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| RESEARCH ARTICLE

Discursive Construction of the Climate-Poverty Relationship in the World Bank's CCDRs

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| ABSTRACT

Climate change and poverty represent intertwined challenges disproportionately affecting Least Developed Countries (LDCs), yet how global institutions discursively construct their nexus to legitimize policy remains underexplored. Drawing on critical policy discourse analysis (CPDA), this study investigates how the World Bank Group frames the climate change-poverty relationship in its Country Climate and Development Reports (CCDRs) for LDCs, and the legitimation strategies embedded in these constructions. Findings reveal two dominant discursive frames: the vulnerability frame, which constructs poor groups as passive victims of climate impacts and deploys moral evaluation to legitimize adaptation policies; and the causality frame, which positions climate change as an active driver of poverty and uses scientific rationalization to legitimize mitigation policies. These frames collectively shape a hybrid policy agenda that balances ethically imperatives with technocratic efficiency, reflecting the Bank's attempt to legitimize its influence on LDC climate-development policies. This research contributes to understanding discourse in global climate governance, equipping stakeholders to critically engage with international policy advice and fostering more context-sensitive strategies for LDCs.

| KEYWORDS

Climate change; Poverty; Critical policy discourse analysis; World Bank; CCDRs; Least Developed Countries; Policy legitimation

| ARTICLE INFORMATION

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1. Introduction

Climate change and poverty are two intertwined global challenges, with their compounding effects hitting Least Developed Countries (LDCs) most severely. Home to over 1.1 billion are trapped in acute poverty (OPHI & UNDP, 2025), LDCs face a "double burden"—reliance on climate-sensitive livelihoods, limited infrastructure, and weak governance amplify their vulnerability to climate shocks, while poverty undermines adaptive capacity (IPCC, 2022). Global frameworks like the Sustainable Development Goals (SDGs) and Paris Agreement explicitly link poverty eradication (SDG 1) and climate action (SDG13), yet how this nexus is discursively constructed in influential policy documents and how such constructions shape strategies for LDCs remain understudied.

Climate change, widely recognized as "the defining challenge of our era" (Hulme, 2015), has transcended environmental boundaries to emerge as a critical political and developmental issue, reshaping global equity dynamics. While the discussion of loss and damages reinforces public awareness that less developed countries and poor populations will suffer most from the impacts of climate change, researchers have long recognized that climate change vulnerabilities, impacts, and responses are deeply entangled within political, social, and economic progresses that create and perpetuate poverty (Leichenko & Silva, 2014). Against this backdrop, the intricate relationship between climate change and poverty has become a focal point of academic inquiry, policy discourse, and global governance.

A robust body of scholarship and global discourse have articulated several dominant narratives to describe the bidirectional, mutually reinforcing relationship between climate change and poverty, including the "vicious cycle", "climate injustice", and

"green growth". For example, because disaster-prone areas tend to be more affordable, people living in poverty are disproportionately exposed to climate change, feeding a vicious cycle of poverty and exposure; climate change can generate a vicious cycle of increasing poverty and vulnerability, worsening inequality and the already precarious situation of many disadvantaged groups (World Social Report, 2020). On the one hand, substantial empirical research has confirmed that climate change exacerbates poverty through direct or indirect channels, including undermining consumption patterns (Açci et al., 2024), eroding asset bases (Nguyen & Le, 2022), reducing productivity (Letta & Tol, 2019), and constraining livelihood opportunities (Burzynski et al., 2022). For instance, Dang et al. (2024) demonstrate that rising temperatures disproportionately harm agricultural productivity in low-income regions, directly reducing incomes and deepening poverty. On the other hand, poverty can also amplify vulnerability to climate shocks in terms of resource constraints (Zeleke et al., 2021; George et al., 2024), inadequate social protection (Gasior et al., 2024; Carter & Janzen, 2018), and limited political voice (Omukuti, 2020; McNamara et al, 2020), which leave poor communities ill-equipped to cope with or adapt to climate impacts, trapping them in a cycle of deprivation and risk.

Critics emphasize that this vicious cycle or compounding hardship is deeply rooted in underlying structural inequality. It is argued that high-income countries and affluent populations are responsible for the majority of historical carbon emissions while low-income countries and poor communities are disproportionately exposed to climate risks (Hsiang et al., 2019; Gilli et al., 2024 Gore, 2020). For example, Dasgupta et al. (2023) document how agricultural households in South Africa—already marginalized by limited adaptive capacity—bear the brunt of climate shocks liking rising temperatures. In addition, poor groups and other vulnerable communities generally lack adaptive capacity and resources to cope with the climate hazards (Zahnow, et al., 2025). Compounding this injustice, those marginalized groups are often excluded from climate policymaking. For instance, Carley & Konisky (2020) show that low-income communities are sidelined in clean energy transition decisions, leading to policies that fail to address their needs or even exacerbate inequality (Eriksen et al., 2021).

At the macro-policy level, developing countries face a "dual burden", i.e., eradicating poverty requires economic growth, yet climate action demands emissions reductions and adaptation investments which often create resource competition and policy trade-offs (Khan & Yahong, 2022; Khan et al., 2024). Fujimori et al. (2023) highlights that climate mitigation policies may significantly increase global poverty by triggering macroeconomic losses and price changes, while Bruckner et al. (2022) show that poverty alleviation in low- and lower-middle-income countries can lead to increased carbon emissions. This tension underscores the complexity of aligning development and climate goals, particularly for the world's most vulnerable nations. To reconcile climate and poverty goals, "green growth" has emerged as a dominant policy narrative, defined broadly as "a growing economy that protects natural assets and resources" (Bowen & Hepburn, 2014, p. 411). Proponents argue that strategies like green technology innovation (Ulucak, 2020; Suki et al., 2022) and renewable energy development (Sohag et al., 2021; Gorji & Martek, 2023) not only address the climate crisis and resource scarcity (Kousar et al., 2023) can mitigate climate change, create green jobs (Tănasie et al., 2022), and drive inclusive growth. However, critics challenge the feasibility of absolutely decoupling of economic growth from resource use and carbon emissions, warming that green growth may reproduce inequalities by prioritizing market-based solutions over redistributive justice. (Hickel & Kallis, 2020).

Against this backdrop, international organizations (IOs) like the World Bank, IMF, and UN agencies act as "norm entrepreneurs" (Finnemore & Sikkink, 1998) and play a pivotal role in shaping global development agendas, for instance, using reports to define "development" and "poverty" in ways that reflect their institutional priorities. As Barnett & Finnemore (2004) argue, IOs wield "authoritative knowledge" to frame global problems, often embedding Western-centric or neoliberal values (e.g., market efficiency, private-sector-led growth) into policy narratives. Escobar (1995) and Ferguson (1990) critique how World Bank discourse historically framed "underdevelopment" as a technical failure rather than a product of colonialism or structural inequality, legitimizing interventions like structural adjustment programs. In this respect, the World Bank is renowned for proposing and delivering a series of flagship reports such as the World Development Report (WDR) and thus has drawn extensive scholarly attention. For example, Mosse (2004) and Li (2007) show how the World Bank's shift from "structural adjustment" to "pro-poor growth" in the 2000s reframed poverty as an issue of "inclusion" rather than systemic inequality, legitimizing market-oriented solutions. More recently, the Bank has integrated climate change into its development discourse, with reports like the *Turn Down the Heat* series (2012-2018) framing climate action as integral to poverty reduction. However, critical studies highlight how this integration often prioritizes technocratic, market-based approaches (e.g., "climate-smart agriculture," "blended finance") that may reinforce existing power imbalances (Hyatt, 2018).

The Country Climate and Development Reports (CCDRs), launched by the World Bank in 2021, represented a novel tool for integrating climate change and development policy in client countries. Unlike generic global reports, CCDRs are country-specific, positioning themselves as "actionable roadmaps" for aligning climate and development goals. They support countries to identify how to accelerate their development ambitions in line with their own nationally determined contributions and long-term strategies. Besides, they suggest concrete, priority actions that countries can take to develop while building resilience (World Bank, 2022). Notably, as authoritative policy documents, CCDRs are not merely neutral policy tools but discursive practices that

construct problems, frame solutions, and legitimize institutional interventions, thus shaping how various stakeholders understand and inform operations. Existing research on World Bank discourse has focused on historical policies or global reports, leaving a gap in critically understanding how these context-specific documents construct the climate-poverty nexus and legitimize the Bank's recommendations for policy pathways (e.g., adaptation vs. mitigation) for LDCs.

This study addresses this gap by investigating the discursive construction of the climate-poverty nexus in World Bank's Country Climate and Development Reports (CCDRs) for LDCs and the legitimation strategies embedded within these constructions. Specifically, using a critical discourse analysis (CDA) approach integrating Systemic Functional Linguistics (SFL) and van Leeuwen's (2007) legitimation theory, it seeks to uncover how the World Bank frames the relationship between climate change and poverty in these reports, what discursive strategies are deployed to legitimize its policy recommendations, and how these framings shape the Bank's influence on LDCs climate-development policies. In doing so, this study contributes to understanding the role of discourse in global governance, particularly for LDCs, and equips stakeholders with critical tools to engage with international policy advice. It aims to foster more equitable, context-specific strategies for addressing climate and poverty in LDCs.

2. Methods

2.1 Data

The data for this study consists of official documents selected from the World Bank Group's Country Climate and Development Reports (CCDRs), with a specific focus on Least Developed Countries (LDCs). LDCs were selected as the focal context because they are widely recognized as the most vulnerable to climate change due to their structurally fragile economies, high poverty prevalence, and limited institutional, technical, and adaptive capacities (UNFCCC, 2023). This structural vulnerability makes LDCs a critical site for examining how the climate-poverty nexus is discursively constructed in international policy discourse, which may differ from those in middle-income or high-income countries. LDC eligibility was determined using the classification criteria established by the United Nations Conference on Trade and Development (UNCTAD, 2024), which defines LDCs based on three core dimensions: (1) per capita income (gross national per capita below $1,1135), (2) human assets (measured by indicators such as health, education, and nutrition), and (3) economic and environmental vulnerability (assessed via exposure to climate shocks, economic instability, and structural fragility).

As the World Bank's flagship diagnostic and planning instrument, CCDRs are explicitly designed to support national governments in integrating climate action into long-term development strategies. They provide structural policy guidance for prioritizing climate mitigation, adaptation, and resilience-building measures while aligning with development goals such as poverty reduction, inclusive growth, and sustainable development. Targeting diverse stakeholders (i.e., governments, civil society, the private sector, and international partners), CCDRs serve as authoritative texts that shape both global development-climate agendas and country-specific policy priorities.

A total of 18 CCDRs were included in the analysis, covering 24 LDCs across three regions: Africa, Asia, and the Pacific (see Table 1). The sample was selected to ensure geographic representation and alignment with the World Bank's priority LDCs for climate-development integration. All reports were publicly available on the website of World Bank *https://www.worldbank.org/en/publication/country-climate-development-reports*.

Table 1. List of CCDRs and Covered Countries

**Notes: The discrepancy between reports and countries in Africa arises because the G5 Sahel region is covered in a single joint*

Region	Countries Included	Number of Reports/Countries covered
Africa	Angola, Benin, Djibouti, Democratic Republic of the Congo, Ethiopia, G5 Sahel (Burkina Faso, Chad, Mali, Mauritania, Niger), Liberia, Madagascar, Malawi, Mozambique, Rwanda, Senegal, United Republic of Tanzania	13/17*
Asia	Bangladesh, Cambodia, Nepal, Yemen	4/4
Pacific	Pacific Atolls (Kiribati, Marshall Islands, Tuvalu)	1/3

CCDR, which includes five sovereign nations (Burkina Faso, Chad, Mali, Mauritania, Niger).

To ensure systemic analysis, qualitative content analysis was conducted using the qualitative data analysis software ATLAS.ti 23. The unit of analysis was defined as sentences or paragraphs that explicitly or implicitly address the interplay between climate change and poverty. Through iterative open coding, a total of 183 relevant excepts were systematically identified and extracted from the 18 reports. These excerpts were labeled with descriptive codes (e.g., "climate-induced poverty" "poverty-driven

vulnerability) to capture initial themes. To enhance reliability, two rounds of independent coding were conducted by the authors at a 4-week interval. The initial results were compared, and discrepancies were resolved through systematic discussion and reference to the original text, ensuring consistency in thematic interpretation. This process refined the initial descriptive codes into two core thematic categories and 12 subcategories (e.g., "vulnerability narratives," "causality narratives", "adaptation-centered solutions"), which formed the basis for subsequent analysis.

2.2 Analytical Framework

This study adopts Critical Policy Discourse Analysis (CPDA) as the overarching theoretical perspective, which integrates Critical Discourse Analysis (CDA) with Critical Policy Studies (CPS). Both CPS and CDA conceptualize policy as resting on political 'imaginaries', the discursive simplification of an infinitely complex terrain of political action, and the assumed landscape of possibilities for government intervention. They thus construct a particular version of the problem, legitimated on the basis of available expert evidence, and are shaped by the dominant mode of governing (Montessori et al., 2019). CDA is an approach to social scientific research which combines detailed analysis of texts with theoretically informed accounts of the phenomena under investigation, in order to identify the process by which language (re)produces social practices and helps privilege certain ways of doing, thinking, and being over others. It investigates how language figures in the constitution, contestation, and transformation of social problems, and legitimizes power relations (Fariclough, 2010; Wodak& Meyer, 2001). CPS is a well-established approach to policy research characterized by a strong analytical focus on discourse as well as a rich contextualization of the social settings in which policy is enacted and interpreted.

CPDA offers a powerful tool for examining how discourse shapes social reality by systematic analysis of semantic, syntactic, and discursive relations within texts, as well as global patterns and relations between texts and how such discursive representations serve institutional agendas.

To systematically unpack the discursive construction of climate-poverty nexus in our target texts, a two-level analytical framework is developed. At the intra-sentence analysis, we draw on the transitivity system in Systemic Functional Linguistics (Halliday & Matthiessen, 2014), which explores how clauses construe "the world of experience into a manageable set of process types" (p. 170). Transitivity reveals how speakers or writers represent actions, participants, and relationships, thereby shaping perceptions of causality, agency, and responsibility. For this study, climate change and poverty are treated as core "participants," and their semantic roles and relational configurations within clauses are analyzed to answer: *How are climate change and poverty positioned as actors, victims, or contextual factors in individual propositions?* Following Halliday & Matthiessen (2014), four process types are prioritized for their relevance to constructing the climate-poverty nexus: 1) material processes represent "doings" or "happenings", involving actors (who/what initiates the action), goals (who/what is affected), and circumstances (contexts like time, place, or manner); 2) relational processes serve to "characterize or identify" entities, further divided into attributive relations (assign attributes to an entity) and identifying relations (equate two entities); 3) mental processes capture cognition, perception, or emotion; and 4) verbal processes involve communication, which highlight authoritative claims or policy mandates.

Moving beyond individual clauses, the inter-sentence level examines how climate-related and poverty-related propositions are linked across sentences and paragraphs to form coherent narratives. This draws on discourse relational theory (Smith, 2003; Knott & Dale, 1994), which identifies logical relations that structure text and guide interpretation. The goal is to answer: *How are individual clauses about climate change and poverty organized into persuasive, stable narratives that advance policy arguments?* In this case, both the explicit "cue words" (e.g., "because" "consequently" "however") and cohesive devices such as reference, substitution, and lexical cohesion will be analyzed.

To connect discursive patterns to policy legitimation, we draw on van Leeuwen's (2007; 2008) framework of discursive legitimation (i.e., authorization, moral evaluation, rationalization, mythopoesis), which identifies strategies used to justify and normalize social practices, institutional policies and ideological positions.

3. Results

Through systematic coding and linguistic analysis at both intra-sentential and inter-sentential levels, two overarching discursive frames are identified in the sampled CCDRs—the vulnerability frame and the causality frame. These frames are characterized by distinct linguistic patterns and ideological functions yet operating in complementary ways to represent the World Bank's construction of the climate change-poverty nexus and further shape its recommendations for LDCs' policy pathways.

3.1 The Vulnerability Frame

The vulnerability frame emerges as a pervasive discursive pattern across the CCDRs, representing the climate-poverty nexus through the lens of structural susceptibility and passive exposure, rather than exploring the dynamic and reciprocal interactions between climate change and poverty reduction. In other words, this frame prioritizes the identification of *who* is affected by climate-related risks over *why* and *how* such vulnerabilities are created and sustained, systematically constructing poor and marginalized populations as passive, defenseless recipients of external climate shocks.

At the intra-sentential level, the vulnerability frame is linguistically realized through two dominant grammatical structures: attributive relational processes and passive material processes, both of which serve to construct vulnerability as an inherent., fixed attribute for poor communities while positioning climate factors as background contexts. For example, the Djibouti CCDR states, "*The poor are particularly vulnerable to climate impacts due to their dependence on rural livelihoods, greater engagement in outdoor work, substandard housing, and poor access to resources,*" where the relational verb "*are*" categorizes "*the poor*" as the Carrier of the attribute "*vulnerable*," with "*climate impacts*" operating solely as Circumstance rather than an active Agent. Similarly, the Benin CCDR notes, "*Poor, rural, agriculture-reliant households are most vulnerable to climate-induced shocks,*" where the relational process again positions "*poor households*" as Carriers, and "*climate-induced shocks*" as external Circumstances exacerbating preexisting vulnerability. Passive material processes further reinforce this narrative of passivity by removing it from the Agent to Recipient position in the sentence. A representative example from the G5 Sahel CCDR observes, "*the burdens from climate change fall disproportionately on the poor and most vulnerable*," where "*burdens from climate change*" act as an external force (Agent), and "*the poor and most vulnerable*" are constructed as passive Goals (Recipient) of harm, stripped of agency to resist or mitigate climate shocks.

A defining feature of this frame is the recurrent collocation "the poor and most vulnerable", a standardized lexical bundle that appears consistently across the CCDRS. This collocation expands beyond narrow income-based definitions of poverty to incorporate multiply marginalized groups, including women, children, ethnic minorities, persons with disabilities, and elderly populations. This categorization enhances the moral salience of vulnerability claims, framing these groups as ethically deserving of intervention. Illustrative examples include the Bangladesh CCDR, which states, "***The poor and most vulnerable*** *populations are most impacted due to their reliance on agriculture and other climate-sensitive natural resources for income and livelihoods,*" and the Mozambique CCDR, which notes, "*Climate change introduces additional shocks and aggravates existing challenges, disproportionately affecting* ***the poor and the most vulnerable****, exacerbating poverty and inequalities, and ultimately complicating Mozambique's efforts to diversify its economy."* By aggregating diverse marginalized groups under a single moral category, the frame constructs vulnerability as a collective, shared condition that reinforces the need for targeted policy action. Critically, the vulnerability frame naturalizes poverty and vulnerability by omitting the reference to deep structural drivers of susceptibility, such as historical inequality, colonial legacies, uneven global trade regimes, or domestic policy failures. While the IPCC (2022) defines vulnerability as "the propensity or predisposition to be adversely affected" (p. 2927), encompassing both sensitivity and lack of adaptive capacity, the CCDRs focus narrowly on individual and community-level deficits, framing poverty and vulnerability as a product of local circumstances.

3.2 The Causality Frame

Complementing the passive, attribute-focused vulnerability frame, the causality frame operates as a equally prominent discursive pattern across the sampled CCDRs, establishing explicit directional relationships between climate change and poverty with the focus on *how* climate change shapes poverty dynamics. This frame relies on targeted linguistic and discursive devices to formalize causal links, either employing active material processes to cast climate change as an active agent at the intra-sentential level or weaving discrete clauses into extended, sequential causal chains using logical connectors and/or anaphoric reference.

At the intra-sentential level, the causality frame is linguistically encoded through active material processes with strong transitivity that explicitly frames climate change, climate shocks, or climate-related harms as an Agent capable of directly producing or altering poverty outcomes (Goals/Results). This grammatical choice is reinforced by a consistent set of high-intensity causal lexical verbs that dominate this frame, including "*increase*," "*exacerbate*," "*prevent*," "*reduce*" and "*lead to*", all of which establish a unidirectional causality. For instance, the Mozambique CCDR states, "*Climate change will* ***increase*** *the poverty rate in Mozambique. In all the future climate scenarios, the economic losses from climate change impacts increase poverty,*" where the transitive verb "*increase*" positions "*climate change*" and its associated economic losses as the Agent, with "*the poverty rate*" cast as the Goal. The Senegal CCDR similarly notes, "*Climate change will* ***reduce****—and potentially reverse—the pace of poverty reduction,* ***increasing*** *the level of poverty in 2050 by up to 6.8 percentage points.*" Here, the dual causal verbs "*reduce*" and "*increasing*" position climate change as an active Agent that not only obstructs progress against poverty reduction but pushes vulnerable populations into deprivation. The Madagascar CCDR further specifies, "*Among the poorest 20 percent of rural residents, climate shocks are* ***the most important determinants*** *of reduced household consumption and can* ***lead to*** *more significant asset losses and long-term poverty.*" The phrase "*most important determinants*" elevates climate shocks above all other

potential drivers, while the causal verb "*lead to*" links the Agent ("*climate shocks*") to a sequential chain of Goals ("*reduced consumption*", "*asset losses*" and "*long-term poverty*").

At the inter-sentential level, the frame elaborates multi-step causal narratives through explicit logical connectors (e.g., "resultant," "thus"), anaphoric pronominal reference (e.g., "these losses"), and sequential reasoning to unify discrete claims into a single, cohesive causal pathway. As Ziv (1983) notes, causality is a "basic universal reasoning principle" (p. 181) in text interpretation; the CCDRs strategically leverage this cognitive pattern to guide readers toward the conclusion that climate change is the central driver of LDC poverty. For example, the Liberia CCDR constructs a step-by-step narrative from agricultural production to household food insecurity and poverty:

> "R*ice, a main staple in Liberia, is extremely reactive to higher humidity, extreme temperatures, heavy rainfall, and the pests that flourish under these conditions. The CCDR finds that Liberia's rain-fed rice production could be reduced by up to 13 percent over 2041–2050 from climate change compared to the baseline scenario. The resultant decrease in income and heightened reliance on costly imports could exacerbate poverty and food insecurity for many Liberian households.*"

Here, the logical connector "*resultant*" acts as a critical discursive bridge, explicitly linking intermediate climate-driven harm ("*reduced rice production*") to final household-level outcomes (lower income, higher import costs, and increased poverty) . Similarly, the Djibouti' CCDR constructs a layered, macro-to-micro causal chain using anaphoric reference to maintain cohesion:

> "*Under hotter temperature scenarios, losses are expected to reach nearly one quarter of revenues in the sector, while under the more favorable temperature scenarios, losses would be about one-tenth (figure 7). These losses are likely to particularly affect the rural poor given the importance of keeping livestock for their livelihoods. The losses could have more pronounced effects for vulnerable groups such as disabled household members who have few options to earn an income, and whose support depends on scarce household resources.*"

The pronominal phrase "*these losses*" anchors the narrative, connecting initial sector-level revenue losses (the foundational Cause) to targeted impacts on the "*rural poor*", then narrowing further to disproportionately harm highly "*vulnerable groups*".

As Entman (1993) argues, "to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way to promote a particular problem definition, causal interpretation, more evaluation, and/or treatment recommendation". Thus, the vulnerability and causality frames identified in the CCDRs operate not as competing narratives, but as complementary discursive systems that collectively construct a unified representation of the climate-poverty nexus. The vulnerability frame leverages attributive relational processes and passive material processes to identify *who* bears the brunt of climate harm (poor and marginalized groups) and frame their structural susceptibility as fixed, inherent condition rooted in local livelihood and resource constraints. The causality frame, by contrast, employs active material processes and extended inter-sentential causal chains to explain *how* climate change operates as an active agent, driving incremental and long-term poverty through linear, sequential impact pathways.

4. Discussion

The vulnerability and causality frames identified in CCDRs are not merely neutral linguistic exercise or descriptive representations of the climate-poverty nexus; instead, they constitute a core mechanism through which institutional discourse constructs ideological narratives, mediates social cognition, and (re)shapes public and policy understandings of complex social issues (van Dijk, 2001). In specific, they act as discursive tools to legitimize the World Bank's institutional perspective on global climate and development, as well as its specific strategic policy recommendations and intervention maneuvers for LDCs. Drawing on van Leeuwen's (2007) legitimation theory, we further unpack how these two frames deploy distinct legitimation strategies to justify targeted policy pathways.

4.1 Moral Evaluation in the Vulnerability Frame: Legitimizing Adaptation-Centered Policies

The vulnerability frame mobilizes moral evaluation—a legitimation strategy that centers on normative justification, appealing to shared social values, ethical principles, and collective moral standards to frame a practice as morally right, virtuous, or aligned with communal ideals (van Leeuwen, 2007) —to position adaptation as a moral imperative for policymakers and other stakeholders. This strategy mainly operates through three interconnected discursive practices, including constructing "*the poor and most vulnerable*" as a morally deserving category, emphasizing unequal climate impacts on this group, and prioritizing adaptation as a corrective measure to injustice.

Firstly, the frame concretizes poverty as a moral category by attaching normative attributes to marginalized groups. Through relational processes of transitive system (e.g., "*the poor are vulnerable*"), it constructs "*poor*" and "*vulnerable*" as inherent, morally charged qualities, transforming context-specific hardships into universal claims of suffering. In the Benin CCDR, for instance,

"*Poor, rural, agriculture-reliant households are most vulnerable to climate-induced shocks*," in which "*vulnerable*" is not merely descriptive but carries ethical weight—framing these households as deserving of protection. This moral categorization invokes humanitarian and justice-based appeals, implicitly asserting that governments have a moral obligation to shield these groups from climate harm.

Furthermore, the frame reinforces moral urgency through comparative inequality claims, using terms like "*disproportionately*" highlight uneven climate impacts. For example, the G5 Sahel CCDR notes, "*the burdens from climate change fall* ***disproportionately*** *on the poor and most vulnerable.*" By contrasting the suffering of marginalized groups with relative resilience of privileged populations, the discourse evokes principles of climate equity: those least responsible for climate change (LDCs and their poor) suffer the most severe consequences. This frame thereby positions adaptation not as a technical choice but as a moral duty to redress inequitable risk distribution.

Consequently, these moral appeals directly legitimize the World Bank's adaptation-centered policy agenda. Since vulnerability is framed as stemming from poor groups' limited adaptive capacity, the Bank recommends targeted interventions to "empower" those vulnerable populations. For instance, Angola's CCDR proposes that "*Kwenda, Angola's flagship unconditional cash transfer program, offers a good platform to support poor households in regular times and could be expanded to provide additional assistance when climate-related shocks occur,*" framing cash transfer as a moral obligation and targeted intervention to protect the most vulnerable. Other policy recommendations include improving cooling measures in schools, expanding climate-smart irrigation, and upgrading housing and urban planning—interventions justified not only as technical fixes but as ethical responses to suffering.

4.2 Rationalization in the Causality Frame: Legitimizing Mitigation-Oriented Policies

In contrast, the causality frame primarily employs rationalization—a strategy that relies on instrumental and cognitive justification by emphasizing practical benefits, logical reasoning, goal achievement, and evidence-based utility (van Leeuwen, 2007) —to position mitigation as a "rational" and/or "effective" policy choice for LDCs. This strategy operates through constructing climate-poverty causality as a scientific fact, projecting future risks of inaction, and framing mitigation as a long-term investment.

The frame firstly constructs the climate-poverty link as a scientifically undeniable fact through appeals to "differentiated bodies of knowledge" (van Leeuwen, 2007), including economic models, quantitative data, and scientific predictions. For example, the Mozambique CCDR leverages the simulation results to frame causality as empirically proven "*In all future climate scenarios, the economic losses from climate change impacts increase poverty*." Similarly, the Senegal CCDR uses precise metrics by stating "*climate change will increase the level of poverty in 2050 by up to 6.8 percentage points*." By couching claims in scientific language, the discourse positions mitigation as a response to objective "facts" rather than ideological preferences, appealing to LDC governments' desire for evidence-based policy.

Additionally, the rational necessity is reinforced through future-oriented risk projection, emphasizing the cost of inaction. For example, the Liberia CCDR warns that unmitigated climate change "*could perpetuate poverty and stunt the country's growth*," while the Rwanda CCDR notes that climate variability "*is likely to prevent Rwanda from reaching its targets for economic output and poverty reduction*." Thereby, these projections frame mitigation as a proactive investment to avoid catastrophic future losses, aligning with LDCs' long-term development priorities. As van Leeuwen (2007) argues, rationalization "legitimizes practices by reference to their goals, uses, and effects."; here, mitigation is framed not as a burden but as a means to safeguard development gains.

These rational appeals underpin the World Bank's mitigation-oriented policy agenda, which urges LDCs to integrate decarbonization into their overall development strategies. For example, Angola's CCDR advocates a "*low carbon development pathway that contributes to the eradication of poverty,*" recommending renewable energy expansion and green job creation. The Nepal CCDR similarly calls for "*climate-smart agriculture*" and "*energy efficiency*" measures. By positioning mitigation as a logical response to proven climate-poverty causality, the discourse enables LDCs to justify short-term transition costs as necessary for long-term stability.

In a nutshell, the vulnerability and causality frames do not operate in isolation; their legitimation strategies are complementary, together constructing the World Bank's policy agenda as both ethically and rationally justified. The vulnerability frame's moral appeals (e.g., "protect the vulnerable") resonate with LDCs' domestic political imperatives to address inequality, while rational claims in the causality frame (e.g., "mitigation avoids future poverty") align with technocratic governance norms. This dual legitimation—moral urgency paired with scientific necessity—strengthens the Bank's authority to shape LDC climate-development policies, even in context where its formal power is limited. However, this discourse is prone to obscure alternative framings of the climate-poverty nexus, such as structural inequalities or historical responsibility for emissions. By focusing on

moral vulnerability and rational causality, the CCDRs depoliticize climate action, framing it as a technical or ethical issue rather than a contest over power or resources. This depoliticization, in turn, reinforces the World Bank's role as "neutral" advisor, further legitimizing its policy recommendations.

6. Conclusion

This study aimed to investigate how the World Bank constructs the relationship between climate change and poverty in its Country Climate and Development Reports (CCDRs) for Least Developed Countries (LDCs) and to examine how these discursive constructions legitimize the Bank's policy recommendations. To achieve this, we employ critical policy discourse analysis (CPDA) which integrates critical discourse analysis (CDA) with policy discourse analysis (PDA) to analyze 18 CCDRs covering 24 LDCs through both intra- and inter-sentential linguistic patterns and legitimation strategies.

The findings revealed two overarching discursive frames that collectively shape the climate-poverty nexus in the CCDRs. The vulnerability frame constructs poor and marginalized groups as passive victims of climate impacts, relying on relational processes and passive material processes to emphasize structural susceptibility. This frame deploys moral evaluation strategies to legitimize adaptation-centered policies, including targeted social protection, climate-resilient infrastructure, and economic empowerment. In contrast, the causality frame positions climate change as an active driver of poverty, using active material processes and extended causal chains to establish directional influence. This frame employs rationalization strategies to legitimize mitigation-oriented interventions, such as renewable energy transitions, green growth, and decarbonization.

This study fills a gap by providing a nuanced, multilayered, and critical lens to reveal how global governance bodies and international organizations discursively construct policy problems, delimit acceptable solution sets, and align national governments with institutional priorities. In addition, this study centers on LDCs with particular attention to their unique and inextricable entanglement of climate vulnerability and chronic poverty. Thus, the findings seek to equip policymakers, civil society actors, and other stakeholders in LDCs with critical tools to interrogate international climate-development advice. By exposing the legitimizing strategies embedded in CCDRs, this research highlights how discourse can naturalize certain policy pathways while obscuring structural inequalities or historical responsibility, fostering more informed and equitable policy debates.

In conclusion, the climate-poverty nexus in the World Bank's CCDRs is not a neutral reflection of reality but a strategically constructed discourse that serves to legitimize the Bank's policy agenda. By unpacking this discourse, this study underscores the crucial role of critical language analysis in understanding and challenging the power dynamics inherent in global climate governance. Future research could extend this framework to other international organizations (e.g., IMF, UNDP) or regional contexts to explore how discursive constructions of climate and poverty vary across institutional and geopolitical settings, further enriching our understanding of global policy discourse.

Discourse statement

No potential conflict of interest was reported by the authors.

Author Contributions Statement

Zhu Xufeng: conceptualization, data analysis and interpretation, revision, supervision, funding acquisition; Zhao Wenjing: drafting, data analysis and interpretation, revision.

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