



# Representations of Human Domination in Climate Policy Documents: A Transitivity Analysis

Mad Yahya<sup>1\*</sup>, Ni Gusti Ayu Roselani<sup>2</sup> 

<sup>1,2</sup>Magister Linguistik, Universitas Gadjah Mada, DI Yogyakarta, Indonesia

## ARTICLE INFO

### Article history:

Received May 30, 2024

Revised June 03, 2024

Accepted June 18, 2024

Available online June 19, 2024

### Kata Kunci:

dokumen tata kelola iklim, kebijakan pembangunan ketahanan iklim, ekolinguistik, linguistik fungsional sistemik, analisis transitivitas

### Keywords:

climate governance documents, climate resilience development policy, ecolinguistics, systemic functional linguistics, transitivity analysis



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright ©2024 by Author.  
Published by Universitas Internasional Batam

## ABSTRAK

Penelitian ini bertujuan untuk menganalisis sistem transitivitas dokumen *Pembangunan Berketahanan Iklim (PBI)*, salah satu dokumen kebijakan tata kelola iklim utama di Indonesia berdasarkan pendekatan ekolinguistik. Menggunakan sistem transitivitas (Halliday, 2014), peneliti mengeksplorasi petunjuk pengalaman pembuat kebijakan dalam memposisikan hubungan antara manusia dan lingkungannya melalui fitur bahasa dalam teks. Selain itu, penelitian ini menerapkan metode campuran, mengintegrasikan teknik kualitatif dan kuantitatif untuk memberikan analisis yang komprehensif. Para penulis menggunakan AntConc 4.2.2. untuk menganalisis korpus 46.789 token. Konkordansi yang mengandung kata kunci: lingkungan, alam, habitat, ekosistem, dan hayati yang dianalisis menggunakan kerangka sistem transitivitas untuk mengidentifikasi distribusi jenis proses dan peran peserta dalam korpus. Temuan penelitian menunjukkan prevalensi yang signifikan dari proses material, menunjukkan fokus pada tindakan dan peristiwa. Selanjutnya, analisis menunjukkan pola peran aktif partisipasi manusia, pengaburan aktor, serta kata kunci lingkungan yang mengisi peran partisipasi pasif dan frasa tidak langsung yang memperjelas tradisi dominasi manusia terhadap lingkungan. Pola transitivitas ini menunjukkan karakteristik wacana eko-ambivalen berdasarkan Living! ekosofi yang mewakili perspektif antroposentris tentang lingkungan. Wacana eko-ambivalen dalam dokumen PBI ini mengungkapkan petunjuk tentang makna pengalaman perspektif lingkungan antroposentris pemangku kepentingan dalam dokumen kebijakan iklim. Penelitian ini menawarkan perspektif analisis ekolinguistik tentang kebijakan dokumen iklim untuk mendorong bahasa yang lebih inklusif terhadap lingkungan. Penelitian analisis transitivitas ini memperkaya studi wacana tata kelola iklim dalam dokumen kebijakan dalam konteks Indonesia.

## ABSTRACT

This research aims to analyse the transitivity system of *Pembangunan Berketahanan Iklim (PBI)* documents, one of the key climate governance policy documents in Indonesia, based on an ecolinguistic approach. Using (Halliday's, 2014) transitivity system, researchers explore clues to the world experience of policymakers in positioning the relationship between humans and their environment through language features in texts. Moreover, this research applies a mixed-method, integrating both qualitative and quantitative techniques to provide a comprehensive analysis. The authors utilized AntConc 4.2.2. to analyse the corpus of 46,789 tokens. Concordances containing keywords: *lingkungan*, *alam*, *habitat*, *ekosistem*, and *hayati* were analyzed using the transitivity system framework to identify the distribution of process types and participant roles within the corpus. Research findings show a significant prevalence of material processes, indicating a focus on actions and events. Furthermore, the analysis shows the patterns of the active roles of human participants, actor obscuring, as well as environmental keywords that fill the role of passive participants and circumstantial phrases that clarify the tradition of human domination over the environment. These transitivity patterns show the characteristics of an eco-ambivalent discourse based on Living! ecosophy that represents an anthropocentric perspective on the environment. This eco-ambivalent discourse in the PBI document reveals clues to the experiential meaning of stakeholders' anthropocentric environmental perspectives in climate policy documents. This research offers an ecolinguistic analysis perspective on the climate document policy to encourage more environmentally inclusive language. This research of transitivity analysis enriches the study of climate governance discourse in policy documents in the Indonesian context.

\*Corresponding author.

E-mail addresses: [madyahya@mail.ugm.ac.id](mailto:madyahya@mail.ugm.ac.id) (Mad Yahya)

## 1. INTRODUCTION

Controlling the ongoing process of climate change has become an essential focus of countries worldwide. The worsening process of climate change is forcing every country to feel its impacts, such as rising temperatures, extreme weather changes, heat waves, droughts, and various other consequences of the climate crisis. These consequences of the current climate crisis are largely caused by human activities (White et al., 2018). This phenomenon has been recognised by Arrhenius, a Swedish scientist, since the late 19th century (Oreskes et al., 2018). Various scientific studies related to climate change thereafter led scientists to scientific consensus on the phenomenon of climate change, especially through the 1988 report of the Intergovernmental Panel on Climate Change (IPCC) (Oreskes et al., 2018). The IPCC report became the cornerstone of political attention to the phenomenon of climate change. This is the background of stakeholders' attention to climate change solutions through document policies related to climate governance. The first international climate governance agreement focused on climate change solutions has been drawn since 1992 through the United Nations Framework Convention on Climate Change (UNFCCC) in Rio de Janeiro, Brazil (Gupta, 2010). The UNFCCC became the initial milestone of various multinational agreements through the Conference of the Parties (CoP) meeting that focused on climate policies such as the Kyoto Protocol in 1997, the Bali Action Plan in 2007, and the Paris Agreement in 2015. In subsequent climate policies, the rising attention on climate mitigation efforts through policies and political agreements is carried out by stakeholders at regional, national, and local scales (White et al., 2018).

In the Indonesian context, climate governance policies aimed at addressing the climate change crisis have been made since Indonesia participated in various global climate agreements. Currently, disaster resilience and climate change-based development is one of the focuses of the Indonesian government in Indonesia's National Medium Term Development Plan (RPJMN) as the government's commitment to the challenges of climate change in the future (Republik Indonesia, 2020; Ministry of National Development Planning/Bappenas, 2021f). Through the Ministry of National Development Planning/National Development Planning Agency (Kemen. PPN/Bappenas), the Indonesian government has designed a development plan that takes into ecological aspects and is adaptive to climate change through *Pembangunan Berketahanan Iklim* (PBI) or the Climate Resilience Development Policy 2020-2045 documents. The PBI document has become a reference for various Indonesian government agencies and ministries to organize climate-resilient development.

The PBI document was created as a general guide and reference for relevant agencies and ministries to organize climate-resilient development in Indonesia. In addition, this document is also a blueprint for non-governmental organizations that work with the government in implementing climate change mitigation and adaptation efforts (Ministry of National Development Planning/Bappenas, 2021e). Since the PBI document topic deals with climate governance issues, the text is closely related to nature, the environment, the ecosystem, and other ecological issues. In this regard, linguistic features related to the transitivity system of ecological property of the text represent the world experience between humans and nature, humans and society, and among the elements within nature and society (Cheng, 2022). Transitivity system analysis deals with the identification of lexicogrammar aspects of texts that aim to reveal the experiential meanings contained in discourse (Eggins, 2004). The experiential meanings in the discourse indicate how the author(s) of the text represents reality through language. Meaning how people represent reality is part of the ideational metafunction in Halliday's systemic functional linguistics (SFL) framework (Eggins, 2004). In the SFL approach, ideational metafunction is one of the three parts of systemic modeling of meaning within SFL in addition to interpersonal and textual metafunctions (Halliday & Matthiessen, 2014). Ideational metafunction as shown through transitivity analysis has been used to analyse various types of discourse including language use of ecological discourses in ecolinguistic studies (see, such as Cheng, 2022; Acha, 2022; and Suhandano et al., 2023). Transitivity analysis in ecolinguistic studies can be used to uncover clues about how text creator(s) represent their views on ecological aspects. (Stibbe, 2021) points out transitivity analysis as a framework used to reveal implicit stories in ecolinguistic studies through the linguistic features of the text. Through this theoretical framework, the authors identify how the environment is represented in the climate governance text through the transitivity system in the PBI document.

Text transitivity analysis related to ecological discourses has been used by various researchers in various types of texts, for example, transitivity analysis in the Sustainable Development Goals (SDGs) document by (Furnaz, 2023); media reporting texts in Yemen by (Mohammed, 2023) and online newspapers comparison of Washington Post and Arab News by (Alraimi and Abdalla, 2019); multimodal elements on YouTube Thumbnails by (Riyandi, 2022); ecosophical values in literary works by (Fan, 2023); and transitive processes in the discourse of environmental activist Greta Thunberg's speech by (Mansyur, 2021), King Charles III's inaugural speech by (Al-Maashani, 2023), and Prime Minister of Pakistan, Imran

Khan by (Mushtaq et al., 2021). These studies also applied transitivity studies with various discourse analysis methods and theories, such as the corpus method by (Mohammed, 2023; Mushtaq et al., 2021; and Al-Maashani, 2023); the theoretical framework of Fairclough's critical discourse analysis by (Mansyur, 2021); transitivity and multimodal analysis by (Riyandi, 2022); and environmental philosophy analysis by (Fan, 2023). In previous studies, transitivity analysis was used to find out the ideational meaning (Al-Maashani, 2023; Alraimi & Abdalla, 2019; Riyandi, 2022), appraisal of the human-environment relationship (Furnaz, 2023), ecological ideology (Mansyur, 2021; Mushtaq et al., 2021), and ecological philosophy (Fan, 2023). The transitive analysis in this study was used to identify the Indonesian government policy that focuses on development plans based on climate resilience.

This article focuses on transitivity system analyses of the environmental issues in the PBI document. Through the framework of transitivity system identification, researchers reveal the experiential metafunction related to ecological issues in the text. The transitivity system was examined by analyzing process types that contain environmental lexemes in the text clauses. The authors reveal the world experience of how stakeholders place nature in the climate governance discourse. In this regard, the world experience was construed on the manageable set of physical, social, mental, and abstract processes in the transitivity system (Cheng, 2022). In this paper, the authors use the keywords of the environment-related lexemes in the text to reveal how environmental issues are portrayed in climate governance discourse. Transitivity analysis of the clauses related to environmental-related words provides clues to experiences, perceptions, and world views on the environment in climate change matters, particularly in Indonesia's policy. The focus of this paper is different from previous studies of ecolinguistics and transitivity related to environmental issues that focus on non-policy discourses in Indonesia, such as literary works (Afidah et al., 2022), Indonesian traditional customs (Dewi, 2020; Indratmo et al., 2020), media coverage (Yuniawan et al., 2023), and learning texts (Ginting et al., 2024). This paper enriches ecolinguistic studies on ecological discourse in public policy documents that have been diversely conducted outside the Indonesian context, such as G20 leaders' declaration documents (Almaghouth, 2022), Sustainable Development Goals documents of the United Nations (UN) (Furnaz, 2023), UN documents and EU green deal policies (Wang & Huan, 2023; Remling, 2018), and Chinese Communist Party annual report documents (Zuo, 2019). This research enriches the study of ecolinguistics on climate governance policy, especially ecological discourses in Indonesian policy documents. The scope of this research focus also offers a contribution to the research results of (Leipold et al., 2019) on the need for environmental policy studies, especially in the Southeast Asian region.

The environmental policy study approach in this research uses transitivity system analysis based on ecolinguistics. Through this approach, the authors reveal the linguistic clues that reveal the effects of language use on the environment. The effects of language use on the environment can be classified as eco-beneficial, eco-destructive, or eco-ambivalent discourse (Stibbe, 2021). In this regard, transitivity analysis of environment-related words in the PBI document portrays policymakers' worldview of the environment position and its urgency in climate mitigation efforts in the Indonesian climate governance context. In this regard, the language used in policy documents plays a critical role in shaping perceptions, guiding actions, and framing opinions in addressing ongoing climate change. However, there are significant gaps in our understanding of how linguistic elements in mainstream ecological discourse reflect and perpetuate anthropocentric tendencies (Stibbe, 2021). Anthropocentric perpetuation in ecological discourses reflects the viewpoint that places human interests above all of the ecological well-being on the planet. These anthropocentric tendencies in mainstream ecological discourse can undermine efforts to foster holistic sustainable approaches to addressing climate change. Therefore, the use of language rooted in environmental sustainability is significantly needed in climate governance policies to address climate change more effectively. As (Stibbe, 2021) states, among the practical purposes of ecolinguistic studies is to encourage the development and sustainability of life.

The goal of the development and sustainability of life is an integral part of the 'Living!' ecosophy (Stibbe, 2021). Through these ecosophical values, the experiential meaning revealed in the PBI document is assessed for its quality alignment with the environment. Based on (Halliday's, 2014) transitivity system, this research's findings illustrate policymakers' orientation in considering the environment in Indonesia's climate governance discourse. Transitivity system analysis reveals experiential meanings that relate to aspects of cognition, experience, and perception of the text maker. Therefore, linguistics features in PBI documents related to the environment can provide an overview of how policymakers view ecological aspects. The study of transitivity in government policy documents through an ecolinguistic framework in Indonesia has yet to be widely conducted. While previous transitivity analysis studies have provided valuable insights into non-Indonesian climate governance discourses, the authors attempt this gap by employing transitivity analysis on one of the Indonesian pilot climate governance documents. This approach is expected to reveal the ecological perspectives of policymakers in climate governance policies,

especially those related to ecological discourses in Indonesia. In particular, this study aims to conduct a transitivity analysis based on an ecolinguistic approach in PBI documents to identify and highlight the tendencies of the policy makers' ecological experiential meanings. The analysis seeks to provide insight into the sustainability of PBI documents with inclusive ecological sustainability based on the *Living! ecosophy* by (Stibbe, 2021). It offers a deeper understanding of the role of language in climate governance policy as a guide to encouraging a more inclusive and sustainable ecological discourse, especially in the Indonesian context. The research findings can be extended to other policy areas in Indonesia related to environmental issues in the discourse of climate governance. Furthermore, the research results are oriented towards offering systematized linguistic studies to raise awareness of more environmentally friendly discourses in the context of climate governance policies. The study analysis offers an understanding of environmental issues in government policy documents, especially about the urgency of addressing the climate crisis in Indonesia.

## 2. METHODS

The steps of this research work generally use a mixed-method approach, integrating both qualitative and quantitative techniques within the single study to provide a comprehensive understanding of research problems. (Cresswell and Clark, 2011) state that mixed methods research involves collecting, analyzing, and integrating both quantitative and qualitative data in a single study or a series of studies. The researchers used a mixed-method approach referred to by (Creswell, 2009) as a sequential combination method by applying quantitative methods at the first step, followed by a qualitative approach. This research method approach is applied to the main source of this research, namely *Pembangunan Berketahanan Iklim* (PBI) documents published by the Kementerian PPN/Bappenas on April 1, 2021. The document is a blueprint that serves as a general guideline for climate resilience development planning by ministries, government agencies, and civil society organizations (Ministry of PPN/Bappenas, 2021f). These documents contain six main books that have different topics; *Book 1: Priority Locations and Action Lists for Climate Resilience* (Kementerian PPN/Bappenas, 2021a); *Book 2: Central and Local Institutions* (Kementerian PPN/Bappenas, 2021b); *Book 3: The Role of Non-Governmental Organizations* (Kementerian PPN/Bappenas, 2021e); *Book 4: Sources of Funding to Support Climate Resilience Actions* (Kementerian PPN/Bappenas, 2021d); *Book 5: Monitoring, Evaluation and Reporting Mechanisms* (Kementerian PPN/Bappenas, 2021c); and *Exclusive Summary: Climate Resilience Development Policy 2020-2045* (Kementerian PPN/Bappenas, 2021f).

To prepare the data for analysis, the authors processed the documents in one *Text File* (txt) format by removing non-text elements such as images, symbols, and illustrations. The txt file of PBI documents is inserted in the AntConc corpus application version 4.2.2. as a corpus identification instrument so that researchers can make measurable quantitative observations. Based on the target corpus of PBI documents, researchers identified the frequency of occurrence of lexemes related to the environment terms in Bahasa Indonesia. Overall, the corpus source in this study consists of 46,789 tokens. By considering the frequency of occurrence and representation of environment-related lexes in Bahasa Indonesia, the authors refer to five main lexes related to environmental terms. These five lexes are *lingkungan* (environment), *alam* (nature), *habitat* (habitat), *ekosistem* (ecosystem), and *hayati* (biodiversity). Besides the relevance and frequency in the context of environmental terms, these five keywords also have similar semantic relations in Bahasa Indonesia. These five environment-related keywords refer to the same meaning as field relations related to ecological terms. Subsequently, each of the five environmental keywords was identified by its concordances through the KWIC (The Keyword-in-Context) in AntConc. Figure 1 is an example of the KWIC display of the word *lingkungan* (environment) in the AntConc corpus application.

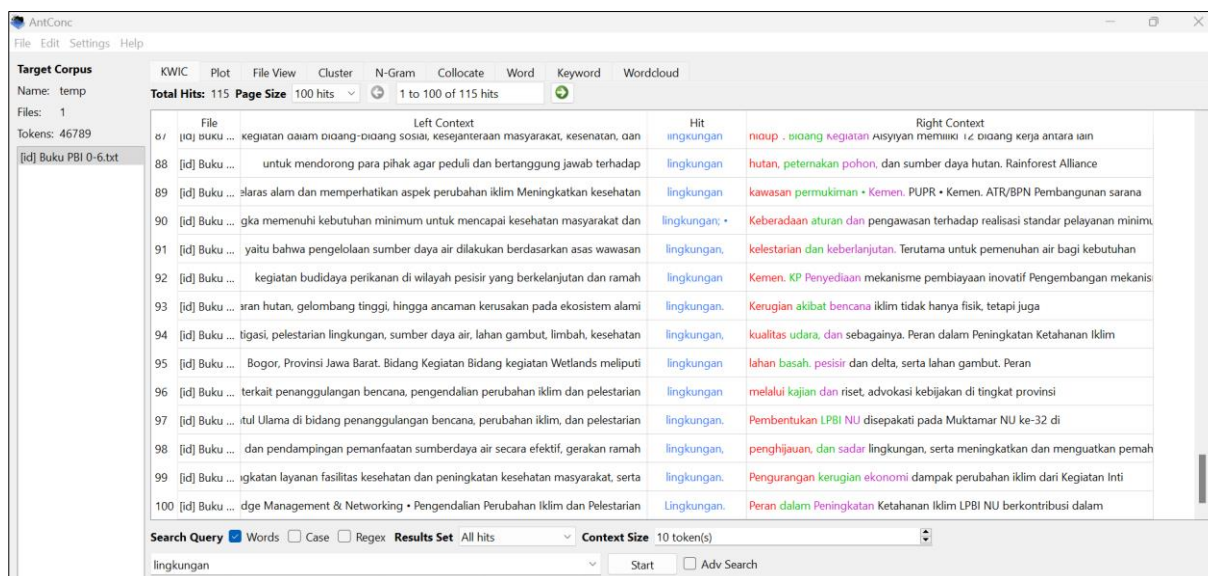


Figure 1. Concordances of *Lingkungan* (Environment) Words in AntConc

The result of AntConc identification in the previous stage is a list of PBI document clauses containing environment-related words. These clauses that discuss ecological issues in PBI documents based on five environment-related words constitute the main data in this study. Based on (Halliday's, 2014) SFL framework, the clauses were then identified to determine the distribution and frequency of the six clause process types: material, behavioral, mental, verbal, relational, and existential. Process types are central elements in transitivity analysis so they determine the types of participants. Thus, types of participants refer to the type of process contained in the clause. At this stage, the authors also use quantitative calculations to find the distribution of process types in clauses related to environmental keywords in PBI documents. Based on the process types used in the clause, the authors analyze the pattern of participants, the role of participants, and the linguistic features in the PBI document. This research attempts to maintain the validity of the data in several ways, such as, 1) data cleaning: removing nontext elements to focus on the integrity of the textual data; 2) lexeme selection: keywords related to the environment are based on the highest frequency of occurrence and relevance in the context of the study, ensuring that the analysis focuses on significant and representative terms; 3) software utilization: AntConc was used to accurately identify and extract relevant clauses from the corpus source; and 4) method strengthening: combining quantitative and qualitative methods provided a means of cross-verifying the findings, thereby enhancing the overall validity of the research. Potential limitations include the qualitative interpretation of textual data is inherently subjective and might be influenced by the researchers' perspectives. To mitigate these limitations, the analysis was conducted systematically, findings were corroborated through multiple data and literature review studies, as well as comprehensive mixed-method steps.

### 3. RESULT AND DISCUSSION

#### Results

##### Keyword Corpus Identification Results

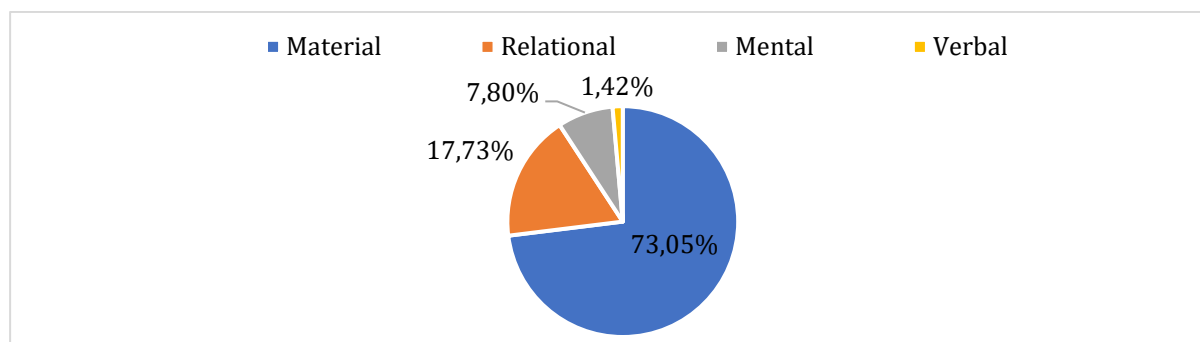
The total number of clause data identified based on the five environmental keywords was 141. The identification conducted on the source corpus shows that among the five keywords, the word *lingkungan* (environment) is the most commonly found in the clauses. In order, the highest number of keywords found were *lingkungan* (environment), *ekosistem* (ecosystem), *alam* (nature), *hayati* (biodiversity), and *habitat* (habitat). Keywords that have changed lexical meaning in the institution/ministry name phrase and position name phrases are not included in the count. Concordances containing all five environment-related keywords in 141 clauses became the main data in this study. Table 1 shows the number of corpus counts related to the fifth key lexes in the clauses of PBI documents.

Table 1. Frequency of the Number of Environment-related Keywords in the PBI Document

No	Keywords	N
1	<i>Lingkungan</i> (environment)	80

2	<i>Alam</i> (nature)	19
3	<i>Ekosistem</i> (ecosystem)	30
4	<i>Habitat</i> (habitat)	3
5	<i>Hayati</i> (biodiversity)	9
<b>Total</b>		<b>141</b>

The keyword *lingkungan* (environment) was the most common in the PBI document with 80 lexes, *alam* (nature) with 19 lexes, *ekosistem* (ecosystem) with 30 lexes, *habitat* (habitat) with three lexes, and *hayati* (biodiversity) with nine lexes. All clauses containing these five keywords were identified based on their transitivity aspects. Identifying transitivity refers to six types of processes: material, behavioral, mental, verbal, relational, and existential. Based on the identification, the authors found four types of processes in clauses related to the environment in the PBI document. The four processes are material, relational, mental, and verbal. Most of the process types in PBI documents are dominated by material processes, with a percentage of 73.05%. In addition, other processes in PBI documents are the relational process 17.73%, the mental process 7.80%, and the minor verbal process 1.42%. The percentage of the four types of process in the clauses of PBI text documents is shown in Figure 2.



**Figure 2.** Percentage of Process Types in the Concordances of Environment-related Lexes in PBI Documents

Based on the identification results, the authors did not find the types of behavioral processes and existential processes. The behavioral process deals with psychological and physiological processes simultaneously, while the existential process deals with the existence of an entity (Ali, 2019). There is one participant in behavioral processes who acts as a behavior, which always refers to a conscious entity, while in the existential process, there is also one participant: the existent. According to (Eggins, 2004), the existential process in English can be determined by the use of the word *there* which fills the subject function, while in Indonesian, the existential process can be known by the use of the words *ada*, *terdapat*, and *muncul* (Wiratno, 2018). The absence of behavioral and existential processes in clauses related to environmental keywords in the text of PBI documents is predictable. The absence of behavioral and existential is related to the distinction between the primary and subsidiary processes in the transitivity system.

Primary processes (material, mental, and relational processes) are the main process types that generally dominate clauses. Instead, subsidiary processes (verbal, behavioral, and existential) are seen as intermittent categories encompassing the meaning of numerous principal processes (Halliday & Matthiessen, 2014). Therefore, using verb words categorized as verbal, behavioral, and existential processes tends to be less than the other three process types in the text. As the least found process in the text, the verbal process relates to the process of proclamation or performative expression in PBI documents. Furthermore, the verbal process involves conveying information that projects a clause to express a proposition (Gwilliams & Fontaine, 2015). According to (Wiratno, 2018), using process verbal clauses in Bahasa Indonesia commonly fills the function of showing notification or proclamation. Therefore, the process verbal type is generally used in texts that contain performative utterances accompanied by an action or deed to realize something stated in the text.

### Process System in Clauses

Clauses with material processes are the most commonly found in the concordance of keywords related to the environment. 73.05% of clauses related to environmental keywords use the material process

type. The material process generally shows the process of doing something and representing a specific event and action (Halliday & Matthiessen, 2014). The material process shows two main actions, namely the process of doing and the process of happening, both realized with word verbs that show physical activity (Wiratno, 2018). There are at least two types of participants in the material process in the PBI document: the actor and the goal. Instead, the clauses of the material process do not ultimately present the actor participants but tend to disguise the actors in the text. The obscurity is realized by making passive sentences and nominalization. For instance, the following are examples of the material process clauses related to environmental keywords.

- (1) "||| ① *Pelaksanaan penelitian dan pengembangan serta difusi inovasi dalam mendorong peningkatan adopsi produk teknologi* || ② *yang dapat membantu menjaga kualitas lingkungan hidup serta mengurangi potensi risiko dan dampak perubahan iklim*" (Kementerian PPN/Bappenas, 2021b: 11).  
(Conducting research and development as well as diffusion of innovation to encourage the adoption of technology that helps to maintain **environmental** quality and reduce the potential risks and impacts of climate change).
- (2) "||| ① *Melalui program peningkatan kapasitas, masyarakat terutama petani dapat berlatih untuk mengelola sumber daya fisik, sosial, ekonomi, budaya, dan lingkungan* || ② *yang dimilikinya untuk dipergunakan dalam peningkatan produksi pertanian*" (Kementerian PPN/Bappenas, 2021c: 56).  
(Through capacity building programs, communities, especially farmers, are given the opportunity to practice managing their physical, social, economic, cultural, and **environmental** resources that were used in increasing agricultural production).
- (3) "||| ① *Burung-burung air akan lestari* || ② *apabila habitat dan ekosistem mereka terjaga dan terlindungi dengan baik*" (Kementerian PPN/Bappenas, 2021e: 41).  
(Water birds will be sustainable if their habitats and ecosystems are well preserved and protected).

The authors identify complex clauses, as (Zheng, 2021) did, by dividing clauses into two main categories: ranking clauses and embedded clauses. The ||| sign indicates the ranking clause, while the || sign indicates the embedded clause. The number symbol in the circle indicates the number of clauses. In this study, the authors include ranking clauses and embedded clauses in the analysis as long as the clause contains environmental keywords. The analysis does not include other clauses that do not use environmental keywords. In examples (1), (2), and (3), the lexes *lingkungan* (environment), *habitat* (habitat), and *ekosistem* (ecosystem) are realized as non-actor participants. This realization shows that environment-related keywords tend to be passive because other participants dominate the actor role in the clauses. This similar pattern also happens in other clauses in the PBI document text. The actor role in the clauses is dominated by humans or participants who refer to human entities such as human professionals, government, ministries, non-governmental organizations, and business institutions. For instance, the participants who act as actors in example (2) clause ① are expressed directly in the phrase, "... masyarakat terutama petani ..." (communities, especially farmers).

The clause in example (1) uses nominalization by using the words *pelaksanaan* (conducting) and *pengembangan* (development) to fill the subject function of the clause. In Bahasa Indonesia, the word *pelaksanaan* (conducting) is a nominalization process of the verb *laksana* (conduct), while the word *pengembangan* (development) is a nominalization process of the verb *kembang* (grow). The words *laksana* (conduct) and *kembang* (grow) are verbs that change to nouns through the affixation process of the prefix {pe-} and suffix {-an} so that they become *pelaksanaan* (conducting) and *pengembangan* (development). In this regard, nominalization forming is a grammatical metaphor essential to scientific discourse (Martin, 1992; Wiratno, 2018). In order to disguise the participants who act as actors in the clause, the nominalization process also intends to condense the information in the clause.

Unlike the clause in example (1), the actor obscuring in example (3) is made through passive clauses. The verbs *terjaga* (maintained) and *terlindungi* (protected) are passive verb forms of the verbs *jaga* (maintain) and *lindung* (protect). In general, the formation of passive verbs in Bahasa Indonesia can be identified by adding the prefix {di-} and {ter-}. In example (3), the formation of passive verbs is formed through the affixation process {ter-} so that the verbs *jaga* (maintain) to *terjaga* {was maintained} and *lindung* (protect) to *terlindungi* (was protected). In the material process clauses of the document, participants who have roles as actors have active control to do something, while the other participant (the goal) is controlled and threatened. These actors in clauses dominantly refer to humans, human occupations, or human institutions. Therefore, the environment-related keywords fill the function of passive participants on nominalization and passive clauses. In the passive clause structure, the subject of the clause no longer functions as an actor but instead, the subject of the clause acts as a goal (Eggins, 2004). Passive clauses in

the text are generally incompletely structured using the preposition *oleh* (by) so that the actor performing the process in the clause is missing. Nominalisation of clauses also has similar consequences to the use of passive clauses related to the omission of actors in the clause. Material process clauses that use nominalisation pack more lexical content into a single subject, which results in a greater capacity for elaboration, they increase the lexical density of the clause (Hartnett, 1998). The subject in nominalised clauses acts as a goal, thus obscuring the role of the actor participant who performs a process. Predicates using nominalisation and passive clauses are the most common in PBI document clauses containing environment-related keywords. Material process clauses in PBI documents disguise the actor participants by nominalizing and creating passive clauses. The relational process is the second most common category in PBI documents related to environmental keywords. Based on the authors' identification, 17.73% of environmental clauses in the text are relational process categories. A relational process states that something exists concerning something else as an attribute or identity (Eggins, 2004). The possessive clause is one of the dominant relational process clauses in the PBI document. In these clauses, verbs such as *memiliki* (have), *mempunyai* (have), and *terkait* (relates) are some verbs of relational process in Bahasa Indonesia. The following examples show clauses containing a relational process of possessive type in the text.

- (4) “||| ① Masyarakat yang memiliki pengetahuan terkait **ekosistem** pesisir dan laut dangkal” (Kementerian PPN/Bappenas, 2021a: 32).  
(Communities who have knowledge of coastal and shallow water **ecosystems**).
- (5) “||| ① Penduduk usia pelajar yang memiliki pengetahuan tentang dampak perubahan iklim bagi kesehatan dan **lingkungan**” (Kementerian PPN/Bappenas, 2021a: 67).  
(Student-age citizens who have knowledge of the impacts of climate change on health and the environment).

Relational process clauses of the possessive type have two participants: an agent that owns something (possessor) and something that is owned (possessed). In the PBI document, participants with the role of possessor in clauses refer to human entities such as people, residents, and communities. For instance, the possessor in example (4) is *masyarakat* (community), while the possessor in example (4) is *penduduk usia pelajar* (student-age population). Both possessors refer to a similar semantic relation, human entities. Since human entities' role as possessors, environmental keywords are part of the possessed participant. *Ekosistem* (ecosystem) lexis in example (4) in the phrase “**ekosistem pesisir dan laut dangkal**” (coastal and shallow water **ecosystems**) is the value of possession to the participant (possessor) of *masyarakat* (community).

Moreover, *lingkungan* (environment) lexis in example (5) in the phrase “... tentang dampak perubahan iklim bagi kesehatan dan **lingkungan**” (the impacts of climate change on health and the **environment**) is a possession circumstantial to the possessor of *penduduk usia pelajar* (student-age citizen). Referring to (Wiratno, 2018), the relational process that shows ownership between the possessor and carrier towards the possessed or attribute is called the relational process of belonging. The patterns of the possessor and possessed contents in PBI document clauses refer to the relationship between humans (possessors) and phrases containing environmental keywords (possessed). Clauses containing relational processes in the text refer to the relationship between humans as owners and environmental lexis as possessions. Therefore, the relationship between humans and the environment in the text represents a relationship of ownership or possession.

The concordance of environmental keywords using mental processes in PBI documents is 7.80% of the total number of keyword clauses related to the environment in the text. Clauses that use mental processes represent participants' internal experiences of the world (Halliday & Matthiessen, 2014). (Eggins, 2004) divides mental process verbs into three main categories, namely, cognition (verbs of thinking, knowing, and understanding); affect (verbs of liking, fearing, etc); and perception (verbs of seeing, hearing, etc). The role of participants in clauses using mental processes is divided into two categories: the senser and the phenomenon. The following examples are mental process clauses in the PBI document related to environmental lexis.

- (6) “||| ① Menyebarkan, memajukan dan melembagakan prinsip-prinsip kebaikan dan pemerintahan yang bersih antara pemerintah, masyarakat sipil dan bisnis, || ② sambil mempertimbangkan hak asasi manusia, keseimbangan gender, terpinggirkan dan ketahanan **lingkungan**” (Kementerian PPN/Bappenas, 2021e: 24).  
(To disseminate, promote, and institutionalize the principles of good and clean governance between the government, civil societies, and businesses while taking into account human rights, balancing gender, marginalization, and **environmental** resilience).



- (7) “||| ① *Rare menginspirasi perubahan sosial dan lingkungan*” (Kementerian PPN/Bappenas, 2021e: 33).  
(Rare inspires social and **environmental** change).

Participants with senser roles in the text mainly refer to humans or human-related entities. For instance, sensers in the mental process associated with environmental keywords include the government, the community, business institutions, and community organizations. By identifying the correlation between previous clauses, the senser in example (6) is *kemitraan*, a nonprofit organization based in DKI Jakarta (Ministry of PPN/Bappenas, 2021e). Moreover, the senser in example (7) is *rare Indonesia*, a social and environmental organization in Bogor, West Java (Ministry of PPN/Bappenas, 2021e). Another participant in the mental process is a phenomenon. In examples (6) and (7), environmental lexes are part of the mental process of participants that fill the function as a phenomenon. In these clauses, the environmental lexes are a factual phenomenon because they are related to the process of cognition. In general, environmental keywords in mental process clauses of the PBI document are the phenomenon, while the senser is dominated by human entities. Referring to (Eggins's, 2004) three categorizations of mental processes, the verb words used in the PBI document refer to mental processes that focus on human cognition. This finding shows that the text is dominated by humans as the main participants who recognize, realize, and perceive the environment.

The verbal process type is the last and minor category in the PBI document related to environmental lexes. The authors find two clauses (1.5%) that use verbal processes related to the keywords in the text. The verbal process in Bahasa Indonesia relates to the reporting clause or proclamation, which consists of at least two participants, a sayer, and verbiage (Wiratno, 2018). Sayer is a participant who is responsible for the verbal process carried out. The sayer does not have to refer to humans but can be objects or something symbolic (Martin et al., 2010). Another participant in the verbal process is verbiage, defined by (Eggins, 2004, p. 235) as “a nominalized statement of the verbal process: a noun expressing some kind of verbal behavior.” In some exceptions, verbal process clauses can be expanded with one other participant, the receiver. The receiver in the verbal process is similar to the goal in the material process; the receiver is the participant who receives verbiage from the sayer. The following clauses are two examples of verbal processes related to environmental lexes in the PBI document.

- (8) “||| ① *IFRC adalah organisasi kemanusiaan global* || ② *yang mengkoordinasikan dan mengarahkan bantuan internasional setelah bencana alam dan non-alam dalam situasi non-konflik*” (Kementerian PPN/Bappenas, 2021e: 22).  
(IFRC is a global humanitarian organization that coordinates and directs international assistance after **natural** and non-**natural** disasters in non-conflict situations).
- (9) “||| ① *Wetlands berupaya untuk mempromosikan akan pentingnya lahan basah, kerugian dan kerusakan lahan basah, serta keanekaragaman hayatinya*” (Kementerian PPN/Bappenas, 2021e: 41).  
(Wetlands seek to promote the importance of wetlands, the loss and degradation of wetlands, and their **biodiversity**).

The verb words *mengarahkan* (direct) and *berupaya untuk mempromosikan* (seeks to promote) in example (8) and (9) are the verbal process-type verbs. In the context of these sentences, the verb words *mengarahkan* (direct) and *berupaya untuk mempromosikan* (seeks to promote) refer to the meaning of performative speech. A performative utterance is a speech act whose implementation makes something stated materialize, usually done by a party with a specific authority (Wijana, 2019). According to (Gwilliams and Fontaine, 2015), using verbs in clauses that fill the performative meaning can be a verbal process. Therefore, all three verbs in example clauses (8) and (9) are verbal process-type verbs. In example (8), *IFRC* (*International Federation of Red Cross and Red Crescent Societies*) in clause ① is the sayer, while the phrase “*bantuan internasional*” (international aid) in clause ② is the verbiage. The lexis *alam* (nature) in the phrase “... *setelah bencana alam dan non-alam dalam situasi non-konflik*” (... after **natural** and non-**natural** disasters in non-conflict situations) in clause ② fills the circumstance function. In example (9), *Westland* is the sayer of the clause and the verbiage is the phrase “... *pentingnya lahan basah, kerugian dan kerusakan lahan basah, serta keanekaragaman hayatinya*.” (... the importance of wetlands, the loss and degradation of wetlands, and their **biodiversity**). Like previous clause patterns, environment-related keywords do not have key participant roles. The word *alam* (nature) in example (8), *hayati* (biodiversity) in example (9), and other environment-related keywords in various process types tend to fill the function of a passive participant or fill the *circumstances* function in the text. The distribution of process types, patterns of predicative words, and participants in clauses show linguistic features that illustrate the transitivity

patterns. As identified in the previous process types, the participants that fill the active role are dominated by human entities while phrases containing environmental keywords have passive roles. Participants that fill active roles such as actor in material processes, carrier acting as the owner (possessor) in relational processes, sayer in mental processes, and sayers in verbal processes are dominated by participants that refer to human entities. Moreover, complementary or passive participants such as a goal in material processes, an attribute referring to something possessed in relational processes, and a phenomenon in mental processes are dominated by categories of words, phrases, or circumstances containing environmental keywords.

## Discussion

### Representation of Human Dominance

The previous identification of transitivity shows that four process types were found in clauses containing five environment-related keywords. These four process types are material process type (73.05%), relational process type (17.73%), mental process type (7.80%), and verbal process type (1.42%). Thus, the transitivity patterns in the clauses of PBI documents related to environmental topics show that most of the clauses are filled with material process types. The distribution of agentive participants tends to refer to human entities such as human professionals, government institutions, non-governmental organisations, and business institutions. Meanwhile, environmental keywords tend to fill the role in circumstantial phrases or as participants that do not have agentive properties such as goal, attribute, phenomenon, and verbiage. Moreover, material process as a type of process that dominates clauses is found in many nominalisation constructions and passive verbs. The high number of agentive properties referring to human entities, the tendency of passive and circumstantial participants filled with environmental keywords, nominalisation constructions, and passive verbs in material process clauses, are patterns of text transitivity that refer to the depiction of human dominance over other entities in the environment. Transitivity patterns of human dominance tendency over the environment are also found in previous ecological discourse studies such as the transitivity analysis on Arab Media (Mohammed, 2023), the G20 leaders' declarations (Almaghlouth, 2022), the speech of an environmental activist (Mansyur et al., 2022), the Cameroonian English newspaper (Acha, 2022), and the History document of SDGs (Furnaz, 2023). Indeed, among the six process types, the material process is the most dominating process type in clauses in various types of discourse. In the transitivity system, material processes are instrumental in encoding how participants act and describing what happens objectively (Zheng, 2021). Therefore, the use of material processes related to environmental keywords in the PBI document represents humans' depiction of the environment in the discourse of climate governance. Humans in the PBI document's climate governance discourse are portrayed as the central entity with the most power. The high material processes in discourses related to environmental topics show a similar trend. For example, the pattern of material processes in (Almaghlouth's, 2022) research denotes the level of power of an agent.

Different from the material process, a relational process in the clauses aims to create a connected explanation, characterization, or definition related to environmental topics in the text. The relational process of the possessive type is the most dominant, showing the relation of ownership or control. The possessor participants in the possessive relational process found in the clauses of PBI documents mainly refer to humans or institutions that refer to human entities. These lingual patterns differ from the language characteristics of ecological discourse orientated towards complete environmental preservation. In the discourse that refers to the ecosophical values of environmental preservation, the distribution of agents in the possessive relational process also refers to non-human entities (Fan, 2023) and the high number of environmental entities that fill the role of carrier participants in the relational process (Mansyur, 2021). In addition to material and relational processes, there are two other processes related to the environmental keywords, although neither of them dominates the transitivity system of the text: mental and verbal processes. Both processes show how participants perceive and proclaim environmental topics in the PBI document. The dominance of human entities and human institutions as sensory participants in the mental process indicates a one-way viewpoint originating from humans. Therefore, the perspective of depicting the environment and nature in PBI documents is anthropocentric. This shows that the reality of nature and environment in the climate governance discourse of PBI documents is depicted through an internal human perspective. Such a depiction of reality creates a mental model of the world where humans are exceptional, unique, separate from, and superior to the surrounding environment (Stibbe, 2021). In addition, verbal process clauses in PBI documents also show agentive patterns similar to other process types. The environment keywords in the verbal process of PBI documents do not have the role of active participants and thus do not have critical roles. The series of textual patterns, process types, and participants that coalesce into a transitivity system in PBI documents show the experiential meaning of how policymakers

perceive and experience the environment in climate governance. The use of verb words in process types tends to the dominance of the human entity of the environment in the text.

The representation of human domination is also shown through the blurring of humans as actors in the material process clauses. The obscuring of actors in clauses is shown through the repetitive use of nominalization and passive clauses. Nominalization generally obscures the actor participants through the formation of nouns that are derived from other word categories. Nominalization can remove the agent in the clause, obscure causality, or remove the process's time, providing distance between reality and the events described (Halliday & Martin, 1993). Nominalization is common in scientific texts, and it obscures participants' roles. In this regard, nominalization has consequences similar to the repetition of passive clauses in Bahasa Indonesia. Thus, the obscuring actors refer to the concealment of agents to cover up the blame for ecological damage (Stibbe, 2021). The obscuring actors through nominalization in ecological discourse studies are also found in the concordance analysis of the word *al-bi'ah* (environment) in Arab media (Mohammed, 2023), and nominalization of biosphere eroding actions in Cameroon media coverage (Acha, 2022). In mainstream ecological discourses, nominalization is a typical lingual pattern. Instead, nominalization in discourse can be a powerful tool of actor obscuration. (Fairclough, 2003) exemplifies this through the nominalization of the word "destruction," which results in the omission of the true meaning of "people destroy things." Changing verbs to nouns through nominalization in ecological discourses, such as in the environmental issue of PBI documents, can obscure the responsibility of participants as actors responsible for specific activities towards the environment. In addition to the form of nominalization, the structure of passive sentences in clauses can also lead to the same consequences as nominalization.

Passive sentences in ecological discourse can be a lingual tool for omitting active participants in the clause. Not only changing the syntactic position of a word's function, passive clauses can eliminate other word categories as clause participants. Like nominalization, passive clauses can reduce, obscure, or omit participants who act as actors. (Stibbe, 2021) states that language structure patterns through passive clause generation and nominalization in environmental discourse are lingual features that can reveal nontextual aspects. These nominalization and passive clauses occur in the material process, including environmental keywords in the PBI document. In material process clauses, transitive verbs with more than one participant are changed to one participant. The consistency of nominalization and passive clauses in the material process emphasizes the experiential metafunction of the text, especially concerning the meaning of reality on environmental topics. By obscuring human participants in the text, humans are shown as environmental entities that separate themselves from the environment because they have manipulative power over the environment.

The use of process types, participant patterns, nominalization, and passive clauses in the PBI document represent lingual features that refer to human dominance over the environment. Linguistic features in the PBI document related to climate governance discourse still perpetuate the hierarchy of human power over nature. The lingual characteristics in the transitivity system are a pattern of stylistic features of the text (Zheng, 2021), so the repetition patterns of process types, participants, nominalization, and passive clauses are stylistic features of climate governance discourse in the PBI document. These stylistic features refer to the world experience between humans and nature, humans and society, and between entities related to nature and society (Cheng, 2022). Referring to the ecosophical values of '*Living!*' (Stibbe, 2021), the stylistic features in the PBI document represent ambivalent ecological discourse. In (Stibbe's, 2021) categorization of ecological discourse, there are generally three types of ecological discourse: destructive discourses, ambivalent discourses, and beneficial discourses.

Destructive discourses center on humans as the primary entity of nature and are not in line with ecosophical values oriented towards environmental sustainability. The PBI document is not a destructive discourse because it is oriented towards environmental sustainability, although it still reflects anthropocentric values. Destructive discourses that do not favor environmental sustainability are found in economic discourses that promote economic consumption for satisfaction (Chawla, 2001). In contrast to destructive discourses, beneficial ecological discourses are in line with ecosophical values that promote environmental sustainability, such as the '*Living!*' (Stibbe, 2021) ecosophical values. Instead of representing anthropocentric values, beneficial discourses are ecological discourses that reflect ecocentrism values. In this case, PBI documents have yet to reflect its complete alignment with environmental sustainability. This is shown in the previous transitivity system analysis, which still highly represents human domination over the environment. This is not entirely in line with the values of the '*Living!*' (Stibbe, 2021) ecosophy. Therefore, the discourse of climate governance in PBI documents related to the environment cannot be categorized as beneficial ecological discourse. Beneficial discourse represents humans and the environment in a balanced and harmonious manner, for example, found in ecological discourses in Wordsworth's literary works (Goatly, 2000), natural preservation in Javanese folklore (Indratmo et al., 2020), and the depiction of human and environmental harmony in the concept of *satoyama* (Knight, 2010).

Meanwhile, ambivalent discourses, such as the PBI document's climate governance discourse, have destructive and beneficial discourse characteristics. Ambivalent discourse in ecolinguistic studies focuses on conservation ecology and environmental sustainability, although it still needs to be solved (Stibbe, 2021). The ambivalent discourse in PBI documents relates to promoting environmental sustainability in climate governance, but the lingual patterns still reflect anthropocentric values. The climate governance discourse in PBI documents has positive goals related to handling the climate crisis and environmental conservation, but its lingual stylistic features still represent human dominance over the environment. In this regard, (Stibbe, 2021) states that the influence of anthropocentric values in ambivalent discourse is generally related to political or commercial interests. Previous discourse studies on ecological issues also found an ambivalent discourse orientated toward human interests. The environment was depicted as a commercialized participant for specific interests, such as the politicization of environmental rescue issues in the Arab media (Mohammed, 2023), the domination and destructive cultural discourse towards the environment by mining companies (Poole, 2016), and the depiction of the relationship between humans and nature in zoos (Milstein, 2009). The ecological discourse in these studies still represents human interests through lingual patterns. The climate governance policy document promotes environmental sustainability through a dominant anthropocentric perspective. As one of the climate policy documents in Indonesia, the document at least provides an overview of the ideational aspects related to environmental issues of policymakers in addressing the climate crisis in the Indonesian region. Like mainstream ecological discourses based on the 'Living!' (Stibbe, 2021) ecosophy, the PBI document shows ambivalent lingual features.

The ambivalent discourse in the PBI document is shown through the lingual stylistic features expressing world experience on environmental topics. Humans exclusively represent themselves dominantly to the environment through their stylistically linguistic expressions to overcome environmental problems. In this regard, human dominance representations over the environment in the textual patterns of climate governance documents may hinder the inclusive promotion of ecological sustainability. According to (Gupta, 2016), efforts to address the current climate crisis do not only focus on efforts to address economic, political, social, and intergovernmental problems. Furthermore, the paradigm of efforts to address the current climate crisis also needs to consider systemic problems or the impacts of fundamental ecological ideologies (Gupta, 2016; Stibbe, 2021). These problems are more subtle and implicitly often not realized by language users. Therefore, it is necessary to promote ecological awareness through the disclosure of implicit meanings contained in important discourses around us. This is in line with the discourse paradigm according to (Hajer, 1997) that ideas, concepts, and assumptions that develop in society are interdependent on physical and social practices. The language awareness dissemination that is based on ecocentric awareness will reinforce a more holistic handling of the climate crisis. As part of efforts to address the climate crisis fundamentally, more balanced and ecocentric language is needed in the ambivalent discourses. By referring to ecocentric values, ambivalent discourses will have a solid foundation to prioritise all living beings and ecosystems. Instead of focusing solely on human benefits, climate governance policies need a more inclusive view that recognises the interconnectedness of all life forms. In the ecosophical paradigm that favours environmental sustainability, ecological problems are caused by the strong influence of anthropocentrism values in the discourses of modern society (Stibbe, 2021). Therefore, ecological discourses that are strongly rooted in ecocentrism values need to be highlighted in environmental discourses, especially in climate governance policy documents that have political power and social influences.

#### 4. CONCLUSION

The stylistic features of the text represent the perpetuation of human superiority over the environment, which is realized through the transitivity system. This transitivity analysis highlights a linguistic trend where human dominance is emphasised through active roles, obscuring practical responsibility for the environment, and environmental entities are often sidelined into passive participants and circumstantial roles. The material processes as the most common process type in clauses show a pattern of using predicates through nominalisation and passive verb constructions. These two constructions in ecological discourses are considered to obscure humanity's practical responsibility for certain actions aimed at the environment. Moreover, the verbs used in clausal process types represent the environment as a helpless entity that needs to be managed, controlled, owned, protected, and preserved. In this regard, humans are shown as actors needed to protect the environment with their role of authority as participants who play an active role in the clause. The research analysis indicates that the discourse of climate governance in PBI documents in an ecosophical perspective 'Living!' (Stibbe, 2021) refers to an ambivalent ecological discourse. Referring to the ecosophy of *Living!* (Stibbe, 2021), excessive

anthropocentrism in ecological discourses has been criticised for providing unsustainable environmental stories. The PBI document has climate governance objectives that need to be supported, but its language still represents anthropocentric values. The use of environmentally friendly language will strengthen efforts to address climate change more comprehensively. This paper enriches ecolinguistic studies related to environmental issues, especially in the discourse of climate governance in the Indonesian region. The PBI document is a reference for Indonesia's climate governance policy, which is urgently needed to handle the broader climate crisis. Therefore, an ecolinguistic analysis that refers to the whole environmental conservation philosophy in the document can promote a more environmentally friendly discourse. The study's findings can prompt further research into the language of ecological discourse across different regions and sectors based on an ecolinguistic approach, leading to a more comprehensive understanding of global environmental governance.

## 5. REFERENCES

- Acha, W. A. (2022). An Ecocritical Discourse Analysis of Anthropocentrism in the Cameroon Press. *International Journal of Humanity Studies (IJHS)*, 5(2), 120–140. <https://doi.org/10.24071/ijhs.v5i2.4202>
- Afidah, R. L. N., Suyitno, S., & Suhita, R. (2022). Ecological Balance in the Metaphor of the Novel-Partikel by Dewi Lestari (Eco-linguistic Study). *International Journal of English Literature and Social Sciences*, 7(1), 15–18. <https://doi.org/10.22161/ijels.71.4>
- Ali, J. H. M. (2019). Ecolinguistics and Systemic Functional Linguistics (SFL): Transitivity in 'Climate Change in Egypt' by Ali Masria. *Beni-Suef University International Journal of Humanities and Social Sciences*, 1(1), 9–38. <https://doi.org/10.21608/buijhs.2019.91308>
- Al-Maashani, F. (2023). A Corpus-based Analysis of King Charles's Inaugural Speech from the Perspective of Transitivity. *Canadian Journal of Language and Literature Studies*, 3(4), 17–30. <https://doi.org/10.53103/cjlls.v3i4.102>
- Almaghlouth, S. (2022). Deconstructing Agency in the G20 Leaders' Declarations in the Last Decade: A Corpus-assisted Discourse Study. *Heliyon*, 8(12), 1–12. <https://doi.org/10.1016/j.heliyon.2022.e12439>
- Alraimi, L. M., & Abdalla, A. Y. (2019). Realization of Authorial Ideations & Purposes through Transitivity Analysis of Media Texts Written by Native and Non-Native Writers of English: A SFG Perspective. *Arab World English Journal*, 10(1), 190–208. <https://dx.doi.org/10.24093/awej/vol10no1.17>
- Chawla, S. (2001). Linguistic and Philosophical Roots of Our Environmental Crisis. In A. Fill & P. Muhlhausler (Eds.), *Ecolinguistics Reader: Language, Ecology and Environment* (pp. 109–114). Continuum.
- Cheng, M. (2022). Theoretical Framework for Ecological Discourse Analysis: A Summary of New Developments of Ecological Discourse Analysis. *Journal of World Languages*, 8(1), 188–226. <https://doi.org/10.1515/jwl-2021-0030>
- Creswell, J. (2009). *Research Design*. Sage Publication Inc.
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and Conducting Mixed Methods Research*. SAGE Publications.
- Eggs, S. (2004). *An Introduction to Systemic Functional Linguistics* (2nd ed.). Continuum International Publishing Group.
- Fairclough, N. (2003). *Analysing Discourse: Textual Analysis for Social Research*. Routledge.
- Fan, N. (2023). An Ecological Discourse Analysis of Faulkner's The Bear from the Perspective of Transitivity System. *Academic Journal of Humanities & Social Sciences*, 6(2), 48–52. <https://doi.org/10.25236/AJHSS.2023.060209>
- Furnaz, R. (2023). Transitivity Analysis of the Sustainable Development Goals (SDGs) of United Nations (UN). *UCP Journal of Languages & Literature*, 1(1), 43–73. <http://58.27.199.232/index.php/ucpjll/article/view/210>
- Ginting, P., Algae, G., Hasnah, Y., Saragih, M., & Kharisma, A. (2024). The Embodiment of Environmental Discourse in Language Learning: A Critical Ecolinguistic Study of EFL Textbooks in Indonesia. 175–145, (1)15. <https://doi.org/10.29252/LRR.15.1.6>
- Goatly, A. (2000). *Critical Reading and Writing: An Introductory Coursebook*. Routledge.
- Gupta, J. (2010). A History of International Climate Change Policy. *WIREs Climate Change*, 1(5), 636–653. <https://doi.org/10.1002/wcc.67>
- Gupta, J. (2016). Climate Change Governance: History, Future, and Triple-Loop Learning? *WIREs Climate Change*, 7(2), 192–210. <https://doi.org/10.1002/wcc.388>
- Gwilliams, L., & Fontaine, L. (2015). Indeterminacy in Process Type Classification. *Functional Linguistics*, 2(1), 1–19. <https://doi.org/10.1186/s40554-015-0021-x>

- Hajer, M. A. (1997). *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford University Press.
- Halliday, M. A. K., & Martin, J. R. (1993). *Writing Science: Literacy and Discursive Power*. The Falmer Press.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's Introduction to Functional Grammar* (4th ed.). Routledge.
- Hartnett, C. G. (1998). *English Nominalization Paradoxes* (pp. 1–20). Arizona State University. <https://eric.ed.gov/?id=ED426411>
- Indratmo, A., Sundari, S., & Adi, P. (2020, June 18). Javanese Traditional Community of Natural Preservation in the Central Java Stories. *The International Seminar on Recent Language, Literature, and Local Culture Studies "Kajian Mutakhir Bahasa, Sastra, Dan Budaya Daerah (BASA)"*. <http://dx.doi.org/10.4108/eai.20-9-2019.2296870>
- Kementerian PPN/Bappenas. (2021a). *Daftar Lokasi & Aksi Ketahanan Iklim*. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. <https://lcdi-indonesia.id/dokumenpublikasipembangunanberketahananiklim/>
- Kementerian PPN/Bappenas. (2021b). *Kelembagaan untuk Ketahanan Iklim*. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. <https://lcdi-indonesia.id/dokumenpublikasipembangunanberketahananiklim/>
- Kementerian PPN/Bappenas. (2021c). *Pemantauan, Evaluasi, & Pelaporan Aksi Ketahanan Iklim dalam Kerangka Perencanaan Pembangunan Nasional*. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. <https://lcdi-indonesia.id/dokumenpublikasipembangunanberketahananiklim/>
- Kementerian PPN/Bappenas. (2021d). *Pendanaan Ketahanan Iklim*. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. <https://lcdi-indonesia.id/dokumenpublikasipembangunanberketahananiklim/>
- Kementerian PPN/Bappenas. (2021e). *Peran Lembaga Non-Pemerintah dalam Ketahanan Iklim*. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. <https://lcdi-indonesia.id/dokumenpublikasipembangunanberketahananiklim/>
- Kementerian PPN/Bappenas. (2021f). *Ringkasan Eksekutif Kebijakan Pembangunan Berketahanan Iklim (Climate Resilience Development Policy) 2020-2045*. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. <https://lcdi-indonesia.id/dokumenpublikasipembangunanberketahananiklim/>
- Knight, C. (2010). The Discourse of "Encultured Nature" in Japan: The Concept of Satoyama and Its Role in 21st-Century Nature Conservation. *Asian Studies Review*, 34(4), 421–441. <https://doi.org/10.1080/10357823.2010.527920>
- Leipold, S., Feindt, P. H., Winkel, G., & Keller, R. (2019). Discourse Analysis of Environmental Policy Revisited: Traditions, Trends, Perspectives. *Journal of Environmental Policy & Planning*, 21(5), 445–463. <https://doi.org/10.1080/1523908X.2019.1660462>
- Mansyur, S. A. (2021). *Representasi Isu Perubahan Iklim dalam Pidato Aktivistis Remaja: Analisis Wacana Ekokritis* [Masters, Universitas Pendidikan Indonesia]. <http://repository.upi.edu>
- Mansyur, S. A., Gunawan, W., & Isnendes, R. (2022). Human Representation on Environmental Speech in Terms of Transitivity Process. *SAGA: Journal of English Language Teaching and Applied Linguistics*, 3(1), 27–40. <https://doi.org/10.21460/saga.2022.31.117>
- Martin, J. R. (1992). *English Text: System and Structure*. In Z.59. John Benjamins Publishing Company.
- Martin, J. R., Matthiessen, C. M. I. M., & Painter, C. (2010). *Deploying Functional Grammar*. The Commercial Press.
- Milstein, T. (2009). "Somethin' Tells Me It's All Happening at the Zoo": Discourse, Power, and Conservationism. *Environmental Communication*, 3(1), 25–48. <https://doi.org/10.1080/17524030802674174>
- Mohammed, T. A. S. (2023). From Eco-Jihad to Politicization: A Corpus-based Eco-linguistic Discourse Analysis of the Arab Media Coverage of the Safer Floating Oil Tanker. *World Journal of English Language*, 13(2), 127–140. <https://doi.org/10.5430/wjel.v13n2p127>
- Mushtaq, M., Saleem, T., Afzal, S., & Saleem, A. (2021). A Corpus-based Ideational Meta-Functional Analysis of Pakistan Prime Minister Imran Khan's Speech at United Nations General Assembly. *Cogent Social Sciences*, 7(1), 1–17. <https://doi.org/10.1080/23311886.2020.1856999>
- Oreskes, N., Conway, E., Karoly, D. J., Gergis, J., Neu, U., & Pfister, C. (2018). The Denial of Global Warming. In S. White, C. Pfister, & F. Mauelshagen (Eds.), *The Palgrave Handbook of Climate History* (pp. 149–171). Palgrave Macmillan UK. [https://doi.org/10.1057/978-1-137-43020-5\\_14](https://doi.org/10.1057/978-1-137-43020-5_14)

- Poole, R. (2016). A Corpus-Aided Ecological Discourse Analysis of the Rosemont Copper Mine Debate of Arizona, USA. *Discourse & Communication*, 10(6), 576–595. <https://doi.org/10.1177/1750481316674775>
- Republik Indonesia. (2020). *Peraturan Presiden No. 18 Tahun 2020 tentang Rencana Pembangunan Jangka Menengah Nasional Tahun 2020-2024*. <https://jdih.bappenas.go.id/peraturan/detailperaturan/1037>
- Riyandi, S. W. (2022). Visual and Verbal Means to Attract Our Clicks: Multimodality in YouTube Thumbnails. *NOTION: Journal of Linguistics, Literature, and Culture*, 4(1), 54–62. <https://doi.org/10.12928/notion.v4i1.5773>
- Stibbe, A. (2021). *Ekolinguistik: Bahasa, Ekologi, dan Cerita-Cerita yang Kita Jalani* (Y. Syufi & H. Warami, Trans.; I). Pustaka Pelajar.
- Suhandano, S., Isti'annah, A., & Febrina, R. (2023). Contesting 'Growth' and 'Sustainability' in Indonesia's Capital city Relocation: A Corpus Ecolinguistic Study. *Theoretical and Applied Linguistics*, 9(3), 65–83. <https://doi.org/10.18413/2313-8912-2023-9-3-0-5>
- Wang, G., & Huan, C. (2023). Negotiating Climate Change in Public Discourse: Insights from Critical Discourse Studies. *Critical Discourse Studies*, 0(0), 1–13. <https://doi.org/10.1080/17405904.2023.2198725>
- White, S., Pfister, C., & Mauelshagen, F. (Eds.). (2018). *The Palgrave Handbook of Climate History*. Palgrave Macmillan UK.
- Wijana, I. D. P. (2019). *Pengantar Semantik Bahasa Indonesia* (3rd ed.). Program Studi Linguistik UGM dan Pustaka Pelajar.
- Wiratno, T. (2018). *Pengantar Ringkas Linguistik Sistemik Fungsional*. Pustaka Pelajar.
- Yuniawan, T., Rokhman, F., Rustono, & Mardikantoro, H. B. (2023). An Ecolinguistic Analysis of Conservation News Published by Mass Media in Indonesia. *Cogent Arts & Humanities*, 10(1), 1–15. <https://doi.org/10.1080/23311983.2023.2174519>
- Zheng, X. (2021). Transitivity Structure of Research Articles: Variations across Sections. *English Language Teaching*, 14(8), 8–18. <https://doi.org/10.5539/elt.v14n8p8>
- Zuo, X. (2019). An Ecological Discourse Analysis of the Report of the 19th National Congress of the Communist Party of China. *Theory and Practice in Language Studies*, 9(9), 1191–1197. <https://doi.org/10.17507/tpls.0909.16>