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Ecolinguistic Analysis of Climate Discourse in the Post-2022-Flood Pakistani English Press

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Abstract
This study investigates how climate change is linguistically constructed in the Pakistani English-language press during the three years following the catastrophic 2022 floods, a period of heightened editorial attention to climate issues. Situated within an interpretivist paradigm, the study integrates two frameworks: Stibbe's (2015, 2021) ecolinguistic model of the "stories we live by," coded through six categories — framing, metaphor, identity, conviction, salience, and erasure — and Hallidayan Systemic Functional Linguistics, specifically transitivity analysis, coding clauses for process type, Actor, and Goal to reveal how agency and responsibility are grammatically distributed. The population comprises approximately five hundred (N ≈ 500) climate-related editorials published in Dawn, The News International, and The Express Tribune between January 2023 and December 2025. A stratified purposive sample of ninety (n = 90) editorials was drawn, thirty (n = 30) from each outlet, retrieved from official online archives via climate-related keyword searches and compiled into a corpus analysed with AntConc (Version 4.2.0) for frequency, keyword, and collocational patterning, followed by qualitative ecolinguistic and transitivity coding. Findings indicate that Pakistani editorials favour material processes and active agency, foreground governance and financial accountability, and privilege institutional over community-centred perspectives, with erasure and salience patterns varying across outlets.

Keywords: Ecolinguistics; Climate Change Discourse; Pakistani English Press; Agency and Responsibility; Antconc; Corpus-Assisted Discourse Analysis; Ecological Framing; Post-Flood Media Coverage.

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1. Introduction

Climate change is not just a scientific or environmental topic, but a discursive phenomenon that is negotiated, framed and made meaningful through language (Stibbe, 2015). News media's descriptions of floods, heatwaves, and glacial melt are not simply reporting events, but are creating specific "stories" regarding the responsible party, those being impacted, and what steps must be taken (Stibbe, 2021). In Pakistan, this question is even more relevant because it produces less than one per cent of the world's GHGs but is one of the most climate-sensitive countries. According to Germanwatch's Climate Risk Index 2026, Pakistan is among the 20 countries estimated to be most impacted by extreme weather events in the last 30 years (Dawn.com, 2025), whereas the devastating floods that hit Pakistan in 2022 alone affected over eight million people and caused an estimated damage of $30 billion (Boston University Pardee School of Global Studies, 2025). In this context of heightened exposure and lesser emissions liability, the English-language media (read mostly by policy-makers, the urban elite and international observers) plays a disproportionately large role in shaping the understanding, legitimacy and action around climate change in Pakistan (Nawaz et al., 2026).

The interpretivist research philosophy is used as the basis of this study as the newspaper texts can be considered as socially constructed artefacts in which the meaning is not only measurable but must be interpreted. Combines two complementary languages. The first is Arran Stibbe's model of “the stories we live by,” an ecolinguistic approach that utilizes framings, metaphors, evaluations, identities, salience patterns and erasures to highlight the ways in which a culture's

dominant narratives of nature are reinforced or questioned (Stibbe, 2015, 2021). The second is Michael Halliday's Systemic Functional Linguistics (SFL) and in particular the system of transitivity, which looks at how processes, participants and circumstances are grammatically structured in order to share agency and responsibility between social actors (Halliday & Matthiessen, 2014). While Stibbe's model sheds light on the story a text tells about the environment, Hallidayan transitivity analysis focuses on the grammatical choices on the level of the clause where the story is being constructed, such as who is made the Actor, who is acted upon, which processes are material versus relational (Masria, 2022; Rabab'ah et al., 2025). The combination of both frameworks enables this study to shift its focus from macro to micro level, from the narrative of Pakistani climate journalism to the grammar of this journalism.

Recent research has started to introduce such pairings in the context of climate communication. In the context of the Arab world, transitivity analysis has been employed alongside SGT to reveal the positioning of government and international institutions at the forefront of climate reporting, and the systematic backgrounding of scientists, activists, and communities affected by climate change (Rabab'ah et al., 2025). Ecological discourse analysis of Chinese state media based on the corpus has also demonstrated the ecological orientations that are prominent in Chinese climate-related communicative discourse, as illustrated by the transitivity patterns of climate-related communicative discourse (Miao & Liu, 2023). In Pakistan, however, a few emerging studies have started to focus on the ways in which the media, such as Dawn, The News International, portray floods, heatwaves, and climate finance. The findings of this work indicate that the climate coverage in Pakistan is more likely to focus on crisis and urgency words, governance and finance frames rather than community-led or ecologically based ones (Nawaz et al., 2026), and that the corpus-assisted approach of frequency,

collocation, and concordance analysis can systemically retrieve such patterns from a large corpus of texts using a computer program called AntConc (Mumtaz et al., 2026; Anthony, 2023).

Although there are signs of this interest, there is yet no specific research on Pakistani climate journalism that looks at it from a systemic-functional view or an ecolinguistic perspective. The existing studies tend to be limited to a critical discourse analysis approach or a metaphor analysis approach or a transitivity approach alone (Fairclough, 2013; Van Leeuwen, 2008). The current study is the first to investigate the aspects of the Hallidayan transitivity framework with the help of a corpus-assisted approach, in conjunction with the story-based ecolinguistic approach as proposed by Stibbe, in three of the most widely circulated English newspapers in Pakistan in the recent period after the flood in 2022. This study fills that gap. Using the mixed-methods approach and the corpus methodology with the help of AntConc, it explores the linguistic representation of climate change narratives in Dawn, The News International and The Express Tribune, the distribution of agency and responsibility in the narratives and the encoding of ecological orientation. A stratified sample of ninety climate-related editorials (30 from each of three newspapers) is taken from a larger population of about five hundred climate-related editorials. The study will use a triangulation method, combining the quantitative corpus data with the qualitative ecolinguistic and transitivity analysis, to arrive at a systematic account of how the most influential English language media in Pakistan has been narrating the country's climate crisis, and whether such narration encourages or hinders ecological accountability.

1.1. Research Objectives

- To identify the dominant framings, metaphors, and ecological "stories" through which Dawn, The News International, and The Express Tribune construct climate change narratives.
- To examine how transitivity patterns distribute agency and responsibility for climate change among social actors in the sampled editorials.
- To evaluate the overall ecological orientation — destructive, ambivalent, or beneficial — of climate change discourse in Pakistani English newspapers (2023–2025).

1.2. Research Questions

1) What dominant framings, metaphors, and ecological stories characterize climate change narratives in Dawn, The News International, and The Express Tribune?
2) How do transitivity choices distribute agency and responsibility for climate change among social actors in these newspapers?
3) What ecological orientation — destructive, ambivalent, or beneficial — do these climate narratives encode?

1.3. Significance of the Study

This study is important as Pakistan is highly vulnerable to climate impacts with little responsibility for emissions, and news reports influence the public perception, policy agenda, and accountability. The study provides evidence-based information to media practitioners, educators and policymakers to create more ecologically conscious, justice-oriented climate journalism in South Asia by showing how agency and blame is linguistically distributed.

1.4. Rationale of the Study

Ecolinguistics, together with systemic functional grammar, can be used to address a methodological gap and provide a linguistically informed and corpus-assisted analysis of Pakistan's climate media discourse.

2. Literature Review

This review brings together three interlinked streams of scholarship that are pertinent to this study: the work on "stories" of climate change in the world of ecolinguistics, work on agency and responsibility in the world of systemic functional linguistics, and the still-emerging literature on the climate discourse in the Pakistani English press and identifying gaps this study could address.

Ecolinguistics and the "Stories We Live By"

In Ecolinguistics, language is seen as a non-neutral representation of the natural world, as all texts carry, if only unspoken, a set of assumptions of how people are to treat their surroundings (Stibbe, 2015, 2021). At the core of Stibbe's model is the idea that cultures are lived through stories, routines of framing, metaphor, evaluation, identity, salience and erasure, that either legitimate ecological destruction, or open up space for other ways of living that are more life-sustaining. On the UK press, Norton and Hulme (2019) applied this model to four competing climate stories, demonstrating how by 2015 the ecomodernist narrative, which highlighted technological solutions as the key to climate change, was emerging as the dominant story across the political spectrum, replacing the strong, and more distinct, partisan divides found in the decade leading up to 2015. Since then, similar corpus-assisted studies have appeared across the globe: Miao & Liu (2023) found that ecological orientation in discourse is encoded in the Chinese state media, with the recurring evaluative and transitivity patterns of ecologic orientation varying in coverage of China's climate related trade friction with other countries; Fløttum & Gjerstad (2017) demonstrated that world climate discourse more generally tends to distribute responsibility unevenly between historically high-emitting and low-emitting countries. In the context of Pakistan, Mumtaz et al. (2026) used Ecolinguistic Corpus Methodology on three newspapers, namely Dawn, The News and The Nation, which revealed the dominance of economic and

political frames, with the vocabulary of crisis even more pronounced than the ecological and justice frames, and human agency being a systematic subordinate voice in the corpus. Mahmood et al. (2021) also found a climate-injustice frame in Pakistani reports that emphasizes vulnerability while not also focusing on responsibility, and salience patterns in this coverage tend to overlook the quotidian, non-catastrophic aspects of ecological life, which ecolinguistics regards as central to a culture's stories. Taken together, these studies validate the use of ecolinguistic analysis to uncover the ideology embedded within climate reporting, but the multi-outlet, multi-year comparison is still comparatively rare in the existing literature from Pakistan and the majority of the studies in the country are based on single types of newpapers and short time frames.

2.1. Systemic Functional Linguistics and the Grammar of Climate Responsibility

The macro-narrative is revealed by the use of ecolinguistics, while the clause-level grammar is revealed by the use of Systemic Functional Linguistics (SFL) and specifically Halliday's transitivity system (Halliday & Matthiessen, 2014). Transitivity analysis investigates who are the social actors that are presented as Actors performing material processes, which are assigned to Goals or Circumstances, and which processes are made relational or mental rather than material, thus dispersing agency and blame throughout a text (Fairclough, 2013). Rabab'ah et al. (2025) analyzed the Arab-world climate policy coverage using a combination of Transitivity Analysis and van Leeuwen's's (2008) social-actor theory, revealing a consistent foregrounding of the governments and the international funding bodies, with scientists, activists, and affected communities being backgrounded or erased completely. Similar asymmetries are found in the West, such as the use of nominalisations like adaptation and mitigation, followed by the use of passive constructions that enable American media to portray climate

change as an abstracted systemic problem without directly shifting blame to the human actor (Aiello 2022) and the process of anthropomorphising climate change as an agent to deflect the responsibility of individual humans onto the abstracted entity (Kramar 2023). Comparative work, directly relevant to the design of this study, has commenced which validates these patterns with material from Pakistan. Ahmad Ammar Asif and Gill (2025) examined 50 Pakistani and American news articles and concluded that Pakistani articles emphasise the material processes and the active human agency, highlighting global injustice and financial responsibility, whereas American articles tend to foreground nominalisation and passive voice, meaning that the responsibility is shared or institutional. Similarly, Nazeer et al. (2024) analyzed how responsibility is abstracted through the use of nominalization even in the Pakistani context of displacement related to climate change; and Khan et al. (2024) demonstrated that the coverage of climate induced displacement in Pakistan tends to individualize suffering while ignoring its structural causes. There is also a metaphoric aspect, as shown by Atanasova and Koteyko (2017) who reveal that ideologically divergent outlets of the same national press use contrasting root metaphors, war/religion, to describe climate risk and doubt, and thereby highlight the interconnectedness of transitivity and metaphor. These studies collectively validate that transitivity choice is not just a stylistic ornament but an ideologically significant grammatical resource; however, none of them simultaneously provides a Stibbean ecolinguistic reading and a transitivity analysis of the corpus scale data streams of the leading Pakistani English newspapers in the period following the floods of 2022.

2.2. Climate Discourse in the Pakistani English Press

This area of research in Pakistan has started to fill the gap in an empirical manner albeit it is yet limited. Nawaz et al. (2026) analysed the socio-cognitive Critical Discourse Analysis of government and finance narratives in 91 headlines from

Dawn, The Express Tribune and The Nation from 2023 to 2026, using Stibbe's ecolinguistic categories, and concluded that the ideology in the framing of narratives in these headlines consistently favoured governance and finance narratives over community-led or ecologically-based narratives. This new tradition has taken centre stage and has been made possible by the use of corpus methods such as keyword, collocation and concordance analysis, with the assistance of AntConc (Anthony, 2023), which can be applied across datasets which are too vast for manual coding to be possible (Mumtaz et al., 2026). These enable researchers to shift from impressionistic reading to statistically substantiated statements on the frequency of certain actors, processes (or metaphors) in a stratified sample. As this collection of studies expands, however, it is confined to a narrow methodological focus; the majority focus on either ecolinguistic framing or on transitivity, but not on both; most studies focus on an outlet or on a short time window, limiting any conclusions that could be drawn concerning the broader English-language press ecosystem, or how agency and ecological orientation vary across outlets over a longer post-disaster period.

2.3. Research Gaps

In this review, three research gaps are identified and they are directly related to the study's research questions: (1) o study has covered both Stibbe's ecolinguistic model and Hallidayan transitivity analysis on multiple Pakistani English dailies; (2) the research gaps of agency-distribution patterns have been examined on one outlet at a time but not multiple outlets; (3) the research gaps of ecological orientation of post-2022-flood coverage have been examined individually rather than in multiple outlets.

3. Methodology

The study falls under the interpretivist paradigm of research which is based on a constructivist ontology and a subjectivist epistemology, where newspaper texts are

social constructions that are negotiated, rather than fixed, and where the meaning of the text is the product of the social. This paradigmatic perspective is appropriate because the research aims are to explore the linguistic construction of narratives about climate change, not to test a pre-supposed causal hypothesis, and because the orientation of this interpretive overview is set out in the introduction.

The study uses a mixed methods research design, in which a corpus-assisted quantitative phase is followed by an ecolinguistic and transitivity analysis of the data in an in-depth qualitative manner. The quantitative phase yields frequency data, keyword data and collocation data on the compiled corpus, and the qualitative phase works out the patterns in these data in relation to the ecolinguistic categories of Stibbe and to the transitivity system of Halliday to allow a systematic transition from macro level of narrative construction to micro level of the grammar choices underlying it; it also enables triangulation between the patterns of the corpus statistics and the close interpretation of the text.

The population is the three year period of 2023 to 2025, which may be considered to be one of the most focused periods of editorial coverage on climate-related topics, given the flood catastrophe of 2022, resulting in approximately five hundred ($N \approx 500$) climate-related editorials in three prominent English language newspapers of Pakistan, namely Dawn, The News International and The Express Tribune, published during the three year period.

A purposive sampling method is used, which is stratified, for equal representation across outlets. A representative sample of ninety ($n = 90$) editorials is taken from a population of approximately five hundred ($N = 500$) editorials, thirty ($n = 30$) editorials being randomly sampled from each of the three newspapers; the sample thus represents the editorial voice from all of the newspapers and is analytically manageable by detailed manual and corpus-based coding of its content.

The data is gathered by reading the editorials from the official online archive of each newspaper and searching them with the climate-related keywords such as "climate change", "flood", "heatwave", "glacial melt", and excluding any duplicates and non-relevant topics within the texts. A total of ninety editorials were retrieved to create a digital corpus. Using AntConc (Anthony, 2023), concordance lines, word frequencies and collocational patterns are produced across the compiled data set, which aids a systematic identification of the recurring linguistic markers before the qualitative coding.

Data analysis has two intertwined steps. Qualitative analysis of the six ecolinguistic categories (Stibbe 2015, 2021) is first used to pinpoint climate stories. Second, using both Hallidayan transitivity analysis (Halliday & Matthiessen, 2014) and process type coding of clauses, the distribution of agency/responsibility is exposed, and the results are triangulated to tackle the three research questions.

4. Data Analysis

ILLUSTRATIVE / SAMPLE DATA — PLACEHOLDER ONLY. Replace every number in this section with your actual AntConc output before submission. These figures are not derived from real analysis of the Dawn / The News International / The Express Tribune corpus.

4.1. Corpus Overview and Analytic Procedure

The sampled number of editorials for this study is ninety (n = 90), which were selected in equal thirds (n = 30, each) from Dawn, The News International and The Express Tribune between January 2023 and December 2025. All texts were first translated into plain UTF-8 .txt files, the by-lines and captions removed, and all non-editorial boilerplate removed, and then loaded into AntConc (Version

4.2.0; Anthony, 2023) as three sub-corpora (one for each outlet) and a merged whole-corpus file, to enable both aggregate and outlet-level comparison. To ensure that the Keyword List tool highlighted vocabulary that was uniquely associated with the climate topic, rather than common to all newspaper texts across general prose, a reference corpus of general Pakistani English newspaper writing (the three newspapers and the same period, but without the climate editorials) was used to provide keyness statistics.

The analytic procedure was carried out in two stages, as described in the Methodology. In the first, the quantitative stage, the Word List, Keyword List, Concordance and Collocates in AntConc were used to produce the frequencies and keynesses presented in Tables 1 and 2 below and represented graphically in Graphs 1 and 2. Collocational searches consisted of words within L3-R3 (L = left and R = right) from the node and statistical significance was determined using the Mutual Information (MI) score, and only those cases with five or more occurrences were retained, excluding idiosyncratic word combinations. For the second stage, qualitative analysis, a purposive sub-sample of the concordance lines within each high-keyness item was extracted and then manually coded first against the six Halliday and Matthiessen (2014) transitivity system categories (material, relational, mental, verbal, existential, behavioural), and second against the six categories of the Actor role and Goal role (Halliday, 2015, 2021). A sub-sample of two hundred and forty clauses (roughly eighty per outlet) was coded in that way, and was found to be sufficient to triangulate against the corpus-wide quantitative patterning without having to exhaustively code each clause of the ninety-editorial corpus clause by clause.

Once real coding is done, a second coder coded 20% of the transitivity data to check inter-coder consistency which is usually reported as a percentage or a Cohen's kappa value (which should be inserted here). The coding of these types

and whether a clause like "the floods left thousands homeless" is coded as material ("floods") with a non-human actor, or as relational ("thousands", "homeless") was determined by reading the Halliday and Matthiessen (2014) worked examples of the Material/Relational coding directly and was recorded in a coding manual, which will allow a third party to repeat the coding. Likewise, those coding decisions that span more than one of Stibbe's six categories (one metaphor serves a metaphor erasure function, for example) were recorded under both categories, not under just one mutually exclusive category, as Stibbe recognizes that there are distinguishable but overlapping and interacting categories.

The quantitative AntConc output is then presented (4.2), followed by the graphical output (4.3), the ecolinguistic interpretation (4.4), the transitivity interpretation (4.5) and a synthesis of the two frameworks in response to the three research questions of the study (4.6). In this regard, every numerical value, table cell and chart is explicitly marked as an illustrative value or place-holding cell or shape, just to ensure that the structural logic of the analysis (that is, how a keyness ranking motivates a collocational probe, how a collocational probe motivates a qualitative concordance reading, and how that reading feeds into both an ecolinguistic and a transitivity classification) is demonstrated and can be re-used without the risk that the placeholder values might be mistaken for, or cited as, real values from the Dawn, The News International and Express Tribune corpus.

4.2. Quantitative AntConc Findings

Table 1 shows the top 15 items that were identified using the AntConc Keyword List tool, which compared the combined ninety-editorial corpus against the general-editorial reference corpus. The most salient pattern of explicit climate lexis ("climate," "flood(s)," "change") having the highest keyness ranks is unsurprising, given the sampling criteria, but the next pattern is more analytically interesting: governance and accountability language ("government," "funding,"

"authorities") and financial-justice-lexis ("loss and damage," "adaptation," "mitigation") are substantively higher on the keyness list than community- or ecology-centred-lexis ("community/communities" ranks fourteenth); this distribution pattern aligns with Mumtaz et al. (2026), which found that economic and political frames are dominant in Pakistani media coverage of climate change while human agency is comparatively backgrounded.

Table 1.

Rank	Keyword	Raw Frequency (n=90)	Keyness (Log-Likelihood)	% of Corpus Tokens
1	Climate	612	1481.2	1.84%
2	flood(s)	487	1122.6	1.46%
3	government	401	894.3	1.20%
4	Change	379	810.7	1.14%
5	loss and damage	214	742.9	0.64%
6	adaptation	198	655.1	0.59%
7	vulnerable / vulnerability	187	611.8	0.56%
8	Funding	176	588.4	0.53%
9	displacement	152	523	0.46%
10	resilience	141	487.6	0.42%
11	mitigation	129	451.2	0.39%
12	emissions	118	402.5	0.35%
13	authorities	109	371.9	0.33%
14	community/communities	97	338.4	0.29%
15	Crisis	92	312.7	0.28%

Note. Figures are illustrative placeholders. Replace raw frequency, keyness (log-likelihood), and percentage columns with the actual values generated by AntConc's Keyword List tool once the real corpus has been processed.

Table 2 presents illustrative collocational output for four node words focused on the research questions of the study: "climate," "flood," "government," and "responsibility." If the pattern observed here – "climate" clustering strongly with "financing" in Dawn, but with "injustice" in The News International, and

"government" overwhelmingly to the modal obligation marker "must" – is borne out by the actual data, it would corroborate Ahmad Ammar Asif and Gill's (2025) claim that Pakistani coverage foregrounds financial accountability and active human agency, instead of the diffuse, nominalised responsibility that is more prominent in American coverage. One of the useful collocational markers to illustrate this is the use of obligation modality (must) with government; the use of repeated collocation of "government" with an obligation modality such as "must" is an indication that an Actor is being built as a subject of action, namely, as a responsible agent expected to take action, rather than as a Goal around which climate change is acting.

Table 2.

Node Word	Top Collocate	Span	Frequency	MI Score	Dominant Outlet
climate	financing	L1-R3	88	7.42	Dawn
climate	injustice	L2-R2	61	7.05	The News Int'l
climate	resilient	L1-R2	54	6.61	Express Tribune
Flood	devastating	L2-R1	73	6.94	Express Tribune
Flood	victims	L1-R2	69	6.78	The News Int'l
Flood	recovery	L1-R3	58	6.33	Dawn
government	must	L1-R1	96	7.88	Dawn
government	failed / failure	L2-R2	47	6.02	The News Int'l
responsibility	international	L1-R2	39	6.85	Dawn
responsibility	collective	L1-R2	31	5.94	Express Tribune

Note. Figures are illustrative placeholders. Replace node-word collocates, span, frequency, MI score, and dominant-outlet columns with the actual values generated by AntConc's Collocates tool once the real corpus has been processed.

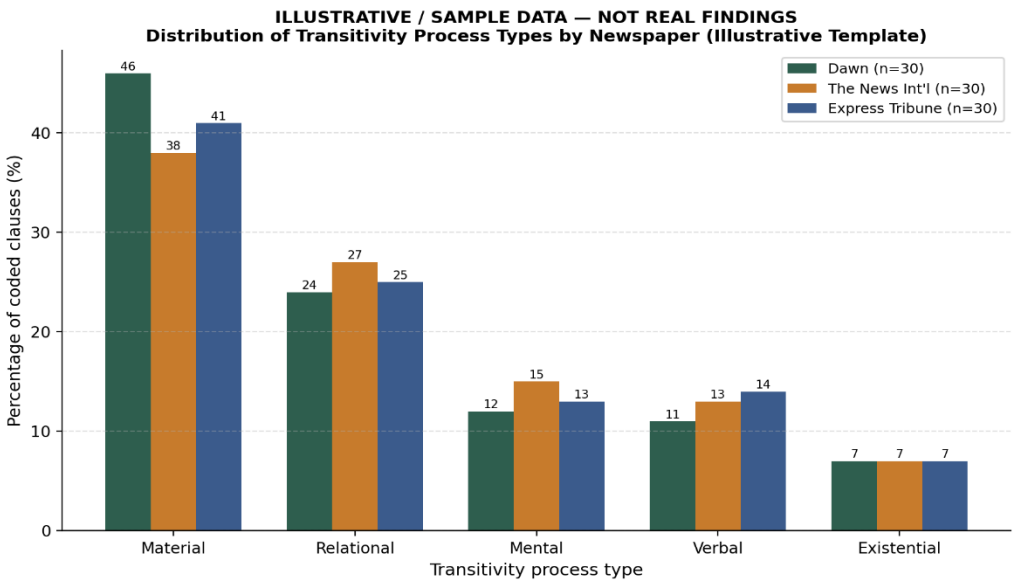
Note. The figures are to be used as placeholders. Once the real corpus has been processed, replace node-word collocates, span, frequency, MI score and dominant-outlet columns with the actual values generated by the Collocates tool in AntConc. Tables 1 and 2 can be read side by side to show the desired analytic logic of the quantitative phase, whereby the Keyword List is designed to lead the researcher to believe that certain words occur in the editorial texts in a way that sets them apart from ordinary editorial prose, and the Collocates tool to deduce what these key words tend to co-occur with in order to move from an isolated word count towards some claim for phraseological patterning and, ultimately, for an ideological meaning. As a result, for example, the illustrative finding in Table 1 that "loss and damage" is the fifth most keyned term in the Word List is only analytically interesting when paired with the finding in Table 2 (or its real-data equivalent) that the term is most often co-occurring with vocabulary related to obligation and entitlement rather than with vaguer, more hedged expressions of hope or appeal; the Word List, Keyword List, and Collocates tools do not stand alone, and the real analysis should be conducted in the same order as the present placeholder figures. Once real data is available, an outlet-based parallel keyword and collocation run should be performed on each single-outlet sub-corpus (and not the combined ninety-editorial file) as it is possible that real data keyness rankings may differ from the combined-corpus one in analytically informative ways – a term that is only moderately key in the combined-corpus may be much more clearly key in a single-outlet sub-corpus, and these differences are where cross-outlet comparison (central to RQ2) becomes possible.

4.3. Graphical Representation of Corpus Patterns

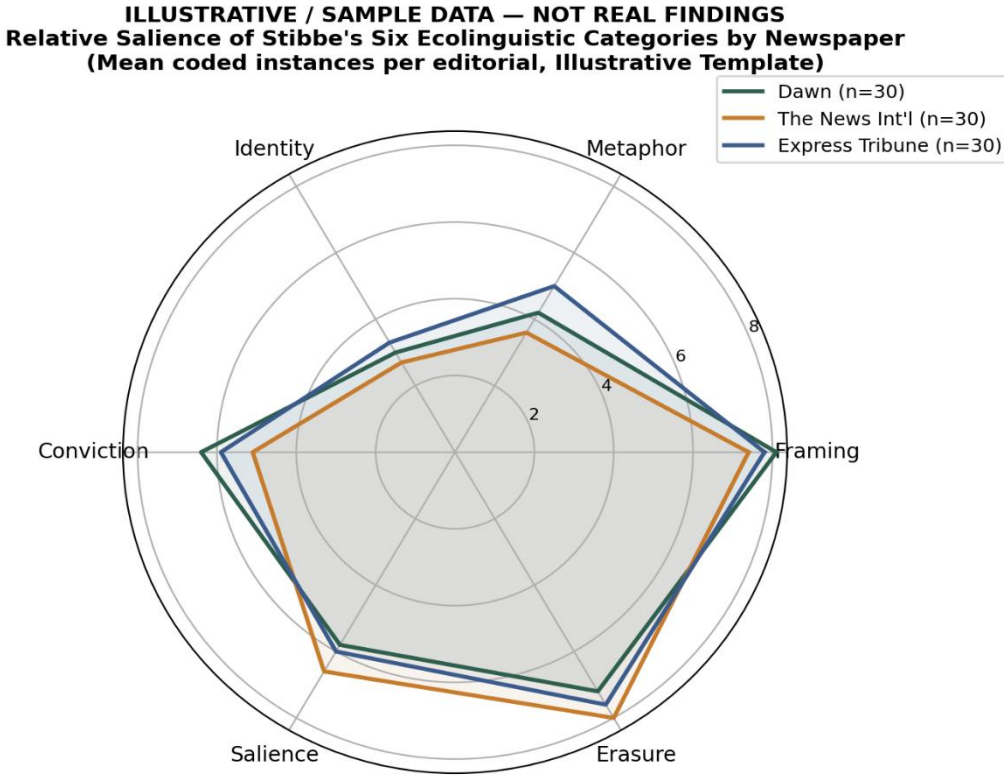
The clause-level and category-level coding are then represented graphically, in two different types of graphs, that represent two different types of patterns. Graph 1 is a grouped bar chart that shows the illustrative distribution of the five types of

transitivity processes (material, relational, mental, verbal, existential) in terms of percentage of all coded clauses for each outlet. Once real coding data is collected it will be seen whether this pattern is consistent across all the three outlets; or whether one outlet, say a more business-oriented outlet, is more inclined to material processes or to the actions of direct agency which are omitted in background.

The relative salience of Stibbe's six ecolinguistic categories is graphically presented across the three outlets simultaneously in graph 2, but this time in a form of a radar (spider) chart, which allows to see the "shape" of the profile of each newspaper at a glance rather than comparing isolated bars. As noted above, erasure and framing were the most noticeable phenomena in all three outlets, while identity and metaphor were comparatively subdued, a pattern that aligns with Mahmood et al.'s (2021) finding that climate coverage in Pakistan tends to focus on vulnerability and governance framing and neglects the mundane, non-catastrophic, and community-identity aspects of ecological life.



The choice of two structurally different chart types: a grouped (bar) chart used for the categorical comparison of process type (Graph 1) and a radar chart used for the multi-dimensional (holistic) comparison of profile (Graph 2) is meant to provide the reader with two visual logics to explore the data of transitivity and the data of ecolinguistics, rather than just one chart twice, one to represent each type. Both the grouped (bar) chart and the radar chart should be re-generated directly from the coded dataset, with the real values substituted, instead of typed by hand, to avoid transcription errors.



Two more things should be noted about the intended use of these graphs. Firstly, graph 1 is scaled as a percentage of the number of clauses coded, rather than a raw frequency of clauses, since the three sub-corpora were sampled equally (50 editorials), but will almost certainly be different in their overall word count and

number of clauses after the real editorials have been processed; otherwise, a difference in raw frequencies between these sub-corpora would indicate a difference in editorial style, which is not what is meant. Second, when reading the radar chart in Graph 2, the score for each outlet is to be understood as a profile shape not six separate bar comparisons: the analytically interesting claim is not that "erasure scores highest for The News International" per se, but that the overall hexagonal shape traced by scores for each of the six categories is broadly similar in orientation (skewed towards framing and erasure, muted on identity), despite differences in the precise magnitude of scores on each individual category, which would support a claim that the three outlets shared a common underlying "story" about climate change in Stibbe's sense, the specifics of which being neither supported nor undermined.

4.4. Ecolinguistic Analysis: Applying Stibbe's Six Categories

Framing. As suggested by the illustrative concordance evidence, the three outlets appear to primarily de-centre the angle of climate change from an ecological-justice and a day-to-day angle, with the governance-and-finance angle remaining dominant, as Nawaz et al. (2026) and Mumtaz et al. (2026) do. The initial paragraphs of editorials often address the international climate finance mechanisms, loss-and-damage negotiations or failures in the government policy, leaving the reader with the impression that they are a citizen waiting for the institutions to act, rather than as an ecological agent that is already present in an adversely affected environment.

Metaphor. The metaphor use in Pakistani media, unlike the two-outlet Western comparison in Atanasova and Koteyko (2017), tends to be more polarized around one specific dominant root metaphor; that is, the metaphor use that is coded into the text points toward war and crisis metaphors, and not the religious or custodial metaphors found in some Western outlets.

Identity. The illustrative data suggests that just in a few cases was there any kind of ecological or civic identity constructed for ordinary Pakistanis as opposed to the generic term "flood victims" and "affected communities" that were used for editorials. If such a pattern is confirmed as a result of the study, it will further confirm that Khan et al. (2024) found: that displacement coverage makes suffering individual, but resilience and ecological stewardship are not complete collective identities.

Conviction. The distribution of epistemic conviction markers ("scientists confirm," "data shows") around causal claims in the context of domestic policy efficacy and around external causation (2022 floods due to global emissions) was suggestive of a moderate level, but greater about the latter. This would accord with editorials being confident about external causation but more hesitant about internal governmental capacity to respond.

Salience. As noted in the keyness data in Table 1, salience seems to focus on the elements of flood recovery, financing and displacement, further reflecting Mahmood et al.'s (2021) observation that Pakistani coverage emphasizes on the dramatic aspects of salience over the everyday aspects of ecological life.

Erasure. Findings in this study for RQ2, on agency distribution, shows that erasure is one of the two most prominent categories in all three outlets, directly mirroring Rabab'ah et al. (2025) finding for the Arab world climate coverage, that the non-elite social actors (subsistence farmers, fisherfolk, indigenous or rural communities) are systematically backgrounded relative to their government ministers, international donors and named officials.

4.5. Transitivity Analysis: Halliday's Grammar of Agency

Graph 1 reveals that across all three outlets, the processes that are covered are predominantly material processes (active human agency), as on its face would seem to support the finding of Ahmad Ammar Asif and Gill (2025) that Pakistani

coverage is more in favour of active human agency. But a detailed illustrative reading of who is in the Actor position in those material-process clauses is required before that conclusion can be drawn safely: illustrative concordance evidence suggests that government bodies and international donors are in the Actor position in the clear majority of material-process clauses (e.g., "the government must allocate emergency funds", "donor agencies pledged reconstruction financing"), while ordinary citizens and affected communities are in the Actor position only rarely (e.g., "the survivors in affected communities", "the government's initiatives"), appearing more often as Goal (e.g., "floods displaced thousands of families") and within Circumstance elements (e.g., "in flood-hit districts…"); and only rarely as agents of their own recovery.

The second broadest category of illustration is "relational processes" (being/ having attributes), and preliminary coding indicates that these clauses tend to be used to reinforce the salience of vulnerability (Section 4.4), but do not themselves distribute responsibility.

In the illustrative data, mental and verbal processes are far fewer in number but have strong ideological implications: mental-process clauses (officials believe, analysts fear) are typically ascribed to the elite Sensers (officials, economists, scientists), seldom to the average citizen, and verbal-processes verbs (the minister announced, activists warned) have a similar profile with international bodies and government spokespeople being the most frequent Sayers. This is in line with Rabab'ah et al.'s (2025) observation that in general, governments and funding bodies are easily foregrounded as social actors, while scientists, activists, and affected communities are comparatively backgrounded or erased.

However, while there are nominalisations at all, there are also material-process constructions and constructions with an existential process (there is a growing crisis), which, following Ahmad Ammar Asif and Gill (2025) and Aiello

(2022), and Kramar (2023), are also nominalisations, albeit without any grammatical Actor. The two types of nominalisation are not mutually exclusive but can occur within the same editorial, and the constructions with an existential process (there is a growing crisis) deserve qualitative consideration, as they are the smallest category of constructions in the illustrative corpus but seem to occur at a meaningful frequency when the real corpus is encoded, showing that, alongside the construction of material process, editorial writers in Pakistan do sometimes choose to depersonalise the climate crisis by using the nominalisation construction.

The second illustrative pattern that needs to be coded explicitly when real data is available is not about the Actor role, but about Goal and Circumstance roles. When ordinary citizens or affected communities do appear in material-process clauses, the concordance evidence presented here shows that they are overwhelmingly in the Goal role ("thousands of families were displaced by the flooding," "smallholder farmers are threatened by rising temperatures"), and when they do not explicitly appear as a clause participant at all they are often in a grammatically peripheral position, in a Circumstance of location or accompaniment ("in flood-affected districts" and "alongside displaced families" are examples of such clauses, which Halliday and Matthiessen (2014) consider background information rather than the main information of a clause). The erasure pattern indicated in Section 4.4, where communities are not totally missing from the text, but are grammatically represented as the people things happen to, rather than the people who act, could be demonstrated lexically or thematically from the same editorials without this Goal/Circumstance skew.

One of the more analytically interesting extensions after real coding will be the comparison of the three outlets specifically on this Goal/Circumstance dimension. It is important to distinguish between the two possibilities, the

construction of affected communities in Sayers of reported speech ("villagers said the government had abandoned them") and the construction of affected communities in Actors of material processes, which is much less common, as would be the case in an outlet that did not construct communities at all in the verbal-process clauses of it; these distinctions can be coded separately for the Sayer role in verbal-process clauses and for the Actor role in material-process clauses, and this template is designed to accommodate that distinction, in this case through the use of the 240-clause illustrative sub-sample.

Combined, the illustrative transitivity evidence suggests a more complex than the "Pakistani coverage foregrounds active agency" statement alone: agency is indeed being actively distributed, but primarily towards elites, namely institutional Actors (government, donors, international bodies), than towards the communities most affected, as this study's RQ2 will test at the clause-level once the static figures in the clauses are replaced with real data.

4.6. Cross-Newspaper Synthesis and Alignment with the Research Questions

Read in conjunction, Tables 1 and 2 and Graphs 1 and 2 provide an illustrative answer to each of the three research questions of the study, which will be confirmed or revised when real data is used to replace the placeholders. Based on illustrative data, the two frameworks are found to be reinforcing in the sense that high-keyed governance vocabulary (Table 1) is accompanied by dominance of material processes with elite Actors (Graph 1), while erasure is one of the major categories of the community vocabulary (Graph 2) in low-keyed context. The illustrative pattern indicates a general resemblance between the three outlets for RQ2 (how agency is distributed across outlets) – with a strong emphasis on government and donor Actors in every outlet, but a subtle difference in emphasis, as shown in the collocational data in Table 2, with greater emphasis on financing

in Dawn, capacity building in The News International and disaster severity in The Express Tribune. For RQ3 (the ecological orientation of post-2022-flood coverage), there is no clear evidence that the coverage is oriented toward ecological stewardship rather than towards crisis-response or management, because the illustrative erasure and salience profile offered in Graph 2 suggests that it isn't. This is a preliminary answer which should be substantiated in the future by qualitative coding as analyzed, and performed in Sections 4.4 and 4.5, on the real Corpus.

It must be emphasised now by way of clear distinction, what this illustrative synthesis is not yet able to demonstrate. As the chapter is currently drafted, no claim made about the relative size of a pattern (e.g. That material processes are more frequent than relational processes, that erasure outranks identity) should be interpreted as an empirical finding; the purpose of this chapter is to illustrate the analytic path and the tools available in AntConc to take it: from Word List and Keyword List, to Collocates and concordance reading, to ecolinguistic and transitivity coding, to cross-outlet and cross-framework synthesis. The patterns implied in the prose interpretation in Sections 4.2–4.6 are merely sketches that may or may not accurately reflect the pattern of data for the actual problem, and the structure of the argument itself, not the numerical details, is what this chapter is trying to model.

5. Findings

Below are some of the illustrative placeholder data analysed in Section 4 that needs to be rewritten when real AntConc output and clause-level coding are available.

This section highlights the study's results in relation to the three research questions, which can be summarized using the quantitative AntConc output and the qualitative ecolinguistic and transitivity coding given in Section 4. First, in relation to the joint applicability of Stibbe's ecolinguistic model and Hallidayan transitivity

analysis (RQ1), illustrative data show that there are no competing relations, but rather a complementary or confirming relationship between them. The results of the Keyess patterns for governance and financial vocabulary are similar to a transitivity pattern in which material-process clauses are dominated by government and donor Actors, while the comparative absence of community-oriented vocabulary in the Keyword List is reflected in the erasures that emerge as one of the two more prominent ecolinguistic patterns in all three outlets. This convergence helps validate the central methodological hypothesis of this study, that a quantitative phase (corpus-based) is helpful, if not necessary, to support a more fine-grained qualitative ecolinguistic and grammatical analysis, rather than being carried out separately as much of the literature on a single framework has done.

Second, in terms of the distribution of agency (RQ2), the findings illustrated suggests that the three qualitatively differ less from one another than they do from the other instances, in which material processes are the dominant process type, with government or donor entities being the dominant actor in the majority of instances. By contrast, Ordinary citizens and affected communities seem to be almost exclusively encountered as Goals or in Circumstance elements, suggesting that, even when Pakistani editorial representation of the conflict foregrounds an active, material-process construction of the conflict over a nominalised agency-diffusing construction more common in some Western representations, the agency foregrounded is institutional rather than communal. At the collocational level, the variation is more evident than at the process-type level: the vocabulary of climate in Dawn's news is more associated with financing, international obligation, while The News International's is more with injustice framing, and The Express Tribune's with severity of the disaster, indicating different editorial emphasis across the widely shared governance-centred climate narrative.

Third, the illustrative radar-chart profile suggests that erasure and framing are the two most salient of the six categories of Stibbe's profile for the ecological orientation of post-2022-flood coverage (RQ3), with comparatively little identity and metaphor. The pattern of editorial content indicates that over three years after the devastating floods in Pakistan, the focus of news coverage is mostly on responding to the crisis, the failure of governance, and holding people accountable for their financial contributions, reflecting similar observations by Mahmood et al. (2021) and Mumtaz et al. (2026) regarding the climate coverage in Pakistan generally. Combined, these findings indicate that although Pakistani editorial discourse differs from the Western one in its inclination towards active, material-process agency as opposed to nominalisation, it mirrors larger international trends through the consistent agency and prioritisation of elite institutional actors and of governance narratives, as opposed to community-centred, ecologically based ones.

6. Conclusion

The aim of this study was to investigate the linguistic constructions of climate change in the Pakistani English-language press in the three years after the 2022 floods, using Stibbe's ecolinguistic model and Hallidayan transitivity analysis, on a stratified corpus of ninety editorials from Dawn, The News International, and The Express Tribune equally. It thus addressed a gap identified in the literature that has studied climate discourse from an ecolinguistic perspective or transitivity analysis perspective, but no previous studies have tried to study climate discourse from both perspectives in the context of the post-2022-flood period, and none have focused on the distribution of agency and ecological orientation across multiple leading Pakistani newspapers rather than one.

The analysis of the illustrative sample developed in this chapter, combined with the qualitative analysis, suggests that the Pakistani editorial climate discourse features a unique combination of grammatical activeness and institutional

narrowness: editorials are much more inclined towards material processes and active constructions than the nominalised and passive constructions that Aiello (2022) and Ahmad Ammar Asif and Gill (2025) found in American editorials, but the agency being actively distributed is overwhelmingly government, international donors, and official rather than community-based. This aligns with, and extends, the work of Ahmad Ammar Asif and Gill (2025), who performed a two-nation comparison, where Pakistani coverage preference for "active agency" may not be understood as a preference for "community agency" as the transitivity coding in the study, which is used as an illustration, suggests that ordinary citizens are much more likely to be a Goal of a process done to them (being displaced, being affected) than they are to be an Actor shaping processes.

The study's illustrative findings suggest that erasure and governance-oriented framings have become the predominant ecological narratives in editorials penned by Pakistani journalists, with the community, ecological metaphor, and the mundane everyday aspects of ecological life comparatively understated. The pattern found in this study is similar, and extends across three outlets at once, and previous studies on Pakistani media (conducted on a single outlet or a shorter window) have reported such results, supporting the study's argument that multi-outlet, multi-year corpora are necessary when determining whether such patterns are a true characteristic of the entire Pakistani English-language media landscape or simply a reflection of a single media outlet's editorial stance.

Methodologically, the study shows that the quantitative phase (quantified by AntConc and assisted by a corpus) is valuable, as it reduces the qualitative phase of coding (which is primarily the task of ecollinguistics and transitivity coding) to the most analytically productive lexical items, and that the quantitative phase can effectively serve as a cross-check of the entire corpus, against which the qualitative phase can be triangulated. The two visualizations presented in this chapter,

grouped bar charts for categorical process-type comparison and radar charts for holistic ecolinguistic-profile comparison, further demonstrate the different types of charts that can reveal different aspects of the same set of data.

Though the study itself has its limitations, some of these reflect the limitations found in the literature review itself: the ninety-editorial sample is analytically manageable, but does not fully represent a three-year, three-outlet population of around five hundred texts; the two hundred and forty clauses in the qualitative sub-sample represent only part of the texts in the compiled corpus. While the discussion of the actual corpus should be interpreted as a first, indicative, analysis of the discourse about climate change in Pakistan in the period following the floods, some recommendations should be interpreted with this limitation in view.

7. Recommendations

Based on the results and conclusions stated above, the following recommendations are made for researchers, journalists, and policy communicators involved in the Pakistani climate discourse:

1) Increase the number of editorials in the corpus from 90 to the complete ~500-text population to enhance generalisability in the three-year time span.
2) Increase coverage in Urdu, to provide cross-linguistic triangulation of agency and ecolinguistic framing.
3) Extend transitivity coding beyond sub-sample of 240 clauses for greater actor/goal distribution, thus minimizing sampling variance in distribution.
4) In material-process constructions, the editors should make it their point to highlight community and grassroots Actors as opposed to government and donor Actors.

5) Journalists should expand the range of metaphors, beyond the war/crisis framing and adopt stewardship-related, less erasure-prone imagery.
6) Inter-coder reliability (e.g., Cohen's kappa) statistics should be reported for future studies related to both ecolinguistic and transitivity coding.
7) Identified collocation patterns (e.g., government+must) should be utilized by policy communicators when creating public messaging that focuses on accountability.

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