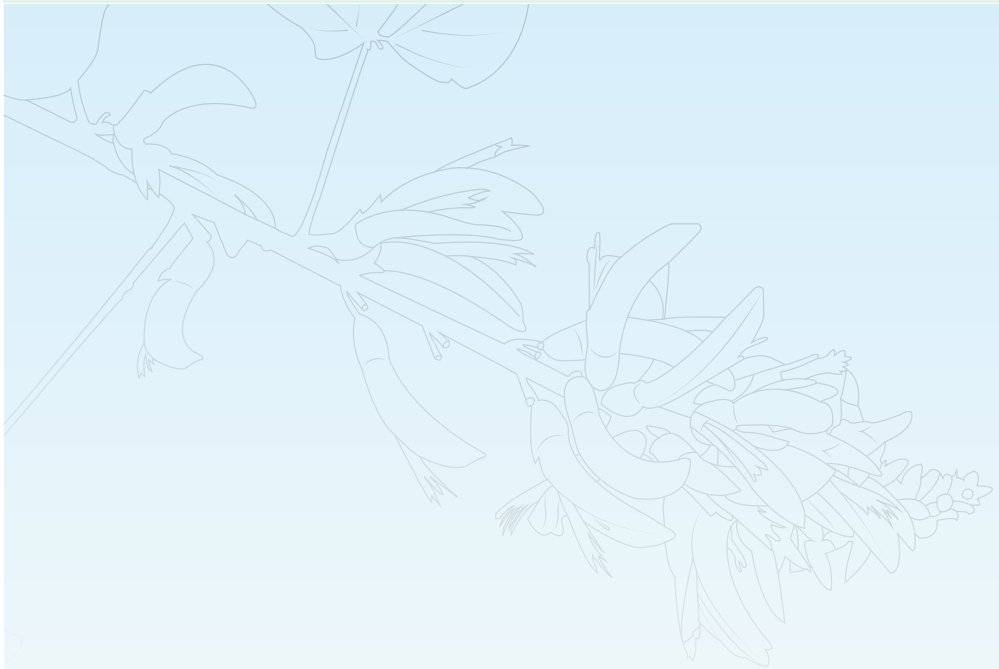
Research Articles

An Analysis of Interpersonal Metafunction in Online English News Reports on PM2.5 Air Pollution in Thai Media

Akrakan Sonthichuay[1] and Ladawan Sonthichuay[1*]



[1] Faculty of Science and Technology, Rajamangala University of Technology Srivijaya, Nakhon Si Thammarat, 80110, Thailand

* Corresponding author: E-mail address: ladawan.j@rmutsv.ac.th

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Abstract

This study aims to analyze English-language news articles on PM2.5 air pollution in Thai media by applying Systemic Functional Linguistics as the analytical framework. The research specifically focuses on the interpersonal metafunction, examining mood type, modality, and subject person. The dataset consists of 110 news articles published during the first quarter of 2024 from The Nation Thailand, Bangkok Post, and Thai PBS World. The findings reveal that declarative mood is the most frequently used, indicating that Thai media prioritize information dissemination over direct engagement with readers. Regarding modality, median probability and obligation modality are predominantly employed to balance certainty and responsibility, reflecting pollution as a manageable but policy-dependent issue while median readiness functions to express preparation and planned interventions for the pollution mitigation, and median usuality mentions seasonal pollution trends. Furthermore, non-interactant subjects appear more frequently than interactant subjects, reinforcing the representation of government agencies as the primary actors responsible for addressing the issue. In contrast, public engagement and shared responsibility receive less emphasis in Thai media discourse, indicating that collective action is a secondary important in news coverage.

Keywords: PM2.5, Air Pollution, Interpersonal Metafunction, Systemic Functional Linguistics

Introduction

Thailand has been facing a serious environmental problem caused by PM2.5, which is harmful to health, especially during the dry season when atmospheric conditions worsen air quality [1]. The main sources include vehicular emissions, industrial activities, biomass burning, and agricultural practices. Because PM2.5 can penetrate deep into the lungs, it increases the risk of respiratory and cardiovascular diseases [2-3]. As pollution levels rise, the issue has gained greater visibility through media reports, government updates, and environmental advocacy. Public concern is seen in news coverage, social movements, and political demands for action [4–6]. News reports frequently highlight affected regions such as the North, Central, and Northeast and provide health advice and policy updates related to PM2.5 mitigation [7–8].

To understand how this issue is represented, this study draws on Systemic Functional Linguistics developed by Halliday [9-11], focusing on the interpersonal metafunction. This metafunction explains how language expresses attitudes and relationships through mood, modality, and subject person. Following Halliday [10], "mood" refers to declarative, interrogative, and imperative clauses. "Modality" reflects attitudes toward likelihood and necessity, and "subject person" shows how writers position themselves and readers. Interactant subjects such as "I," "we," and "you" promote involvement, while non interactant subjects such as "they" and "the government" create distance [10-11].

Previous studies in Thailand and internationally have examined environmental discourse. Kantichon [7] and Kantichon and Angsuwiriya [8] found that Thai online headlines used vocabulary, metaphors, and pragmatic markers to frame environmental problems as threats. Chen [12] showed that China Daily shifted from natural explanations to global concerns. Duan and Takahashi [13] found that United States media emphasized political failure, while Chinese media highlighted solutions. Jo [14] identified tensions in Seoul policy discourse. Liu and Zhang [15] found dramatic language in Western media and cautious tone in Chinese reports. The study by Molek-Kozakowska [16] examined environmental reporting in New Scientist and found the use of infotainment, which combines information and entertainment through catchy headlines and emotional appeals to engage readers. Similarly, Wang [17] and Yang and Wang [18] highlighted how both Chinese and Western media used the "topos of threat," a recurring argument pattern that presents environmental issues as dangers requiring urgent action, while reflecting ideological stances and policy agendas.

Although these studies provide important insights, most focus on Chinese, United States, or Western media. Few have examined how Thai online English news reports PM2.5. This study addresses this gap by analyzing news articles from The Nation Thailand, Bangkok

Post, and Thai PBS World using the interpersonal metafunction of SFL. The analysis of mood, modality, and subject person shows how interpersonal meaning is constructed in the news about PM2.5 and how language shapes public awareness and engagement with environmental challenges.

Objective

To analyze the interpersonal metafunction in English news articles on PM2.5 pollution through the use of mood type, modality, and subject person

Research question

How do mood type, modality, and subject person function within the interpersonal metafunction framework in Thai media coverage of PM2.5 pollution?

Literature Review

1. Systemic functional linguistics

Systemic Functional Linguistics (SFL), developed by Michael Halliday in the 1960s, views language as a social resource for meaning making. It explains how language is used to achieve communicative purposes in specific contexts and to construct and negotiate social relationships and identities [9-10]. Halliday proposed three metafunctions of language: ideational, interpersonal, and textual. The ideational metafunction concerns how language represents experience and logical relations, the interpersonal metafunction focuses on attitudes and social relations between participants, and the textual metafunction organizes information into coherent and cohesive messages [10-11].

This study examines three components of interpersonal meaning: mood, modality, and subject person. Mood structures interaction through declarative, interrogative, and imperative clauses. Declaratives typically give information, interrogatives demand it, and imperatives request goods or services, although declaratives and imperatives may also function as offers in some contexts.

Modality expresses attitudes toward likelihood and necessity through modalization and modulation [11]. Modalization includes probability and usuality, for example "may", "might", "must", "always", "usually", or "sometimes". Modulation includes obligation and readiness, expressed through items such as "should", "have to", "must", "can", "will", or "want to". Modality values are high, median, or low, indicating different levels of commitment.

Subject person refers to the grammatical subject and the entity it represents, whether an individual, group, or institution. It is usually classified into interactant and non-interactant forms. Interactant subjects such as "I", "we", and "you" involve participants directly, while non

interactant subjects such as they or the government create distance through third person reference.

2. Relevant studies

In Thailand, Kantichon [7] applied critical discourse analysis to online news headlines and identified vocabulary choice, question structure, and metaphor as key strategies that framed environmental issues as threats or contested topics. The study showed that pragmatic discourse strategies shaped how news agencies balanced government narratives with public concerns. Similarly, Kantichon and Angsuwiriya [8] examined linguistic framing in Thai online news and found four main strategies, including vocabulary selection, sentence structure, pragmatic markers, and metaphorical language, used to highlight the consequences of human actions and construct environmental responsibility.

In international contexts, Wang [17] examined China Daily from 2008 to 2015 and found a shift after 2011 toward greater public awareness and stronger state action, with terms such as smog framing the seriousness of pollution while health risks were discussed cautiously. Yang and Wang [18] showed that The New York Times frequently emphasized economic priorities over sustainability and relied on a topos of threat to present environmental risks as urgent. Duan and Takahashi [13] compared news from the United States and China and found that United States media tended to politicize Beijing pollution as government failure, whereas Chinese media focused on solutions. Chen [12] identified three shifts in China Daily's reporting during the 2013 crisis, moving from natural explanations to criticism of foreign monitoring and later to global environmental concerns. Molek Kozakowska [16] demonstrated that New Scientist often used novelty, exaggeration, and emotional appeal to attract readers. Liu and Zhang [15] found that Western newspapers used dramatic and crisis-oriented language, while Chinese state media preferred cautious and indirect expression. Jo [14] examined Seoul policy discourse and showed that narratives about public health and policy performance shaped public perception.

These studies show that environmental reporting is shaped by linguistic framing, institutional influence, and reader engagement. However, research has focused on Chinese, United States, and Western media. Only limited attention has been given to Thai news in the English language, and most Thai research has examined general environmental issues rather than the specific problem of PM2.5. To fill this gap, the present study applies the interpersonal metafunction of Systemic Functional Linguistics to English news articles from The Nation Thailand, Bangkok Post, and Thai PBS World to reveal how Thai media construct interaction, attitude, and engagement in PM2.5 discourse.

Research Methodology

1. Data collection

The number of articles collected from each news agency was not predetermined but reflected the actual availability of PM2.5-related reports during the first quarter of 2024. Since the three outlets published different amounts of PM2.5 news, the final dataset consists of 33 articles from The Nation Thailand (https://www.nationthailand.com), 60 from the Bangkok Post (https://www.bangkokpost.com/), and 17 from Thai PBS World (https://world.thaipbs.or.th/). These sources were treated as a collective entity representing Thai English-language media, as the aim of this study was to examine overall interpersonal meaning patterns rather than compare outlets individually. The target audience of these English-language news agencies typically includes educated Thai readers, foreign residents, international audiences, policymakers, and individuals seeking English-based environmental information. The researchers collected data from online English news sources with over 80,000 Facebook followers, focusing on PM2.5 content related to government reports, health campaigns, and environmental advocacy. The researchers used the search filters of the web pages of each agency to provide a list of articles by relevance using "PM 2.5".

2. Data Analysis

All articles were compiled into Microsoft Word files and imported into the UAM Corpus Tool developed by O'Donnell [20]. The software was used because it supports systematic annotation of linguistic features at clause levels. Annotation schemes were prepared for mood, modality, and subject person. The software generated the frequencies and percentages for each feature, ensuring a clear and consistent analytical process.

Mood was examined by identifying clause types such as declarative, interrogative, and imperative forms. Modality was analyzed following the SFL framework. Modal expressions were classified into modalization or modulation. Modalization included probability, which indicated likelihood through items such as "may", "might", "must" or "possibly", and usuality, which indicated frequency through items such as "always", "usually" or "sometimes". Modulation included obligation expressed through items such as should, have to, or need to, and readiness expressed through items such as "will", "can", or "be willing to". Each modal item was then assigned a high, median, or low value according to its level of certainty, frequency, or obligation.

Subject person was coded by identifying pronouns and determining whether they represented interactant or non-interactant roles. Interactant subjects included first-person and second-person pronouns, while non-interactant subjects included third-person forms and impersonal references. All annotations produced by the UAM Corpus Tool were manually checked to ensure accuracy before interpretation.

Results

Based on the results of the analysis, the grammatical profiles of interpersonal metafunction divided into three parts: mood types, modality, and subject person as follows.

1. Mood types

Mood types were categorized into two types which were indicative and imperative. The indicative clauses featured declarative and interrogative clauses with their semantic functions for “proposition” to realize statement and question. The imperative clauses, however, manifested “proposal” to express offer [10]. Furthermore, every clause contains polarity which is the choice between positive or negative. Only negative clauses in English show polarity, marked by "not" in the finite element [11]. Figure 1 shows the total number of all mood types which appeared 2,399 clauses. The data revealed that positive declarative clauses (+Declarative) were the most frequent, with 2,311 occurrences (96.34%), while negative declarative clauses (-Declarative) appeared 72 times (2.99%). Positive imperative clauses (+Imperative) were found 16 times (0.67%), while negative imperative clause (-Imperative) did not appear. Both positive interrogative clauses (+interrogative) and negative interrogative clauses (-interrogative) did not appear in the data.

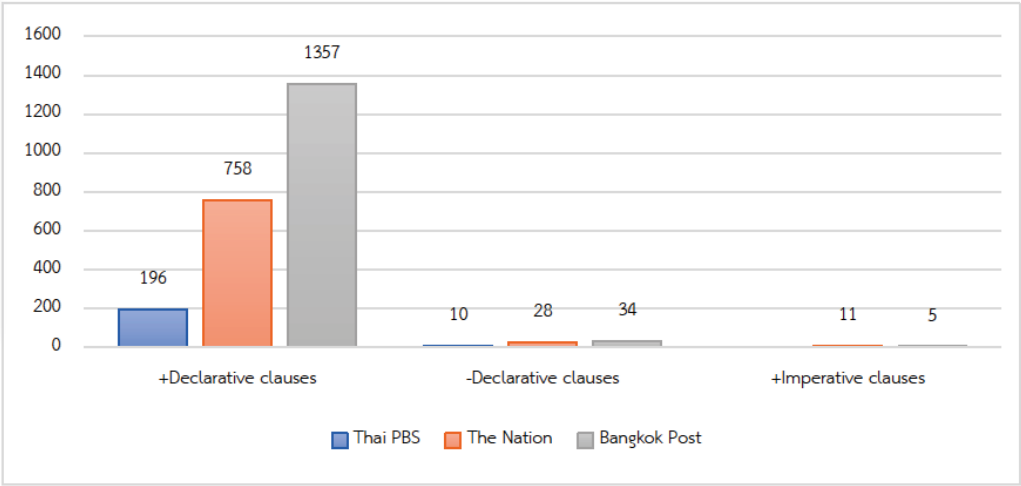

Figure 1. Mood types in PM2.5 pollution new articles

Declarative clauses were mainly used to share PM2.5 updates and show the Thai government’s crisis response as displayed in examples 1-2.

“Ex1” The Chiang Mai administration said the air quality on Wednesday morning had improved slightly from Tuesday, but the levels of PM2.5 ultra fine pollutants in many areas remained above the safe threshold of 37.5 microgrammes per cubic metre of air (µg/m3). (The Nation Thailand, 13 Mar, 2024)

"Ex2" The governor held a meeting this morning with senior administrators to discuss the PM2.5 dust problem in the capital, which has been getting steadily worse, mainly due to poor air circulation and burning of bio-mass in the countryside and in neighbouring countries. (Thai PBS World, 15 Jan, 2024)

These clauses shared updates on air quality and signaled ongoing concerns, for example through "remained above the safe threshold" in example 1 and "has been getting steadily worse" in example 2, both of which describe conditions that continue to pose a problem.

In case of imperative clauses, they were hardly found in the data. This clause type aimed to give advice and encourage readers to take action, as shown in example 3.

"Ex3" Wear an N95 mask whenever you go outside, especially if you are sensitive to air pollution. (The Nation Thailand, 21 Jan, 2024)

Interrogative clauses, typically used to seek information [10], did not appear in the dataset. Although expected in hard news, this absence is meaningful because mood choices show how news agencies position themselves. The use of declaratives creates a one-way informational stance that asserts facts, reports government actions, and provides guidance rather than inviting dialogue. This pattern demonstrates how interpersonal meaning is shaped through mood selection in news reporting.

Polarity operates through positive and negative choices. Positive polarity affirms a proposition, while negative polarity expresses denial or the absence of an action or condition. These two forms serve different interpersonal functions. Positive polarity presents information directly, whereas negative polarity highlights problems or corrective meanings. In the SFL framework, positive polarity is considered the unmarked and more typical choice for presenting factual information, while negative polarity is marked because it carries additional meaning through negation [11].

The analysis showed that positive polarity dominated, with 2,320 positive declaratives and 16 positive imperatives. Negative polarity appeared only in declaratives and was used to highlight prohibited actions or correct misconceptions, as in examples 4 and 5. No negative imperatives were found, which aligns with news conventions, and no interrogatives appeared in any form. This pattern reflects the informational nature of hard news, which presents facts, reports actions, and offers guidance rather than seeking responses or using rhetorical questions.

"Ex4" The authorities in the northern province have been working to ensure that local farmers do not burn farm waste, which has been the main source of tiny 2.5-micron particles of dust in the air. (The Nation Thailand, 21 Jan, 2024)

"Ex5" Mr Srettha shared with Ms Mohammed that pollution problems are linked to the global economy and should not be considered domestic problems. He added that in

Thailand, pollution worsens when locals and neighboring countries burn their agricultural plantations. (Bangkok Post, 21 Feb, 2024)

2. Modality

Figure 2 reveals the total number of modality occurrences was 483 times. Probability modality was mostly used 218 times (45.13%). This suggests a strong emphasis on expressing likelihood or certainty. Readiness modality ranked second with 136 times (28.16%). It had two sub-types: 78 cases of inclination and 58 of ability. This shows a focus on willingness and ability. Obligation modality followed with 100 times (20.70%). This indicates a notable emphasis on duty or necessity. Usuality modality was the least common with only 29 occurrences (6.00%). It represents a limited focus on expressing frequency or regularity.

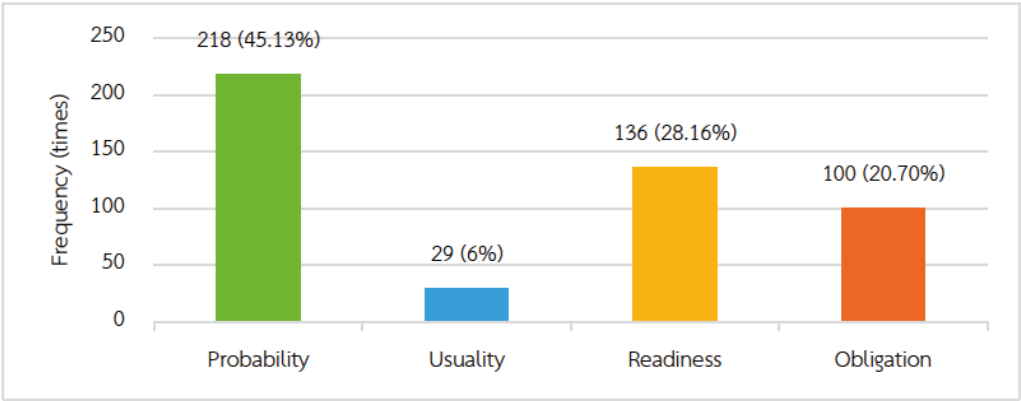

Figure 2. Modality selection in PM2.5 pollution new articles

2.1 Modalization

2.1.1 Probability modality

This modality type concerns the linguistic resources used to express judgments about the likelihood or certainty of a proposition. In the SFL framework, likelihood and certainty are treated as value levels within probability. In the dataset, probability modality showed that the news content depended heavily on unstable atmospheric conditions and on predictions about possible government responses to the crisis. It was realized through modal verbs such as “will”, “would”, “can”, “could”, and “may”, through verbs such as “estimate”, “believe”, “seem”, and “expect”, through modal adjectives including “impossible”, “possible”, “likely”, “unlikely”, “certain”, “clear”, and “sure”, through nominalizations such as “possibility” and “chance”, and through adjuncts such as “possibly”, “impossibly”, “apparently”, and “seemingly”. Examples 6 and 7 illustrate clauses containing probability modality.

"Ex6" The government said it was taking steps to address air pollution in Bangkok, including investing in public transportation, promoting the use of renewable energy, and cracking down on illegal emissions. However, it will take time to see significant improvements in air quality. (The Nation Thailand, 21 Jan, 2024)

"Ex7" Thailand may have to take tough action and ban the import of maize from neighbouring countries next year, if they refuse to control the burning of farm waste and forests, contributing to transboundary air pollution, said Prime Minister Srettha Thavisin today, during his tour to observe the haze problem. (Thai PBS, 16 Mar, 2024)

The examples showed this modality expressed levels of probability and shaped how readers viewed PM2.5 pollution. The strategic use of probability modality led the authors of news articles to present predictions and factual descriptions effectively. Modal verbs were used often and made the message easy to understand.

Consistent with the above findings, it exposed that modal verbs have a central element in the communication of probabilistic information.

For modality value of probability, it was found that median modality value was found the most with a total number of 160 times (85.56%), such as "will", "would", "likely", "estimate", "unlikely", "expect", "estimate", and, "believe". Median modality value implied the contents about the pollution of PM2.5 could not be guaranteed whether the acts of the government to solve the crisis could be accomplished. In addition, it informed the meteorological condition if smog appeared in particular arears. For low modality value, it appeared 23 times (12.30%), marked by "may", "seem", "seemingly" "possibly", "impossibly", "possible", "possibility", and "chance". In the same manner with median modality value, low modality value was presented to indicate possibility of events with low value. Lastly, high modality value appeared in the contents for 4 times (2.14%), realized by "clear", "sure", and "apparently". In contrast with median and low modality value, high modality value represented precise mitigation for PM2.5 pollution or high occurrence of events. Table 1 represents the value of probability.

Table 1. Modality value of probability modality

Modality Value	Frequency (times)	Percentage (%)
High	4	1.83%
Median	188	86.24%
Low	26	11.93%
Total	218	100%

Median modality was widely used to keep the reporting balanced, especially on important public issues. It allowed the authors to present information that is neither too certain nor too speculative. Additionally, talks about government actions and policies often employed median modality to show plans that depended on future events.

2.1.2 Usuality modality

Usuality modality indicated the expression of frequency or regularity of events or actions. It is a type of modality that communicates how often something happens or the typicality of an occurrence. This modality type was achieved by adjuncts, such as “often”, “once”, “never”, “normally”, “regularly”, “ever”, “hourly” and “usually”; adverbial phrases, such as “every hour”, “every day”, and “every year”, and adjectives of frequency, such as “usual”. The clauses with usuality modality are presented in example 8.

“Ex8” Farmers often burn agricultural plots after the harvest, as many cannot afford the expense of hiring workers to gather the detritus and they and they need time to prepare for the next cultivation. (The Nation Thailand, 26 Mar, 2024)

According to the example, usuality modality was used to convey the regularity and predictability of certain events related to PM2.5 pollution and informed frequency of both natural sources and human-made practices of the issue.

As shown in table 2, the modality value of usuality was mostly at a median level, occurring 12 times (41.38%). It was realized through terms such as “often”, “usually”, “usual”, “normally” and “regularly”. Low modality value appeared 10 times (34.48%), marked by “once” and “every year” while high modality value came up with 7 times (24.14%), consisting of “never”, “ever”, “hourly”, “every day”, and “every hour”.

Table 2. Modality value of usuality modality

Modality Value	Frequency (times)	Percentage (%)
High	7	24.14%
Median	12	41.38%
Low	10	34.48%
Total	29	100%

The common use of median usuality modality revealed how reporting highlighted regular human actions linked to pollution. It showed seasonal pollution trends and repeated activities that are not constant. PM2.5 pollution is often caused by activities that occur regularly but not continuously.

2.2 Modulation

2.2.1 Readiness modality

There are two kinds of readiness modality. The first is inclination modality, which shows if someone is willing or ready to act. It reflects how much a person wants or plans to do something. The second is ability modality, which shows if someone has the skills or means to act. The two sub-types of readiness modality are exemplified as follows.

1) Inclination modality

Inclination modality was primarily marked by the modal verbs “will” and “would.” Only one declarative clause used the modal adjective “willing.” Examples 9–10 show clauses with this modality.

“Ex9” The PM said the government has also introduced alternative ways of getting rid of farm waste, including turning them into smoke-free biomass fuel with the use of modern technology. Army vehicles will be dispatched to help farmers transport the waste to the factories. (Thai PBS World, 16 Mar, 2024)

“Ex10” Prime Minister Srettha Thavisin said on Sunday that he will submit a plan to solve the PM2.5 fine dust problem as ordered by the Chiang Mai Administrative Court within 90 days. (Bangkok Post, 22 Jan, 2024)

The use of inclination modality stressed officials’ commitment to solving PM2.5 problems through both immediate and long-term solutions. It emphasizes the need for clear expressions of willingness and intention to commit to public and environmental health. The median modality value appeared 77 times (98.72%) with “will” and “would.” Low modality value showed up once (1.28%) with “willing”. Table 3 shows the details.

Table 3. Modality value of inclination modality

Modality Value	Frequency (times)	Percentage (%)
High	-	-
Median	77	98.72%
Low	1	1.28%
Total	78	100%

The frequent use of median modality values in the data revealed the nature of caution in claims. The use of median modality might reflect caution in making strong assertions. Using "will" and "would" helped maintain a neutral tone when policies, health impacts, or public responses were uncertain.

2) Ability modality

Ability modality was realized by the modal verbs “can” and the modal adjectives “able” and “unable”. The example of ability modality is shown in the example 11.

“Ex11” Thai researchers develop plant-based weapon against PM2.5 pollution. The Naresuan University research team said that its tests showed PM.drop was able to reduce high concentrations of PM dust to safe levels. One application of the PM. drop spray was effective for two to three hours in open areas and could last the entire day in enclosed spaces, it said. The solution has a coconut-like scent due to the inclusion of palm plant derivatives, ensuring its safety, researchers said. PM.drop can be applied in a variety of ways to suit the size and characteristics of the polluted area. For example, it can be used with ULV (ultra-low-volume) sprayers, fogging machines or drones. (The Nation Thailand, 13 Feb, 2024)

As mentioned in table 4, median modality appeared 54 times (93.10%) marked by “can” while low modality exists 4 times realized by “able” and “unable” (6.90%).

Table 4. Modality value of ability modality

Modality Value	Frequency (times)	Percentage (%)
High	-	-
Median	54	93.10%
Low	4	6.90%
Total	58	100%

This modality type indicated the capacities and effectiveness of various interventions in addressing PM2.5 pollution. Ability modality emphasizes both the Bangkok Metropolitan Administration (BMA)’s healthcare services and Thai researchers’ solutions in reducing pollution impacts.

2.2.2 Obligation modality

Obligation modality refers to language used to express judgment on obligation, advisability, permission, and necessity. Obligation modality emphasized the necessity for action or responsibility related to PM2.5 pollution. This modality type was basically realized by the modal verbs: “should” and “must”; the verbs: “allow”, “permit”, “advise”, “require”, “have to”, “need to”; and the adjectives: “necessary”. The clauses with obligation modality are exemplified in example 12.

“Ex12” Those who have any respiratory problems should seek medical attention if they experience symptoms such as coughing, wheezing, or shortness of breath. Public advised to use N95 mask as PM2.5 in Bangkok at unsafe levels. (The Nation Thailand, 21 Jan 2024)

This modality type represented the context of environmental governance and public health. It stressed the need for action, giving readers control, especially in public health (e.g., wearing masks) and environmental management (e.g., monitoring air quality). It highlighted institutional responsibilities or long-term goals (e.g., achieving Net Zero). This suggested a strong commitment from the authorities.

For modality value of obligation, the data featured median modality value 47 times (47%) with "should" and "advise". High modality value appeared 36 times (36%) marked by "must", "require", "have to", "need to", and "necessary". Low modality value occurred 17 times (17%) with "allow" and "permit". Table 5 presents modality value of obligation modality.

Table 5. Modality value of obligation

Modality Value	Frequency (times)	Percentage (%)
High	36	36%
Median	47	47%
Low	17	17%
Total	100	100%

PM2.5 pollution is a serious health and environmental concern. The data highlighted the need for action and used more high or median modality. The small number of low-value modality suggested that air pollution was a societal duty. It motivated readers to take responsibility gently.

Overall, the distribution of modality types and values shows that the news reports adopted a balanced and cautious tone. Probability and readiness were used most often to describe expected developments, planned actions, and institutional responses, while obligation emphasized the need for public cooperation and policy enforcement. Median values dominated across all categories because environmental reporting tends to acknowledge uncertainty and avoid strong or absolute claims. Low and high values appeared less frequently, reflecting the use of a moderate tone when presenting scientific predictions and government actions.

3. Subject person

Table 6 shows that the non-interactant subject person was used 576 times (94.89%), while the interactant subject person appeared 31 times (5.10%). Non-interactant subject person functioned to mark objectivity and formal tone. It focused on external responsibility and emphasized facts over direct involvement. Interactant subject person represented creating a sense of collective responsibility and urging persuasiveness through engagement.

Table 6. Subject person in PM2.5 pollution new articles

Subject person	Frequency (times)	Percentage (%)
Non-interactant subject person	576	94.89%
Interactant subject person	31	5.10%
Total	607	100%

3.1 Non-interactant subject person

The dominant use of non-interactant subjects was quite common in the data of this research. This pattern has three functions in reporting PM2.5 pollution: 1) highlighting objectivity and formal tone, 2) focusing on external responsibility, and 3) emphasizing on facts and conditions over direct engagement.

3.1.1 Objectivity and formal tone

Non-interactant subjects such as “the government”, “industries”, “pollution levels” kept the tone formal and detached, which is typical in news reports. By focusing on external entities instead of engaging readers or including the writer's perspective, the news articles appeared more objective and fact-based, as shown in example 13.

“Ex13” While the Thai government has taken steps to address air pollution, the problem remains a major concern. Among the measures implemented are: ban on burning agricultural waste, crackdown on illegal logging, incentives for the use of public transportation and electric vehicles. (The Nation Thailand, 30 Jan 2024)

3.1.2 Focusing on external responsibility

Using non-interactant subjects assigned responsibility to external entities or groups without involving the reader personally. For example, terms like "authorities" or "health officials" put the responsibility on specific groups. This suggests the solution is not up to the individual reader, as seen in example 14.

“Ex14” The local authority has banned any burning in the province from March 15 to April 30, with legal proceedings threatened against those who violate them, said Governor Chainarong Wongyai. (Bangkok Post, 21 Feb, 2024)

3.1.3 Emphasis on facts and conditions over direct engagement

News articles often prioritize conveying factual information and situational updates. Non-interactant subjects helped the texts focus on conditions and external actions (e.g., "PM2.5 levels," "air quality indexes") instead of addressing readers directly. This is common in environmental discourse. It highlights complex systems and societal impacts, as shown in example 15.

“Ex15” Air quality in Bangkok reached the dangerous or red level on 14 days in 2023, 3.85% of the whole year, an increase of 3 days over the previous year. (The Nation Thailand, 16 Feb 2024)

3.2 Interactant subject person

The use of interactant subjects, particularly with "we" and “you” functioned as a call for shared responsibility and collective action. It indicated 1) a sense of collective responsibility and 2) urging persuasiveness through engagement. The brief description was mentioned as follows.

3.2.1 Creating a sense of collective responsibility

By using "we", it supports a sense of unity within the Thai government representatives to mitigate the pollution as presented in example 16.

“Ex16” We have to deal with the problem rather than wait for the pollution to subside on its own due to more favourable weather conditions." Mr Srettha made the comments after he attended a briefing on The Nation Thailand's PM2.5 dust pollution situation on Thursday at the Pollution Control Department (PCD). (Bangkok Post, 16 Feb, 2024)

3.2.2 Urging persuasiveness through engagement

Interactant subjects made the message urgent and persuasive. Being directly addressed might make readers more likely to act, as shown in example 17.

“Ex17” Avoid outdoor activities, especially if you have respiratory problems. (The Nation Thailand, 30 Jan, 2024)

Discussion and conclusion

The findings show that Thai English-language media adopt an informational and institution-centred style in reporting PM2.5. From an interpersonal perspective, the news presents PM2.5 as a monitored and managed issue rather than a dramatic crisis. This differs from Thai-language headline studies, where environmental issues are often framed as threats, conflicts, or sources of alarm through marked vocabulary, question structures, and metaphors [8, 15]. In the present study, interpersonal resources create a calmer and more technical tone that fits routine news reporting rather than crisis informing.

A first key pattern is the dominance of declarative mood, with almost no interrogatives and very few imperatives. Declarative mood is used to report air quality data, describe causes, and list government responses. This supports earlier observations that environmental problems are often presented as manageable and state-led issues in official or semi-official news [12-13, 17]. However, the results of this present study are quite different from the previous studies. While China Daily and The New York Times have been shown to mix reporting with explicit criticism,

politicization, or links to wider political debates [13, 17-18], Thai English-language news almost never questions government performance or uses rhetorical questions to invite reader evaluation. This absence of interrogative mood and limited use of imperative mood contrast with more dramatized and emotionally charged styles of environmental reporting found in Western media and in popular science journalism that uses strong infotainment strategies [16, 17-18]. This present study shows that mood choices support a neutral, explanatory style that keeps interaction controlled and non-confrontational.

Modality patterns offer a second key contrast. Across the corpus, probability and readiness occur most often, with median values dominating. Modal verbs such as "will," "would," "can," and "should" are used more than high-value forms such as "must" or categorical expressions of certainty. This distribution suggests that Thai media try to balance certainty and caution when reporting air quality forecasts and government plans [16]. This differs from China Daily and Western newspapers, which use stronger obligation and more evaluative language when pollution is tied to political responsibility or government failure [12–13, 15, 17–18]. In this study, median values of probability and obligation help maintain a moderate tone and avoid over-committing to outcomes in a fast-changing situation. This pattern of using mostly median modality can be understood as a stylistic choice that reflects both the uncertainty of PM2.5 events and the norms of Thai political communication, where criticism of authorities in English-language news texts tends to be indirect and softened. Readiness modality adds another layer. Inclination and ability are often used in governmental or institutional clauses, for example in statements that authorities "will" act or that new measures "can" reduce dust levels. This pattern is different from studies where media use obligation to push governments more strongly or to frame them as failing to act [17-18]. In this study, readiness highlights planned, ongoing, and possible actions rather than urgent demands. Overall, with median values, this creates an interpersonal stance that signals commitment to mitigation but leaves room for uncertainty about success. It also fits with findings that some Asian media increasingly acknowledge environmental risks while still presenting the state as a capable problem-solver [7, 8, 12–14].

Subject person choices further clarify how Thai media position social actors. Non-interactant subjects, especially institutional and abstract entities such as "the government," "authorities," "researchers," "air quality," and "PM2.5 levels," account for almost all subject choices. This pattern conforms to findings from comparative studies in which government agencies and official institutions are constructed as the main actors in environmental governance [13-14, 17]. However, in the present study, interactant subjects such as "we" and "you" appear only occasionally in quotations that call for shared responsibility or offer

advice. The dominance of non-interactant subjects reduces direct engagement with readers and underlines an institutional rather than citizen-centred framing of PM2.5. This can be linked to the social role of English-language news in Thailand, which often address educated and international audiences as observers of policy and expert action rather than as active participants.

In sum, the analysis suggests that Thai English-language media shows PM2.5 as an important but managed environmental issue. Declarative mood and positive polarity support factual, information-driven reporting. Modality patterns emphasize probability, readiness, and obligation, which express cautious optimism and institutional planning rather than panic or blame. Subject person choices foreground institutions and environmental conditions instead of citizens or local communities, which reflects an institutional mode of environmental communication. Compared with earlier studies, the results of this study are less dramatic than Western reporting [15, 17-18], less openly self-legitimizing than some Chinese state coverage [12-13] and less alarmist and threat-oriented than Thai-language headline discourse [7-8]. This combination gives Thai PM2.5 news its distinctive interpersonal profile.

Interpersonal metafunction is selected because this study focuses on how Thai media construct stance, authority, and social relationships when reporting PM2.5. Mood, modality, and subject person can clearly show how journalists evaluate risks, frame institutional roles, and interact with readers. Although ideational and textual metafunctions are also important in SFL, including all three would broaden the scope and reduce analytical depth. Focusing on interpersonal perspectives allows the study to examine the social dimension of PM2.5 news more closely and to show how linguistic resources shape public understanding in the Thai context.

This study contributes to research on environmental discourse by showing how interpersonal resources shape PM2.5 reporting in Thai English-language news. It also has some limitations. The corpus is restricted to the first quarter of 2024 and to three major online agencies, and it focuses only on interpersonal meaning. Future studies could compare English-language and Thai-language reporting within the same media organizations, extend the timeframe to track changes across several years, and include alternative and advocacy media in Thailand and neighbouring countries. Further works might also link media discourse to policy documents, health advisories, or audience interviews to gain deeper insight into how interpersonal choices in PM2.5 news relate to sociocultural practices, public trust, and environmental decision-making.

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