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# The digital battleground: A critical ecolinguistic analysis of online environmental discourses on the plastic waste crisis

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## ABSTRACT

**Background:** Efforts to address the plastic waste crisis in Indonesia over the past five years have shown limited effectiveness despite ambitious government programs. At the same time, digital media has emerged as a powerful platform for environmental campaigning, shaping public awareness and ecological values. This study examines how plastic waste discourses are constructed in policies, media, and environmental campaigns, and whether they promote destructive or beneficial ecological narratives. **Methods:** This research employs a qualitative approach using Fairclough's three-dimensional Critical Discourse Analysis (CDA) model—textual analysis, discursive practice, and sociocultural practice—combined with Stibbe's ecolinguistic concept of "stories we live by." Data consist of three purposively selected videos addressing plastic waste issues. The analysis focuses on linguistic, visual, and ideological elements to identify the types of ecological narratives constructed. **Findings:** The findings reveal varied representations of ecological discourse. Two videos promote beneficial stories that encourage ecological awareness and responsibility. In contrast, one video presents an ambivalent narrative, blending environmental messaging with commercial interests. The study demonstrates that digital media content functions not only as informational material but also as an ideological instrument shaping public perceptions of environmental problems. **Conclusion:** Ecological discourse in digital media plays a significant role in influencing environmental awareness and public attitudes. Effective plastic waste campaigns require narratives that consistently promote beneficial ecological values rather than mixed or commercially driven messages. Integrating critical discourse awareness into environmental communication strategies can enhance policy and campaign effectiveness. **Novelty/Originality of this article:** This study contributes to ecolinguistic scholarship by integrating Stibbe's "stories we live by" framework with Fairclough's CDA model to analyze ecological narratives in Indonesian digital media. It advances understanding of how environmental discourses are ideologically constructed in multimedia contexts and highlights the strategic role of narrative framing in strengthening environmental advocacy.

**KEYWORDS:** critical discourse analysis; ecolinguistics, environmental ideology; plastic waste discourse; sustainability.

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## 1. Introduction

Over the past five years, environmental issues related to the plastic waste crisis in Indonesia have yet to show significant progress. The ambitious program launched by President Joko Widodo in 2017 to achieve 100% waste management by 2025 has not been optimally realized. According to the plan, 70% of waste should be managed through sorting, collection, and conversion into raw materials or energy. In comparison, the remaining 30%

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should be reduced through recycling and source reduction (Santoso, 2025). A number of waste-to-energy or *Pembangkit Listrik Tenaga Sampah* (PLTSa) projects were planned in various cities such as Semarang, Makassar, Tangerang, Jakarta, Bandung, Surakarta, and Surabaya. Two years later, Jokowi issued Presidential Regulation No. 35 of 2018, which targets the construction of PLTSA in 12 cities as a follow-up step in accelerating the management of waste into energy (Mudofir et al., 2025; Putri & Puteri, 2024; Tamba et al., 2025).

However, the implementation achievements in the field are still far from the expected targets. The government's good intentions in realizing sustainable waste management have not been fully implemented due to various obstacles, particularly in technical, bureaucratic, and funding aspects. Of the total 12 Waste Power Plant (PLTSa) projects established in the national program, only two are currently operating commercially, namely PLTSa Putri Cempo in Surakarta and PLTSa Benowo in Surabaya (Tempo.co, 2025). Meanwhile, other projects are still in the construction, planning, or trial stages. This situation reflects a significant gap between national policy and its implementation at the regional level. Factors exacerbating this situation include weak inter-agency coordination, low community participation in waste sorting, and limited infrastructure and supporting technology to support an efficient and sustainable waste management system in Indonesia.

In Indonesia, national policies related to solid waste management have been established through various regulations that form the legal basis for efforts to achieve sustainable waste management, such as Law Number 18 of 2008 concerning Waste Management, Government Regulation No. 81 of 2012 concerning Household Waste Management and Household-like Waste, and Regulation of Menteri Lingkungan Hidup dan Kehutanan (KLHK) No. P.75/MENLHK/SETJEN/KUM.1/10/2019 concerning the Roadmap for Waste Reduction by Producers. These regulations provide comprehensive guidelines on waste management, the responsibilities of the government and the community, and the obligations of producers in reducing plastic waste (Maskun et al., 2025). However, implementation in the field still faces various obstacles. Although Law No. 18 of 2008 mandates the conversion of all final disposal sites (TPA) into sanitary landfills, this has only been achieved in a small number of areas (Cucchiella et al., 2017; Maskun et al., 2025; Verma et al., 2016).

The World Bank report estimates that globally, around 2.01 billion tons of waste are generated each year, and this amount is projected to increase to 3.40 billion tons per year by 2050 (Abedin et al., 2025; Romianingsih, 2023; Silpa et al., 2018). In Indonesia, waste production in 2021 reached 91,324.49 tons per day or around 33.33 million tons per year, and continues to increase, reaching 35.31 million tons per year by 2024 (SIPSN, 2024). Based on data from *Sistem Informasi Pengelolaan Sampah Nasional* (SIPSN), compiled from 323 districts/cities, the waste reduction rate has only reached 1.11% (390 thousand tons). In contrast, only 37.53% (13.25 million tons) has been managed. Of the total waste generated, 38.63% has been managed, while 61.37% has not been adequately handled. In addition, around 8.58 million tons of trash are disposed of in controlled or sanitary landfills. In comparison, 6.86 million tons is still handled through open dumping methods that have the potential to pollute the environment (SIPSN, 2024).

Waste management techniques in various cities in Indonesia are still conventional, with around 60% using open dumping methods and only 10% implementing sanitary landfill systems (Damayanti et al., 2021; Hermawan, 2017; Kementerian ESDM, 2015). Most cities in Indonesia still use open dumping systems, which cause soil, water, and air pollution. This condition reflects a gap between policy and implementation in the field, resulting in increased social, environmental, and public health problems. The main challenges in national waste management include limited infrastructure, weak policy implementation, and low public awareness of waste sorting and sustainable waste management. Therefore, a comprehensive strategy is needed that provides for strengthening regulations, applying environmentally friendly technologies, and increasing community participation to achieve the Indonesia Bersih 2025 (Clean Indonesia 2025) target (Romianingsih, 2023; SIPSN, 2024).

Based on data from Ministry of Environment and Forestry/*Kementerian Lingkungan Hidup dan Kehutanan* (KLHK) National Waste Management Information System (SIPSN), food waste dominates the composition of garbage at 38.38%, making it the largest category in the total national waste generation. Other types of waste include wood or branches at 13.31%, paper and cardboard at 11.07%, and plastic at 19.52%, which ranks second highest and is a significant concern because it is difficult to decompose and contributes significantly to environmental pollution. Meanwhile, metals (3.22%), fabrics (2.64%), rubber or leather (2.05%), and glass (2.3%) contribute a smaller percentage to the total waste composition. The "other" category accounts for 7.51%, which consists of various types of waste that are not included in the main classifications. This data reflects the significant challenges in waste management in Indonesia, particularly in dealing with food waste and plastic, which dominate, as well as the importance of implementing integrated and sustainable waste management strategies to reduce environmental impacts (SIPSN, 2024).

The decomposition of waste in open dumps produces CO<sub>2</sub> and CH<sub>4</sub> emissions in the form of greenhouse gases that contribute to global warming (Kiehbardroudzinezhad et al., 2024). Waste that decomposes in conditions with minimal oxygen, such as in landfills, releases methane gas (CH<sub>4</sub>) gas, which is produced from the decomposition of organic waste. Methane is one of the most potent greenhouse gases, with an impact far greater than CO<sub>2</sub>, and may already contribute to around 10% of global warming (Supriatna & Lenz, 2025). Waste is not just an environmental problem, but also a source of biomass and renewable energy that can be converted into electricity if appropriately managed (Kementerian ESDM, 2015; Tozlu et al., 2016). This utilization supports energy-based waste management to reduce dependence on fossil fuels and waste volume (Romianingsih, 2023). Indonesia has the potential to generate up to 2,066 MW of electricity from municipal waste. However, waste-to-energy facilities are still limited to the Bantargebang pilot project with a capacity of 100 tons per day and the construction of the Sunter incinerator with a capacity of 2,200 tons per day as the first commercial project (Damayanti et al., 2021; Hermawan, 2017).

### *1.1 The role of language in shaping public awareness of environmental issues*

In the digital age, media such as YouTube play a strategic role in shaping the way individuals and institutions create, disseminate, and consume information (Mila, 2025). This platform is now used by various government agencies, environmental organizations, and educational institutions as a means of disseminating information, promoting, and interacting with the public. In the context of environmental issues, YouTube serves as a participatory space for building ecological awareness and strengthening community involvement (Nesi et al., 2022). Visual content and discourse construction play an essential role in maintaining the persuasiveness and emotions of the audience, although they are still limited in accommodating the perspectives of local communities (Rusmawaty et al., 2025). In addition, the trend of using environmentally friendly advertisements on YouTube has shown a significant increase. Various industries are utilizing green marketing strategies to promote sustainable practices and meet the expectations of modern consumers (Ain et al., 2021). The language used in advertisements is ideological and persuasive, with the potential to shape social awareness and influence people's consumption behavior and lifestyles (Javed et al., 2025; Johannessen et al., 2010).

Language in social media and official media plays a vital role in shaping public awareness of environmental issues, including the plastic waste crisis. Although scientific and policy efforts have been made, the aspect of language is often overlooked, even though language has the power to shape the way society views and responds to the environment. Language is not a neutral or passive medium, but rather a fundamental element in shaping how individuals and communities interpret nature, define environmental issues, and envision a sustainable ecological future (Ashraf et al., 2025). Stibbe (2015) emphasizes that language is not merely a tool for communication, but a means of shaping human relations with nature through the concept of ecological discourses that can either "strengthen" or

“weaken” ecological balance. In the context of the global environmental crisis, language analysis is essential for understanding how discourse can foster awareness and commitment to sustainability (Rusmawaty et al., 2025). Thus, language is seen as a strategic element that determines how societies interpret, define, and respond to ecological challenges more sustainably.

### *1.2 Norman Fairclough's critical discourse analysis*

In the context of mass media, messages conveyed through television, radio, and digital platforms not only serve as a means of information (Isnaeni et al., 2025), but also become a tool for shaping public perception of environmental issues, while reflecting the power relations and ideologies hidden behind the construction of these messages. Media discourse is a space where power relations are produced and debated (Ashraf et al., 2025). In the context of environmental discourse, particularly the issue of waste, critical discourse analysis or CDA plays an essential role in examining how the mass media constructs and reproduces narratives about ecological responsibility. Critical discourse analysis provides a framework for analyzing how language, visuals, and symbols in advertisements used in environmental reporting or campaigns often contain certain ideologies that can perpetuate power imbalances and ecological injustice (Rahmani et al., 2024; Sarabi et al., 2025).

Critical Discourse Analysis theory examines how the meaning and message of language are shaped by linguistic and social factors, including the context of the text, culture, and communication situation (Farhangnia, 2025). This approach stems from the idea that discourse not only represents reality but also plays a role in shaping and changing it (Martínez Lirola, 2023; Sabir & Kanwal, 2018). The Critical Discourse Analysis model developed by Fairclough serves as an analytical framework for revealing the hidden power relations in texts through three main dimensions, namely textual analysis, discursive practices, and social practices (Khan, 2025). Within this framework, Fairclough (1995) divides the analysis into three stages: 1) the descriptive stage focuses on identifying the linguistic and visual characteristics of the text, 2) the interpretation stage places discourse as a social practice involving the process of meaning, and 3) the explanation stage links the results of the analysis to a broader social context to understand how discourse contributes to the formation and reproduction of power relations in society (Javed et al., 2025; Marda et al., 2025).

### *1.3 Arran Stibbe's Ecolinguistics*

As it has developed, critical discourse analysis is no longer limited to studying the relationship between language, power, and society; it has expanded to examine the relationship between humans and the natural environment. This development has given rise to ecolinguistics, which integrates the principles of critical discourse analysis in analyzing the role of language in ecological systems. According to Stibbe (2014), ecolinguistics focuses on how language represents, shapes, and influences human interactions with the environment. In the context of waste issues, this approach examines discourses ranging from consumerism narratives and waste management policies to environmental campaigns in order to identify destructive discourses that reinforce unsustainable practices and emphasize constructive discourses that foster ecological awareness and environmentally responsible behavior (Stibbe, 2015).

Arran Stibbe, a leading figure in ecolinguistics, has significantly contributed to the development of ecolinguistic theory and practice (Javed et al., 2025; Stibbe, 2021). Through interdisciplinary collaboration between linguistics, human ecology, and discourse analysis, he has expanded linguistic studies related to environmental issues and encouraged both theoretical and applied research in ecolinguistics. In this framework, linguistics is applied to uncover the “stories we live by” and evaluate them from an ecological perspective (Javed et al., 2025). These stories represent cognitive structures that shape how humans think,

speak, and act. Ecolinguistics therefore defines language as a tool for interaction between humans, other living beings, and the environment (Amendolara, 2025; Stibbe, 2021).

The primary focus of ecolinguistics lies in distinguishing between destructive and beneficial discourses—those that undermine ecological balance and those that promote sustainability (Amendolara, 2025; Habib et al., 2025; Javed et al., 2025). Halliday (1990) earlier emphasized the role of linguistics in addressing global environmental issues by examining how language, metaphors, and narratives shape ecological perspectives and behaviors (Gul et al., 2025; Stibbe, 2021). From this perspective, language not only reflects ecological realities but also constructs environmental awareness and responsibility (Habib et al., 2025; Stibbe, 2015). However, some researchers still confine ecolinguistics to the analysis of environmentally themed texts or geographically specific semiotic studies (Amendolara, 2025).

Previous studies have examined environmental discourse using varying scopes and approaches. For example, Rusmawaty et al. (2025) analyzed environmental discourse on university social media using critical discourse analysis and an ecolinguistic approach, demonstrating how ecological awareness is constructed through multimodal representations. Re (2024) contributed to the theoretical development of ecolinguistic discourse analysis by examining representations of nature in English discourse. Meanwhile, Romianingsih (2023) approached environmental issues from a policy and technological perspective, focusing on waste management without engaging in linguistic or discourse analysis.

These studies indicate that while environmental discourse has been explored, limitations remain in integrating critical discourse analysis and ecolinguistics contextually within the issue of the plastic waste crisis in Indonesia. This study addresses this gap by combining Fairclough's (2003) three-dimensional Critical Discourse Analysis framework with Stibbe's (2014) ecolinguistic perspective to explore how media discourse and policy narratives shape representations of plastic waste, development ideology, and ecological awareness. Although several studies have examined environmental discourse on social media and waste management policies, systematic integration of Fairclough's three-dimensional CDA with Stibbe's ecolinguistic framework remains limited. Prior research has often treated CDA and the concept of "stories we live by" separately, has rarely conducted unified multimodal comparisons across digital video genres, and has paid insufficient attention to ideological shifts from technocratic to transformative discourse in the Indonesian context.

Based on these gaps, integrating Critical Discourse Analysis (CDA) and ecolinguistics is essential to examine how environmental discourse not only represents ecological realities but also shapes patterns of thought, responsibility attribution, and social responses to environmental crises. Accordingly, this study analyzes the characteristics of environmental discourse in three plastic waste-themed videos using the textual, discursive practice, and sociocultural dimensions of Fairclough's CDA framework; identifies how each video constructs and reproduces ecological narratives—whether destructive, ambivalent, or beneficial—based on Stibbe's ecolinguistic perspective; compares differences in ideology, representations of nature, and the distribution of ecological responsibility across different media genres; and examines the implications of these discursive constructions for ecological awareness and potential social change, particularly in framing the plastic waste crisis as a technical, moral, or structural issue.

This study contributes to ecolinguistics and Critical Discourse Analysis by providing empirical insights from the Indonesian context, particularly regarding the role of multimodal discourse in shaping ecological awareness and environmental ideology. It also extends the application of the concept of "stories we live by" to digital media and policy-related discourse, offering a more nuanced understanding of the relationship between language, power, and ecological sustainability. The findings may inform policymakers, media practitioners, and environmental organizations in developing ethically grounded and context-sensitive communication strategies to support public engagement with plastic waste management.

## 2. Methods

This study employs a descriptive qualitative approach, utilizing Fairclough's Critical Discourse Analysis model as the primary analytical framework. Qualitative procedures utilize data in the form of text and images, employing various stages of data processing and applying multiple research strategies (Creswell, 2015; Creswell & Creswell, 2018). The qualitative approach was chosen because this study seeks to gain a deep understanding of the construction of meaning, values, and ideology hidden in environmental discourse, rather than simply measuring phenomena quantitatively or statistically. This approach enables researchers to understand how language functions as a social practice that influences people's perspectives on the plastic waste crisis in Indonesia. Fairclough's critical discourse analysis model was employed because it is capable of revealing the relationship between language, power, and ideology in texts Fairclough (2003), which is relevant for examining how the issue of plastic waste is represented in digital media. This model is appropriate for analyzing how environmental issues, particularly plastic waste, are represented through digital media, as well as how this discourse reflects and simultaneously shapes social and political relations in the context of environmental sustainability.

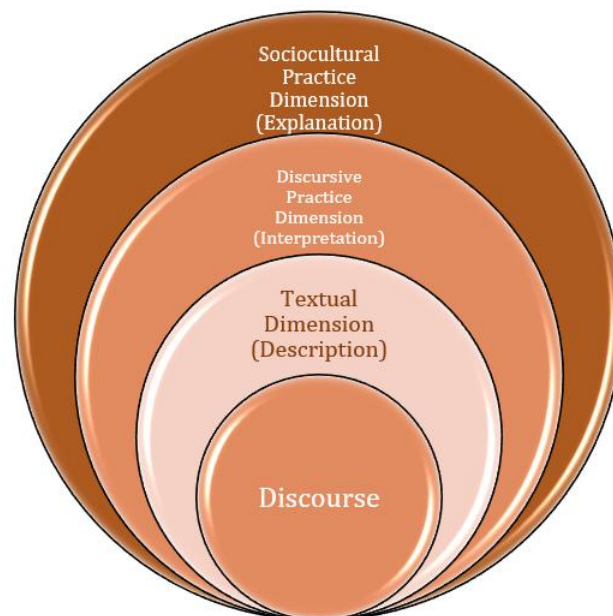


Fig. 1. Dimensions of Fairclough's discourse analysis (Fairclough, 2023; Heathy, 2020)

In this study, Critical Discourse Analysis (CDA) serves as the main framework for examining how language is used as a social practice that shapes perceptions and actions towards environmental issues. Norman Fairclough's Three-Dimensional Model serves as a theoretical framework for analyzing ecological discourse, particularly the issue of waste management, with an approach that combines linguistic, social, and ideological aspects (Cui, 2024; Fairclough, 2023; Franklin et al., 2022). This model consists of three interrelated dimensions. The textual (descriptive) dimension examines micro-linguistic aspects of texts, such as lexical choices, ecological metaphors, sentence structure, and rhetorical strategies, to reveal representations of power and the construction of meaning related to waste issues. The discursive practice dimension (interpretation) traces the processes of production, distribution, and consumption of texts in digital media in order to understand how language is used and interpreted within specific social contexts. It focuses on how discourse actors—such as governments, media, institutions, and individuals—construct representations of environmental issues to achieve particular objectives. The sociocultural practice dimension

(explanation) situates discourse within broader social, political, and ideological frameworks, highlighting how language both reflects and shapes policy, consumer culture, and public ecological awareness. This dimension integrates findings from the textual and discursive practice analyses with the wider social context, including dominant ideologies such as sustainable development, techno-optimism, and conservationism.

In addition, this study also uses a CDA approach enriched with an ecolinguistic framework proposed by Stibbe (2014), particularly the concept of “stories we live by”. This concept focuses on narratives that shape how humans understand, assess, and interact with their natural environment. Through this approach, the study not only explores how language describes environmental issues but also assesses whether the discourse falls into the category of destructive stories (which reinforce the exploitation of nature), beneficial stories (which foster ecological awareness and sustainability), or ambiguous stories (which show ambivalence in ecological ideology). Combining CDA and ecolinguistics, this study seeks to reveal the role of language in shaping public ecological awareness, critique anthropocentric ideology in digital environmental discourse, and offer a linguistic perspective on efforts to develop sustainability discourse in Indonesia.

### 2.1 Data sources and types

The data sources used are secondary, consisting of three YouTube videos selected from the last five years that discuss environmental issues and the plastic waste crisis in Indonesia. YouTube was chosen based on its role as one of the largest digital platforms that influences public opinion and the dissemination of environmental discourse (Chuang, 2023). The videos analyzed include public service announcements, news coverage, environmental campaigns, and educational content produced by government agencies, non-governmental organizations, and independent media channels. Data selection was conducted using purposive sampling techniques, with the following criteria: (1) videos published between 2020 and 2025, (2) raised the issue of waste management or plastic pollution, (3) used Indonesian language, (4) featured clear verbal and visual elements for multimodal analysis, and (5) had a significant audience reach (received active public response). This selection aimed to obtain a diverse representation of digital environmental discourse in Indonesia.

### 2.2 Data collection techniques

Data collection was carried out using the *Simak Bebas Libat Cakap* (SBLC) method, which placed researchers as passive observers without being directly involved in the use of language in the context of discourse interaction, but still focused on collecting relevant linguistic and visual data. An advanced technique is note-taking, which is the process of recording and documenting relevant linguistic elements from the research data to support systematic and valid analysis (Mahsun, 2017). Each video was analyzed by noting textual elements (narrative, keywords, slogans), visual elements (images, colors, symbols), and auditory elements (intonation, background music, sound effects) that supported the construction of the message. The collected data were then transcribed and coded using CDA linguistic analysis categories.

### 2.3 Data analysis techniques

Thematic analysis aims to identify patterns or determine themes within the collected data (Braun & Clarke, 2006). In this study, data analysis was conducted using thematic analysis integrated with Fairclough’s three-dimensional Critical Discourse Analysis (CDA) framework. The process involved several systematic steps: (1) transcribing verbal content and documenting visual elements from the selected videos; (2) coding linguistic features such as lexicon, transitivity, and modality alongside visual semiotics; (3) identifying recurring themes related to plastic waste discourse; and (4) explaining these themes within

the Indonesian sociocultural context to categorize them according to Stibbe's 'stories we live by' framework (destructive, ambivalent, or beneficial stories).

### 3. Results and Discussion

This section presents the results of the discourse analysis by comparing three plastic waste-related videos across different media genres: news reporting, global campaigning, and critical documentary. The analysis applies Fairclough's three-dimensional Critical Discourse Analysis framework, textual, discursive practice, and sociocultural practice integrated with Stibbe's ecolinguistic concept of "stories we live by". Table 1 summarizes the key characteristics of environmental discourse across the three videos, highlighting variations in discourse type, communicative focus, ideological orientation, and ecological narratives.

Table 1. Comparison of Discourse Characteristics Based on CDA and Ecolinguistic Dimensions

Analysis dimension	Video 1 – CNN Indonesia (News)	Video 2 – MeshMinds (global campaign)	Video 3 – <i>Trailer Pulau Plastik / Plastic Island Trailer</i> (critical documentary)
Discourse type main focus	Informative-journalistic Data-driven problem urgency	Persuasive-campaign Awareness and behavioral change	Critical-documentary Structural critique and ecological justice
Textual (Descriptive)	Technical diction, quantitative data, declarative and passive sentences	Symbolic visuals, short slogans, minimal verbal narration	Emotive lexicon, critical narration, multimodal (visual-verbal-music)
Discursive practice (Interpretation)	Institutional news production; consumed as factual information	Global campaign; consumed as a universal moral message	Activist-documentary; consumed as social critique and reflection
Sociocultural practice (Explanation)	Technocratic ideology; state dominance; responsibility shifted to the public	Ecocentric ideology; cross-border collective responsibility	Critical ecologism; critique of capitalism and global inequality
Stories we live by (Stibbe)	Destructive story (crisis as a technical problem)	Beneficial story (behavioral change and ecological empathy)	Combination of destructive, ambivalent, and beneficial stories

#### 3.1 Integration of CDA with ecolinguistics: How ideology in discourse influences ecological narratives

The first video uploaded by CNN Indonesia (2024) focused on information related to the issue of plastic waste in Indonesia, highlighting it as an increasingly crucial environmental concern. Textually, the first video employed several harmful and problematic lexical items, including "crucial issue" and "serious challenge". This choice of diction created a representation of an ecological crisis that was urgent and difficult to overcome. The phrase "*Indonesia belum merdeka*" or "Indonesia is not yet independent" frames the plastic waste problem as a new form of colonialism, not by foreign powers, but by the consumptive behavior of society and the inability to manage waste. The metaphor in this sentence creates a construction of ecological nationalism, in which the struggle against waste is equated with the struggle to maintain independence. In addition, the use of technical terms such as "*proyeksi timbulan*" or "projected waste generation," "waste composition," and "Directorate General PSLB3 (*Pengelolaan Sampah, Limbah, dan Bahan Beracun Berbahaya*)" reinforces the impression of scientific objectivity and institutional authority, so that the discourse appears to be a representation of official facts, not just opinion. In other words, the text in the first video builds credibility while strengthening the legitimacy of state institutions as the primary source of information.



Fig. 2. News coverage by CNN Indonesia (2024) on plastic waste issues in Indonesia

The discourse in this first video is dominated by informative declarative sentences with a straightforward subject-predicate-object pattern, reflecting the style of factual news journalism. However, the use of passive forms such as “ended up in a landfill” serves to obscure the causative agent, namely, the parties who produced or failed to manage the waste. As a result, ecological responsibility is not explicitly directed at specific actors, such as industry or consumers, but is described as a general condition that “just happens.” The text also employs quantitative data-based rhetorical strategies, such as mentioning “12.54 million tons” and then increasing it to “13 million tons,” to reinforce the effect of urgency and empirical legitimacy. However, the news does not offer concrete solutions or calls for action, so its position is more descriptive than transformative. The text presents government institutions (KLHK and *Direktorat Jenderal PSLB3*) as the leading actors and authoritative sources. At the same time, the community is portrayed passively as the “biggest contributor of waste”. This representation exhibits a tendency toward top-down discourse, in which the state is positioned at the center of the narrative, while community participation is portrayed in a passive manner.

The first video is a national media institution that plays a role in conveying official government discourse through institutional sources such as “KLHK and *Direktorat Jenderal PSLB3*”. The text production shows data- and policy-based journalism practices, rather than critical analysis of the structural roots of environmental issues, such as the role of industry or the consumptive economic system. The distribution of discourse through CNN Indonesia enables rapid and widespread dissemination, utilizing short video formats that effectively highlight dramatic visuals and informative data. However, the focus on visual effects limits the depth of analysis, resulting in discourse that is educational and mildly persuasive, yet does not encourage profound social change.

CNN Indonesia's news discourse on the plastic waste crisis reflects the state's ideology of development and technocracy, which places humans as managers of nature. The proposed solutions are technical rather than transformative, focusing on management and recycling. This news reinforces the government's agenda through KLHK by presenting official data and narratives of urgency, thereby reproducing a bureaucratic discourse that views environmental issues as technical-administrative problems. Politically, the dominance of the state and mainstream media is apparent. At the same time, the role of industry in plastic production is overlooked, indicating an asymmetrical power relationship that shifts ecological responsibility to the community and local governments.

When viewed through Stibbe's (2015) ecolinguistic analysis, this discourse falls into the category of destructive stories (discourse that damages the environment) because it frames the issue of plastic waste as a technical challenge for human environmental management, rather than as an ecological crisis that threatens the survival of nature and other living things. Nature is represented as an object to be managed, rather than as an entity that has the right to recover or exist on an equal footing. Quantitative data dominate

the narrative discourse in the video, and this choice of language reflects a technocratic and anthropocentric mindset that normalizes environmental damage as a problem that can be regulated through administrative policies, rather than prevented through changes in ecological values. Statements such as "the largest source of waste comes from households" indicate a shift in environmental responsibility to individuals, without acknowledging the contributions of industry or consumptive production systems. In other words, the discourse obscures the structural roots of the problem. It reinforces a destructive narrative that views the environmental crisis as an individual problem rather than a systemic crisis. Therefore, this news can be categorized as a destructive story that reproduces a worldview that is not in line with the principles of ecological sustainability.

This contrasts with the second video, which sees the waste problem as a technical challenge in environmental management. It does not present it as an ecological crisis that threatens survival, instead aligning its narrative with the government. The second video, however, offers a more critical perspective. It imagines the real impact of the plastic waste crisis through creative future visualizations. CNN Indonesia (2024) uploaded this video focusing on environmental issues related to plastic waste. The video aims to raise awareness that environmental issues are not merely technical problems; they are ecological crises. It calls for a paradigm shift and collective responsibility from individuals, communities, and governments. The short film was produced in collaboration with Studio Birthplace. In its text, the video uses visual and symbolic language to convey a strong ecological message. Plastic is shown as a real threat to life. It pollutes the environment and enters the food chain of both humans and animals.



Fig 3. A short film to end plastic pollution in South-East Asia (MeshMinds, 2022)

The scenes of "families eating plastic" and "children buried in trash" create an emotional impact that highlights the connection between human behavior (single-use plastic consumption) and its detrimental effect on the ecosystem. Slogans such as "Say no to single-use plastic," "Our future is in our hands," and "#OnlyOneEarth" reinforce the moral message, promote collective responsibility, and underscore the urgency for behavioral change. The dominance of images, facial expressions, and visual symbols in the video replaces verbal narration, creating a universal effect that is easily understood across languages and cultures. As a product uploaded by an organization focused on sustainable development through innovation and creative technology, this video represents a global campaign aimed at connecting individuals with international movements against plastic pollution. This video is intended for the general public, particularly the younger generation and families, to raise awareness about the ecological consequences of plastic consumption. This discourse adopts the style of global environmental campaigns, such as #BeatPlasticPollution and #OnlyOneEarth, combining scientific, moral, and emotional values into a unified message.

The discourse raised is rooted in the global context, referring directly to the United Nations Environment Assembly (2022) resolution to end plastic pollution, demonstrating authoritative legitimacy and cross-border cooperation. The draft resolution recently adopted by the United Nations Environment Assembly (UNEA) of the United Nations Environment Program (UNEP) aims to tackle plastic pollution, including microplastics,

through the adoption of a legally binding international instrument in 2024 (UNEA 2022; [www.un.org/pga/73/plastics/](http://www.un.org/pga/73/plastics/)) (Bundela & Pandey, 2022). This resolution establishes a regulatory framework for reducing and preventing plastic pollution, encouraging member states to implement it (Denta, 2022). Plastic pollution has been a dominant topic in the discourse on marine management over the past decade, and attention to this issue is expected to continue to grow (Stöfen-O'Brien, 2022). Socioculturally, the discourse in this campaign video reflects a shift in ideology from anthropocentrism to ecocentrism, in which the issue of plastic pollution is understood as a transnational ecological crisis that demands collective responsibility.

The video narrative rejects the culture of instant consumption. It affirms humanity's moral obligation to the sustainability of the planet, while building empathy-based ecological awareness by portraying humans, animals, and the environment as affected parties and agents of change. From Stibbe's ecolinguistic perspective, this video falls into the category of beneficial stories, as it encourages the formation of ecological awareness and behavioral change related to the use of single-use plastics. Messages such as "Our future is in our hands", "Say no to single-use plastic", and "Together, we can #BeatPlasticPollution" emphasize the direct link between human actions and ecological impacts, while instilling values of empathy, responsibility, and collective solidarity. Thus, this discourse is constructive, integrating social awareness, ecological ethics, and collective action to strengthen the relationship between humans and nature, thereby supporting the sustainability of the Earth.

In line with the second video, the third video also highlights environmental issues, accompanied by intense social criticism. This video presents a more critical and contextual perspective, drawing on field evidence to illustrate the real impact of the plastic waste crisis, presented in a longer documentary format. The trailer for the film, titled *Pulau Plastik: Perjalanan dan Catatan untuk Masa Depan* (Plastic Island: A Journey and Notes for the Future), was produced by Visinema Pictures and directed by Dandhy Laksono and Rahung Nasution, two filmmakers known for their socially and environmentally critical documentaries, and was released in theaters in 2021. In terms of textual dimensions, the third video utilizes multimodal discourse, including visual, verbal, musical, and narrative elements to convey an ecological message persuasively. Emotive lexicon such as "flooded with imported waste", "contaminated", and "causing cancer" builds a destructive image of the impact of plastic on humans and the environment. In contrast, expressions such as "rejecting single-use plastics" affirm a spirit of activism and resistance to consumptive practices.

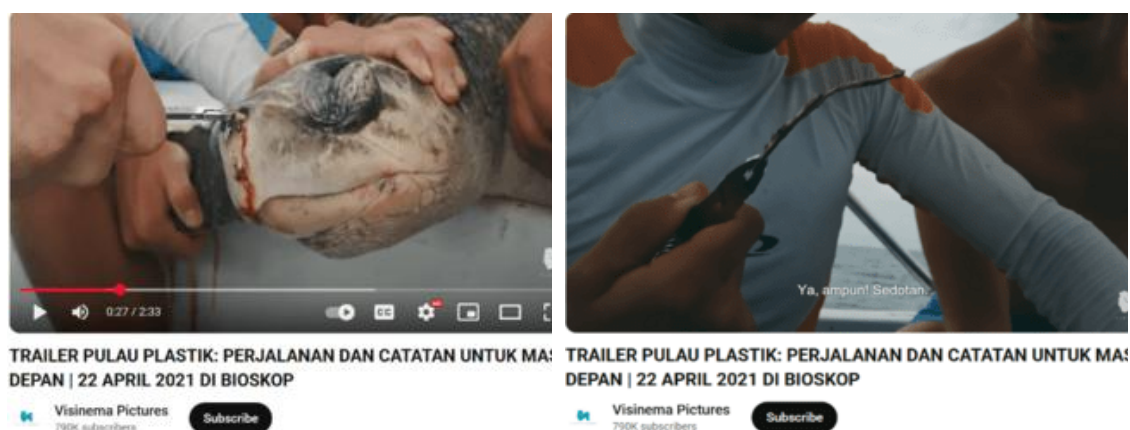


Fig 4. Scenes from *Pulau Plastik* documentary trailer (Visinema Pictures, 2021)

Visually, the images of "a wounded turtle found with a plastic straw in its nose" and "fish contaminated with microplastics" emphasize the ecological degradation caused by human consumption. Phrases such as "trash sent from Jakarta" and "Indonesia is not America's trash can" contain criticism of global ecological inequality. The lyrics of the song

in the video's background music, "Someone must realize these words so they are not imprisoned in empty discourse", mark the urgency of real action, reinforced by the use of the pronoun "we," which fosters a sense of collective responsibility. Declarative sentences are used to present objective data, while the rhetorical interrogative sentence "So what is the central government's response?" raises public awareness and questions the role of the government. This video also displays intertextuality through a combination of documentary narratives, scientific data, interviews, and visual symbols such as posters and trucks bearing ecological messages.



Fig 5. Activist demonstration critiquing international plastic pollution (Visinema Pictures, 2021)

Elements such as the text "Donald Trump! Don't dump your trash in Indonesia!" reveal a global political intertextuality that connects local issues with international power relations. Ideologically, this video constructs two social groups: destructive actors from industrialized countries and plastic consumers, as well as agents of change, including activists and local communities. This representation highlights the power imbalance within the global capitalist environmental system. The context of this third video was produced to show that the trailer does not merely function as a promotional medium for the film, but also as an ecological discursive practice that combines environmental journalism, social activism, and documentary cinema aesthetics, through the presentation of factual data, such as information about the consumption of "93 million straws per day", findings of "microplastics in milkfish", "visualization of marine pollution", and interviews with environmental activists.

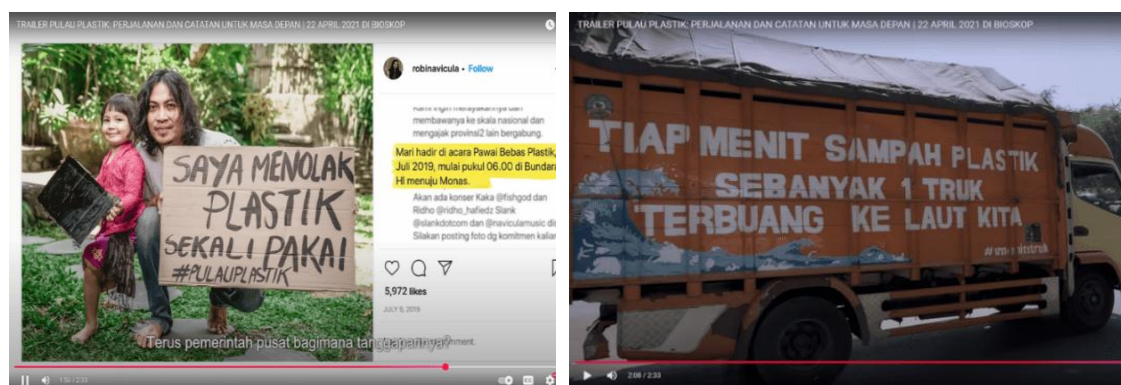


Fig 6. Visualization of plastic waste crisis: 'One truck of trash every minute' in the *Pulau Plastik* Trailer (Visinema Pictures, 2021)

This video was published on YouTube, making it widely accessible and thereby expanding the message's reach to the public. The YouTube platform forms a participatory

discourse (a participatory discussion space that allows users to comment) through comments and hashtags such as *#PulauPlastik* (*#PlasticIsland*) and *#TolakPlastikSekaliPakai* (*#RejectSingleUsePlastic*), which transform ecological discourse into a digital social movement. The discourse in this video is persuasive and critical, serving to educate the public, criticize ecological injustice, and encourage collective action towards environmental sustainability.

This third video is consumed not only aesthetically through viewing but also ideologically, where viewers are interpreted as both part of the problem and the solution to the environmental crisis. The visuals presented in the video, such as a truck with the words "1 truk sampah tiap menit" or "1 truck of trash every minute" and a child holding a poster that reads "I refuse single-use plastics", create a strong empathetic and moral effect. These representations evoke eco-emotions, or climate emotions, in the form of guilt, ecological awareness, and a sense of collective responsibility for environmental sustainability. The process of interpreting this video fosters ecological citizenship through the integration of scientific discourse (presentation of research data), activism (campaigns), global political economy (satire against the United States), and popular culture (music and cinematic aesthetics), which form a discursive hybridity between film, activism, and environmental education. Based on the ideology of critical ecologism, this video rejects the anthropocentric paradigm and the concept of consumptive capitalism. It encourages the transformation of ecological consciousness towards ethical and sustainable relations between humans and nature.

In a sociocultural context, this discourse reflects an ideological shift from anthropocentrism to ecocentrism, highlighting the power imbalance between industrialized and developing countries, as well as between humans and the natural world. Culturally, this third video reflects a shift in Indonesian society from consumerist patterns to ecological awareness, emphasizing responsibility and concrete action towards the environment. In Stibbe's (2015) ecolinguistic analysis, this video presents three categories of narrative: destructive narratives (discourse that damages the environment), as seen through visual representations and empirical data on marine pollution, which highlight the impact of consumerist ideology and the capitalist production system on ecosystem degradation. The destructive stories are evident in statements such as "Indonesia currently holds the title of the second largest contributor of plastic waste to the oceans" and "burning plastic produces dangerous toxins and can cause cancer".

Meanwhile, the section classified as Ambivalent Stories (ambivalent or dual discourse) can be found in sentences such as "The Balinese government has issued regulations to reject the use of plastic ..." and the question "So what is the central government's response?" This section highlights the tension between growing public awareness and the government's weak response, signaling a shift towards a more critical ecological culture. This discourse is ambivalent because it contains two sides: the positive side in the form of positive initiatives and environmental awareness, but accompanied by weaknesses in implementation and institutional commitment. In contrast, the section included in the Beneficial Stories category (discourse that benefits the environment) is represented through moral appeals and symbolic actions such as "I reject single-use plastics *#PulauPlastik*", "Say no to single-use plastic," and the song lyrics "Someone must make words come true ..." Here, the language used emphasizes action, hope, and the moral responsibility of humans as ecological agents who maintain the balance of nature. Taken together, the integration of these narratives creates a transformative discourse that strengthens ecological citizenship, affirms environmental justice, and promotes human-environmental harmony within the framework of critical ecologism.

### *3.2 Implications for public awareness and sustainability policies in Indonesia*

The issue of waste management in Indonesia cannot be separated from public awareness and the direction of sustainability policies. Within the ecolinguistics and critical discourse analysis framework, how media and institutions construct narratives about waste

directly influences how society understands, evaluates, and responds to ecological crises. Discourses surrounding zero waste, the reduce-reuse-recycle (3R) approach, and the circular economy form an ideological arena that determines how environmental responsibility is distributed among the state, industry, and citizens. However, a significant gap remains between discursive awareness and ecological practices. This tension creates space for a critical analysis of policy effectiveness and the role of language in shaping environmental behavior.

The case of Yogyakarta after the Piungan landfill closure highlights that the waste crisis is both a technical failure and a crisis of collective consciousness. Indonesia produces nearly 23 million tons of waste annually, with about 33% unmanaged, exposing weaknesses in sustainability. In this context, circular economy practices, such as those in Panggung Harjo Village through TPS 3R Kupas, foster community-based ecological awareness. Waste sorting and recycling demonstrate that the circular economy is not just a technical strategy, but a values shift that views waste as a resource, not a residue (Narasi Newsroom, 2024).

Furthermore, local entrepreneurs such as Jangjo Indonesia prove that Jakarta's waste can be managed efficiently. The Zero Waste Integrated (Jowi) System processes waste from households, restaurants, and shopping centers, categorizing it as dry, organic, or non-recyclable (Ming Ooi, 2025). Dry and valuable waste is converted into new raw materials; non-organic waste is processed into RDF/SRF for use as cement fuel. Food waste is processed with Black Soldier Fly larvae and turned into animal feed or organic fertilizer. With a 3,000 m<sup>2</sup> facility, the system handles 100 tons of waste per day and achieves a utilization rate of up to 90%, far exceeding that of conventional systems (DAAI TV, 2024; DW Indonesia, 2025).

This innovation shows how government, technology, public education, and multi-stakeholder collaboration foster ecological awareness. The circular economy concept is applied directly, turning waste into a valuable resource. Yet, this system still relies on infrastructure, funding, and community participation (Ming Ooi, 2025), so debate continues over its replication in other Indonesian cities. For example, Jangjo Indonesia proves that combining technology, local policy, and public awareness is crucial for ecological sustainability. In contrast, some countries show that discursive strategies and visionary policies align with technological innovation and long-term environmental commitments. For example, Singapore exemplifies an integrated and efficient waste management policy.

Singapore produces the most plastic waste per capita worldwide (66.5 kg per person). Still, the Zero Waste Nation 2030 policy and incineration systems keep the country clean by converting waste to energy. Ash from combustion is sent to Semakau Island, a reclaimed artificial island that serves as a landfill and sustainable reclamation site. This system demonstrates that high technology, strict regulation, and public awareness are effective, as outlined in the Singapore Green Plan 2030, which emphasizes reducing waste at the source and utilizing waste-to-energy (Heng et al., 2024; Rocher, 2020; Siow & Lee, 2020). However, this top-down approach may not be suitable for a socially and economically diverse Indonesia. Technological gaps, decentralized governance, and socio-economic differences make direct copying impossible. Indonesia should instead develop a model that involves and empowers local communities.

We can conclude that ecological sustainability in Indonesia still faces challenges on three levels. First, public discourse remains rhetorical and has not fully internalized ecological ethics in daily actions. Second, policies are often sectoral and lack integration between the Central, Regional, and industrial governments. Third, environmental justice is lacking, as grassroots actors (such as scavengers and 3R TPS workers) have not received adequate recognition and protection. As a result, the implications for Indonesia's public awareness and sustainability policies extend beyond technical effectiveness in waste management; they also encompass how language, ideology, and power intersect in shaping ecological citizenship. This presents an ongoing academic debate between sustainability as an environmental practice and sustainability as a discourse that warrants critical examination.

### 3.3 Transformation of environmental awareness through participatory discourse on YouTube

Public responses in the comment sections of the three videos reveal how viewers interpret ecological messages and internalize different narratives within the ecolinguistic context. In the first video, a comment from user @yonanta.vieren\_ reflects a beneficial narrative, demonstrating a deep sense of ecological awareness. The comment emphasizes that the waste problem is not merely about cleanliness but also about the human mindset and habits in managing it. Statements such as “the biggest challenge is not the amount of waste, but people’s habits in handling it” indicate a critical understanding of the root cause of environmental issues, which lies in human behavior. This perspective highlights that waste issues require behavioral change, rather than purely technical solutions, demonstrating that the media message effectively promotes reflection and ecological responsibility at both individual and societal levels.

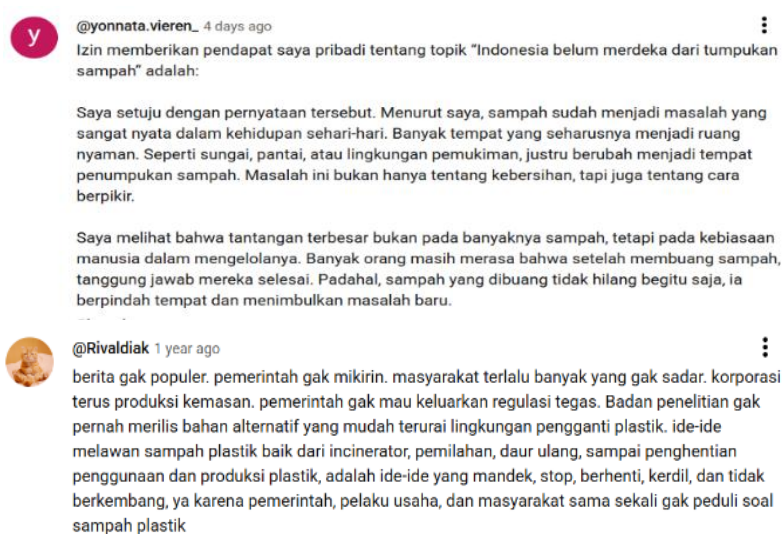


Fig. 7. Public comments on plastic waste issue in CNN Indonesia (2024)

Meanwhile, a comment from user @Rivaldiak represents an ambivalent narrative positioned between ecological awareness and skepticism toward the socio-political system. This user acknowledges the roles of government, corporations, and society in addressing the plastic crisis while pointing out that research and innovations for plastic alternatives have yet to be seriously implemented. However, statements like “the government doesn’t care, and too many people are unaware” convey a pessimistic tone regarding the effectiveness of policies and public awareness. This comment illustrates a critical yet doubtful stance toward the possibility of real change. Thus, the narrative embodies an ideological position that oscillates between hope for ecological solutions and disappointment with a social reality that still fails to support meaningful transformation.

In the second video, comments are disabled, preventing the public from expressing opinions or challenging the ecological message. In contrast, the third video has a comment from @dguardianze, who encourages individual behavioral change and lists practical ecological actions. The second video blocks public ecological dialogue, but the third promotes it through engagement. The comment encourages reducing single-use plastics and forming environmentally friendly habits, such as using bamboo straws, bringing reusable bags, and washing utensils for reuse. The persuasive phrase “we can start with ourselves” embodies a participatory spirit and collective awareness that reflects ecolinguistic values, demonstrating internalized ecological agency and the conviction that transformation begins with individuals.

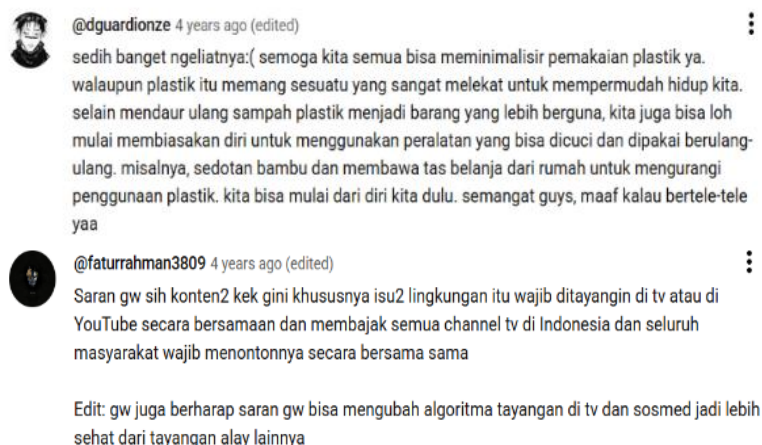


Fig 8. Public comments on *Trailer Pulau Plastik* (Visinema Pictures, 2021)

Another comment, from user @faturrahman3809, reinforces the beneficial narrative. It emphasizes collective dissemination of ecological awareness via mass media. The user suggests that environmental educational content should be widely broadcast on television and YouTube, so all citizens can watch together. Phrases such as “it must be broadcast” and “everyone should watch it together” underscore that ecological responsibility should become a national priority, not just an individual endeavor. This comment underscores the media’s strategic role in shaping public ecological discourse and fostering ideological shifts toward a collective ecological consciousness. Overall, the four comments show a range of beneficial and ambivalent narratives. They illustrate how digital media serves as a space for ideological interaction among ecological awareness, critical reflection, and perceptions of the social system in addressing Indonesia’s plastic waste crisis.

#### 4. Conclusions

This study demonstrates that digital media functions as a significant space for the construction and circulation of narratives surrounding waste issues in Indonesia, where discourse on the plastic waste crisis is constructed through competing ideological framings that influence ecological awareness and sustainability perspectives. The findings indicate that these representations are organized through different *stories we live by*, with *beneficial stories* framing plastic waste as a collective and systemic problem by emphasizing the 3Rs (Reduce, Reuse, Recycle) and Zero Waste principles, which are associated with ecological integrity, behavioral change, waste reduction, and circular economy perspectives. Analytically, the results suggest that more sustainable responses to the plastic waste crisis are linked to greater emphasis on *beneficial stories* in public communication, rather than a dominant focus on managing existing waste, as this narrative shift from reactive waste management toward preventive reduction highlights the structural drivers of plastic production and consumption and reshapes how environmental responsibility and sustainability are conceptualized within Indonesian society.

Further findings indicate that institutional discourse, including policy-related communication, shapes and sustains dominant narratives about waste. Alignment between policy language and sustainability frameworks, such as the Zero Waste principle, influences how ecological responsibility is constructed and distributed. At the same time, media discourse shapes public interpretations of environmental issues, with transparency about commercial interests emerging as an important factor in maintaining narrative coherence and credibility. Based on these findings, the study highlights strategic implications for reorienting policy narratives from downstream waste management toward upstream waste reduction, with a clearer emphasis on industrial responsibility and the strengthening of public ecological empathy. In parallel, media practices that prioritize transparency and

accountability are seen as contributing to the credibility of environmental messages and enabling the critical use of multimodal discourse to expose ecological inequalities and encourage more reflective and sustainable forms of collective behavioral change.

At the societal level, the analysis suggests that digital media contributes to the development of ecological awareness and to public engagement with environmental issues. However, public responses also reflect varying degrees of skepticism about the effectiveness of existing waste management policies. Public commentary tends to foreground themes of individual behavioral change, collective responsibility, and the need for continuous environmental education. Finally, this study points to future research directions in Indonesian ecolinguistics, including comparative analyses of waste-related discourse across digital platforms and regional contexts, as well as further examination of policy discourse to identify narrative patterns that may facilitate or constrain effective plastic waste management.

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### **Author Contribution**

The author is solely responsible for the conceptualization, methodology, analysis, and writing of this manuscript

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### **Ethical Review Board Statement**

Ethical review and approval were not required for this study, as the research involved publicly available digital campaign materials and did not include human subjects or personal data.

### **Informed Consent Statement**

Not available.

### **Data Availability Statement**

The data used in this study consist of publicly available digital environmental campaign videos. The materials can be accessed through publicly accessible online platforms.

### **Conflicts of Interest**

The author declares no conflict of interest.

### **Declaration of Generative AI Use**

The author declare that generative AI tools were used solely for language refinement and editing purposes. All conceptual development, analysis, interpretation of findings, and conclusions are entirely the responsibility of the author.

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