

# Narrating the Anthropocene in the Delta under Authoritarian Development: A Corpus-Driven Analysis of Eco-political Transformation Discourse

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## SUBJECT

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## Abstract

In the era of the Anthropocene, where human activity increasingly defines planetary change, this study examines how the Bangladesh Delta Plan 2100, the state's flagship strategy for climate resilience and development, constructs and circulates eco-political narratives through a corpus of 1803169 tokens drawn from official government reports published between 2018 and 2019. Drawing on corpus-driven methods, including network, concordance, and n-gram analysis, the paper examines the textual architecture to uncover how the state utilises language to legitimise specific forms of governance. The findings show the dominance of managerial and technocratic framings in its eco-political discourse. Networks link governance and efficiency with ecological keywords, recasting climate threats as solvable through centralised implementation and expert consensus. Concordance patterns reveal spatial hierarchies: drought-prone regions are portrayed as peripheral zones requiring intervention, while "urban and rural" pairings suggest inclusivity yet obscure uneven resource distribution. These textual strategies reinforce anticipatory development logics that privilege national modernisation. N-gram analysis further shows how economic rationalities permeate sustainability language, signalling a shift toward neoliberal governance. Water resilience is reframed as a cost-recovery issue, not a collective right, revealing how Anthropocene vulnerabilities are mobilised to

justify market-based solutions and entrench unequal access to protection and resources. Moreover, this study situates Bangladesh's delta discourse within global debates on authoritarian development, eco-political transformation, and post-political environmentalism, showing how crisis rhetoric legitimises centralised, market-driven governance. While limited to official texts, the research calls for future works to incorporate grassroots and civil society narratives, thereby foregrounding more pluralistic, climate-just, and democratically inclusive pathways toward sustainability in the Anthropocene.

## **Introduction**

We live in a world remade by human hands, an era so definitively shaped by our species that scientists have proposed a new geological epoch: the Anthropocene. This concept signifies a fundamental rupture, marking a period where “human activities have become so pervasive and profound that they rival the great forces of Nature” (Steffen et al., 2007, p. 614). The Anthropocene is not merely a scientific classification; it is the ultimate narrative frame, a story of planetary-scale transformation. Nowhere is this global narrative more viscerally local than in the Ganges-Brahmaputra-Meghna Delta of Bangladesh—a vast, low-lying region experiencing the consequences of climate change and intensive human modification with acute urgency. It is precisely here, in this context of existential threat and ambitious response, that the Bangladeshi state launched its flagship policy: the Bangladesh Delta Plan 2100 (BDP 2100). Touted as a 100-year holistic and integrated plan, the BDP2100 represents a monumental effort to secure the nation’s future against environmental upheaval, making the Bangladeshi delta a quintessential case study of the Anthropocene.

This concern unfolds on the delta itself—a life-giving, fertile landscape that is also profoundly vulnerable, sinking and threatened by rising seas (Syvitski et al., 2009). The BDP2100 is the master plan for this precarious stage. However, the Plan is a product of its political environment, which scholars refer to as an authoritarian development model—one that prioritises rapid growth and megaprojects, often silencing dissent in the name of progress (Bebbington et al., 2018). The BDP2100, with its century-long vision and faith in large-scale engineering, embodies this approach. This raises a pivotal question: how does such a state narrate the future of its most vulnerable land in an age of climate crisis?

Moreover, this study investigates this question by analysing the eco-political transformation discourse surrounding the BDP2100. Discourse is not a mere reflection of reality; it is a constitutive force that shapes perceptions, legitimises actions, and silences alternatives (Dryzek, 2013). The narrative woven through the Plan and its supporting media is a primary site of political struggle. It reveals how the state frames its relationship with nature, justifies its interventions, and positions itself as the sole legitimate actor capable of managing the Anthropocene. Does the discourse frame the delta’s challenges as a technical problem to be engineered away, or does it engage with more profound questions of social justice, risk distribution, and political ecology? The official narrative of transformation is not just about water and land; it is about power. The central argument of this paper is that the discourse surrounding the BDP2100, as revealed through corpus analysis, constructs a powerful, state-hegemonic narrative. This narrative strategically frames the delta’s immense challenges as manageable through techno-managerial solutions and infrastructural mastery, thereby depoliticising the profound social and ecological transformations it will enact. It positions the state as the indispensable guardian of the nation’s future, while simultaneously marginalising alternative narratives centred on local knowledge, human rights, and adaptive governance. By applying a corpus-driven methodology to the BDP2100, this study provides concrete evidence of how language is wielded to legitimise a specific vision of development in the Anthropocene, with profound implications for the millions who call the delta home.

## **Literature review**

The Anthropocene has emerged as a potent, yet contested, framework for reimagining global politics, challenging the spatial and ontological foundations of International Relations (IR). Lövbrand et al. (2020) identify three dominant Anthropocene discourses within IR scholarship: the endangered, entangled, and extractivist worlds, each reconfiguring Earth as a political space. While these discourses unsettle traditional binaries, such as inside/outside and human/nature, they predominantly reflect Northern academic perspectives, raising critical questions about their applicability to postcolonial contexts where development and survival are acutely contested. Building on this critique, Simpson (2020) compellingly argues that the Anthropocene itself is steeped in colonial discourse, tracing its conceptual antecedents to Eurocentric narratives of progress, civilisation, and human mastery over nature. The very periodisation of the epoch often centres Western modernity, thereby silencing alternative ontologies and obscuring the disproportionate responsibility of colonial-capitalist systems for ecological ruin.

Conversely, Thakur and Jayaram (2024) demonstrate how the Anthropocene is being critically engaged with from the Global South, specifically in South Asia. Their analysis foregrounds how colonial histories and postcolonial developmentalism shape understandings of resilience and security, highlighting issues of carbon colonialism and distributive justice. This regional focus underscores that Anthropocene discourses are not monolithic but are actively reinterpreted through local histories of vulnerability and resistance.

Moreover, the delta, as a material and discursive terrain, becomes a critical site for narrating the Anthropocene, where competing epistemologies and governance models collide. Jensen and Morita (2020) argue that dominant frameworks, particularly Earth System science, attempt to model the “social” within integrative systems. However, this ambition falters when confronting the inherent instability and hybridity of delta socio-natures. Their critique reveals a fundamental tension: the “social” appears both as a quantifiable system component and an obstinate barrier to policy, highlighting the inadequacy of “seamless integration” for addressing the delta crisis. This calls instead for “sophisticated conjunctions” of diverse knowledges, a cosmo-ecological approach that acknowledges the irreducible complexity of delta worlds and the limitations of any single disciplinary lens. Building on this epistemological critique, Ernoul and Wardell-Johnson (2015) empirically demonstrate how environmental discourses materially shape governance outcomes. Their comparative study of the Rhone and Gediz deltas reveals that while the principles of integrated coastal zone management (ICZM) are universally accepted, their implementation in practice is deeply contingent upon local socio-cultural contexts. The divergence in proposed solutions, between local empowerment in the Rhone and centralised regulation in the Gediz, highlights how universalist policies are inevitably refracted through specific discursive formations.

This discursive mediation is powerfully complicated under authoritarian legacies, as Teampău (2020) illustrates in the Romanian Danube Delta. Here, the post-socialist imposition of a conservationist “paradise” narrative, championed by international and state actors, directly conflicts with local conceptions of the “balta” (swamp) as a lived, common resource. The analysis reveals how top-down ecological discourses can function as tools of exclusion, criminalising traditional livelihoods and reinforcing historical path dependencies of mistrust and centralised control. This case critically situates delta discourse within power-laden historical trajectories, showing how narratives of the Anthropocene can perpetuate colonial and authoritarian patterns by

silencing alternative ontologies and legitimising governance that marginalises local communities.

In examining the rise of environmental authoritarianism, Beeson (2010) provides a foundational geopolitical analysis, arguing that severe ecological crises in East Asia may reinforce authoritarian governance as states prioritise regime stability and rapid development over political liberalisation. This framework suggests that in regions like the Mekong Delta, the “authoritarian development” model, exemplified by China, could become a dominant response to environmental pressures, privileging state control and top-down intervention. This perspective is empirically substantiated by Zhu et al. (2015), who evaluate China’s EIA Restriction Targeting Regions (EIARTR) as a form of environmental authoritarianism. While the policy demonstrates some effectiveness in curbing regional pollution, its legitimacy is undermined by a lack of legal transparency and public participation, revealing a tension between environmental outcomes and democratic accountability.

Further quantitative evidence is provided by Nie et al. (2020), who analyse China’s environmental protection inquiries and find that such authoritarian measures can improve energy-environmental efficiency, particularly for air pollutants. However, the effect is uneven, with wastewater management showing negligible improvement, indicating that authoritarian environmental governance may be selectively applied and driven by visibility and public pressure rather than systematic ecological concern.

The discourse of eco-political transformation is fundamentally reoriented when viewed through the post-ecologist lens proposed by Blühdorn and Welsh (2007). They argue that the paradigm of sustainability has been eclipsed by a “politics of unsustainability”, where advanced capitalist societies simulate ecological concern while structurally prioritising economic growth. This framework is crucial for analysing authoritarian development, as it shifts focus from overt environmental goals to the mechanisms by which regimes manage the inherent contradiction between declared sustainability and actual unsustainability, a dynamic central to narrating the Anthropocene in constrained political spaces. This management of contradiction often manifests in the contested legitimacy of traditional ecological practices, as demonstrated in Ginkel’s (2007) analysis of whaling disputes. The fierce debates over the authenticity of Faroese and Makah traditions reveal how eco-political discourse becomes a battleground for cultural sovereignty and external imposition. In an authoritarian context, such dynamics are intensified; the state may strategically endorse or suppress specific “traditional” practices that are not based on ecological integrity, but rather serve nationalist narratives or discredit opposition, thereby shaping the narrative of human-environment relations to consolidate control.

These dynamics are ultimately rooted in the violation of a foundational principle articulated by Kwan (2025): the intrinsic link between self-determination and ecological sustainability. His eco-political principle posits that territorial rights are normatively bound to a duty of ecological care and a right to ecological integrity. Authoritarian development, by its nature, violates this principle, substituting a people’s right to determine their ecological future with state-imposed, often extractive, paradigms. Analysing transformation discourse thus becomes an exercise in exposing how narratives are constructed to legitimise this substitution, obscuring the erosion of eco-political self-determination that defines the Anthropocene condition in the delta.

To wrap up, the analyses and reviews of the above literature depict that no study has been conducted regarding the BDP2021, let alone a corpus-driven analysis. Therefore, we addressed this gap by conducting this study.

### **Theoretical Framework**

Through a corpus-driven critical discourse analysis (CDA) technique, this study reveals how language, power, and ecological change interact where authoritarian rule meets environmental policy. We view discourse not just as a mirror of society, but as an active force that shapes perceptions, justifies policies, and decides who gets to speak for nature.

As language is never neutral, it is a battleground for ideology (Fairclough, 1993; Dijk, 1993). CDA shows how language can either uphold or challenge power structures. This is especially critical in authoritarian states, where governments employ rhetoric to legitimise policies, silence dissent, and portray development as inevitable and beneficial. By analysing their discourse, we can see how these states craft stories of ecological transformation to support their political goals.

Traditional CDA often relies on close textual analysis of selected documents or speeches. However, this study employs a corpus-driven approach, which combines the critical insights of CDA with the systematic methods of corpus linguistics. A corpus-driven model treats the text data itself as the source of theoretical development rather than imposing external categories beforehand (Tognini-Bonelli, 2001). This approach contrasts with corpus-based CDA, where linguistic patterns are tested against pre-existing theories. In a corpus-driven design, the corpus serves as an empirical foundation, enabling the inductive emergence of discursive patterns, collocations, and semantic clusters.

The advantage of corpus-driven CDA lies in its ability to capture large-scale patterns of discourse that may not be visible through close reading alone. Baker (2006) argues that corpus techniques, such as keyword analysis, concordance, and collocation networks, enable the identification of recurring frames, metaphors, and ideologies that structure discourse across broad datasets. When applied to eco-political discourse, this approach reveals how authoritarian states consistently mobilise specific terms, metaphors, and legitimating strategies to narrate the Anthropocene. It also exposes what is silenced or excluded from the dominant narratives. Thus, this framework recognises that discourse is not only reflective of reality but also constitutive of it, and that in authoritarian contexts, narratives of the Anthropocene play a pivotal role in shaping both ecological futures and political power structures.

### **Research method**

This study employs a purpose-driven methodological framework to investigate the discursive construction of the Anthropocene within a specific developmental context. The research design is structured in two distinct yet interconnected phases: the strategic compilation of a specialised corpus and its subsequent multi-layered computational analysis.

To anchor the analysis in the authoritative discourse of state planning, a specialised corpus was deliberately assembled. The source material comprises 13 official reports related to the Bangladesh Delta Plan 2100 (BDP2100), all published by the Ministry of Planning, Government of the People's Republic of Bangladesh, between 2018 and 2019. This temporal focus is critical, as it captures the foundational discourse immediately following the plan's initiation. The selection of these official documents is

purposive; they represent the primary narrative through which the state frames its vision for long-term ecological and developmental transformation. By analysing these texts, the study directly engages with the sanctioned language of “authoritarian development”, providing a clear window into how the government narrates the challenges of the Anthropocene in the Bengal Delta. The compiled corpus comprises 1,803,169 tokens, a substantial body of text that ensures a robust and representative sample of the plan’s overarching discourse.

The analytical procedure was conducted using #LancsBox X software, which facilitates a range of corpus-linguistic techniques. The analysis proceeded through a sequence of complementary stages, each designed to reveal different facets of the eco-political discourse.

First, to visualise the core conceptual relationships within the BDP2100, a semantic network analysis was generated. This network mapped the connections between the three primary lemmas: Delta, Climate, and Development. This initial step served to triangulate the central themes of the plan and identify the discursive terrain where environmental and developmental priorities intersect. Following the network visualisation, a collocational analysis was performed. This step identified the most frequent words that appear in proximity to the three key lemmas. Examining these collocates, the words that consistently keep company with the core concepts, allowed for a deeper understanding of the specific semantic contexts in which these ideas are presented, revealing, for instance, whether ‘development’ is predominantly linked to ‘sustainable’ or ‘economic’ pursuits.

Subsequently, to uncover the most recurrent and formulaic phrases that structure the discourse, an n-gram analysis was conducted. The analysis specifically extracted the top ten five-grams (recurring five-word sequences). This examination of lexical bundles helps to identify the ready-made phrases and rhetorical building blocks that characterise the plan’s language, highlighting patterns of argumentation and persuasion.

Finally, a detailed concordance analysis was explicitly focused on the lemma DELTA. This involved manually examining hundreds of instances of the word ‘delta’ in its immediate textual contexts (Key-Word-In-Context or KWIC). This close-reading technique, guided by the quantitative findings from the previous steps, enabled a qualitative interpretation of the nuanced ways in which the delta itself is conceptualised, whether as a vulnerable ecosystem, a national territory, or an economic zone.

## **Result and discussion**

### *Network Analysis*

The collocation analysis highlights how particular terms cluster with “delta”, “climate”, and “development”, providing insights into the eco-political grammar of the Bangladesh Delta Plan 2100 (BDP2100) and related discourses.

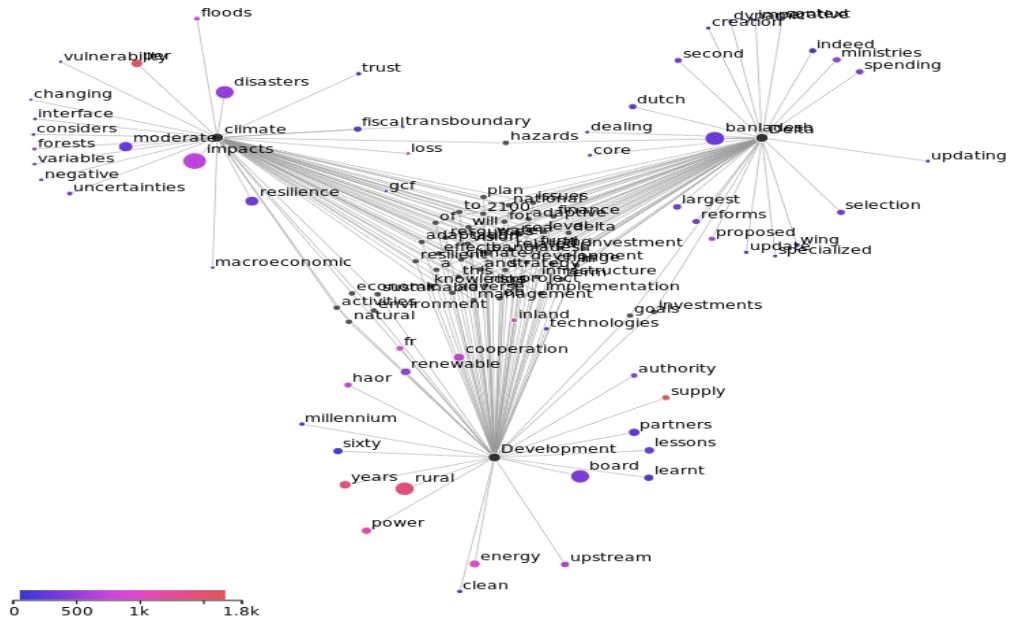


Figure 1. Sample of Network Analysis

Table 1. Shared Collocates

Collocate	Corpus Frequency	Collocation frequencies		
		Delta	Climate	Development
Scenarios	742	95	170	69
Building	1019	30	63	91
Investment	1912	267	33	177
Planning	4098	115	97	294
Role	657	42	42	36
Policy	3395	97	104	186

**Narrating the Future: “Scenarios” as Anticipatory Governance**

The collocate *scenarios* appear most frequently with “delta” (170 instances), followed by “climate” (95) and “development” (69). This distribution underscores how scenario-building has become a central discursive technology in the governance of the delta. The BDP2100 frequently projects multiple “future scenarios” of sea-level rise, salinity intrusion, or flood risk, positioning the state as a predictive actor capable of managing uncertainty through anticipatory planning.

Scenarios function as more than neutral forecasts; they are instruments of anticipatory governance that discipline the present by invoking imagined futures. In the Bangladeshi case, scenario narratives legitimise large-scale interventions, such as embankment construction or energy infrastructure, by framing them as rational

responses to modelled futures. This reflects what Swyngedouw (2010) terms the “post-political” condition: disagreement over development trajectories is replaced by technical debate about which scenario to adopt. The invocation of scenarios thus silences contestation by naturalising particular developmental choices as the inevitable response to future risk.

However, the uneven distribution of scenario collocations across “delta”, “climate”, and “development” also indicates discursive asymmetries. While climate scenarios emphasise biophysical uncertainty, delta scenarios link those uncertainties directly to developmental imperatives. Development scenarios, in turn, are fewer but often tied to growth projections rather than ecological vulnerability, suggesting a discursive hierarchy where environmental futures are subordinated to developmental trajectories. This hierarchy embodies the logics of authoritarian development, where anticipatory discourse consolidates state authority while marginalising plural ecological imaginaries.

***Constructing Capacity: “Building” as Developmental Imperative***

The collocate *building* (63 with delta, 30 with climate, 91 with development) reveals how the discourse of BDP2100 foregrounds construction, capacity, and institutional strengthening as central to addressing the Anthropocene crisis. Whether framed as “building resilience”, “building institutions”, or “building infrastructure”, the term exemplifies the material and symbolic centrality of construction in development discourse. This addresses the argument of Thakur and Jayaram (2024) that “terms such as ‘resilience’ have found greater currency in the modern-day development discourse in the developing states”. Thus, in authoritarian states, Thakur and Jayaram (2024) claim that “the ideational influence of the old development paradigm steeped in sustained economic growth and accelerated industrialisation remains an attraction for state and societal resilience.”

This emphasis on “building” is not surprising in a context where infrastructural modernity has long been equated with national progress. However, the collocation patterns show that “building” aligns more strongly with development than with climate, suggesting that the language of resilience is subsumed under the language of growth. What is ostensibly framed as climate adaptation becomes discursively rearticulated as development-building.

Such discursive slippages have material consequences. Mega-projects, such as coastal embankments or urban flyovers, are often justified as climate-resilient infrastructure; however, they frequently exacerbate vulnerabilities by displacing communities or disrupting ecological flows. Here, “building” can be described as authoritarian infrastructuralism: a reliance on technocratic construction projects that consolidate state power while sidelining local knowledge. Thus, the collocation of “building” with development, rather than climate, illustrates how resilience is appropriated into a growth-centric discourse that privileges concrete over community.

***Mobilising Capital: “Investment” and Developmental Finance***

The prominence of *investment*, with 1,912 overall frequencies and strong collocations with “delta” (177) and “climate” (267), suggests the financialisation of climate governance in Bangladesh. The BDP2100 is explicitly framed as an “investment plan”, designed to attract foreign capital, multilateral loans, and private-sector participation. Climate risks are thus translated into opportunities for investment, recasting vulnerability as a domain of financial calculation. This resonates with Cavanagh and Himmelfarb’s (2015) critique of “green grabbing”, where ecological crises are leveraged

to justify new forms of capital accumulation. In the Bangladeshi context, the invocation of investment links the Anthropocene delta to global financial circuits, positioning the country as both vulnerable and profitable. Such discourses align with neoliberal logics that reframe adaptation as a market opportunity rather than a justice imperative.

The unevenness in collocational frequency, as well as the more substantial alignment of investment with climate than development, suggests a discursive strategy where climate vulnerability is mobilised to attract investment, which is then redirected toward developmental projects. This inversion reflects what Paprocki (2018) refers to as the “adaptation regime”: the rearticulation of adaptation as a developmental project that secures growth while exacerbating existing inequalities. In this sense, the discourse of investment exemplifies how authoritarian development leverages Anthropocene narratives to expand capital flows, often at the expense of marginalised communities.

#### ***Governing Futures: “Planning” as Technocratic Rationality***

Among all collocates, *planning* shows the highest frequency (4,098 overall), with powerful associations with “delta” (294) and “development” (97). This prominence underscores how planning functions as the central modality through which the Anthropocene delta is rendered governable. The BDP2100 is fundamentally a planning document, but the language of planning permeates not only policy texts but also media and civil society discourse.

Planning here is not merely a bureaucratic process but a discursive technology of control. As Foucault (1991) argues, planning embodies governmentality: the rationalization of populations, resources, and futures under the logic of expertise. In the delta, planning discourses reinforce the state’s position as the rational arbiter of uncertainty, capable of coordinating across scales and time horizons. This resonates with Dryzek and Pickering’s (2019) argument that the politics of the Anthropocene are increasingly characterized by expert-led planning frameworks that marginalize contestation.

The high frequency of planning with “delta” suggests that the delta is discursively constituted as a planning object—something to be managed, optimised, and engineered. In contrast, its weaker association with “climate” indicates that climate risks are subsumed under delta planning rather than addressed as distinct domains. Planning’s strong link to “development”, meanwhile, reflects how adaptive management is discursively rearticulated as developmental management, consolidating the fusion of resilience with growth imperatives.

#### ***Institutionalising Authority: “Role” and the Politics of Positioning***

The collocate *role* (42 with delta, 42 with climate, 36 with development) highlights how discourses continually negotiate institutional positioning within the Anthropocene delta. Texts frequently emphasise the “role of government”, “role of international partners”, or “role of civil society”, underscoring how agency is distributed or withheld within the eco-political field.

The symmetry of collocation across domains suggests that “role” operates as a flexible discursive marker, invoked to recognise participation but rarely to redistribute authority. In most instances, the state’s role is positioned as central and coordinating, while the roles of other actors are acknowledged but subordinated. This is a hallmark of authoritarian environmental governance: recognition of plural actors without meaningful decentralisation of power.

Importantly, youth voices, while occasionally referenced, appear marginal within role discourses. This indicates a generational asymmetry in eco-political

narratives, where younger populations are constructed as beneficiaries of future planning rather than as co-authors of developmental visions. Thus, “role” discourses simultaneously recognise multiplicity and reassert hierarchy, reinforcing authoritarian developmental logics while leaving limited space for counter-narratives.

***Framing Governance: “Policy” as Discursive Closure***

Finally, the collocate *policy* (186 with delta, 104 with development, 97 with climate) reveals how governance frameworks are discursively invoked to stabilise developmental narratives. Policy is frequently presented as the solution space where scenarios are translated into decisions, investments are converted into frameworks, and roles are defined into mandates. In this sense, policy serves as what Hajer (1995) calls a “discourse coalition”, bringing together diverse actors under a shared vocabulary of governance.

However, policy discourse also performs a closure function. By translating contested ecological futures into policy language, debates are reframed as administrative matters rather than political struggles. This reflects Swyngedouw’s (2010) notion of post-politics, where policy becomes the site of technocratic consensus that forecloses radical alternatives. In Bangladesh, the discursive centrality of policy reinforces the state’s claim to authoritative governance. At the same time, international donors and financial institutions lend legitimacy by aligning with global policy discourses on resilience and adaptation.

The distribution of policy collocations further reveals discursive dynamics: its strongest association with delta underscores how BDP2100 is framed as a policy-centric intervention, while weaker links with climate suggest that climate is discursively folded into delta policy frameworks. Developmental policy, meanwhile, emerges as the domain where policy language intersects with growth aspirations, consolidating the fusion of climate resilience with authoritarian modernisation.

To wrap up, authoritarian development is thus discursively reproduced through the lexicon of climate governance. Scenarios justify decisive action, building valorises infrastructural modernity, investment links vulnerability to capital, planning asserts technocratic authority, role discourse reasserts hierarchy, and policy provides closure. Therefore, this study not only uncovers the hegemonic logics of authoritarian development but also identifies the fissures where more just and inclusive imaginaries might be articulated.

***N-Gram Analysis***

The n-gram analysis, five-grams for this study, reveals a recurring pattern in the official communication of the BDP2100 which is illustrated following.

**Table 2.** Top Ten Five-Grams of the BDP2100 Corpus

<b>N-Gram</b>	<b>Frequency</b>
Implementation of the BDP 2100	264
Barind and drought prone areas	171
Of the beneficiary pays principle	150
Supply and demand for sustainable	144
Climate change and natural hazards	144
Of water resources development in	129
Development in Bangladesh lessons learnt	127
The water sector in Bangladesh	119

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Arrangements in the water sector	117
In urban and rural areas	117

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### ***Discursive Centrality of Implementation***

The corpus analysis reveals that the most frequently recurring phrase is “implementation of the BDP2100” (264 occurrences). The prominence of this expression underscores the discursive weight accorded not to the plan’s content but to its execution. Implementation here functions not merely as a bureaucratic process but as a performative act of state capacity. It is through the repetition of “implementation” that the state reaffirms its developmental authority and positions itself as the indispensable agent of deltaic transformation.

This emphasis resonates with Swyngedouw’s (2010) argument that contemporary environmental governance operates in a post-political register, where debates about ends are foreclosed, and attention is redirected to technocratic concerns about means. In the case of Bangladesh, the discursive centrality of implementation reflects how the Anthropocene is mobilised to justify an urgent, managerial style of governance. Rather than inviting deliberation over competing visions of ecological futures, the discourse around BDP2100 naturalises the plan as an inevitable and non-contestable response to the crisis. The Anthropocene, in this framing, becomes a rationale for bypassing political contestation.

However, this narrative of implementation is not ideologically neutral. By foregrounding the state’s capacity to implement, discourses simultaneously silence questions of distributive justice, community participation, and alternative forms of adaptation. The Anthropocene is thus domesticated into a managerial problem, an eco-political transformation that privileges state-led technocracy over democratic engagement.

### ***Spatial Prioritisation and the Marginalisation of Peripheries***

The phrase “Barind and drought-prone areas” (171 occurrences) highlights the spatial politics embedded in BDP2100 discourse. The Barind region, historically marginalised and ecologically fragile, emerges repeatedly as a hotspot for intervention. Its frequent invocation illustrates how the delta plan constructs geographical peripheries as sites of both vulnerability and opportunity. On one hand, these regions are framed as urgently in need of state protection from climate threats; on the other, they are imagined as reservoirs of developmental potential to be unlocked through infrastructural investments.

This discursive pattern reflects an anticipatory development, where the future risks of climate change are invoked to legitimise present interventions. In the Barind, the anticipation of drought and scarcity justifies extensive re-engineering of land and water systems. However, such framings obscure the historical and socio-political processes that produced vulnerability in the first place, including groundwater over-extraction, inequitable land distribution, and neglect of indigenous practices of water management. By repeatedly naming peripheral zones, such as the Barind, discourse reproduces a geography of otherness: the centre (the state, the capital, the technocratic apparatus) is portrayed as the saviour, while the periphery is rendered passive, awaiting rescue. This spatial narrative dovetails with authoritarian development logics, consolidating the state’s role as the sole legitimate arbiter of deltaic futures.

### ***The Marketisation of Sustainability***

Another prominent n-gram is “of the beneficiary pays principle” (150 occurrences). This phrase introduces a distinctly neoliberal inflexion into the eco-political discourse of BDP2100. The principle shifts responsibility for sustainability onto end-users, framing water as a commodified resource subject to cost recovery. Such discursive moves align with broader global trends in which environmental governance is reframed through market logics and privatised accountability.

The beneficiary pays principle uses the language of environmental crisis to push economic burdens onto those least able to bear them. Diverting blame from the more profound, global inequalities that put Bangladesh at risk, it frames rural farmers and city dwellers as responsible for their own water security. This approach reduces resilience to a simple question of money: the well-off can buy a safe water future, while people experiencing poverty are left behind.

This marketisation of sustainability resonates with Nixon’s (2011) concept of slow violence, where marginalised populations experience environmental harms not only through spectacular disasters but also through gradual dispossession embedded in economic reforms. In Bangladesh, the discourse of “beneficiary pays” institutionalises such slow violence, cloaked under the rhetoric of efficiency and sustainability.

#### ***Framing Crisis and Normalising Hazard***

The corpus also reveals the frequent recurrence of “climate change and natural hazards” (144 occurrences). This pairing illustrates how discourses naturalise crisis by merging anthropogenic and geophysical risks into a seamless continuum. While it is analytically valid to acknowledge their entanglement, the discursive effect is to normalise hazard as an ever-present condition of deltaic life.

Such framings resonate with Latour’s (2017) observation that the Anthropocene collapses the distinction between nature and society, making crisis appear both inevitable and apolitical. In Bangladeshi policy discourse, the repeated invocation of climate change alongside natural hazards constructs vulnerability as an external inevitability rather than a product of socio-political choices. Consequently, responsibility shifts from addressing structural inequities, such as poor governance or land-use decisions, to managing hazards through technical adaptation.

This normalisation of hazard facilitates the consolidation of authoritarian development. By portraying ecological crisis as unavoidable, the state legitimises extraordinary interventions in the name of survival. The Anthropocene thus becomes a discursive state of exception, authorising infrastructural transformations that might otherwise face resistance.

#### ***The Developmental Imaginary of Water***

Several high-frequency n-grams revolve around water: “of water resources development in” (129), “the water sector in Bangladesh” (119), and “arrangements in the water sector” (117). Together, these highlight the centrality of water in the discourse of eco-political transformation. The delta is imagined primarily through its hydrological systems, and water governance becomes the linchpin of sustainability.

This water-centric imaginary reflects both geographical realities and discursive choices. Water is indeed the medium through which climate change manifests most acutely in Bangladesh through floods, droughts, salinity, and scarcity. However, the discursive privileging of water as a developmental object reduces the delta to a technical problem of supply and demand. The frequent co-occurrence of “supply and demand for sustainable” (144) further underscores this economisation of water, where hydrological processes are reframed as issues of balance, efficiency, and optimisation.

Such framings marginalise the cultural, spiritual, and relational dimensions of water in Bangladeshi life. They also obscure the power asymmetries in transboundary river governance, where upstream states, such as India, exert control over flows (Chan et al., 2016). By focusing narrowly on supply-demand management, discourse aligns with authoritarian environmentalism, redefining complex eco-political struggles as solvable technical challenges under state authority.

***Urban-Rural Continuities and Silences***

The phrase “in urban and rural areas” (117 occurrences) reveals another layer of discursive strategy: the construction of universality. By repeatedly invoking both urban and rural domains, BDP2100 discourse seeks to portray itself as comprehensive and inclusive. However, this apparent inclusivity masks significant divergences in how risks and responsibilities are distributed. Urban elites often benefit disproportionately from infrastructural investments, while rural communities bear the brunt of displacement, loss of common resources, and exclusion from decision-making processes.

The discursive pairing of “urban and rural” functions as a homogenising move, collapsing differences into a single category of national beneficiaries. This rhetorical strategy sustains the image of the state as an impartial guarantor of collective well-being. However, by effacing inequalities, it silences the uneven burdens of Anthropocene transformations and erases subaltern experiences from the narrative of national progress.

***Concordance Analysis***

The concordance analysis reveals that the term “Delta” appears not as a neutral geographical descriptor but as a central discursive anchor around which eco-political narratives are organised. The delta is not described simply as a fragile ecosystem or a site of risk, but rather reconstituted as the symbolic and organisational core of the nation’s future.

**Table 3.** Top Ten Concordances of the Lemma “Delta”

<b>Left Context</b>	<b>Hit</b>	<b>Right Context</b>
Exercise. In these exercises the	Delta	Ateliers’ participants apply the more
is needed. Strategy: A from	Delta	Vision point of view coherent
that contributes to reaching the	Delta	Goals Touch Table: A Touch
1 1 introduction The Bangladesh	Delta	Plan (BDP) 2100 was approved
investment plan for an entire	Delta	using Adaptive Delta
an entire delta using Adaptive	Delta	Management. BDP2100
the Implementation of the	Delta	Management. BDP2100 seeks to
Bangladesh	Delta	integrate
the challenges of the Bangladesh	Delta	Plan 2100 (SIBDP2100)”. A team
sectors. The implementation of the	Delta	by elaborating the BDP2100
an excellent channel to incorporate	Delta	Vision,
	Delta	Plan concerns effective interplay
	Delta	of
	Delta	Plan principles in the practice

***Authoritarian Resilience***

The concordances indicate a consistent alignment between *Delta* and terms such as “vision”, “goals”, and “coherent strategy”. This alignment is significant because it repositions vulnerability as opportunity. Where global narratives often emphasise Bangladesh’s precarity in the face of climate change, BDP2100 reframes these risks into a narrative of resilience through technocratic planning. The phrase “Strategy: A Delta Vision point of view coherent” illustrates this move: resilience is not portrayed as an emergent or plural set of practices but as a singular, coherent vision articulated from the perspective of centralised authority.

This discursive strategy resonates with theories of authoritarian environmentalism (Beeson, 2010), where ecological crises are mobilised to justify centralised decision-making and to curtail deliberation. By framing delta management as requiring coherence, the discourse implicitly delegitimises contestation or multiplicity, presenting plural perspectives as incompatible with the urgent need for integration. The eco-political transformation here is not simply about managing water or land but about reshaping the terrain of governance, where resilience is redefined as alignment with state-led visions.

#### ***Adaptive Delta Management: Between Flexibility and Control***

Another recurring pattern in the concordances is the coupling of *Delta* with “Adaptive Delta Management”. On the surface, this phrase suggests openness, flexibility, and responsiveness to uncertainty, qualities associated with progressive environmental governance. However, when contextualised discursively, its meaning becomes more ambivalent. Adaptation is framed not as an ongoing negotiation with communities or ecologies but as a managerial practice embedded in large-scale planning.

The state co-opts the idea of adaptation, turning it into a strategy for control. By promoting “Adaptive Delta Management”, it uses the language of flexibility and participation to mask a centralising agenda. The result is a paradox: adaptation, which should accommodate uncertainty, becomes a reason to expand technocratic authority over the Delta.

#### ***Implementation and the Eco-political Transformation***

The concordances also reveal the frequent association of *Delta* with “implementation”, particularly in references to the “Implementation of the Bangladesh Delta Plan 2100 (SIBDP2100)”. This repetition underscores that the plan is framed not merely as a vision but as an ongoing institutional process. Implementation is discursively constructed as a collective endeavour involving multiple sectors, yet always tied back to the coherence of the Delta Plan. This emphasis on implementation highlights the extent to which eco-political transformation is not confined to ecological practices but extends to the reconfiguration of the state itself. By establishing the Delta as the locus of governance, the state positions itself as both the guardian of resilience and the arbiter of national development. Implementation thus becomes a performance of state capacity, signalling that the government not only recognises ecological challenges but possesses the institutional authority to address them.

Here, the discourse reveals a critical contradiction. While the plan claims adaptability and responsiveness, its emphasis on implementation and institutionalisation also signals a drive toward entrenchment and permanence. The eco-political transformation, therefore, involves a re-scaling of authority, where the Delta is simultaneously localised (as a fragile ecosystem) and nationalised (as the emblem of state capacity).

#### ***Delta as Developmental Brand***

The study uncovers a key strategy: rebranding the Delta Plan as a core part of the nation's identity. Using terms like "Delta Goals Touch Table", the plan is framed not just as policy, but as a teaching tool for workshops and training. This makes the Delta a standard for both pedagogy and performance.

This branding has a strong political effect. By constantly linking the Delta to national goals and resilience, the plan's vision of sustainability is made to seem natural and unquestionable. Consequently, criticising the plan can be portrayed as an attack on the nation's very survival, making opposition politically dangerous. In this way, the ecological crisis of the Anthropocene is used to justify both concrete infrastructure and the strengthening of state authority.

### ***Silences and Exclusions***

While the concordances foreground coherence, vision, and implementation, they are equally revealing in their silences. Absent from the discursive field are terms associated with dissent, contestation, or alternative imaginaries of resilience. Local knowledge, community adaptation, and indigenous ecological practices are rarely mentioned in proximity to the *Delta* in official discourse. Instead, resilience is equated with alignment to state-led goals.

This exclusion is not accidental but constitutive. As critical discourse scholars argue, what is not said is as important as what is said (Fairclough, 2013). By silencing alternative discourses, the plan narrows the horizon of possibility, making state-led development appear as the only rational pathway. This is a hallmark of authoritarian environmentalism, where ecological crises are framed in ways that preclude democratic contestation. The eco-political transformation is thus double-edged: it reshapes governance through new institutions and strategies, while simultaneously foreclosing alternative voices.

Despite these silences, the discursive dominance of the *Delta* is not uncontested. Youth and civil society organisations in Bangladesh increasingly challenge the official framing, emphasising issues such as climate justice, displacement, and the rights of marginalised communities (Sultana, 2022). While these counter-discourses may not appear prominently in official concordances, their very absence highlights the asymmetry of discursive power.

Therefore, Bangladesh's environmental transformation is a battle of stories. The government asserts control by branding the Delta, while young and grassroots voices champion different visions of resilience. Though often sidelined, these alternative views reveal the state's central conflict: a struggle between genuine adaptation and mere control.

## **Conclusion**

The analysis of the Bangladesh Delta Plan 2100 (BDP2100) discourse offers a window into how the Anthropocene is narrativised in the delta. What emerges is not simply a collection of linguistic patterns, but an eco-political formation in which state power, technocratic expertise, and neoliberal rationalities converge to shape how resilience, sustainability, and development are imagined. In other words, the empirical patterns uncovered in textual analysis point to broader epistemic logics that shape who speaks for the delta, whose vulnerabilities are acknowledged, and what forms of adaptation are deemed legitimate.

The study reveals the centrality of managerial and technocratic framings. Terms related to governance, efficiency, and integration frequently cluster with ecological and

developmental keywords, producing a discourse in which climate change and environmental hazards are reframed as problems solvable through centralised implementation. This supports the argument that Anthropocene narratives often legitimise post-political forms of governance, where dissent is muted in favour of expert consensus.

Concordance analysis uncovers the spatial and social politics of BDP2100 discourse. Vulnerable regions, such as drought-prone areas, are consistently represented through a grammar of intervention, situating them as peripheral spaces that require state-led salvation. Similarly, the juxtaposition of “urban and rural areas” suggests inclusivity while glossing over inequalities in resource allocation and risk exposure. These patterns reinforce the anticipatory rationalities of development that inscribe peripherality while privileging national modernisation agendas.

N-gram analysis highlights the infusion of economic rationalities into sustainability discourse. Frequent references to the “beneficiary pays principle” and “supply and demand for sustainable” reflect the neoliberalization of ecological governance, whereby water security and resilience are reframed as cost-recovery mechanisms rather than collective rights. This discursive shift illustrates how Anthropocene vulnerabilities are harnessed to advance market logics, deepening uneven access to resources and protection.

However, the study’s insights are limited by its reliance on the officially sanctioned BDP2100 reports, thereby reflecting only the state’s codified discourse while overlooking the plural arenas of debate, including media, civil society, and community voices, where such narratives are contested. Computational methods employed, although revealing linguistic patterns, cannot fully apprehend irony, ambiguity, or fragmented counter-discourses, thereby risking an illusion of coherence.

Future research should widen the corpus to encompass governmental, non-governmental, media, and grassroots texts, thereby tracing the negotiation of development imaginaries across diverse publics. A mixed-methods approach, blending corpus linguistics with ethnographic engagement, would provide a more effective means of anchoring textual patterns within lived experience. Moreover, comparative inquiry across other deltaic regions will elucidate how different governance regimes mediate Anthropocene discourses, contributing to both regional understanding and global debates on sustainability.

To sum, what appears on the surface as a technical document of long-term planning is, in fact, a discursive terrain where power, knowledge, and authority are negotiated. The recurrent linguistic patterns, whether in collocations of governance and efficiency, concordances of hazard and implementation, or n-grams linking sustainability to cost recovery, are not trivial details. They serve as the linguistic scaffolding of an eco-political transformation in which authoritarian development is legitimised and alternative imaginaries are marginalised.

However, even as these discourses consolidate, they remain open to contestation. The Anthropocene is not only a geological epoch but also a discursive battleground. The challenge ahead lies in amplifying counter-discourses that foreground justice, participation, and plurality in imagining deltaic futures. Actual transformation comes from freedom, not from better management. Moreover, this can only begin by confronting our deepest conflicts over what truly matters.

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