Visualising Hope: A Multimodal Discourse Analysis of Environmental Culture in UNEP's 2025 Campaign

Muhammad Rayhan BUSTAM
Nungki HERIYATI
Christy TISNAWIJAYA
Resti NURFAIDAH
Dilnoza Rasulova BOISKHONOVNA
Florian Andrei VLAD *

Abstract
Scientific data is not enough to address global environmental concerns because public responses to global environmental challenges are also influenced by cultural values and communicative practices. Innovative environmental communication is therefore needed to shift from climate anxiety to collective action. This shift is reflected in the World Environment Day campaign launched by the United Nations Environment Programme (UNEP) for 2025; it uses AI-generated visuals and bio-acoustic soundscapes to build a positive picture of sustainability. Beyond raising environmental awareness, the campaign helps shape an emerging environmental culture in which sustainable practices are seen as shared social values rather than personal responsibilities. This study uses Multimodal Discourse Analysis (MDA), drawing on Kress and van Leeuwen's Visual Grammar, to analyse how multimodal resources work together to create meaning throughout the campaign. The results show that, through its key elements (imagery, sounds of nature, and multimodal cohesion), the campaign turns climate anxiety into hope and makes sustainability a cultural routine based on collective responsibility and a human-to-nature partnership. The study argues that multimodal discourse is crucial to building an environmental culture that is emotionally meaningful, socially desirable, and culturally recognisable to global audiences.

Key words: *Multimodal Discourse Analysis, environmental culture, sustainability communication, climate anxiety, digital innovation.*

Introduction

The global ecological crisis is not only ecological; it is also a growing crisis of climate anxiety. Climate change is therefore not only a scientific problem but also a communication problem because of the ways environmental issues are

[2] Universitas Komputer Indonesia, Indonesia, muhammad.rayhan@email.unikom.ac.id;
Universitas Komputer Indonesia, Indonesia, nungki.heriyati@email.unikom.ac.id;
Universitas Pamulang, Indonesia, dosen01357@unpam.ac.id;
Badan Riset dan Inovasi Nasional, Indonesia, rest013@brin.go.id;
Uzbekistan State World Languages University, Uzbekistan, dilnozarasulova@gmail.com;
Ovidius University, Romania, vlad.florian-andrei@univ-ovidius.ro

represented and interpreted in the public sphere (Leal Filho et al. 2019: 1–3). Through traditional environmental communication, there has been a tendency to use apocalyptic stories for awareness-raising, which at the same time fosters hopelessness and psychological paralysis, especially among younger generations (Clayton 2020: 2).

In response, there is a growing trend toward hope-oriented communication in the environmental field. One such initiative is the United Nations Environment Programme (UNEP) 2025 World Environment Day campaign, We Need More Than Intelligence to #BeatPlasticPollution. The campaign does not rely only on scientific facts; it uses AI-generated imagery alongside the Sounds Right campaign, which is based on real recordings of natural bioacoustics. The campaign integrates these multimodal resources and thereby frames environmental issues not as a matter of fear, but as a matter of collective action. Environmental communication thus serves not only as a means of communication but also as a way of co-creating meaning and the public values that everybody shares (Verhoest et al. 2025: 2–12).

Although environmental campaigns in the digital domain have been growing in number and importance, few previous studies have focused on the interaction between moving images, AI-generated images, narration, and sound. Multimodality research has evolved in recent years and shows that meaning is not constructed from a single mode but from the interplay of multiple semiotic resources. Similarly, sustainability research holds that successful climate communication should produce common cultural meanings rather than just pass on scientific information (Hochachka 2022: 520–523). Because public engagement with climate change is inherently values-driven, climate communication needs to link scientific information to the public's own interpretation and social understanding (Fage-Butler 2022: 1–5).

To bridge this gap, this study uses Multimodal Discourse Analysis (MDA) to analyse the relationship between AI-generated images, verbal narration, and the bio-acoustic element of the soundscapes in UNEP's 2025 World Environment Day campaign. The study does not address these modes individually; instead, it examines how they integrate to create environmental meaning, boost collective environmental agency, and embody sustainability as a shared cultural practice. The study shows how multimodal discourse builds environmental culture by coordinating visual, verbal, and audible communication.

Climate Anxiety, Environmental Culture, and Hope-Based Communication

Climate anxiety has increasingly been recognised not only as a psychological response but also as a discursively constructed phenomenon. Clayton (2020: 2) defines it as a persistent anxiety about the environment and its degradation, sometimes amplified by apocalyptic media depictions. While fear-based messages can capture the public's attention, they can also lead to emotional paralysis and inhibit public involvement (Ettinger et al. 2021: 455-457). As a result, environmental communication has gradually shifted toward a more optimistic,

hope-based paradigm, in which environmental problems are addressed not through fear but through collective agency, innovation, and achievable action.

Sustainability research in recent years also suggests that environmental communication should not be only about transmitting scientific information but also about negotiating shared meanings and cultural values (Hochachka 2022: 519-523). Social values play an important role in public understanding of climate change, and effective communication requires participatory meaning-making rather than mere information transfer (Fage-Butler 2022: 1–5). From this perspective, environmental campaigns serve as both information media and cultural spaces where people collectively interpret and normalise ecological values.

Environmental culture is defined as the values, norms, identities and practices that promote environmentally responsible behaviour (Fage-Butler 2022: 3). In contemporary sustainability studies, culture is increasingly seen as central to sustainable development rather than as a merely contextual issue. Communicative practices that help people imagine, participate in, and commit to collective ecological responsibility are therefore a prerequisite for sustainability, alongside technological innovation and public policy (Bentz et al. 2022: 687–689). Similarly, environmental identity is built by communicating sustainability as a common social duty, rather than an individual responsibility (San Cornelio et al. 2024: 8).

Social Semiotics and Multimodal Environmental Communication

From a social semiotic perspective, environmental representations are not neutral reflections of reality but culturally constructed. Images, language and sounds function as socially motivated signs that help audiences understand environmental issues (Smith 2025: 429). Rutherford and Tuntivivat (2024: 871) also suggest that environmental meaning is a product of dynamic, iterative processes between language, culture, cognition and ecological systems. Environmental communication should therefore be understood as a process of establishing relations between human beings and nature, with coordinated semiotic resources as the key.

This approach has reinforced the importance of Multimodal Discourse Analysis (MDA), which considers meaning to be the result of the interaction between a visual mode, a verbal mode and an auditory mode, rather than of a single communicative element (Castaldi 2024: 10). Recent methodological innovations in MDA focus on the need to analyse audiovisual texts as a systemically organised narrative structure in which the visual, verbal and auditory resources are continuously interacting to create coherent meanings (Bateman & Tseng 2023: 261). Multimodal orchestration can spread shared emotions, shared values, and shared visions of ecological futures, in addition to information, in environmental campaigns.

Therefore, this study uses the social semiotic framework of Visual Grammar by Kress and van Leeuwen to understand images in terms of representational, interactive, and compositional meaning. Representational meaning considers participants and processes; interactive meaning considers the relationship

between images and viewers in terms of gaze, distance and camera angle; and compositional meaning considers the information value, salience and framing. These analytical dimensions are used to describe the role of visual resources in the production of environmental meaning.

Since video discourse draws on several semiotic resources, visual analysis is not sufficient. Additionally, coordinating narration, music, rhythm, and ambient sounds is important for multimodal cohesion, as these elements support ideological meaning (van Leeuwen 2022: 25-39). Multimodal analyses of recent communication campaigns also show the importance of recurring image, language and sound clusters for the understanding of climate communication, as opposed to single modes of communication (Yan & Schäfer 2025: 2-4).

AI-Mediated Environmental Communication

Artificial intelligence has opened new possibilities for environmental communication by broadening access to multimodal resources for public engagement. Recent studies show that AI-driven communication can affect climate-risk perception and pro-environmental behavioural intentions (Ni et al. 2023: 6–9). At the same time, digital platforms increasingly shape environmental meanings by creating interrelated visual, verbal, and auditory representations that influence how audiences interpret the environment (Yan & Schäfer 2025: 2–4).

However, new technology alone does not guarantee effective communication. To be socially meaningful, audiences must negotiate environmental messages in shared cultural spaces (Verhoest et al. 2025: 10–12). Therefore, the UNEP World Environment Day campaign can be considered a multimodal cultural product and an example of digital innovation: a combination of AI-generated images, narration, and bio-acoustic soundscapes that create an environmental culture through collective responsibility and shared ecological principles.

Social Semiotic Multimodal Analysis, Data Corpus, Multimodal Transcription

The study takes a qualitative approach based on a multimodal analysis framework. Multimodal analysis studies discourse across more than one mode (Bustam 2024: 73). Specifically, Social Semiotic Multimodal Discourse Analysis (SS-MDA) forms the basis of the research design. In contrast to conventional content analysis, SS-MDA considers all semiotic options (colour, angle, sound frequency) as motivated signs that express social interests and ideological standpoints (Jewitt 2016: 15-24). In addition, this study highlights the importance of supporting social semiotic interpretation with empirical and methodologically transparent analyses of complex multimodal artefacts (Bateman 2022: 48).

The core data were the official 67-second UNEP video titled We Need More Than Intelligence to #BeatPlasticPollution, released on the official UNEP YouTube channel https://www.youtube.com/watch?v=bom-Gs3061o. The video was divided into six main scenes, according to the multimodal transcription framework proposed by Baldry and Thibault (2006: 30–47), based on thematic and semiotic changes. A set of representative key frames was extracted for each scene,

and narration, visual sequences and bio-acoustic soundscapes were synchronously transcribed for multimodal analysis.

The data analysis follows a three-layered systematic procedure based on Kress and van Leeuwen's (2021: 59–235) Visual Grammar and van Leeuwen's (1999: 177–205) sociosemantics of sound. Layer 1, Visual Metafunctional Analysis: Representational – participants (Human, AI, Nature) and the processes that occur between a participant and an object; Interactive: Camera shots (Close-up vs. Long shot) to determine social distance and horizontal/vertical angles to determine attitude; Compositional – salience (what dominates the frame) and information value (where Anxiety and Hope are positioned in the layout). Layer 2, Semiotic Analysis of Sound: the rhythm and timbre of the soundtrack, with particular attention to the ways in which elements of real nature (wind, birds) form a modality of truth that confirms the campaign's sustainability claims. Layer 3, Intermodal Integration (Multimodal Cohesion): the ways in which the three modes (Visual, Audio, Verbal) reinforce each other. For example, the timing of the percussion in the music (Audio) and the swiftly changing action images (Visual) steer climate anxiety into action. This study assumes that visual resources, such as colours, framing, composition, and symbolic representation, are motivated signs whose meanings are socially constructed rather than naturally determined (Tawami et al. 2022: 868).

The Multimodal Discourse Analysis of Environmental Culture in the Campaign

Multimodal Discourse Analysis is used to analyse how the visual, verbal, and auditory resources co-create environmental meaning in UNEP's World Environment Day 2025 campaign. Table 1 summarises the multimodal transcription, and the following discussion explains how each scene contributes to the campaign's overall environmental narrative.

Table 1. Multimodal Transcription of UNEP's 2025 Campaign Video

Scene	Time-frame	Visual (Key Frame Description)	Audio (Narration & Sound)	Semiotic Focus (MDA)
1	00:00-00:13	**The AI Simulation:** A high-tech digital grid overlaying plastic pollution. Use of cool blue and metallic colour palettes.	**Narration:** "AI can remove plastic pollution from this video." **Sound:** Electronic/synthesized digital sound effects.	**Representational:** Constructing AI as a technical, diagnostic tool for global challenges.
2	00:14-00:29	**Nature's Intelligence:** Transition to organic visuals (fungal mycelium, root systems, ant colonies). Shift to warm earth tones and natural lighting.	**Narration:** "Nature's intelligence can teach us about zero waste, a circular economy, and teamwork." **Sound:** Ambient forest sounds (birds, wind) via the *Sounds Right* project.	**Compositional:** Visual contrast between "artificiality" (Scene 1) and "organicism" (Scene 2).
3	00:30-	**The Pivot (The Gap):**	**Narration:** "But to end	**Interactive:** Close-

	00:42	Extreme close-up of a human eye/face expressing contemplation, intercut with raw footage of ocean plastic.	plastic pollution, we require more than intelligence..." **Sound:** Background music increases in tempo and tension (*crescendo*).	up shots establish a "demand" gaze, creating an emotional connection with the viewer.
4	00:43-00:49	**Call to Action:** Fast-paced montage of diverse individuals engaging in innovation: picking up waste and operating recycling tech.	**Narration:** "...we require action. Every moment now is critical. What does it take to be the one we need?" **Sound:** Strong, rhythmic percussive beats.	**Modality:** High-speed editing increases urgency, channelling anxiety into kinetic energy.
5	00:50-00:56	**The Inclusive Solution:** Wide shots of global communities working collectively. Integration of clean technology and circular systems.	**Narration:** "Together, we can beat plastic pollution." **Sound:** Uplifting harmony blending nature sounds with an inspirational score.	**Representational:** Constructing "Inclusive Growth" through collective agency and human-nature synergy.
6	00:57-01:07	**Visualising Hope:** A serene, plastic-free landscape. The UNEP logo and #beatplasticpollution hashtag appear as the final anchor.	**Sound:** Fading out with the calming sound of flowing water. **Text:** "World Environment Day, 5 June."	**Salience:** Centralised branding and minimalist layout emphasise Hope as the final informational value.

Scene 1: The Artificial Intelligence Diagnostic (The Technical)



Fig 1. Shot 1(00:06)



Fig 2. Shot 2 (00:09)



Fig 3. Shot 3 (00:12)



Fig 4. Shot 4 (00:13)

In the first scene, AI-based imagery describes plastic pollution in the video. Representationally, the waste is overlaid with a digital grid, which constructs the problem as a computable data set. The cool, bluish colour scheme and electronic sound effects create a distant, objective effect. This suggests that although innovation (AI) is the starting point for recognising global challenges, it is cold and inadequate on its own to bring about emotional transformation. The absence of any colour other than cool blue and the electronic sound effects contribute to what Machin (2016: 1–15) calls a clinical distance. In this campaign, AI not only acts as a decorative element but also as a multimodal communicator that can

shape the audience's perception of environmental risk and foster pro-environmental behavioural intentions. The campaign is therefore part of a wider shift in environmental communication that goes beyond using AI to visualise ecological issues to also facilitate public understanding of sustainability (Rodriguez-Sanchez et al. 2025: 8–11). The campaign's use of AI-generated images, narration, and bio-acoustic soundscapes shows strong intersemiotic cohesion, with the semiotic resources reinforcing one another to create a coherent, unified multimodal message (Ruiz-Madrid & Valeiras-Jurado 2023: 3–12).

Scene 2: Ecological Wisdom (Wisdom of Nature)



Fig 5. Scene 2: Shot 1 (00:16)



Fig 6. Scene 2: Shot 2 (00:21)



Fig 7. Scene 2: Shot 3 (00:24)

Scene 2 offers a sharp compositional contrast to Scene 1. Sustainability is recontextualised through the shift to warm earth tones and the sound of the birds (the Sounds Right project). Here, nature is not a victim but a participant with its own intelligence. Through long shots of root systems, the campaign depicts a circular economy as inherent to the planet rather than human-made, creating a sense of inclusive growth between humans and the biosphere. The campaign thus expresses nature not only as an ecological object but as a cultural symbol, in which environmental values acquire social significance. The multimodal integration of visuals and natural sound constructs sustainability as an everyday environmental culture.

Scene 3: The Affective Pivot (Facing Anxiety)



Fig 8. Shot 1 (00:31)

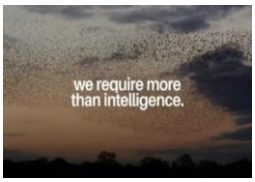


Fig 9. Shot 2 (00:35)



Fig 10. Shot 3 (00:39)



Fig 11. Shot 4 (00:42)

Scene 3 is an emotional hook. This effect is created by the extreme close-up of a pensive human eye, which Kress and van Leeuwen (2021: 122–124) call a demand image. This gaze compels the viewer to confront the facts of the plastic crisis that interrupts the scene. The auditory crescendo heightens the feeling of climate anxiety. Nevertheless, by positioning the human eye at the centre (high salience), the discourse emphasises that the solution lies in human perception and empathy. The close-up gaze is not just an interpersonal strategy; it is also a

cultural invitation, a call to action for viewers to assume a role as part of an ecological community.

Scene 4: Kinetic Agency (The Innovation of Action)



Fig 12. Scene 4: Shot 1 (00:43)



Fig 13. Scene 4: Shot 2 (00:45)



Fig 14. Scene 4: Shot 3 (00:49)

The tension created in Scene 3 is directly converted into kinetic action in Scene 4. The editing and rhythmic percussion shift the mood. The visual collage of diverse people operating recycling equipment displays innovation in practice. This scene successfully moves the viewer from passive worry to active involvement, presenting lifestyle change as a modern, fast-paced, and critical need. In this way, innovation is symbolised as a cultural practice rather than simply a technological accomplishment. Repetitive multimodal representations of collaborative behaviour make environmental action culturally desirable. Besides, the campaign follows the multimodal research tradition by creating environmental meanings through the interplay of verbal and visual resources (Zhang & Cheung 2022: 1923).

Scene 5: Community Recovery (Inclusive Growth)



Fig 15. Scene 5: Shot 1 (00:51)



Fig 16. Scene 5: Shot 2 (00:54)



Fig 17. Scene 5: Shot 3 (00:56)

Scene 5 depicts the climax of the inclusive growth story. Through wide-angle shots, the campaign shows communities in harmony with clean technology. The uplifting musical composition, multimodally correlated with visuals of joint cleaning processes, implies that sustainability is a universal process. It visualises a future where economic processes and environmental rehabilitation are no longer at war but are incorporated into a single, all-inclusive system. Here, sustainability is presented as part of a shared culture, where visually represented collective action is normalised as a way of being responsible for the environment. The campaign focuses not on individual sacrifice but on creating a rewarding way of life for the community. Rather than framing sustainability as a personal responsibility, the campaign frames environmental responsibility as culture. This result aligns with recent research findings that while individual responsibility is still the primary approach to digital sustainability communication, collective

perspectives are also starting to be highlighted in environmental communication (Huber et al. 2022: 720–721). The campaign's focus on collective participation illustrates the shift from environmental messages to socially shared meanings, allowing sustainability to resonate with people rather than remain mere information.

Scene 6: The Anchor of Hope (Visualising the Future)



Fig 18. Scene 6: Shot 1 (00:59)



Fig 19. Scene 6: Shot 2 (01:04)

The final scene provides semiotic closure. The serene, plastic-free landscape serves as the 'Goal' of the entire narrative. The information value focuses on the UNEP branding and the #beatplasticpollution hashtag, placed centrally for maximum salience. The fading sound of flowing water provides a psychological release from the earlier tension, leaving the viewer with a lasting image of visualised hope. By making the campaign hashtag, #beatplasticpollution, the central part of this serenity, the campaign makes sustainability a reachable, hopeful destination, seamlessly guiding the audience from understanding the problem to wisdom about the solution.

Conclusions

The results indicate that the campaign successfully reconfigures climate anxiety into agentic action through cohesive semiotic pathways in the visual and auditory channels. Specifically, the integration of AI-enhanced visuals and bio-acoustic soundscapes can be seen as a discursive practice that mediates technological and environmental meaning-making. Instead of making sustainability seem like a sacrifice, the campaign presents it as feasible, inclusive growth, with hope collectively produced and semiotically framed. These reflections indicate that multimodal cohesion and affective narration play a crucial role in environmental communication today, and that future campaigns must focus on ethically driven digital innovation, shift from apocalyptic messaging to action-based hope, and adopt more audience-oriented strategies to capture the various interpretations of the sustainability discourse. The campaign is not only about raising environmental awareness; it also shows how multimodal discourse can help to build an environmental culture and make sustainable behaviour emotional, social and cultural. AI-generated visuals, natural sounds, and convincing narratives help to convey sustainability beyond just an environmental duty and make it a cultural habit. The results expand the scope of MDA, providing insights into how multimodal resources are strategically used to create environmental culture in contemporary digital communication.

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