Thematic Progression and Thematic Prominence in Malaysian Media Discourse on Biodiversity Conservation

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ARTICLE INFO	ABSTRACT
	The media plays a crucial role in shaping public awareness and attitudes toward biodiversity conservation. This study examines thematic progression and prominence in Malaysian media reports concerning the Greening Malaysia Programme and the 100 Million Tree-Planting Campaign. Despite extensive coverage, the effectiveness of media discourse in sustaining conservation narratives remains unclear. The study employs the thematic progression framework to analyse how themes develop across news articles. Through qualitative discourse analysis, it investigates the thematic structures present in reports from the New Straits Times, Bernama, The Sun, Malay Mail, Malaysia Kini and The Star. The findings reveal dominant thematic patterns that emphasise governmental accountability, yet there is limited continuity in narratives regarding environmental impact. This study contributes to understanding how the media constructs conservation discourse and suggests strategies to enhance coherence in environmental journalism.

1. Introduction

In Malaysia, natural forest resources are regarded as valuable and significant contributors to the country's economic and environmental well-being [1]. In Peninsular Malaysia, forests still form the dominant physical landscape. To maintain these valuable resources, a few government agencies have been set up to develop, manage and conserve forest resources to meet the country's needs. Under Malaysia's Federal Constitution, the legislative control of land and forests is a state matter, and the state governments have complete jurisdiction over their respective forest resources [2]. However, the federal government can provide technical advice on forest management and development, undertake research and education and promote the development of wood-based industries and

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trade. To ensure that forest lands in Malaysia can be effectively managed, their respective state authorities have enacted and enforced various forestry ordinances since the early 1900s [2].

A study [3] focusing on the language of sustainable development in Chinese policy documents highlighted the importance of conducting linguistic analysis in understanding policy implementation [4] also emphasises the importance of examining how language is applied to accentuate some aspects of news coverage, in that she asserts that coverage of specific news in the media may impact how responsibilities are constructed among the communities. Several studies have investigated the critical role language plays in shaping public perceptions and attitudes towards environmental issues [4-6]. The media is critical in shaping public perceptions of environmental issues and can contribute to more effective environmental policymaking [5]. Mautner *et al.,* (2005) advocated that linguistic analysis can help identify the discursive practices and ideologies that shape media representations of environmental issues [7].

From the perspective of forestry management practices in ensuring forest sustainability in the Malaysian context, several key areas have been found to impact its effectiveness. These include stakeholder engagement and capacity building [1,8-11] and effective governance [10-13]. While there have been studies conducted investigating various types of forestry-related agendas in the Malaysian context [14,15], they mainly focused on the forestry texts that are produced by forestry professionals and primarily serve as internal documents among forestry professionals. The research is guided by the following questions:

i. How are themes related to biodiversity conservation structured and developed in Malaysian media discourse?
ii. What strategies are used to emphasise and give prominence to biodiversity conservation themes in Malaysian media discourse?

By addressing these questions, this study contributes to discourse analysis, media studies, and environmental communication. The findings have practical implications for improving media strategies and fostering greater public engagement in biodiversity conservation efforts.

2. Methodology

Thematic progression concerns how Themes relate to preceding Themes and Rhemes to identify where the content of each Theme is derived [18,19]. Danes *et al.,* (1974) postulates that there are four thematic progression patterns: simple linear theme progression, constant theme progression, derived theme progression as well and the split rhyme pattern. Simple linear theme progression refers to a Theme which is derived from the Rheme of the previous clause where each Rheme becomes the Theme of the next clause. Constant Theme progression pattern occurs when the same Theme appears in a series of utterances to which different Rhemes are linked up [20]. The derived Theme progression pattern refers to a Theme derived from a single general notion known as a Hypertheme whereby the pattern serves as a way of introducing new information, which is taken up as the Theme of the subsequent clause [20,21].

The data comprises ten media articles from prominent Malaysian outlets, including the New Straits Times, Bernama, Malay Mail, Malaysia Kini, and The Star. The articles were selected based on their coverage of the initiatives, with a focus on texts published between January and June 2024. Keywords such as '100 million tree planting campaign', 'greening Malaysia our trees our life', 'greening Malaysia campaign', and 'greening Malaysia programme' were used to identify relevant articles.

2.1 Research Analysis

The analysis follows [20] framework for thematic progression, identifying patterns such as linear, constant, and derived progression. Thematic prominence is analysed using indicators proposed by Fries *et al.,* (1983), including frequency (how often a theme appears), placement (where the theme appears in the text), and elaboration (how the theme is developed) [22]. Thematic prominence is assessed using [22] indicators, such as frequency, placement, and elaboration of themes. The data analysis process involved the following steps:

i. **Coding**: Identifying and categorising themes related to biodiversity conservation.
ii. **Pattern Recognition**: Analysing how themes progress and connect across texts.
iii. **Interpretation**: Drawing conclusions about the prominence and impact of specific themes.

Ethical considerations were taken into account, ensuring that only publicly available data was used and that the analysis remained objective and unbiased. This qualitative study aims to explore the forest and biodiversity conservation agendas constructed in the news coverage related to Greening Malaysia's initiatives through Systemic Functional Linguistics (SFL) analysis of thematic choices.

3. Results
3.1 Thematic Progression: Function and Realisation

The analysis identifies three types of thematic progression in the corpus: linear progression, constant progression, and derived progression. Each type serves a distinct function and is realised differently in the media discourse. Table 1 summarises the overall findings.

Table 1
Thematic progression patterns and their realisations

Thematic progression type	Function	Realisation in corpus	Example from corpus
Linear progression	Develops themes sequentially from problem identification to solution.	News articles begin with issues (e.g., deforestation) and introduce government initiatives as solutions.	The Sarawak Forestry Department has undertaken a significant environmental initiative by planting 3,000 Shorea macrophylla trees, also known as 'Engkabang Jantong', in the Sabal Forest Reserve, the Sarawak Public Communications Unit reported. This effort coincided with the celebration of International Forest Day 2024 and part of an attempt to set a record for the 'Most Shorea Macrophylla Tree Planting in an Event' in the Malaysia Book of Records. (NST, March 22, 2024)
Constant progression	Reinforces a central theme through repetition.	Government achievements (e.g., number of trees planted) are repeatedly emphasised.	Sabah has achieved an impressive milestone by planting 16.6 million trees as of last month, making a significant contribution to the nationwide initiative of planting 100 million trees. (NST, June 8, 2024)
Derived progression	Branches from a central theme to	Central themes (e.g., forest restoration) branch into sub-themes like community	Ching Thoo added that Malaysia remains committed to preserving and rehabilitating forested areas throughout the country and is

explore sub-themes.	engagement or urban greening.	committed to maintaining at least 50 per cent of the nation's land area covered by trees and forested areas, in line with the country's commitment during the Earth Summit in Rio de Janeiro, Brazil, in 1992. (MalayMail, May 26, 2024)

The analysis of thematic progression patterns in Malaysian media discourse on biodiversity conservation, as shown in Table 1, reveals three key approaches: linear, constant, and derived progression. Linear progression is characterised by a sequential development of themes. It starts with identifying environmental issues, such as deforestation, and culminates in presenting solutions, such as government-led tree-planting initiatives. Constant progression reinforces a central theme through repetition, often highlighting achievements, such as the milestone of planting 16.6 million trees in Sabah. In contrast, the derived progression branches out from a central theme, in this case, forest restoration, to explore related sub-themes, including community engagement and policy commitments, like Malaysia's pledge to maintain 50% forest cover. These patterns illustrate how Malaysian media structures the discourse on biodiversity conservation, effectively highlighting issues, solutions, and broader environmental efforts. This approach engages audiences with both local and global conservation narratives.

3.2 Thematic Prominence

Table 2 contrasts the frequency, placement, and depth of key themes, revealing disparities in how Malaysian media prioritises and elaborates on biodiversity topics. While governmental accountability dominates headlines, environmental and community themes receive less prominent placement and minimal elaboration.

Table 2
Thematic prominence vs. depth of analysis in Malaysian biodiversity discourse

Theme	Prominence (Frequency)	Placement	Depth of analysis	Example from corpus
Governmental accountability	60% (High)	Headlines/ Opening paragraph	Quantitative milestones (trees planted), institutional accountability	"Sabah achieves 16.6 million trees planted" (NST, 8 June 2024)
Environmental impact	25% (Moderate)	Middle/ Later sections	General claims	"Project RELeaf mitigates human-animal conflict" (NST, 29 May 2024)
Community involvement	15% (Low)	Scattered	Local involvement	"Nestlé trains 90 local communities" (NST, 29 May 2024)

As Table 2 illustrates, the analysis of thematic prominence in news discourse shows that governmental accountability is the most prominent theme, appearing in 60% of the articles. This theme is frequently highlighted in the headlines or opening paragraphs. Below are examples of news headlines from the analysis:

Headline 1: Natural resources sec-gen: Over 86 million planted since launch of Million Trees Planting Campaign (*Malay Mail, 26 May 2024*)

Headline 2: Sabah achieves 16.6 million trees planted in nationwide initiative (*NST, 8 June 2024*)

Headline 3: Sarawak Forestry Dept plants 3,000 'Engkabang Jantong' trees in Sabal Forest Reserve (*NST, 22 March 2024)*

The analysis of thematic prominence in Malaysian media discourse reveals that governmental accountability is the most dominant theme, appearing in 60% of articles. This theme is often emphasised through strategic placement in headlines or opening paragraphs. Media coverage highlights government-led initiatives and achievements in biodiversity conservation, frequently framed as measurable successes. For instance, headlines such as "Natural Resources Secretary-General: Over 86 Million Trees Planted since Launch of the Million Trees Planting Campaign" (Malay Mail, 26 May 2024) and "Sabah Achieves 16.6 Million Trees Planted in Nationwide Initiative" (NST, 8 June 2024) underscore the government's role in meeting environmental targets, using quantifiable data to reinforce accountability and progress.

Similarly, the headline "Sarawak Forestry Department Plants 3,000 'Engkabang Jantong' Trees in Sabal Forest Reserve" (NST, 22 March 2024) draws attention to specific actions taken by government agencies, further emphasising their active involvement in conservation efforts. By positioning these themes prominently in headlines and opening paragraphs, the media not only prioritises governmental accountability but also establishes it as a central narrative in biodiversity conservation discourse.

This strategy serves to build public trust in government initiatives while reinforcing the urgency and importance of environmental stewardship. Additionally, the use of specific figures, locations, and species names (e.g., "3,000 'Engkabang Jantong' Trees") adds credibility and tangibility to the discussion, making these themes more relatable and impactful for readers. Overall, these strategies highlight the media's role in shaping public perception of biodiversity conservation by foregrounding governmental actions and achievements.

Another prominent theme in Malaysian media discussions about biodiversity conservation is environmental impact. This theme appears in 25% of articles but often appears in later sections of news stories and is typically presented with minimal elaboration. For instance, articles may briefly mention ecological benefits such as "carbon sequestration" or "habitat restoration," but they rarely provide detailed data, expert commentary, or thorough analysis to support these claims. This lack of elaboration represents a missed opportunity for the media to enhance public understanding of the tangible ecological benefits associated with conservation initiatives. For example, an article from NST on May 29, 2024, discusses Nestlé Malaysia's Project RELeaf, which aims to "reforest wildlife corridors," "restore riparian buffer zones," and "mitigate human-animal conflict." While these goals are mentioned, the article does not delve into specific ecological outcomes, such as how reforestation can improve biodiversity, enhance water quality, or reduce carbon emissions.

Similarly, the excerpt from NST, dated 12 March 2024, emphasises the vital role of forests in maintaining ecological balance, supporting human health, and mitigating climate change. However, it lacks concrete examples or data to illustrate these benefits. Instead, the discussion shifts to the conflict between conservation efforts and planned deforestation projects, overshadowing the examination of environmental impacts. This pattern suggests that while the media recognises the importance of environmental issues, it often prioritises other topics, such as governmental accountability or corporate initiatives, over a more in-depth ecological analysis. To enhance public understanding, media coverage could include more detailed data, expert insights, and case studies that highlight the measurable benefits of conservation efforts. These could encompass improved biodiversity, enhanced ecosystem services, and effective climate change mitigation. By incorporating

this information, the media could play a more significant role in fostering a deeper appreciation for the environmental importance of biodiversity conservation. Based on the findings of the study, only two out of ten articles cited expert commentary on ecological outcomes (e.g., carbon sequestration rates of planted Shorea macrophylla), despite Malaysia's 100-million-tree campaign being a key focus. This aligns with the findings obtained by Fujiwara *et al.,* (2022) that media often prioritises quantifiable achievements over more pronounced ecological analysis [4].

4. Implications and Recommendations
4.1 Theoretical Implications

This study contributes to the field of discourse analysis by applying frameworks of thematic progression and thematic prominence to environmental journalism. It builds on the foundational work of Halliday *et al.,* (2013) and Danes *et al.,* (1974), demonstrating how the media shapes public understanding of biodiversity conservation through selective emphasis and narrative sequencing [18,20]. By analysing the development and prioritization of themes such as governmental accountability, environmental impact, and community involvement, the study highlights the media's role in shaping perceptions of conservation efforts. This approach not only enhances the theoretical understanding of discourse patterns in environmental reporting but also emphasises the significance of narrative strategies in influencing public engagement with ecological issues.

4.2 Practical Recommendations

For media outlets, it is important to balance government-focused reporting with comprehensive coverage of environmental impacts and community involvement to keep the public's interest in long-term commitment to environmental conservation. This can include publishing follow-up articles that track the long-term outcomes of conservation initiatives, such as species recovery and ecosystem restoration, to provide a more complete view of their effectiveness. This may eventually lead the public to a change in consumer behaviour [23]. In addition, policymakers can support this effort by providing journalists with access to detailed ecological data, such as species recovery rates and carbon sequestration metrics, which can enrich reporting and enhance public understanding. Data regarding land use have been proven to increase effective governance [24]. Therefore, data on land use in the areas where the trees have been planted can also be shared publicly to encourage continued support from the public beyond the programme duration, as stakeholders may also use the data to measure the programme's effectiveness. Furthermore, the stakeholders need to join forces in inculcating knowledge and increasing awareness among the public on the critical role of each citizen in materialising the nation's goal of mitigating climate change and conserving the rich natural habitats in Malaysia. This can be done by taking a more comprehensive action like those proposed in [16]. These recommendations aim to promote more balanced, data-driven, and inclusive media coverage of biodiversity conservation, ultimately contributing to greater public awareness and engagement.

5. Conclusions

The results of the study reveal that Malaysian media discourse on biodiversity conservation prioritises governmental accountability through structured thematic progression. While this effectively emphasises government initiatives, there is an opportunity to improve the discourse by offering more comprehensive coverage of environmental impacts and the role of public participation.

Addressing these gaps can encourage a more nuanced public dialogue on conservation, ultimately leading to more holistic and inclusive policy actions. Future studies should investigate how multilingual media (such as Malay, English, and Chinese) frame these themes differently, as well as the influence of social media in shaping conservation narratives.

Acknowledgement

References

[1] Islam, Rabiul, Chamhuri Siwar, Shaharuddin M. Ismail, and Nurul H. Chamhuri. "Criteria and indicators for sustainable forest management in Malaysia." *American journal of Environmental sciences* 6, no. 3 (2010): 212. https://doi.org/10.3844/ajessp.2010.212.218

[2] Talib, Izaidah. "Overview of forestry sector in Peninsular Malaysia." *International Journal of Sciences* 4, no. 12 (2015): 73-78. https://doi.org/10.18483/ijSci.882

[3] Zhang, Biyun, Shanti Chandran Sandaran, and Jing Feng. "The ecological discourse analysis of news discourse based on deep learning from the perspective of ecological philosophy." *Plos one* 18, no. 1 (2023): e0280190. https://doi.org/10.1371/journal.pone.0280190

[4] Fujiwara, Sofia. "Responsibility and the Media: A critical discourse analysis of climate change representations in the US and Nigerian news outlets." (2022).

[5] Leipold, Sina. "Creating forests with words—A review of forest-related discourse studies." *Forest Policy and Economics* 40 (2014): 12-20. https://doi.org/10.1016/j.forpol.2013.12.005

[6] Plemenitaš, Katja. "Some aspects of the systemic functional model in text analysis." *ELOPE: English Language Overseas Perspectives and Enquiries* 1, no. 1-2 (2004): 23-36. https://doi.org/10.4312/elope.1.1-2.23-36

[7] Mautner, Gerlinde. "Time to get wired: Using web-based corpora in critical discourse analysis." *Discourse & Society* 16, no. 6 (2005): 809-828. https://doi.org/10.1177/0957926505056661

[8] Salman, Ahmad, Mastura Jaafar, and Diana Mohamad. "Understanding the importance of stakeholder management in achieving sustainable ecotourism." *Pertanika Journal of Social Sciences and Humanities* 29, no. 1 (2021): 731-753. https://doi.org/10.47836/pjssh.29.1.40

[9] Talib, Izaidah. "Overview of forestry sector in Peninsular Malaysia." *International Journal of Sciences* 4, no. 12 (2015): 73-78. https://doi.org/10.18483/ijSci.882

[10] di Semenanjung Malaysia, Berasaskan Kayu. "The impact of sustainable forest management (SFM) practices on primary timber-based production in peninsular Malaysia." *Jurnal Ekonomi Malaysia* 51, no. 2 (2017): 143-154. https://doi.org/10.17576/JEM-2017-5001-12

[11] Gani, Iqtie Qamar Laila Mohd, Razak Wahab, and Mohd Sukhairi Mat Rasat. "An overview of illegal logging situation in Peninsular Malaysia." *Journal of Tropical Resources and Sustainable Science (JTRSS)* 1, no. 2 (2013): 24-30. https://doi.org/10.47253/jtrss.v1i2.637

[12] Jusoff, Kamaruzaman, and D. H. D. H. Taha. "Sustainable forest management practices and environmental protection in Malaysia." *WSEAS Transactions on Environment and Development* 4, no. 3 (2008): 191-199.

[13] Salman, Ahmad, Mastura Jaafar, and Diana Mohamad. "Understanding the importance of stakeholder management in achieving sustainable ecotourism." *Pertanika Journal of Social Sciences and Humanities* 29, no. 1 (2021): 731-753. https://doi.org/10.47836/pjssh.29.1.40

[14] Fakhruddin, W. F. W. W., Zuraidah Mohd Don, and Hanita Hassan. "Managing harvesting for forest sustainability in Malaysia: An SFL perspective." *GEMA Online Journal of Language Studies* 22, no. 4 (2022): 21-38. https://doi.org/10.17576/gema-2022-2204-02

[15] Fakhruddin, WFW Wan. "A Review on Directions for Discussing Forest Governance and Discourses from a Linguistic Perspective." *Social Sciences* 12, no. 6 (2022): 392-403. https://doi.org/10.6007/IJARBSS/v12-i6/13338

[16] Giap, Sunny Goh Eng, and Mohammad Fadhli Ahmad. "Agroecological Practices in Malaysia–Case Studies." *Journal of Soil, Environment & Agroecology* 1, no. 1 (2024): 1-14. https://doi.org/10.37934/sea.1.1.114

[17] Drid, Touria. "Thematic progression in online Algerian newspaper articles: Insights to producing coherent texts." (2019). https://doi.org/10.5782/2223-2621.2019.22.4.68

[18] Halliday, Michael Alexander Kirkwood, and Christian MIM Matthiessen. *Halliday's introduction to functional grammar*. Routledge, 2013. https://doi.org/10.4324/9780203431269

[19] Thompson, Geoff. *Introducing functional grammar*. Routledge, 2013. https://doi.org/10.4324/9780203431474

[20] Danes, Frantisek. "Functional sentence perspective and the organization of the text." *Papers on functional sentence perspective* 23 (1974): 106-128. https://doi.org/10.1515/9783111676524.106

[21]   Patpong, Pattama. "Thematic progression of Thai song dam folktales." (2013).
[22]   Fries, Peter H. "On the status of theme in English: Arguments from discourse." *Micro and macro connexity of texts* 45 (1983).
[23]   Paiman Bawon, Mohd Hasmadi Ismail, Nurhidayatul Soleha Abu Kassim, and Rahmawaty. "The Preference for Purchasing Rattan Furniture Among Residents in Taman Bukit Chandan, Kuala Kangsar, Perak, Malaysia". *Semarak International Journal of Agriculture, Forestry and Fisheries* 1, no 1 (2024):1-9. https://doi.org/10.37934/sijaff.1.1.19
[24]   Salehan, Halimatun Saadiah Md, and Noor Elidawati Bahari. "Forecasting Land Use Trends Using Long Short-Term Memory Networks for Rubber Plantations in Johor." *Journal of Soil, Environment & Agroecology* 4, no. 1 (2025): 32-42. https://doi.org/10.37934/sea.4.1.3242