

Mapping Netizen Responses on Kompas.com Regarding Nickel Mining in Raja Ampat

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ABSTRACT

Mining schemes are often promised to bring prosperity and progress, but on the other hand, mining activities that encroach on most of Indonesia's landscape cause environmental pollution, ecological degradation, and social crises that worsen Indonesia's condition. This study analyzes public responses to nickel mining in Raja Ampat through netizen comments on the Kompas.com YouTube platform. This research uses exploratory computational content analysis (CATA) with Voyant tools. The data comes from comments on 58 Kompas.com YouTube videos with titles related to "Raja Ampat Nickel Mining." Data scraping was performed using JavaScript on June 28 2025, yielding 8,422 comments. This study presents netizen discussions through Word Cloud, Corpus Collocates, co-occurrence, and KWIC analysis. The results of the study reveal that the most frequently appearing corpus in this issue is about environmental damage and its impact on local communities. Through computational content analysis, words such as "nature," "people," and "destroy" describe netizens' concerns about the consequences of nickel mining in ecologically valuable areas such as Raja Ampat. Future researchers may consider several things, such as expanding the data collected from other social media platforms to enrich the data and understanding of public opinion on this issue in the digital space. Subsequent researchers could also conduct qualitative research, such as interviews. with relevant parties, to provide in-depth information on mining issues. Future research could focus on similar issues in other regions facing problems related to mining and sustainability.

Keywords: *Raja Ampat Nickel Mine; Social and Economic Sustainability; Computational Text Analysis (CATA); Digital Discourse and Public Policy*

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INTRODUCTION

Raja Ampat, located in West Papua, Indonesia, is a globally recognized biodiversity hotspot, often referred to as the “Amazon of the seas” due to its unparalleled marine and terrestrial ecosystems (Kurniawan, 2025). This archipelago is home to approximately 75% of the world’s coral species, playing a crucial role in maintaining the global balance of marine biodiversity within the Coral Triangle (Kurniawan, 2025). As a UNESCO biosphere reserve and global geopark, Raja Ampat is integral to both ecological resilience and climate stability (Hartanto, 2025). However, the region is increasingly vulnerable due to the expansion of nickel mining operations, particularly by PT. Gag, which threaten both the environment and the livelihoods of local communities that depend on its resources. While mining is often positioned as a driver for economic development, especially in the context of renewable

energy transition, it has triggered serious environmental concerns, including deforestation, coral reef degradation, and water pollution (Iqbal, 2025).

The legal framework surrounding mining in protected areas has been a longstanding issue. PT. Gag's mining activities in Raja Ampat can be traced back to a 1998 Contract of Work, approved during the Soeharto era, which allowed nickel extraction on Gag Island (Silehu & Pratiwi, 2025). Despite Law 41/1999, which prohibits mining in protected forests, recent years have seen a relaxation of regulations and a significant reversal in environmental protection efforts. This paradox has been especially evident since 2025, when a scandal involving illegal mining highlighted the contradictions between Indonesia's push for green energy minerals and the destruction of ecosystems vital to global climate resilience (Maspul, 2025). The inconsistent enforcement of environmental laws in ecologically sensitive regions such as Raja Ampat has allowed mining activities to proliferate, undermining the region's legal protections and further jeopardizing its biodiversity (Faizin, 2025; Triyanto, 2025).

Special Issues

The expansion of nickel mining in Raja Ampat has led to profound ecological and social challenges, particularly in the form of environmental degradation and flooding. Satellite imagery and land-use data from PlanetScope reveal a dramatic increase in mining areas on Gag Island, expanding from 4.53 hectares in 2017 to over 301 hectares by 2025, a nearly 66-fold increase in less than a decade (Rifai et al., 2025). This rapid expansion of mining operations has resulted in severe deforestation and transformation of tropical forests into barren land, significantly altering the region's natural landscape. As mining activities have escalated, the land's ability to manage precipitation has been compromised, leading to increased water runoff and frequent flooding, affecting both mining sites and surrounding communities (Sangadji & Malau, 2025).

The environmental consequences are widespread, including damage to coral reef ecosystems and water quality degradation. Mining runoff, which blocks sunlight essential for coral photosynthesis, has led to coral bleaching and the destruction of vital marine habitats (Ulat et al., 2024). Moreover, these ecological disruptions are exacerbated by the violation of indigenous rights, as mining operations continue to encroach on traditional lands, undermining local communities' ability to manage their resources sustainably (Amalia et al., 2025). The practice of 'sasi,' a traditional form of resource management by indigenous communities, has been severely undermined by the influx of mining operations, leading to increased tensions between local residents and the companies involved (Utami & Ramadan, 2025). Furthermore, while the Indonesian government has introduced policies to protect sensitive areas, inconsistent enforcement and weak governance have allowed mining to persist, even in regions with significant ecological and cultural value (Triyanto, 2025).

Despite widespread opposition from local communities, environmental groups, and academics, mining continues in Raja Ampat. Advocacy efforts, particularly by organizations like Greenpeace, have successfully pressured the government to temporarily halt mining activities, but the future of Raja Ampat remains uncertain without stronger regulatory frameworks and more consistent enforcement of existing laws (Santioso & Sinaga, 2025). The region's future hinges on the government's commitment to balancing economic growth with the need to preserve its unique ecological heritage and ensure that the benefits of resource

extraction are equitably shared with the local communities that have long protected this valuable region (Faizin, 2025; Zahar & Rosyid, 2025).

Research Urgency

The 2025 nickel mining controversy in Raja Ampat has emerged as a major environmental and policy issue, amplified by public outcry and digital activism. Raja Ampat, a UNESCO Global Geopark, is renowned for its rich biodiversity and is home to more than 75% of the world's coral species. However, growing nickel mining activities, driven by global demand for renewable energy materials, are threatening its delicate ecosystems, particularly coral reefs and marine life ("Tempo.Co," 2025). The #SaveRajaAmpat movement gained momentum through social media platforms such as YouTube, where discussions about the environmental damage from mining operations began to trend, particularly following reports of illegal mining in the region. As highlighted by Greenpeace Indonesia, these mining activities have resulted in significant damage to local ecosystems and violated both national regulations and international conservation commitments (*Greenpeace #SaveRajaAmpat*, 2025).

In June 2025, the Indonesian government revoked the mining permits of several companies in Raja Ampat, following massive protests and social media campaigns. However, the situation remains unresolved, with the possibility of legal challenges to reinstate permits. The issue of sustainable mining versus conservation continues to be a point of tension in the region, as the nickel industry is crucial for Indonesia's economic growth, particularly in the renewable energy sector (Reuters, 2025). Public opinion, however, remains divided, with growing demands for stronger protections for biodiversity and indigenous rights (Tempo.co, 2025). In this context, analyzing public discourse through computational content analysis (CATA) of YouTube comment sections on Kompas.com can provide valuable insights into dominant themes and discursive frames used to discuss the mining issue. Understanding how the public frames these issues can contribute to more informed policy decisions in Indonesia, especially as online activism continues to grow (Antara News, 2025).

The increasing importance of social media platforms as sites of public debate highlights the need for research into how digital platforms shape public perceptions of environmental issues. The YouTube comment sections under news videos from outlets like Kompas.com serve as a key space for digital discourse on the mining issue. By employing computational content analysis, this research can identify dominant themes, emotional tones, and policy stances that shape public opinion regarding mining practices in ecologically sensitive areas like Raja Ampat (Sasora, 2025; Ulat et al., 2024). Given the significant role that online activism played in pressuring the Indonesian government to revoke mining permits, understanding the public's emotional and cognitive responses to the issue is essential for future policy development.

METHOD

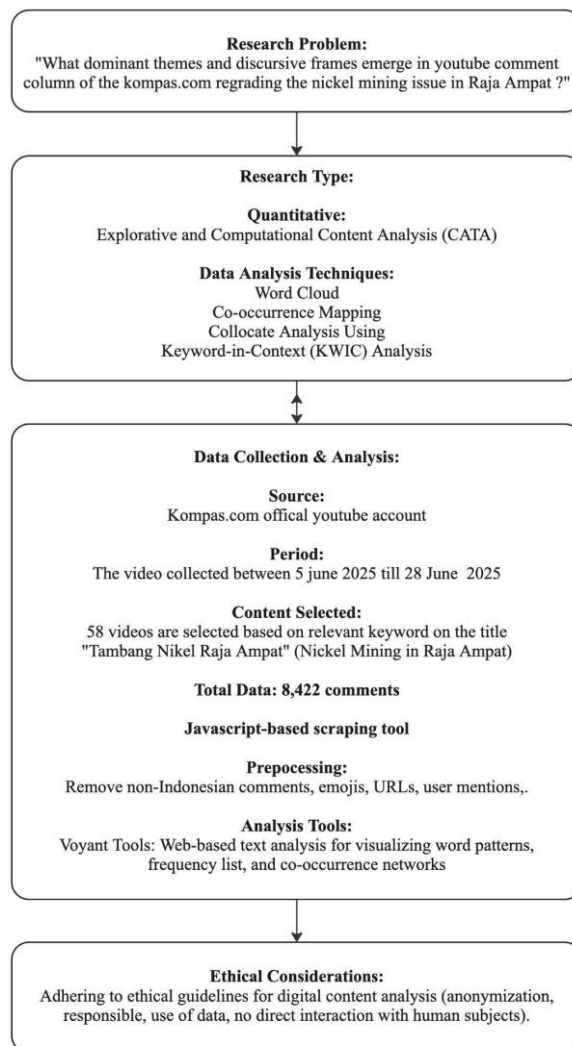
This study uses an exploratory approach to analyze the responses of YouTube users in Indonesia to the Nickel Mining issue in Raja Ampat, focusing on netizen comments. A

computational approach was chosen to identify linguistic patterns, thematic clusters, and word usage in large volumes of public text data, enabling exploration of informal and real-time discourse (Krippendorff, 2022).

Data were collected from Indonesian-language comments posted between June 5 and June 28, 2025, on videos related to the issue on the Kompas.com YouTube channel. Data collection was conducted using JavaScript-based software with the MAN1986/Learningorbis library, which was used for the comment data *scraping process*, as well as Voyant Tools for topic mapping, keyword extraction, and data frequency analysis. Three main words that emerged as keywords were 'alam', 'rakyat', and 'tambang', which are directly related to the main issue of the study. This study considers the principles of digital research ethics by analyzing publicly available comments that can be accessed without privacy restrictions on the YouTube platform. This study does not involve direct interaction with users or the collection of sensitive personal data. To maintain anonymity, all user identities such as account names and profile information were removed, and comments were treated as public texts that represent patterns of conversation and discourse in the digital space, which have undergone a systematic data cleaning and filtering process to ensure the relevance of the analysis, not as representations of specific individuals (Vitak et al., 2017).

Before analysis was carried out, the data went through a cleaning stage to ensure quality and precision, which included removing non-Indonesian comments, meaningless words, URLs, emojis, as well as duplicate words and stopwords, with reference to methods that have been accepted in computational linguistics (Fay, 2018).

Figure 1. Research Design Diagram



After cleaning, the data was analyzed using word frequency, word cloud, and context (KWIC) visualization, which allows researchers to effectively depict text patterns even without programming expertise (Wachyudi, 2022). Frequently occurring words are displayed in a larger font size in the word cloud, making it easier for researchers to quickly see the most dominant words or phrases in the discourse, which will be identified as key concepts in the data (Zaidi & Allahdad, 2023). Meanwhile, the KWIC table helps reveal how these words convey persuasive and manipulative ideologies, and word frequency analysis functions to deepen understanding of the ideologies hidden in the dialogue, thereby improving the understanding of the text's discourse as a whole (Khafaga, 2022).

RESULTS AND DISCUSSION

Word Cloud and Term Frequency Analysis

To identify how Indonesian netizens respond to trending issues related to nickel mining in Raja Ampat, it is examined by involving how netizens connect ways of thinking or speaking systematically using reasoning to provide various perspectives, using word clouds in Voyant

Tools, focusing on the 50 most frequently appearing words in the corpus. The terms found aim to provide an understanding of general perceptions, identification of patterns and relationships, and similarities in meaning related to the nickel mining issue in Raja Ampat.



Figure 2. Word Cloud “Raja Ampat Nickel Mine” Issues

The Word Cloud in Figure 2 displays the most frequently appearing words in issues surrounding Nickel Mining in Raja Ampat from June 5, 2025 to June 28, 2025. The term 'Nature' appears as the most dominant word, appearing 1,073 times, reinforcing its role as the center of the current issue. Meanwhile, the word "people" appears 1,049 times, making it the second most prominent word after "Nature." The word "people" highlights the emphasis on the parties impacted by this issue. The emergence of affective diction such as 'mining' increasingly makes headlines that there is a serious issue that makes the public sentimental about the impact on nature and social life (Al-Fajri, 2025).

The word cloud provides a visual representation of how mining is not only a project that can increase regional and national income but also a threat to the survival of surrounding creatures, from social impacts that can lead to social conflict and land conflicts to environmental impacts that threaten ecosystem damage and degradation of contaminated soil. This is in line with previous research that revealed the facts of environmental damage in Pasir Sakti District, East Lampung, where sand mining activities have left 1,000 hectares of ex-mining land abandoned without restoration, creating critical land that cannot be optimally utilized (Andriawan et al., 2021). At the bottom are terms such as "damage," "environment," "destroyed," with a number of words appearing sequentially at 507, 412, and 225. The appearance of these words forms a sequential pattern, representing how YouTube users associate mining with various potential consequences. The damage that occurs can trigger a butterfly effect where a small damage can lead to a larger scale of damage. This context can also provide an illustration that a small action related to changes in a system will have a

significant or even unexpected impact, somewhere else or in the future (Herin, 2025). The application of terms such as "nickel", "wealth", "SDA" (natural resources) indicates that the conversation refers to aspects of natural resources in Indonesia and extractive businesses. These dictions show that users are discussing a fairly sensitive matter because on the one hand it may provide economic benefits to the country and region but on the other hand it can be the opposite if utilization is carried out excessively.

Meanwhile, the emergence of terms like "interest," "money," and "greed" can reflect the various preferences and primary goals of a figure or oligarchy regarding areas with abundant natural resources. The emergence of these words also illustrates how the natural resources and primary protein sources of local indigenous people are being interfered with by outsiders hungry for the available natural resources.

The emerging diction discourse such as "forest," "sea," "island" highlights the situation in which mining activities take place and the areas negatively impacted by mining activities. The emergence of expressions such as "finished," "excavated," "damaged" shows that the parties involved ignore and do not consider the long-term damage to the environment and the living space of local communities and the surrounding ecosystem (Asnawi & Salman, 2025). If the nickel in Raja Ampat runs out, only damage will remain that cannot be recovered.

Finally, some terms refer to an audience's expectations. The words "law," "fire," and "revoke" indicate the audience's high hopes that the government will take action against companies and individuals involved who do not comply with green mining practices and review and revise the permits issued by the government. Furthermore, the emergence of emotive terms such as "save" and "stop" reflects the audience's desire for action to immediately halt mining activities in Raja Ampat. One of the mining activities is carried out on an island adjacent to a UNESCO-designated geopark. Therefore, the impact of the damage will significantly affect the area. Raja Ampat itself is not only a recreational destination but also home to a variety of marine and terrestrial biodiversity. These emerging expressions highlight that the community wants to be involved because they are concerned about the condition and impact of the surrounding megabiodiversity (Maspul, 2025).

Corpus Collocates Analysis

Analysis of the corpus collocation provides a more detailed understanding of keyword terms in the YouTube platform discourse about the Raja Ampat Nickel Mine. Focusing on the top ten collocations identified through computational content analysis, this study explains how netizens naturally associate the concept of a participatory communication environment. In this situation, the correct sorting of collocations can be a consolidation action on the researcher's analysis by providing a more systematic understanding and integrating linguistic research. The application of a holistic perspective with the aim of increasing the accuracy and depth of the study to enrich the analysis in digital discourse and corpus linguistics (Đorđević, 2022).

Term	Collocate	Count (context)
<input type="checkbox"/> merusak	alam	245
<input type="checkbox"/> tambang	nikel	155
<input type="checkbox"/> merusak	lingkungan	121
<input type="checkbox"/> negara	negara	114
<input type="checkbox"/> rakyat	rakyat	112
<input type="checkbox"/> tambang	tambang	92
<input type="checkbox"/> rakyat	mesin	90
<input type="checkbox"/> negara	rakyat	89
<input type="checkbox"/> alam	rakyat	86
<input type="checkbox"/> rakyat	negara	86

Figure 3. Corpus Collocates “Raja Ampat Nickel Mine” Issues

The data presented in Figure 3 demonstrates a strong association between the terms 'destruct' and 'nature,' with 245 co-occurrences. This demonstrates their central role in anthropogenic discourse surrounding the exploitation of natural resources, particularly nickel, demonstrating that YouTube users frequently link potential environmental consequences to their discussions about nickel mining in Raja Ampat. This pairing of the two terms likely aligns with the numerous nature conservation campaign networks. The high frequency of this discourse pairing emphasizes concerns about irreversible environmental damage caused by excessive greed. Field research from NGO reports indicates that local communities and the general public are pressing for direct engagement out of concern about the condition and potential damage to Raja Ampat's megabiodiversity. These concerns are reflected in protests, petitions, and digital campaigns on social media(White et al., 2022).

Similarly, the word pair 'mining' and 'nickel', with 155 co-occurrences, highlights the activity of extracting mineral resources from the earth and sea for extractive purposes, which is predicted to become a primary human need in the current era. As awareness of sustainability increases in the years to come, demand for nickel is expected to continue to grow, particularly to support the transition to electric vehicles and renewable energy(Henckens & Worrell, 2020).

The repeated occurrence of the term “destructive” but with “environment” appeared together in 121 contexts. This recurring motif demonstrates that the impact of the damage could potentially be massive, with various issues arising, ranging from ecological issues to cultural conflict and social crisis. Ecosystem instability will result in the loss of livelihoods, food sources, and even social inequality among residents. Meanwhile, coastal communities rely heavily on the stability of marine ecosystems to support their economies. If all of this occurs, the impact on culture will be unavoidable, and local wisdom derived from the management of existing natural resources will be lost. The nickel industry faces substantial environmental challenges involving unwise resource use, excessive energy and water consumption. The need for a proportional approach in the extraction and processing of mining products is an effort to ensure sustainable solutions (Battaia et al., 2024).

Meanwhile, the terms “people” and “poor” create a correlation of meaning after the previous discourse pairing, appearing in 90 contexts. Mining is often used as an economic narrative through schemes to improve people's welfare, but in reality, the negative impacts are felt more by the people than the positive impacts. Moreover, local people are not given space to be involved in decisions such as whether a mine is to be developed and are not given information about mining plans. Ignoring the role of local communities is not a measure that will improve their welfare. Many local residents' rights are lost due to mining, which impacts food sources, water sources, and even livelihoods. Mining sediments containing hazardous chemicals pose a high risk of polluting the waters on which communities depend for their livelihoods (Maier et al., 2014).

Furthermore, there are pairs of terms "state"- "people" that appear in 89 contexts. This pattern reflects the connection between society and a system created by the state. Citizenship has various benefits, with the enjoyment of all the rights of citizenship. Including the right to vote, participate in politics, access education, the right to security of residence, freedom of movement, the right to own a business and so on(Haider & Mcloughlin, 2016). In this issue,

political elites exploit the income they gain from their own citizens and natural resources. However, political elites tend to interact less with citizens, resulting in not building effective public authority. This is in line with research on elites in Iraq who prioritize legitimacy with poor performance and maintain power by monopolizing the flow of information to the public so that the public thinks that the problems caused are not too serious (Al-Aloosy, 2023).

Similarly, the term "nature" and "people" are paired, with 86 contexts emerging, also suggesting a strong, inherited relationship between communities and nature. The continued quality of life of communities depends on the preservation of the area and its resources. Massive development projects, mining, agricultural and forestry programs without regard for the role of the people will lead to major environmental disasters, creating fluctuating ecosystems that can have disastrous ramifications for the people and even for the surrounding plants and animals. They can also lead to the extinction of various types of flora and fauna, the local economy, and the loss of existing local culture (Bashiron Mendolicchio, 2024). The combination of these terms displays a striking thematic orientation regarding the utilization of natural resources in a region, the urgency of extraction efforts for human life, the ramified impacts of mining, how influential local residents are to be involved, and the relationship of society to nature and its own country. The discourse of words above creates a pattern that is manifested in the core understanding of how YouTube users assess the issue of nickel mining in Raja Ampat.

Co-occurrence Analysis

Co-occurrence analysis describes the relationship between interconnected discourses and reveals contextual meanings to the identification of keywords, for a more structured and comprehensive understanding resulting from the Raja Ampat nickel mine content on the kompas.com youtube platform. The analysis on this network is based on terms that frequently arise from (top 7) and visualizes a semantic view where "nature/mining" functions as the epicenter of this issue.

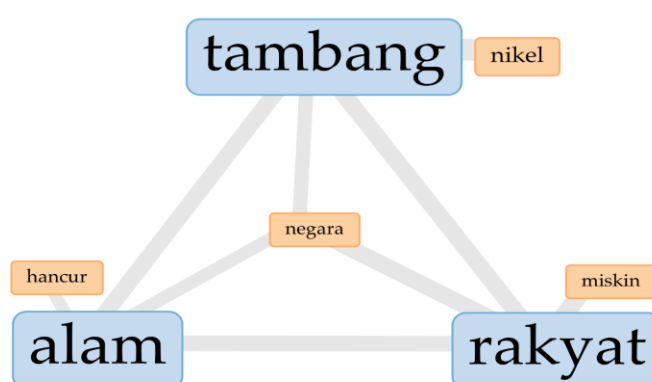


Figure 4. Co-occurrence Analysis of “Raja Ampat Nickel Mine” Issues

Figure 4 visualizes the co-occurrence relationship between 3 specific vocabularies, namely 'mining' and 'nature', finding a co-occurrence of 75. This explains how YouTube user conversations regarding nickel mining issues in the dataset often integrate ecosystem, economic, and cultural impacts, and represent emotional involvement. Mining activities are

always associated with the sustainability of human life, aiming to provide products from resources that humans need and want, but behind that, there are challenges that pose risks to nature and the lives around it. Holistically, the mining industry is responsible for the environmental damage in the area, affecting land fertility and the diversity of flora and fauna. This explanation is in line with previous research that reviewed the environmental damage caused by the impact of nickel mining on Obi Island, Indonesia, resulting in the degradation of the mangrove ecosystem and declining soil quality. Worse still, local residents' access to clean water is very limited, this can impact the threat to local food security and lead to poor food production (Rakuasa et al., 2025). The appearance of the word 'hancur' after the word 'alam' has a strong correlation with the word 'ambang', this word further strengthens the evidence that researchers have explained about previous studies on the environmental impact of excessive land clearing for mining purposes that occurred on Obi Island.

Similarly, the co-occurrence of the terms 'mining' and 'people' highlights the significant relationship between communities and mining. Both state-owned and privately owned extraction efforts can be beneficial for community growth in various aspects and bring significant profits to the companies involved. The relationship between the two parties, namely the company and the community, can only work if mining practices are carried out transparently and without any fraud that could harm the community. Mining parties can strengthen relationships with local communities by resolving social issues, ensuring equitable distribution of economic benefits, and minimizing health consequences. Involving local residents in decision-making is also crucial, as it is an effort to respect cultural values and also determine environmental protection standards (Maier et al., 2014). However, on this issue, allegations from YouTube users concluded that nickel mining practices in Raja Ampat have the potential to cause massive environmental damage that impacts social life, health risks, and the community's economy. This allegation was strengthened by actions supporting the Greenpeace environmental community campaign and enlivening the hashtag #SaveRajaAmpat on social media (Ulat et al., 2024). The emergence of the word 'poor' near the word 'people' is caused by the growing public suspicion and strong arguments from several experts who have calculated the impact of this mining, exacerbated by news about the government not taking action to mitigate the conflict instead covering the public by only calming the impact of mining that does not have much impact on the community and megabiodiversity in Raja Ampat. From this, YouTube users concluded that the collaborative framework between industry and government involved in nickel mining in Raja Ampat does not prioritize the welfare of local communities, but the presence of the mine worsens the natural and economic conditions of the community.

This situational background contextualizes that YouTube comments can be considered as an efficient participatory discourse space in directing public opinion. YouTube comments can be a third space where political discourse occurs, triggered by videos which are then developed through user interaction, furthermore, this platform facilitates some active users to engage in deliberative activities (Chomel, 2023).

Keyword-in-Context Analysis

A keyword analysis in context (KWIC) is needed to indicate in more detail why the word "Nature" is so important in the discussion of the Nickel Mining issue in Raja Ampat. Keywords were extracted from 1,192 comments with the aim of delving deeper into the

meaning behind digital language practices. The data underwent a non-linguistic elimination process, such as removing non-Indonesian comments, emojis, duplicate words, and URLs, to ensure data cleanliness and relevance to the primary research objectives.

Left	Keyword	Right
masyarakat semakin percaya Maling rampog	alam	di rusak Gerombolan oligarki bermasalah
stop pertambangan tsb demi pelestarian	alam	, hasilnya tdk jelas, pemerintah wajib
Lagi banyak korupsi malah rusak	alam	juga. Inilah yg di katakan ppembohong
kita tidak bisa menikmati keindahan	alam	bumi Pertiwi kita Buat penjabat
makhluk hidup bisa hidup dari	alam	dengan menjaga alam maka alam
penguasa sudah tidak peduli dengan kerusakan	alam	ini Rakyat papua demo besar2an
Tolak keras penambangan Raja empat	alam	di rusak. Bayar pajak membengkak,
PERTANYAANYA..KEMANA LARINYA HASIL KEKAYAAN	ALAM	INDONEISA ITU?? Makin kacau Indonesia
ini pada gak beres, hasil	alam	sebegitu banyaknya uangnya tah kemana,
BUAT BADAN YANG MENGHALALKAN PERUSAKAN	ALAM	Penjilat PANTAT Kekuasaan,,Rakus,Serakah
KALO KALIAN MASIH RAKUS LIHAT AJA	ALAM	INDONESIA AKAN JADI KENANGAN PASTI

Table 1. KWIC Analysis “Raja Ampat Nickel Mine” Issues

Table 1 presents a KWIC (keyword-in-context) analysis of the term 'nature' in the discourse on nickel mining in Raja Ampat, which users applied to their opinions to describe their disagreement with government policies related to mining in West Papua. This KWIC analysis explains the alignment of terms between keywords and formed opinions, helping to show how negative emotions from user comments influence the interpretation of language expressions, language meanings, in certain situations that reflect negative sentiments (Abdul-Kadhim, 2024). The results of the KWIC analysis show that the word 'nature' appears in the context of sentences that explain the expression of user concerns about the impact of ecosystem damage that may occur, these concerns are very relevant considering the ecological crisis that has occurred in several mining cases in Indonesia. Such as tin mining in the Bangka Belitung Islands which has caused deforestation, environmental degradation, decreased soil quality to the loss of biodiversity (Pratiwi et al., 2025).

Reference to emotions in this study were identified through recurring words that commonly express evaluative or affective meanings in everyday language, rather than through

formal sentiment analysis. The query term 'nature' functions as a central term that has relationships to bind various expressions generated from user comments such as damage, disappointment, moral outrage towards policymakers and oligarchs. The emerging collocations such as 'damaged', 'stop mining', 'cannot enjoy beauty', and 'mining', form a representation pattern by referring to 'nature' as a crucial context that is highly valued and is being threatened by exploitation. The simultaneous emergence of right and left contexts highlights that 'nature' is not a word that is interpreted passively, but the core articulation of political and environmental criticism, where users perceive that natural damage is a result of greed for power and economic non-transparency in extractive businesses. Furthermore, fraudulent practices driven by personal economic interests without considering social impacts, found terms in the table such as 'corruption', 'gang oligarchy', 'where is the money', and 'swelling taxes' showing a strong correlation between ecological issues and governance issues in public perception.

The emergence of consistent word patterns indicates that the word 'nature' is not only a non-intrusive word landscape of mining practices, but also becomes the emotional root and moral demand of the expression of public distrust towards the government. 'Nature' has become the primary focus, posing a threat to local communities and surrounding megabiodiversity, eroding the value of natural beauty, and creating rifts in relations between the community and the government (Riechers et al., 2020). The emergence of phrases such as 'we cannot enjoy beauty', 'living creatures can live from nature', and 'stop mining for the sake of nature conservation' highlight public efforts to assert nature's position as the basis of national identity and communal pride, as well as community efforts to construct narratives of destruction. Furthermore, KWIC also shows that the language in digital conversations about nickel mining builds an effective word context to reconstruct the facts of damage, mobilizing feelings of disappointment, anger, and concern. Phrases such as 'greedy', 'greedy', and 'Indonesia will be a memory' insert emotions that strengthen the framing of the environmental crisis. where social media users become a key instrument in understanding how the public negotiates the impacts of environmental damage, extractive business fraud and power relations in this issue.

Based on data collected from YouTube comments regarding nickel mining in Raja Ampat, this research has a strong connection with Communication Science and Sustainability Theory. In the context of Communication Science, these comments can be seen as a form of public discourse that reflects how collective opinion is formed through social media. In the digital world, netizens act as public communicators who use social media platforms to voice their views on social and environmental issues. (Sebastião, 2013) explains that social media functions as a digital public space that allows for discourse that influences public policy and opinion. Using tools such as Voyant Tools, this study analyzed the linguistic patterns and inter-word relationships that emerged in these comments, exploring dominant themes that reflect public perceptions of the environmental and social impacts of nickel mining activities. This process contributes to an understanding of how digital communication plays a role in shaping public opinion and how these comments can influence policy and social responses to sustainability issues, as explained by (Zaidi & Allahdad, 2023) in their research on public sentiment analysis on social media.

On the other hand, this research is also relevant to Sustainability Theory, particularly in examining how public communication can shape social awareness of environmental and sustainability issues. In this regard, the sustainability theory developed by the Brundtland

Commission (1987) emphasizes the importance of maintaining a balance between economic needs and environmental preservation for future generations. This research reflects how netizens voice concerns about environmental damage due to unsustainable exploitation of natural resources, as well as how they link nickel mining issues with social consequences and ecosystem damage. Through the digital discourse formed in these comments, people demonstrate a deep understanding of the negative impacts caused by the over-exploitation of natural resources, and how this challenges sustainability principles that include attention to ecological risks and resilience (Greve & Laustsen, 2024). Thus, this study not only examines public responses, but also provides insights into the role of communication in advancing sustainability through social collaboration and public participation (Aung et al., 2025)

CONCLUSION

This study used computational content analysis to examine netizen reaction regarding nickel mining in Raja Ampat, based on YouTube comments from Kompas.com. The analysis identified key themes such as mining (tambang), nature (alam), and people (rakyat), reflecting concerns about the environmental destruction and social inequalities linked to mining activities. Commonly associated words like “destroyed” (hancur) and “poor” (miskin) highlight public anxiety over the ecological impact and the unequal distribution of mining’s benefits.

The study emphasizes the need for stronger government regulation and accountability in managing natural resources. Digital public discourse, amplified by digital platforms like YouTube, reveals a growing demand for sustainable mining practices and inclusive policy-making. These findings underscore the importance of digital platforms in shaping public opinion and policy, highlighting the urgent need for policymakers to engage with digital activism in environmental governance.

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