental regulations.

Asyndeton is a literary device in which words like "and", "or", "but" are omitted to create a sense of urgency. In PEPA it is used on multiple occasions especially while stating the duties and responsibilities of different stakeholders to strengthen the active role that is needed in environmental protection.

For example, in section 5:

"The Federal Agency shall monitor environmental indicators, enforce environmental standards, investigate environmental violations."

By including these rhetorical devices PEPA becomes more precise and engaging for the audience while also effectively communicating the importance and value of environmental sustainability.

4.2. Processing analysis

It is very important to consider the social and cultural aspects as they provide the context through which the language of PEPA law is constructed. This layer of Fairclough's model examines how these cultural and social aspects influence the ideologies that are embedded in the law.

4.2.1. Historical Background

It was developed in 1997 when PEPA was enacted in response to changing environmental challenges due to increased development in Pakistan over time (late 20th century). This PEPA emerged as an all-inclusive legalistic tool that could encompass anything ranging from industrial pollution as well as related public health concerns to sustainable management of natural resources. Some themes that influenced the establishment of PEPA 1997 include:

- **Rapid Urbanization and Industrialization:** There was a quick increase in urbanization and industrialization during the late 20th century in Pakistan. Though these changes helped with the economic growth of the country, they also had some negative consequences for the environment. Urban areas started expanding and due to industrialization, the pollution levels and deforestation also increased.

- **Population Growth:** Because of the population growth the pressure in the natural resources increased and the demand for the energy water food and housing also multiplied.

- **Public Health Concerns:** If the environmental conditions are compromised then public health is also at stake. PEPA aims to implement measures to cope with these challenges and create a healthy living environment for everyone.

- **International Commitments: I**t is important for every country to participate in international agreements and commitments and Pakistan also recognizes its importance. Pakistan has developed its legislation that supports environmental sustainability and aligns with international standards reflecting country's commitment to meet global obligation.

PEPA not only addresses issues like urban growth, pollution, and health risks, but also meets the standards set globally. It also focuses on the connection between sustainable development, well-being of the public and healthy environment.

4.2.2. Cultural Background

Fairclough's model is also based on the cultural and historical backgrounds that must be taken into account. People communicate in these ways, which affect the power structures of any language they use. The knowledge of these factors will enable other people to interpret hidden meanings or power differences in language. It makes it easier to understand how culture and history are reflected through language regarding ideologies. If one does not pay attention to these aspects, a lot of subtleties about the organization of forces will be missed by an analysis. Therefore, the integration of cultural and historical perspectives makes the approach more effective in revealing the complexities of the language used.

The PEPA uses technical and legal terms related that concern environmental legislation, pollution control, and ecological development as well but does not include any words or phrases that directly reflect the Pakistani cultural or historical context since its focus is mainly on creating legal frameworks and standards.

It shows us how important the maritime history of Pakistan along with some terms such as "Exclusive Economic Zone" and "Historic Waters (Section 2)" mentioned. Additionally, residues from the use of fertilizers, pesticides, and other farm chemicals (Section 2) point to the significance of traditional agriculture practices. Chambers of Commerce and Industry (Section 2) are mentioned in this document to show what the business environment looks like now; hence, they reflect some existing ways of doing business within Pakistan via supporting our research with historical data. Terms used like National Environment Report (Section 15), environmental impact assessment (Section 12), and many others indicate that there is a trend towards transparency and informed decision-making in all aspects including environment protection that Pakistan has fully embraced being part of the global community.

4.2.3. Audience Reception

PEPA uses particular language to influence how audience understand these laws and form perception about it. There are some terms like e "effluent" (Section 2), "emission standards" (Section 11), and "pollution charge" (Section 15). In this case, effluent refers to liquid waste while emission standards describe permissible levels of air pollution released by different sources in the form of particulate matter or gaseous forms; hence "pollution charge" (Katende et al., 2017). With regards to governance aspects, "enforcement" (Section 5), "inspection" (Section 5), and "compliance" (Section 15) all these imply that besides setting standards the Act is concerned with having those standards followed. "Council" (Section 4), "Agency" (Section 5), and "Committees" (Section 4) are some of the terms used to represent orderliness in environmental management. These institutional words make one feel like there are authorities and plans somewhere indicating that this Act is just one of many arranged pieces.

Through these terms and ideas, the PEPA presents laws that are not only protective but also exacting by projecting adherence to such rules as necessary for good overall health of the environment which by extension means society's well-being.

4.2.4. Discourse Structures

The following are some of the key aspects of the structure of discourse within the PEPA:

1. Preamble and Introduction:
   - Preamble: The preamble for PEPA is an important introduction to this Act, it encapsulates the fundamental values and objectives of the Act. Within it, the legislature expresses its desire that they protect today's environment for future generations. It reminds us about Pakistan's commitment to sustainable development, protection of the environment, towards a healthy ecosystem.
   - Introduction: Immediately following the preamble, the introductory section provides essential details such as the short title, extent, and commencement date of the Act. This section gives a basic outline to readers regarding what is contained in PEPA.

2. Sections and Subsections:
   - Section Organization: PEPA organizes numbered sections that focus on various issues about environmental conservation. By numbering it becomes easier to follow the topics.
   - Subsections: breaking down the section further helps locate the relevant information easier.

3. Definitions:

- Clarity and Precision: All the technical terminologies are clearly defined in order for the general public to also understand those terms as well. It helps eliminate any confusion or ambiguity among its readers.

5. Powers and Duties:
   - Allocation of Authority: this section states the duties and responsibilities of different stakeholders. For example, how the federal or provincial agencies play part in enforcing environmental regulations.

In sum PEPA ensures the transparency, accuracy and good governance in Pakistan with the help of it clear structure it makes it easier for the public to understand and follow it.

4.2.5. Propositional Content

This section analyzes the key propositions expressed in the PEPA and provides an overview of the essential statements and information contained within the document.

- **Environmental Goals and Objectives:** This act sets out clear proposals for specific environmental goals and objectives. This includes targeting problems like pollution, focusing on things like biodiversity conservation, and ecological sustainability. These goals are very important because they guide subsequent regulatory measures.
- **Community Engagement and Public Participation:** The document highlights the importance of community engagement and public participation in environmental sustainability. It outlines how public participation ensures help implement these laws properly.
- **International Collaborations and Agreements:** PEPA keeps in view the international agreements and complies with the global environmental standards and work in collaboration with other countries as well and provides a worldwide view of environment stewardship.
- **Research and Development Initiatives:** PEPA outlines ways to promote research in order to help protect the environment. It discusses ways to set up programs and funds to initiate new ideas to contribute towards green technology.

These points help give a clear view of the ideas discussed in PEPA. It not only covers the main principles but also the practical actions required to be taken for promoting environment and promoting environment sustainability.

4.2.6. Cognitive Models

The cognitive models in PEPA refer to specific frameworks that help to shape the understanding and the importance of environmental protection and sustainable development. The cognitive models used in PEPA are as follows:

- **Precautionary Principle: W**henever environmental risks are there this principle ensures that relevant preventive measures are taken. It therefore provides a guideline for taking steps that are necessary to prevent any environmental risks. For example, section 3 of the act states that no proposal for development should be approved without going through Environmental Impact Assessment (EIA).
- **Risk Assessment and Management:** this model emphasizes the importance of risk assessment and management. This helps to eliminate the possible risks beforehand so that adequate measures can be taken to prevent any adverse effects. For example, Section 5 of the act provides a step-by-step procedure to assess and regulate any environmental hazards related to industrial or any developmental project.

- **Public Awareness and Education:** This model highlights the importance of public awareness and education related to these issues. For example, section 6 is dedicated to importance and initiatives to raise public awareness regarding these issues.

4.2.7. Social Identities

The terminology used in PEPA largely creates social identities by utilizing technical and legal terms associated with environmental governance. In keeping with the legislative setting, it uses an official and authoritative tone. The following are some examples of how language shapes social identities:

- **Roles and Authorities:** Roles and authorities are included in the research plan and establish a structure for environmental governance. The document spells out who does what, including agencies at the federal level, provincial agencies, and members of the council. In so doing it creates social identity based on professional expertise and institutional affiliations as it assigns particular responsibilities.
"The Federal Environmental Agency shall be the principal agency responsible for the enforcement of the provisions of this Act, and it shall be empowered to take measures for the protection of the environment and for the prevention and control of pollution." (PEPA, Section 4)

- **Inclusion of Stakeholders:** Having non-officials in the Council like chambers of commerce, industrial associations, agriculture, medical and legal professions, and NGOs have been done to include different perspectives in the decision-making process. This means that many societal interests were embraced implying that there is an effort to shape sector-based identities that have specific gender biases.
"The Council includes representatives from diverse sectors, including chambers of commerce, industrial associations, agricultural and medical professions, and non-governmental organizations (NGOs), to ensure a broad range of perspectives in environmental decision-making." (PEPA, Section 9)

- **Public Awareness:** Sections focusing on public awareness dissemination highlight the role played by individuals and communities in protecting the environment. Therefore, such activities are believed to influence the public identities of responsible citizens actively participating in environmental conservation. It is also presumed that individuals can create their social identity by being environmentally conscious.
"The Act includes provisions for disseminating information and conducting public awareness campaigns to engage citizens in environmental protection efforts." (PEPA, Section 25)

In conclusion, PEPA attempts to build societal identities through several ways including role definition, acknowledgment of expertise, behavior classification, economic recognition, and encouragement for public participation in environmental protection.

4.3. Social Analysis

A close examination of Pakistan's National Environmental Quality Standards reveals the hidden social aspects incorporated by this law using Fairclough's Three-Dimensional Model. The analysis shows how language use within PEPA impacts environmental practices and collective perceptions among Pakistanis regarding some issues such as waste management.

4.3.1. Ideologies

Explicit analysis of the PEPA does not specify particular ideologies. Nevertheless, some underlying principles and implicit ideologies may be derived from the provisions and goals as outlined in this document. These are:

i. **Legal Positivism as a Dominant Ideology:** The PEPA uses exactitude language and this with the legal positivist ideology. Legal positivism views law as a matter of speech act that needs to express its subject matter meaning unambiguously. The Act is couched in such terms so that there is no doubt about its provisions or any possible interpretations. The main objective here is to have specific words which are in line with legal terminologies being substantive thereby reducing ambiguities through which different views can be argued.

ii. **Scientific Rationalism in Environmental Governance:** This scientific rationalist ideology is contained in the use of scientific terms by PEPA hence relying on empirical evidence and scientific principles when making decisions. This shows the commitment of the act towards the objective data while making and reviewing its policies.

iii. **Formalism and Authority in Legislative Communication:** Formalism focuses on legal issues and insists that legal language be precise and preserved. It believes that being precise helps to make policies more effective and easier to implement.

iv. **Participatory Governance and Inclusivity:** Incorporating members from different sectors of the country into this Act demonstrates inclusivity in governance. This viewpoint seeks to incorporate opinions from various stakeholder and includes marginalized voices. It focuses on the need for different voices to be brought in on how human actions can affect the environment.

These ideologies collectively shape the language and structure of PEPA, influencing how environmental governance is conceptualized and executed within the legal framework.

4.3.2. Power Relations

Power relations can be inferred in many ways from the document of PEPA. These are key factors to consider when analyzing a power situation:

1. **The Creation of Pakistan Environmental Protection Council (PEPC):**
Power Structure: The composition of PEPC, including the Prime Minister, Chief Ministers, and other nominated members indicates a chain command structure. This centralization is indicated by the involvement of senior government officials meaning that political leaders have great authority in decision-making processes.

2. **Functions and Powers of the Council:**
Coordination and Supervision: This implies a centering power on the part of PEPC's role as it coordinates and supervises enforcement under PEPA. The Council approves national environmental policies, and quality standards, and provides guidelines; hence its decision-making process becomes centralized at the national level.

3. **Functions of the Federal Agency:**
Implementation and Enforcement: The Federal Agency is bound to implement and enforce the environmental provisions as per the authority granted by PEPA. Some duties of PEPA comprise formulation of national environmental policies and other factors including quality control for sustainable development. This suggests a centralized system where environmental control is managed by one main organization.

4. **National Environmental Quality Standards (NEQS):**

Setting Standards: Standardization such as NEQS or emissions and discharges allow the governing body which in this case is the Federal Agency to regulate industries and other parties to sit back on this one powerful person with regard to the enforcement of the environment.

These aspects collectively highlight power relations in PEPA, demonstrating how authority is distributed, centralized, and exercised in the realm of environmental governance.

4.3.3. Words and Phrases Reflecting Power Relations

In the context of PEPA, examples of particular words and phrases that reflect power relations are as follows:

1. Directive Language: It entails such words as "shall," "must," and "requirement" (found throughout the Act) which connote authoritative commands. For instance, "The Council shall approve national environmental policies" (Section 4). This language indicates a hierarchical approach where superiors dictate their subordinates. The sentence shows structures, with compliance being obligatory so that directives are given more authority.

2. Exclusive Powers: Juxtaposition of broadly accepted principles like "exclusive jurisdiction" (Section 5), "sole discretion" (Section 6), "centralized control" (Section 7) point out the unique authority of the personal entity.

3. Oversight and Coordination: Other words such as "supervise" (Section 14) "coordinate" (Section 15), and "monitor" (Section 16) mean watching over actions. These words indicate that there is an end-to-end environmental system with control centrality hence the central monitoring of environmental matters. The terms point to the direction of various stakeholder's roles in the management of environmental resources.

4. Legal Authority: Some examples include "enter" (Section 22), "inspect" (Section 23), and "enforce" (Section 24). In other words, using such language indicates investigating powers, enforcing laws, and providing legal remedies against any violation. These words and phrases reflect the underlying power relations in the PEPA document.

4.3.4. Dominant Discourses

The ideologies and perspectives of PEPA are shaped by the dominant discourses and the analysis uncovers the dominant discourses of the document. Th analysis is as under:

- **Compliance and Enforcement Discourse:** Compliance and enforcement are central subjects in any successful environmental protection program; hence PEPA also contributes to this debate. In describing penalties, prohibition, or enforcement activities the use of those words only points to an active commitment to enforcing such regulations within the framework. Adherence is thus emphasized as being necessary for any such endeavors that would seek success.

- **International Cooperation Discourse:** The message of global cooperation which seems to run through PEPA is an example of international climate change efforts. These reasons explain why some of the above issues have received attention from international legal instruments or organizations.

- **Inclusive Participation Discourse:** Non-official members have been drawn into the process of discussing PEPA as part of shifting the focus of decision-making to promoting inclusive participation. This discourse also stresses the importance of the variety of views and expertise in the making of environmental policies as in the Environmental Protection Council where different policies are formulated. It therefore emphasizes the need for the promotion of inclusiveness in governance and decision-making processes.

Analyzing these discourses supports the comprehension of the ideology within PEPA. It is the balance of ecological considerations, developmental needs, legal requirements, and

international collaboration that further illustrates the complexity of environmental governance.

4.4. Fostering Environmental Protection and Sustainable Development

PEPA intertextualities with other legal forms and international treaties, this brings the Act in agreements with international requirements while stressing the need for environmental protection by every person. Features such as repetition, arguments and the use of other language strategies in PEPA has the purpose of seeking political will in support of the various measures. It is easier, simpler and more practical to explain complicated legislation by providing a proper organization by means of chapters and headings. To be able to attain such clarity, the members of the public have to understand such matters so that they can participate actively in the efforts to protect the environment.

'Shall' and 'may' are additional modal verbs, which as factors of legal languages, have been shaped in this document to bring out legal obligations and permissions, respectively. As a result, it increases the authoritative character of the debate underlining that pollution control should be made an abiding law at all political levels, rather than just administrative measures as their appearance here would suggest.

To conclude, language of the Pakistan Environmental Protection Act of 1997 (PEPA) is effective and promotes the desire for sustainable management of natural resources. Getting input from others and considering society's values about nature helps create a comprehensive approach. Without unnecessary redundancies, PEPA is structured in a manner that permits this language to play an integral and positive role providing firm bases for the policies that will enhance the protection and sustainable utilization of the countries natural resources.

4.5. Authority, NGOs, and Community Engagement in PEPA's Environmental Framework

The words in PEPA become an important factor in the relationships between the authorities, NGOs, and communities working for this cause. It eliminates the chances of ambiguities hence making the communication of these laws effective. Legal ambiguity is avoided by usage of jargons of the field and because of this clarity of the law, the obligations of compliance are passed to the authorities in the pursuit of making people aware of their rights and responsibilities under the law.

The aspects of PEPA in terms of persuasion include the usages of certain devices, such as repetition, enumeration and others. This may result in advocacy or endorsement for more stringent protection measures by organizations, such as NGOs and even local residents undertaking activities that align with its objectives. For instance, the Act has closed textual references regarding its joining up to international agreements there are global strings that make the execution of the Act more comprehensive and less parochial. It enables local authorities and NGOs or people to work together with wider international purposes with environmental protection.

4.6. Effectiveness of PEPA in Addressing International Environmental Concerns

There are various reasons on which the effectiveness of the Pakistan Environmental Protection Act (PEPA) in solving the global issues rests. National Environmental Quality Standard (NEQS) compromise policies which are directed towards high international cooperation. In trying to understand how PEPA integrated such considerations, it is important to note that, law and policies also include non-official members in the government's decision-making about environmental issues. To gain a higher standing in the world market, PEPA comes up with short and precise clauses that are in line with the global guidelines. This is best seen where National Environmental Quality Standards (NEQS) are developed, thus

ensuring that they meet the requirements of international standards considering how they were designed by PEPA.

For example, to be able to illustrate its commitment to the aspects of sustainability on the global level, PEPA contains such provisions which are consistent with certain sustainable development goals. Importantly, with regards to the provisions on pollution control and waste management, it can be observed that PEPA tries to push for the achievement of the sustainable development goals at the global level. This shows how PEPA integrates aspects of global sustainability into its system. In this, however, PEPA uses words such as "shall" and "must" which are obligatory words, showing PEPA's very high level of commitment to legal provisions. This can be seen in the provisions of the ban on discharge or emission of certain listed items where the language used is instructive on the need to comply with established environmental requirements within a specific time period. Thus, by the structural organization of PEPA and certain provisions on the relationship between economic development and environmental protection, it can be said to demonstrate goodwill towards sustainability. It can be said that such attitude is also present in the preamble wherein principles of environmental protection and sustainable development are encoded as core policies of PEPA.

To conclude, these elements not only make PEPA framework as a means of protecting environment in Pakistan but also allow PEPA to be active and constructive member of the respect global community while promoting environmentally sound practices.

5. FINDINGS, CONCLUSION, AND RECOMMENDATIONS

The focus of the research is the analysis of the linguistic elements of PEPA in detail using the three-dimensional model. It shows how language choices affect the understanding of these laws among different stakeholders and what the underlying structures and implications reflect about the relationship between legal terms and environmental governance. It explores how the use of terminologies and word choice control the interpretation of its meaning. During the policy making process, it is important to consider the interaction among different stakeholders.

After the analysis of PEPA using the Fairclough's three-dimensional model, it can be concluded that certain words are used to reflect the underlying power relations and the authority of the different stakeholders over the other. For the general public to understand the rules and laws of PEPA, the terminologies used are clearly defined so that the meanings are not misinterpreted. Significant attention if given to the word choice and PEPA clearly outlines the responsibilities and financial measures.

For future research there are certain areas that need to be explored: firstly, there is need to expand on the current research by analyzing wide range of legal frameworks, secondly, how different language use affects the decision-making process in Pakistan, thirdly, incorporating computational linguistics to improve accuracy when dealing with large legal texts. Understanding the role of language choice in eco-policies helps align the legislation and sustainable development discourse.

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