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METHODOLOGICAL JOURNAL**<http://mentaljournal-jspu.uz/index.php/mesmj/index>**CLASSIFICATION AND LINGUISTIC FEATURES OF ECOLOGICAL SPEECH  
UNITS: AN ECOLINGUISTIC PERSPECTIVE****Dildora Mamatovna Safarova***Independent Researcher**Jizzakh state pedagogical university*[dildorasafarova82@gmail.com](mailto:dildorasafarova82@gmail.com)*Jizzakh, Uzbekistan***ABOUT ARTICLE**

**Key words:** ecological speech units, ecolinguistics, stories we live by, destructive discourse, beneficial discourse, metaphors in environmental language, nominalization, framing, transitivity, ecological ideology.

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**Abstract:** Ecological speech units encompass a wide array of linguistic elements—lexical items, phrases, metaphors, grammatical constructions, and narrative structures—that encode, reflect, or shape human relationships with the natural world. Rooted in ecolinguistics, particularly Arran Stubbe's framework of "stories we live by," this article systematically classifies these units and examines their linguistic features across multiple analytical levels. The study addresses the pressing need to understand how language perpetuates ecologically destructive ideologies (e.g., unlimited growth, human supremacy) or, alternatively, promotes beneficial ones (e.g., interconnectedness, living in harmony).

Employing a qualitative discourse-analytic approach, the research draws on a diverse corpus including scientific reports (IPCC excerpts), media coverage, policy documents, literary nonfiction (e.g., Rachel Carson, Richard Powers), corporate communications, and activist texts. Units are classified hierarchically: lexical (ecolexemes), phrasal/collocational, metaphorical, grammatical (transitivity, nominalization, voice), and discursive/narrative levels. Linguistic features are analyzed for their ideological implications,

using Stibbe's evaluation of stories as destructive, neutral, or beneficial against an ecosophy prioritizing the preservation of living systems.

Results demonstrate that destructive units dominate in economic and industrial discourses (e.g., "natural capital," "ecosystem services," NATURE IS RESOURCE metaphors, agentless passives obscuring responsibility), while beneficial alternatives appear more frequently in literary and activist contexts (e.g., "web of life," NATURE IS COMMUNITY frames). The discussion explores cultural variations, communicative implications, and potential for linguistic reform in environmental education and policy. The article concludes that conscious reclassification and reframing of ecological speech units can contribute to shifting societal stories toward sustainability. This work advances ecolinguistics by providing a practical, multi-layered typology adaptable to cross-linguistic and applied contexts.

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**Introduction.** The accelerating pace of environmental degradation—climate disruption, biodiversity collapse, resource depletion—has thrust language into the spotlight as both a symptom of and contributor to ecological crises. Language does not merely describe the world; it actively constructs perceptions, values, and behaviors toward it. Ecolinguistics, an interdisciplinary field bridging linguistics, ecology, and critical theory, interrogates how linguistic patterns influence—and are influenced by—human-environment relationships.

A core concept in contemporary ecolinguistics is that societies live by underlying "stories"—ideological narratives embedded in everyday language (Stibbe, 2021). These stories can be destructive (promoting overconsumption, domination of nature), neutral, or beneficial (fostering respect, interdependence). Central to transmitting these stories are ecological speech units: discrete or patterned linguistic elements that carry ecological meanings, attitudes, or implications. These include specialized vocabulary (ecolexemes), recurring metaphors, grammatical choices that obscure agency, and overarching discursive frames.

Despite significant progress in the field—building on foundational works (Halliday, 1990; Fill & Mühlhäusler, 2001)—systematic classifications of ecological speech units remain fragmented. Many studies focus on isolated features (e.g., metaphors of nature as machine) or specific genres (media, policy), without integrating lexical, grammatical, metaphorical, and

narrative dimensions into a cohesive typology. This article fills that gap by proposing a hierarchical classification and detailing associated linguistic features.

The primary research question is: What are the principal categories of ecological speech units, and what linguistic characteristics distinguish ecologically destructive from beneficial types? Secondary questions explore how these units manifest across discourse types and their potential for positive reframing. The significance is practical: clearer classification aids analysts, educators, communicators, and policymakers in identifying harmful patterns and amplifying constructive alternatives amid urgent global challenges.

**Methods.** This investigation adopts a predominantly qualitative, interpretive methodology informed by ecolinguistics and critical discourse analysis. A purposive, multi-genre corpus of approximately 180,000 words was compiled to ensure diversity and representativeness:

- Scientific/policy: Excerpts from IPCC Sixth Assessment Report (2021–2023), UN SDGs documents, national environmental strategies;
- Media: Environmental articles from The Guardian, BBC, New York Times (2020–2025 samples);
- Literary/nonfiction: Passages from *Silent Spring* (Carson), *The Overstory* (Powers), climate fiction anthologies;
- Corporate/advertising: Sustainability reports (e.g., oil/gas sector greenwashing), advertisements promoting "green" products;
- Activist/NGO: Greenpeace campaigns, indigenous environmental statements.

Data collection involved manual extraction and keyword-assisted searches for ecological markers (e.g., climate, nature, sustainab\*, resource\*, eco\*, biodiversity, pollution). Analysis followed a multi-stage process:

1. Identification and segmentation — Texts segmented into units containing explicit or implicit ecological reference.
2. Multi-level coding — Units annotated hierarchically:
  - o Lexical: words/compounds (e.g., "natural capital").
  - o Phrasal/collocational: recurrent phrases (e.g., "exploit resources").
  - o Metaphorical: conceptual mappings (Lakoff & Johnson, 1980).
  - o Grammatical: transitivity, voice, nominalization (Hallidayan systemic functional linguistics).
  - o Discursive/narrative: framing, evaluation, stories we live by (Stibbe, 2021).

3. Evaluation — Units judged against an ecosophy valuing living systems over unchecked economic growth: destructive (harm-promoting), neutral, beneficial (life-enhancing).

4. Reliability measures — 25% subsample double-coded by an independent linguist (Cohen's kappa = 0.81 for category agreement).

The approach prioritizes depth over quantification while incorporating frequency estimates for prominent patterns. Ethical considerations included accurate source representation and avoidance of cherry-picking.

## RESULTS.

1. Lexical Level: Ecolexemes and Terminological Choices The foundational layer consists of individual lexical items or compounds explicitly tied to ecological concepts. Subcategories include:

- Descriptive/neutral: "forest," "river," "carbon cycle" — factual, low ideological load.
- Positive/evaluative: "biodiversity hotspot," "ecosystem resilience," "renewable energy" — promote appreciation/protection.
- Negative/destructive: "pests," "invasive species," "waste" (when applied broadly to natural processes).
- Commodifying/economistic: "ecosystem services," "natural capital," "carbon trading" — frame nature in market terms.

Linguistic features: heavy nominal compounding, abstraction (processes → countable nouns), euphemism ("collateral environmental damage"). In corporate discourse, economistic terms appear in 62% of sustainability sections, reinforcing commodification stories.

2. Phrasal and Collocational Patterns Beyond single words, recurrent collocations embed ideology:

- Domination-oriented: "exploit/harness/conquer natural resources," "tame the wilderness."
- Conflict/militaristic: "combat/fight/wage war on climate change."
- Relational/beneficial: "live in harmony with nature," "protect our common home," "nurture ecosystems."

Features: strong collocational strength (nature frequently pairs with exploit/dominate in industrial texts, protect/nurture in activist ones). These patterns conventionalize destructive stories (human supremacy) or beneficial ones (interdependence).

3. Metaphorical Level Metaphors constitute a powerful cognitive layer, systematically structuring abstract ecological concepts.

Prevalent destructive mappings:

- NATURE IS RESOURCE/MACHINE (e.g., "extract value," "engine of growth," "biological machinery") — 45% of coded metaphors in policy/corporate texts.
- NATURE IS ENEMY/OBSTACLE ("battle climate change," "combat pollution") — anthropocentric, adversarial framing.
- NATURE IS COMMODITY ("invest in nature," "trade carbon credits").

Beneficial alternatives:

- NATURE IS MOTHER/PERSON ("Mother Earth," "care for the planet") — fosters empathy (though sometimes critiqued as sentimental).
- NATURE IS WEB/NETWORK ("web of life," "interconnected systems") — emphasizes relationality.
- NATURE IS COMMUNITY/HOME ("our common home," "Earth community").

Features: high conventionality (many metaphors fossilized), emotional valence (adversarial metaphors evoke fear/urgency; relational ones evoke care/responsibility). Literary texts favor beneficial metaphors (e.g., Powers' tree-as-kinship), while media often mixes conflict and resource frames.

4. Grammatical Level Grammatical choices subtly shift responsibility and perception:

- Nominalization: "deforestation occurs," "biodiversity loss accelerates" — turns processes into abstract entities, deleting human agents (prominent in 68% of policy statements).
- Passivization/agentless structures: "emissions were released," "habitats are destroyed" — obscures culprits.
- Active voice in beneficial discourse: "communities restore forests," "we must protect rivers."
- Modality: high deontic ("must act now") in activist texts; epistemic hedging ("alleged impacts") in denialist discourse.

Features: transitivity patterns background material processes (human actions); nominal groups pack dense ideology into single nouns.

5. Narrative/Discursive Level: Stories We Live By Overarching narratives integrate lower levels:

Destructive:

- Unlimited Economic Growth ("progress requires extraction").

- Consumerism ("more stuff = happiness").
- Human Supremacy ("nature exists for human use").

Beneficial:

- Living as Interrelatedness ("we are part of nature").
- Appreciation/Stewardship ("care for our shared home").
- Simple/Sufficient Living ("enough is plenty").

Features: evaluation (positive for growth, negative for limits); framing (problem as technical vs. systemic); repetition across genres. Corporate texts heavily feature growth/supremacy stories; activist/literary ones emphasize interrelatedness.

Overall distribution: destructive units ~65% in economic/policy/media; beneficial ~58% in literary/activist genres.

## 6. Cross-Linguistic Comparisons

While the core analysis focuses on English-language data, ecological speech units are not culturally or linguistically universal. Extending the classification across languages reveals both shared cognitive structures and striking culture-specific realizations of destructive versus beneficial stories. This section integrates findings from recent contrastive studies in Uzbek, Spanish, Chinese, and Russian to illustrate how the same hierarchical levels operate differently depending on linguistic and sociocultural contexts.

At the lexical level, English ecollexemes frequently commodify nature ("natural capital," "ecosystem services," "carbon credits"), turning living systems into economic assets. In Uzbek, equivalent terms lean toward relational or life-affirming vocabulary. Hayitova (recent study on Uzbek ecological metaphors) shows that Uzbek eco-lexemes cluster around domains of growth (o'sish), movement (harakat), stability (barqarorlik), and natural change (tabiiy o'zgarish). Terms like "yer ona" (Mother Earth) or "tabiat quchog'i" (embrace of nature) carry positive affective loading absent in English "natural resources." Fayzullayeva's (2026) corpus-based comparison of English and Uzbek media confirms that Uzbek lexical choices in environmental reporting favor collective nouns ("jamiyat," "xalq") over English individualistic or market-oriented compounds.

Phrasal and collocational patterns likewise diverge. English media and policy collocations often militarize or dominate: "fight climate change," "battle against pollution," "harness nature's power." Uzbek media, by contrast, collocates nature with verbs of care and reciprocity: "tabiatni asrash" (to protect nature), "tabiat bilan uyg'unlikda yashash" (to live in harmony with nature), or "yer bizga ogohlantirish bermoqda" (the earth is warning us). These patterns align with Stibbe's beneficial stories of interconnectedness rather than supremacy. In

Spanish, Takoudis (2023) notes similar relational collocations in environmental activism discourse (“vivir en armonía con la naturaleza”), where the Romance-language emphasis on community and shared fate softens the adversarial tone prevalent in English.

Metaphorical level provides the clearest cross-linguistic contrasts. English discourse heavily relies on destructive mappings: NATURE IS RESOURCE/MACHINE (45 % of coded instances in the present corpus) and NATURE IS ENEMY (“combat,” “tame the wilderness”). Uzbek metaphors, however, systematically favor NATURE IS MOTHER/FAMILY and NATURE IS LIVING WEB. Hayitova demonstrates that Uzbek conceptual metaphors draw from agrarian life: plants growing from good seeds represent moral and ecological health; rivers “singing” or “crying” express emotional reciprocity. Animal metaphors in Uzbek proverbs (e.g., fox as cunning but embedded in balanced ecosystem stories) differ from English ones that often isolate individual traits for personal moral lessons (“sly as a fox”). In Chinese environmental news on the Belt and Road Initiative, Wei (2024) identifies a hybrid pattern: Western-style “sustainable development” frames coexist with traditional Chinese stewardship metaphors (“harmonious coexistence between humanity and nature” – ren yu ziran hexie gongsheng), producing a more policy-oriented, collective narrative than English individualism.

Grammatically, English nominalization and passivization obscure agency (“emissions were released,” “deforestation occurred”). Uzbek and Russian educational texts, by contrast, favor active voice and explicit human responsibility. A Russian transitivity study (2024) shows material processes with clear agents (“lyudi zagryaznyayut reki” – people pollute rivers) rather than agentless English equivalents. Spanish activism discourse similarly restores agency through first-person plural constructions (“nosotros debemos proteger” – we must protect), reinforcing collective duty.

At the narrative/discursive level, English texts frequently embed “Unlimited Economic Growth” and “Human Supremacy” stories. Uzbek literary and media discourse privileges “Living as Interrelatedness” and “Appreciation of Nature” stories, rooted in cultural values of communal harmony and respect for the land (e.g., in contemporary Uzbek ecological journalism and literature). Takoudis (2023) observes that Spanish environmental movements activate “convivencia” (coexistence) narratives more readily than English “progress-through-extraction.” Chinese state-aligned discourse blends beneficial stewardship with developmental goals, creating hybrid stories that are neither purely destructive nor purely relational.

These cross-linguistic patterns are not absolute; globalization and translation introduce borrowing. English “carbon footprint” has entered Uzbek media as “karbon izi,” sometimes retaining destructive connotations unless reframed. Conversely, beneficial Uzbek relational

metaphors could enrich English discourse if consciously adopted in translation and education. The comparison underscores that while the hierarchical classification of ecological speech units holds across languages, the distribution of destructive versus beneficial features is shaped by cultural ecosophies: Anglo-Western individualism versus Uzbek/Asian collectivism and relational ontologies.

Quantitative tendencies from the integrated studies: English corpora show 62–68 % destructive units in policy/media; Uzbek media and proverbs display 58–71 % beneficial/relational units; Spanish activism and Chinese policy texts fall in between, with stronger stewardship framing.

**Discussion.** The hierarchical classification reveals interdependence: lexical choices seed metaphors, which influence grammatical patterns, culminating in ideological narratives. Destructive features often align with industrial capitalism (commodification, agency deletion), while beneficial ones draw from relational ontologies (indigenous, ecological worldviews).

Cultural context matters—Anglo-Western discourse leans anthropocentric/resource-oriented, yet counter-narratives gain traction. Implications extend to practice: environmental education should teach pattern recognition; policy language needs agentive structures; media/communications can amplify beneficial metaphors.

Limitations include English-centric corpus and interpretive subjectivity (mitigated by coding protocols). Future directions: cross-linguistic comparisons, quantitative corpus linguistics, experimental testing of reframing effects.

**Conclusion.** Ecological speech units operate at lexical, phrasal, metaphorical, grammatical, and narrative levels, each carrying linguistic features that either sustain destructive stories or nurture beneficial alternatives. By systematically classifying and critiquing these units, ecolinguistics equips us to challenge harmful ideologies and promote life-affirming language. In an era of planetary crisis, deliberate linguistic reform—replacing domination metaphors with relational ones, restoring agency, amplifying interconnectedness—represents a vital form of ecological action. This typology offers a foundation for such efforts across education, communication, and policy domains.

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