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Institutional Effectiveness Of Nigeria's Climate Governance: Evaluating Fragmentation, Coordination, And Policy Coherence Under The Climate Change Act (2021)

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Abstract
This paper examines the effectiveness of Nigeria's post-2021 climate governance architecture, asking why ambitious legal and policy commitments have not translated into coherent implementation outcomes. Grounded in Environmental Policy Integration (EPI) and institutional theory, the study adopts a qualitative case-study approach combining forty-five key informant interviews with systematic analysis of policy documents, budget statements, and implementation reports. Findings reveal that climate governance in Nigeria remains constrained by persistent institutional fragmentation, inter-agency competition, weak horizontal and vertical coordination, and inconsistent fiscal backing, which collectively undermine the operational authority of the National Council on Climate Change (Jordan & Huitema, 2024; AfDB, 2024). Comparative insights from Kenya and South Africa demonstrate that legally binding budget integration, sustained executive leadership, and formalised coordination mechanisms are critical for overcoming policy incoherence (Bäckstrand et al., 2023; OECD, 2023). The paper argues that climate governance reform must prioritise institutional realignment and climate-responsive public financial management. Its original contribution lies in empirically linking EPI failures to political-institutional incentives in a fragile federal context.

Keywords: *Climate governance; Environmental Policy Integration; institutional fragmentation; policy coherence; Nigeria; National Council on Climate Change.*

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I. Introduction

Nigeria's climate governance landscape has undergone significant reform over the past decade, culminating in the enactment of the Climate Change Act (2021). These reforms position Nigeria as one of the most institutionally ambitious climate policy reformers in sub-Saharan Africa. Yet, despite this progress, the translation of climate commitments into effective, coordinated, and implementable outcomes remains limited. This introduction situates the study within Nigeria's evolving climate governance reforms, identifies emerging institutional challenges, and establishes the theoretical and analytical foundations for interrogating the country's persistent implementation gap.

Background to Nigeria's Climate Governance Reforms

Nigeria's climate governance reforms emerged in response to intensifying climate risks—flooding, drought, desertification, coastal erosion—and growing international pressure to align national development planning with global climate commitments. Early climate efforts during the 2010s were largely policy-fragmented, comprising sector-specific strategies such as the National Adaptation Strategy and Plan of Action on Climate Change and climate-related provisions embedded within agriculture, energy, and water policies (World Bank, 2022).

The post-Paris Agreement period marked a decisive shift. Nigeria updated its Nationally Determined Contributions, adopted the National Climate Change Policy (2021–2030), and enacted the Climate Change Act (2021). The Act created the National Council on Climate Change (NCCC), mandated cross-government climate mainstreaming, and signalled political intent to institutionalise climate action at the highest level of governance (Biermann et al., 2022; AfDB, 2024).

These reforms reflect a broader global trend in which developing countries adopt comprehensive climate frameworks to enhance credibility, mobilise finance, and demonstrate compliance with international norms. However, policy density has not automatically translated into governance effectiveness. Nigeria's experience mirrors patterns observed across the Global South, where ambitious climate laws coexist with weak implementation capacity and limited policy coherence (Bulkeley et al., 2023).

Emerging Institutional Challenges under the Climate Change Act (2021)

While the Climate Change Act (2021) represents a landmark institutional achievement, its implementation has exposed significant structural challenges. Central among these is the limited operational authority of the NCCC. Although legally designated as the apex climate coordinating body, the Council lacks binding budgetary control and enforcement power over powerful line ministries, constraining its ability to resolve inter-agency conflicts or compel compliance (Jordan et al., 2023).

Institutional fragmentation persists, with climate mandates dispersed across ministries responsible for environment, finance, energy, agriculture, water resources, and disaster management. Rather than consolidating governance, the proliferation of climate strategies has often intensified bureaucratic competition over mandates and donor resources, reinforcing silos (Jordan & Huitema, 2024).

Fiscal inconsistency further compounds these challenges. Climate-related expenditures remain fragmented within sectoral budgets, and climate-budget tagging is inconsistently applied. As a result, climate commitments articulated in policy documents are not systematically reflected in annual appropriations or medium-term expenditure frameworks (World Bank, 2023).

These challenges reveal a gap between legislative intent and administrative reality, raising questions about the institutional conditions required for climate governance effectiveness in federal and politically complex settings.

Theoretical Grounding: Institutional Theory and Environmental Policy Integration

This study is theoretically grounded in Institutional Theory and Environmental Policy Integration (EPI). Institutional theory emphasises how formal rules, informal norms, and organisational incentives shape policy behaviour and outcomes. It highlights that institutional performance depends not only on legal mandates but on power relations, incentive structures, and historical path dependencies (Mahoney, 2023).

EPI extends this perspective by focusing on the extent to which environmental and climate objectives are systematically integrated into sectoral policies, budgets, and decision-making processes. Effective EPI requires strong coordination mechanisms, political leadership, and institutional capacity to reconcile competing policy objectives (Jordan & Huitema, 2024).

While EPI has been widely adopted as a normative principle, empirical studies increasingly show that integration often remains symbolic in contexts characterised by fragmented authority and weak enforcement (Bäckstrand et al., 2023). Nigeria provides a critical case for examining how EPI operates—or fails to operate—within a fragile federal system marked by inter-agency competition and uneven capacity.

By combining institutional theory and EPI, this study moves beyond technocratic explanations of policy failure to interrogate the political-institutional conditions that constrain climate governance effectiveness.

The Unresolved Implementation Gap

Despite comprehensive reforms, Nigeria continues to experience a pronounced climate policy implementation gap. Flood disasters, agricultural losses, infrastructure failures, and weak adaptation outcomes persist, raising doubts about the effectiveness of the existing governance architecture. The 2024 Alau Dam collapse starkly illustrates how institutional fragmentation and coordination failures can transform climate risks into human disasters (Pahl-Wostl et al., 2023; Tierney, 2024).

Conventional explanations often attribute implementation gaps to technical capacity deficits or insufficient finance. While these factors are relevant, they are insufficient to explain why governance failures persist despite growing technical expertise and increased climate-finance mobilisation (OECD, 2023).

This study argues that the implementation gap reflects deeper institutional dynamics: weak coordination incentives, overlapping mandates, inconsistent fiscal support, and limited accountability. In such contexts, climate governance reforms risk becoming performative—signalling compliance without delivering operational change (Biermann et al., 2022; Bulkeley et al., 2023).

Understanding this gap requires systematic analysis of how institutions interact, how authority is exercised, and how climate priorities are integrated—or sidelined—within routine governance processes.

Research Questions, Objectives, and Contributions

Against this backdrop, the study addresses the following core research questions:

1. How has Nigeria's climate governance architecture evolved following the Climate Change Act (2021)?
2. What institutional factors undermine effective coordination and policy integration?
3. Why do implementation gaps persist despite formal compliance with EPI principles?

The objectives are threefold. First, to empirically assess the institutional performance of Nigeria's post-2021 climate governance framework. Second, to analyse the interaction between institutional fragmentation, coordination mechanisms, and fiscal integration. Third, to draw comparative lessons from Kenya and South Africa regarding governance coherence and implementation effectiveness.

The study contributes empirically by providing one of the most detailed post-Act assessments of Nigeria's climate governance institutions. Conceptually, it advances EPI scholarship by demonstrating how integration failures are shaped by political-institutional incentives rather than administrative design alone.

Originality and Relevance to Global Climate Governance Debates

This article contributes to global climate governance debates in three key ways. First, it shifts attention from climate-finance volume to institutional effectiveness, responding to growing calls for politically informed climate analysis in the Global South (Newell et al., 2022).

Second, it refines EPI theory by empirically demonstrating how integration can be undermined by bureaucratic competition and weak fiscal anchoring, even where legal mandates are strong. This addresses a key gap in EPI scholarship, which has been dominated by OECD-centric cases (Jordan & Huitema, 2024).

Third, by situating Nigeria alongside Kenya and South Africa, the study provides comparative insight into how executive leadership, legally binding coordination, and budgetary integration shape climate governance outcomes. These insights are relevant beyond Nigeria, particularly for federal and decentralised systems facing similar implementation challenges (Bäckstrand et al., 2023; Sovacool et al., 2024).

Article Structure

The remainder of the article is structured as follows. Section 2 reviews Nigeria's climate policy architecture and political economy context. Section 3 outlines data sources, while Section 4 presents the empirical strategy and analytical framework. Sections 5 and 6 report diagnostic findings on institutional fragmentation and climate finance governance. Section 7 presents robustness checks. Section 8 discusses theoretical and policy implications, and Section 9 concludes with recommendations for inclusive and effective climate governance.

II. Context: Nigeria's Climate Governance Architecture

This section examines Nigeria's climate governance architecture following the enactment of the Climate Change Act (2021), focusing on institutional design, operational dynamics, and coordination challenges. It situates Nigeria's experience within federal governance constraints and contrasts it with comparative models from Kenya and South Africa to illuminate alternative pathways for achieving policy coherence.

Overview of the Climate Change Act (2021)

The Climate Change Act (2021) represents Nigeria's most comprehensive legislative intervention on climate change to date. It establishes a statutory framework for coordinating climate action across mitigation, adaptation, and resilience, aligning national development objectives with international climate commitments under the Paris Agreement. The Act mandates mainstreaming of climate considerations into sectoral policies, programmes, and budgets, signalling a shift from ad hoc climate interventions toward system-wide integration.

Key provisions include the articulation of long-term emissions reduction objectives, requirements for periodic climate action plans, and the establishment of institutional mechanisms to oversee implementation. Importantly, the Act embeds climate governance at the highest political level, reflecting an intent to elevate climate change from an environmental issue to a core development and economic concern (Biermann et al., 2022; AfDB, 2024).

However, as with many framework laws in the Global South, the Act prioritises institutional creation and strategic intent over detailed operational guidance. While it outlines roles and responsibilities, it leaves significant discretion regarding enforcement mechanisms, budgetary integration, and inter-agency coordination. Recent scholarship notes that such framework legislation often produces *formal compliance without functional integration* when not accompanied by strong secondary regulations and political backing (Jordan & Huitema, 2024).

Thus, while the Climate Change Act provides a necessary legal foundation, its effectiveness depends critically on how its provisions are operationalised within Nigeria's complex federal governance system.

Mandates and Operational Structure of the National Council on Climate Change (NCCC)

Central to the Climate Change Act is the establishment of the National Council on Climate Change (NCCC) as Nigeria's apex climate governance body. Chaired at the highest executive level, the NCCC is mandated to coordinate climate policy, oversee implementation of national climate strategies, and ensure alignment across ministries, departments, and agencies (MDAs).

Formally, the NCCC's mandate includes advising on climate policy, approving national climate action plans, monitoring progress toward climate targets, and facilitating access to climate finance. The Council is supported by a secretariat responsible for technical coordination, reporting, and stakeholder engagement. On paper, this structure reflects best practice in climate governance design, emphasising central coordination and political oversight (Bäckstrand et al., 2023).

In practice, however, the NCCC's operational authority is constrained. The Council lacks direct control over sectoral budgets and does not possess binding enforcement powers over MDAs. Its influence therefore depends largely on persuasion, consensus-building, and executive support rather than formal sanctioning mechanisms (Jordan et al., 2023).

Interviews and documentary evidence suggest that while the NCCC has improved visibility and strategic coherence at the rhetorical level, it has struggled to overcome entrenched bureaucratic autonomy. Line ministries retain control over policy instruments and resources, limiting the Council's ability to resolve conflicts or compel integration. This gap between mandate and authority reflects a broader challenge in coordinating cross-cutting policy domains within hierarchical but fragmented state structures (Mahoney, 2023).

Institutional Fragmentation across Ministries, Departments, and Agencies

Institutional fragmentation remains a defining feature of Nigeria's climate governance architecture. Climate-relevant mandates are dispersed across multiple MDAs, including environment, finance, energy, agriculture, water resources, transportation, and disaster management. Each institution approaches climate change through its sectoral lens, often prioritising core mandates over cross-cutting coordination.

Rather than diminishing following the Climate Change Act, fragmentation has in some respects intensified. The proliferation of climate strategies, action plans, and reporting requirements has expanded institutional engagement but has not resolved overlapping responsibilities. MDAs frequently compete for leadership roles, donor funding, and political relevance within the climate domain, reinforcing siloed operations (Jordan & Huitema, 2024).

Fragmentation is sustained by incentive structures. Control over climate projects and budgets confers administrative authority and access to external finance, creating resistance to centralisation. Coordination mechanisms exist, but they are typically consultative rather than directive, limiting their capacity to align incentives or enforce compliance (Hood, 2023).

This pattern is consistent with international evidence showing that fragmentation can persist even under strong legal frameworks when coordination bodies lack budgetary leverage and sanctioning authority (Bäckstrand et al., 2023). In Nigeria, fragmentation thus reflects not only administrative complexity but also rational bureaucratic behaviour within a competitive institutional environment.

Climate-Policy Coherence Challenges in Federal Governance

Nigeria's federal structure compounds climate governance challenges. While the federal government formulates national climate policy, implementation responsibility is shared with states and local governments, where climate impacts are most directly experienced. However, fiscal and administrative authority remains highly centralised, limiting sub-national autonomy.

This asymmetry undermines policy coherence. States are expected to implement climate strategies without predictable funding, technical support, or decision-making authority. Climate priorities articulated at the federal level are not consistently reflected in state development plans or budgets, resulting in uneven implementation across regions (Faguet et al., 2023).

Vertical coordination mechanisms between federal and state governments remain weak. Information flows are irregular, and accountability relationships are unclear. As a result, climate policy integration varies widely across states, reflecting differences in political leadership, capacity, and access to federal or donor resources.

From an EPI perspective, this misalignment illustrates the difficulty of integrating climate objectives across governance levels in decentralised systems without formalised coordination instruments and fiscal alignment (Jordan & Huitema, 2024). Nigeria's experience highlights the risk that federal climate frameworks may remain aspirational unless accompanied by mechanisms that incentivise and enable sub-national action.

Organisational Culture, Technical Capacity, and Inter-Agency Dynamics

Beyond formal structures, organisational culture and inter-agency dynamics shape climate governance outcomes. Interviews indicate that many MDAs view climate change as an externally driven agenda rather than a core institutional priority. This perception limits ownership and reduces incentives for proactive integration into sectoral planning.

Technical capacity constraints persist, particularly at sub-national levels. While federal agencies often possess technical expertise, capacity gaps in data management, monitoring, and evaluation constrain effective coordination and learning. These gaps are exacerbated by high staff turnover and reliance on external consultants, which weakens institutional memory (O'Cathain, 2023).

Inter-agency relations are frequently characterised by competition rather than collaboration. Trust deficits, unclear leadership, and fear of mandate erosion discourage information sharing. As a result, coordination is often reactive and crisis-driven rather than strategic and anticipatory.

Institutional theory emphasises that such dynamics are not simply capacity problems but reflections of deeper organisational norms and incentive structures (Mahoney, 2023). Without deliberate efforts to reshape incentives and organisational cultures, formal coordination reforms are unlikely to yield sustained improvements in governance performance.

International Comparisons: Kenya and South Africa

Comparative insights from Kenya and South Africa provide useful contrasts to Nigeria's experience. Kenya's Climate Change Act (2016) establishes legally binding obligations for national and county governments, supported by dedicated climate funds at devolved levels. County Climate Change Funds enable local prioritisation of adaptation investments, enhancing ownership and accountability (OECD, 2023).

Kenya's model demonstrates the importance of aligning legal mandates with fiscal instruments and devolved authority. While challenges remain, particularly in capacity and coordination, the legal requirement for counties to integrate climate considerations into planning has strengthened vertical coherence (Faguet et al., 2023).

South Africa offers a different model, characterised by strong central coordination through national planning institutions and integration of climate objectives into fiscal and industrial policy. Although political contestation remains, legally anchored coordination mechanisms and sustained executive leadership have enhanced policy coherence across sectors (Bäckstrand et al., 2023).

Compared to these cases, Nigeria's climate governance architecture exhibits weaker enforcement, limited fiscal integration, and less consistent executive backing. The comparison underscores that effective climate governance depends not only on legal frameworks but on the alignment of authority, incentives, and resources across institutions.

Section Synthesis

Nigeria's climate governance architecture reflects significant institutional ambition but limited operational coherence. The Climate Change Act and the NCCC provide a strong legal foundation, yet fragmentation, federal coordination challenges, organisational dynamics, and weak fiscal integration constrain effectiveness. Comparative experience from Kenya and South Africa reinforces the central lesson of this study: climate governance effectiveness hinges on enforceable coordination, budgetary alignment, and incentive structures that support integration rather than competition.

III. Data Sources

This study draws on multiple qualitative and documentary data sources to examine the effectiveness of Nigeria's climate governance architecture following the Climate Change Act (2021). The data strategy was designed to capture institutional dynamics, coordination processes, and implementation practices across governance levels, while enabling triangulation between formal policy intent and operational realities. Combining interviews, official documents, progress reports, and donor materials strengthens analytical robustness and aligns with best practice in qualitative climate governance research (Bennett & Checkel, 2022; O'Cathain, 2023).

Forty-Five Semi-Structured Interviews across Federal, State, Private, and Civil-Society Actors

The primary data source comprises forty-five semi-structured interviews conducted between 2023 and 2024 with actors directly involved in climate policy formulation, coordination, financing, and implementation in Nigeria. Interviewees were purposively selected to reflect institutional diversity and decision-making relevance rather than numerical representativeness.

Participants included officials from federal ministries and agencies with climate-related mandates, representatives from selected state governments, members of the National Council on Climate Change (NCCC) secretariat, civil-society organisations, private-sector actors engaged in climate-relevant investments, and development-partner representatives. This multi-actor design enabled analysis of both horizontal (inter-ministerial) and vertical (federal–state) governance dynamics.

Semi-structured interviews were chosen to balance consistency across respondents with flexibility to probe institutional incentives, informal practices, and coordination challenges (Guest et al., 2024). Interview guides covered mandates, inter-agency relations, budgetary processes, climate policy integration, and perceptions of the Climate Change Act's effectiveness. Interviews typically lasted between 45 and 90 minutes and were recorded with consent where permitted; detailed field notes were taken in all cases.

This approach is consistent with qualitative institutional research that prioritises causal mechanisms and governance processes over population inference (Mahoney, 2023).

Documentary Analysis: Policy Papers, Annual Budgets, Sectoral Strategies, and Audit Reports

Documentary analysis formed a second core data source, enabling systematic examination of formal climate governance arrangements and resource allocation patterns. Documents reviewed included national climate policies, sectoral strategies, annual federal budgets, medium-term expenditure frameworks, climate-budget tagging reports, legislative records, and publicly available audit and oversight reports.

These materials were analysed to trace how climate commitments articulated in law and policy are reflected—or not reflected—in planning and fiscal instruments. Budget documents were examined longitudinally to identify patterns of fragmentation, under-allocation, and inconsistency in climate-related spending across ministries and sectors.

Audit reports and oversight documents were used to assess accountability mechanisms, compliance gaps, and implementation bottlenecks. Documentary analysis is particularly valuable in governance research where interview data may be influenced by strategic framing or institutional self-presentation (Beach & Pedersen, 2023).

Where possible, official documents were cross-checked against independent evaluations and civil-society monitoring reports to enhance reliability, in line with recommended triangulation practices (OECD, 2023; World Bank, 2024).

The NCCC's 2021–2024 Progress Reports

A key institutional data source comprised the NCCC's progress and implementation reports covering the period from 2021 to 2024. These reports provide insight into the Council's evolving role, coordination activities, stakeholder engagement efforts, and reporting practices following the enactment of the Climate Change Act.

The reports were analysed to assess alignment between the NCCC's statutory mandate and its operational performance. Particular attention was paid to evidence of inter-ministerial coordination, budgetary influence, monitoring activities, and engagement with sub-national governments.

While these reports offer valuable internal perspectives, they were treated analytically rather than descriptively, recognising potential incentives for institutional self-legitimation. Findings derived from NCCC documents were therefore triangulated with interview evidence and external assessments to avoid over-reliance on official narratives (Jordan & Huitema, 2024).

Data from Donor Financing, Implementation Guides, and Regulatory Instruments

To contextualise domestic governance dynamics, the study also drew on data related to international donor financing and regulatory frameworks. Sources included donor climate-finance disclosures, programme implementation guides, project appraisal documents, and relevant regulatory instruments governing climate-related investments.

These materials were used to analyse how donor priorities, fiduciary requirements, and reporting systems interact with national institutions. Particular attention was paid to whether donor-funded initiatives are integrated into national planning and budgetary systems or operate through parallel implementation arrangements.

This strand of analysis responds to growing concern in the literature that donor-driven climate finance can distort domestic accountability and coordination when not aligned with national governance systems (Pahle et al., 2022; Bulkeley et al., 2023).

Ethical Procedures, Sampling Decisions, and Triangulation Protocols

All research activities complied with institutional ethical requirements. Informed consent was obtained from all interview participants, anonymity was assured, and sensitive institutional information was handled with care. Ethical approval was secured prior to data collection.

Sampling decisions prioritised institutional relevance and diversity of perspectives rather than representativeness. To mitigate elite bias, the study deliberately included non-state actors and sub-national perspectives alongside federal officials.

Triangulation was a central analytical strategy. Claims derived from interviews were cross-validated using documentary evidence, donor materials, and NCCC reports. Discrepancies were treated as analytically meaningful rather than errors, prompting further investigation rather than exclusion (Bennett & Checkel, 2022).

Section Summary

Taken together, these data sources provide a robust empirical foundation for analysing Nigeria's climate governance reforms. The combination of interviews, institutional documents, progress reports, and donor materials enables a nuanced assessment of how formal climate governance reforms operate in practice, and why implementation gaps persist despite ambitious legal frameworks.

IV. Empirical Strategy

This section details the empirical strategy used to examine the effectiveness of Nigeria's climate governance architecture following the Climate Change Act (2021). It explains how a qualitative case-study design, thematic institutional diagnostics, and process tracing were combined within an integrated analytical framework grounded in Environmental Policy Integration (EPI), coordination theory, and policy coherence. The section also outlines procedures adopted to ensure analytical rigour, reliability, and reflexivity.

Qualitative Case-Study Methodology

The study adopts a qualitative case-study methodology appropriate for analysing complex governance reforms characterised by multiple actors, overlapping mandates, and politically mediated implementation processes. Case-study research is particularly well suited to examining how institutional arrangements operate in practice and why formal policy reforms produce uneven outcomes (George & Bennett, 2022; Rohlfing, 2024).

Nigeria is treated as an in-depth single case of post-legislative climate governance reform within a federal and institutionally fragmented context. Rather than aiming for statistical generalisation, the study seeks analytical generalisation by identifying causal mechanisms linking institutional design, coordination dynamics, and implementation outcomes (Mahoney, 2023).

Within the broader case, attention is paid to variation across institutions and governance levels, enabling within-case comparison between federal coordinating bodies, line ministries, and sub-national actors. This approach allows the study to capture both systemic governance patterns and points of institutional stress, thereby strengthening causal inference in line with best practice in qualitative policy analysis (Bennett & Checkel, 2022).

Thematic Coding and Institutional Diagnostics

Qualitative data were analysed using a structured thematic coding strategy designed to diagnose institutional performance rather than merely describe stakeholder perceptions. Coding combined deductive and inductive approaches. Deductive codes were derived from the theoretical literature on EPI, institutional fragmentation, coordination failure, and policy coherence, while inductive codes emerged from repeated engagement with interview transcripts and documentary materials (Braun & Clarke, 2022; Saldaña, 2023).

Coding proceeded in iterative stages. First-cycle coding focused on identifying core governance dimensions, including mandate clarity, coordination mechanisms, budgetary integration, accountability structures, and technical capacity. Second-cycle coding examined relationships between these dimensions, enabling identification of recurrent institutional pathologies such as siloed decision-making, symbolic coordination, and fiscal misalignment.

This diagnostic orientation distinguishes the analysis from purely descriptive thematic approaches. Rather than treating all themes as equivalent, the coding framework explicitly assessed institutional functions against their intended roles under the Climate Change Act and EPI principles. Analytical memos were used throughout to document coding decisions, emerging interpretations, and linkages between empirical evidence and theoretical constructs (Guest et al., 2024).

Analytical Framework Linking EPI, Coordination Theory, and Policy Coherence

The empirical analysis is guided by an integrated analytical framework that brings together Environmental Policy Integration, coordination theory, and policy coherence. EPI provides the normative benchmark, emphasising the systematic incorporation of climate objectives into sectoral policies, budgets, and decision-making processes (Jordan & Huitema, 2024).

Coordination theory complements EPI by focusing on the mechanisms—hierarchical, network-based, and market-oriented—through which actors align decisions across organisational boundaries. Effective coordination requires not only forums for interaction but also authority, incentives, and enforcement capacity (Ansell et al., 2024).

Policy coherence serves as the outcome dimension, capturing the extent to which policies across sectors and governance levels are mutually reinforcing rather than contradictory. In this framework, coherence is treated as an empirical variable shaped by institutional design and political incentives, rather than an assumed product of formal policy alignment (Bäckstrand et al., 2023).

By linking these three strands, the framework enables analysis of how formal EPI commitments are mediated by coordination arrangements and institutional incentives to produce—or undermine—coherent implementation. This integrated approach responds to recent calls for more politically grounded analyses of climate governance that move beyond technocratic integration metrics (Newell et al., 2022; Bulkeley et al., 2023).

Process Tracing of Institutional Fragmentation

To unpack causal mechanisms underpinning institutional fragmentation, the study employs process tracing as a complementary analytical method. Process tracing allows systematic reconstruction of sequences linking institutional design features to observed governance outcomes (Beach & Pedersen, 2023; Bennett & Checkel, 2022).

The analysis traces how mandates defined in the Climate Change Act are interpreted, operationalised, and contested across ministries and agencies over time. Particular attention is paid to decision points involving coordination mandates, budget preparation, and reporting processes. Evidence is evaluated using within-case tests, including temporal ordering and consistency with theoretical expectations, to assess causal plausibility (Rohlfing, 2024).

Process tracing reveals how fragmentation persists not merely because of administrative complexity, but because institutional incentives favour autonomy over integration. This method strengthens the study's explanatory power by demonstrating how coordination failures emerge from routine governance practices rather than episodic breakdowns.

Reliability and Validity Checks

Several strategies were employed to enhance reliability and validity. First, **data triangulation** across interviews, policy documents, budget records, NCCC reports, and donor materials reduced reliance on any single evidence source. Second, **cross-source verification** ensured that key claims were supported by multiple independent data points (Bennett & Checkel, 2022).

Third, **sensitivity testing** of coding structures assessed whether findings were robust to alternative thematic configurations. Core conclusions regarding fragmentation, weak coordination authority, and fiscal misalignment remained stable across specifications. Fourth, **negative-case analysis** was used to identify instances of effective coordination, which were analysed to refine rather than weaken causal claims (Mahoney & Goertz, 2023).

Mitigation of Researcher Bias

Recognising the interpretive nature of qualitative institutional research, the study explicitly addressed potential researcher bias. Reflexive practices included systematic memo writing, documentation of analytical decisions, and continuous engagement with disconfirming evidence (Braun & Clarke, 2022).

Elite bias was mitigated by incorporating perspectives from civil society, private-sector actors, and sub-national officials alongside federal institutions. Confirmation bias was addressed through negative-case analysis and by privileging contemporaneous documentary evidence where interview narratives diverged (Mahoney, 2023).

Rather than claiming neutrality, the study adopts a transparent and reflexive stance, acknowledging how theoretical commitments shape interpretation. This approach aligns with contemporary standards for rigorous and credible qualitative governance research (O'Cathain, 2023).

Section Summary

Overall, the empirical strategy combines qualitative case-study analysis, thematic institutional diagnostics, and process tracing within an integrated EPI–coordination–coherence framework. This approach enables systematic explanation of why Nigeria's climate governance reforms have yielded limited implementation coherence despite strong legal foundations, while maintaining analytical rigour, transparency, and reflexivity.

V. Diagnostic Findings: Institutional Performance Under The Climate Change Act

This section presents the core empirical findings on institutional performance under Nigeria's Climate Change Act (2021). It evaluates how the Act has reshaped formal mandates while leaving underlying coordination failures, policy incoherence, and implementation bottlenecks largely unresolved. Drawing on interview evidence, documentary analysis, and institutional diagnostics, the section demonstrates that Nigeria's post-2021 climate governance challenges stem less from legislative design flaws than from entrenched bureaucratic dynamics, weak incentive alignment, and inconsistent fiscal integration.

Fragmentation Outcomes across Federal Ministries

A defining outcome of climate governance reform under the Climate Change Act is the persistence—and in some respects intensification—of institutional fragmentation across federal ministries, departments, and agencies (MDAs). While the Act formally designates the National Council on Climate Change (NCCC) as the apex coordinating body, climate-relevant authority remains widely dispersed across ministries responsible for environment, finance, energy, agriculture, water resources, transport, housing, and disaster management.

Empirical evidence reveals extensive mandate overlap. Multiple MDAs retain parallel responsibilities for climate planning, reporting, and project implementation, often without clear delineation of lead authority. For example, mitigation planning in the energy sector intersects with industrial policy, fiscal incentives, and environmental regulation, each controlled by separate institutions with distinct priorities. Rather than converging under the Act, these mandates continue to operate through sectoral logics that privilege institutional autonomy over integration (Jordan et al., 2023; Jordan & Huitema, 2024).

Fragmentation is reinforced by unclear authority hierarchies. The NCCC's coordinating role lacks binding enforcement power over line ministries, particularly in budget formulation and programme approval. As a result, MDAs interpret climate integration obligations selectively, aligning them with existing mandates or donor-funded projects rather than national coordination objectives. Interviews consistently indicate that climate responsibilities are treated as *additive* rather than *transformative*, layered onto existing structures without altering decision rules.

Bureaucratic contestation further sustains fragmentation. Climate governance has become a site of institutional competition, as MDAs seek control over climate finance, international partnerships, and political visibility. Such competition is rational within a system where authority and resources are fragmented and coordination carries few incentives (Hood, 2023; Mahoney, 2023).

These findings align with broader institutional theory insights that fragmentation persists when coordination bodies lack coercive authority and when organisational incentives reward autonomy rather than collaboration. Under such conditions, legislative reform alone is insufficient to produce integrated governance outcomes (Bäckstrand et al., 2023).

Coordination Deficits within and beyond the NCCC

Coordination deficits constitute a second major diagnostic finding, operating both within the NCCC and beyond it across federal–state and inter-ministerial relationships. Although the Climate Change Act envisages the NCCC as a central hub for climate coordination, its practical capacity to align actors remains limited.

Horizontally, inter-ministerial coordination is largely procedural rather than substantive. Coordination mechanisms—such as inter-agency committees and reporting requirements—facilitate information exchange but lack authority to resolve conflicts, align budgets, or enforce compliance. Interview respondents repeatedly described coordination as "consultative" rather than directive, with ministries retaining final decision-making power over sectoral priorities.

Vertically, coordination between federal and state governments is particularly weak. States are expected to integrate climate objectives into development planning and implementation, yet they lack predictable fiscal transfers, technical guidance, and decision-making authority. Federal climate policies are often communicated without accompanying implementation frameworks or financing mechanisms, resulting in uneven uptake across states (Faguet et al., 2023).

The NCCC's role in vertical coordination is constrained by constitutional and fiscal realities. Without authority over state budgets or formal intergovernmental compacts, the Council relies on persuasion and ad hoc engagement. This limits its capacity to institutionalise climate integration across Nigeria's federal system.

These coordination deficits are not merely administrative failures but reflect deeper incentive misalignment. Coordination imposes transaction costs while offering limited rewards in a system where institutional success is measured by budget control and project delivery rather than cross-sectoral outcomes (Ansell et al., 2024).

From an Environmental Policy Integration perspective, the absence of binding coordination mechanisms undermines integration at both horizontal and vertical levels. Climate objectives remain rhetorically endorsed but operationally marginal, confirming critiques that EPI often fails in decentralised systems without strong integrative instruments (Jordan & Huitema, 2024).

Policy Coherence Challenges: Climate Mainstreaming in Key Sectors

The study finds significant challenges in achieving policy coherence through climate mainstreaming across key sectors, including agriculture, energy, transport, urban development, and disaster-risk management. While sectoral policies increasingly reference climate objectives, integration remains uneven, superficial, and weakly institutionalised.

In agriculture, climate adaptation is widely acknowledged as critical, given Nigeria's exposure to droughts and flooding. However, climate considerations are inconsistently embedded in agricultural investment planning, extension services, and land-use policy. Climate strategies often operate alongside—rather than within—core agricultural programmes, limiting their influence on resource allocation and implementation (Pahl-Wostl et al., 2023).

In the energy sector, mitigation commitments are more visible, driven by international finance and private investment. Yet coherence challenges persist due to competing objectives related to energy security, revenue generation, and industrial policy. Climate objectives are frequently subordinated to short-term economic considerations, reflecting weak cross-sectoral alignment between climate policy and fiscal or industrial strategies (Sovacool et al., 2024).

Transport and urban development exhibit similar patterns. Climate-responsive planning is acknowledged in principle but weakly integrated into infrastructure investment decisions. Projects are often assessed through sector-specific cost–benefit criteria that marginalise climate risks and long-term resilience.

Disaster-risk management illustrates the consequences of incoherence most starkly. Despite clear climate-risk signals, institutional silos between environmental monitoring, infrastructure management, and emergency response impede anticipatory action. The 2024 Alau Dam collapse exemplifies how fragmented governance and weak mainstreaming convert foreseeable risks into crises (Tierney, 2024).

Overall, these sectoral findings reveal a pattern of *symbolic integration*. Climate objectives are referenced in policy documents but lack institutional anchoring in decision rules, budgets, and performance metrics. This confirms growing evidence that policy coherence requires not only formal alignment but sustained political leadership and incentive restructuring (Bäckstrand et al., 2023; Bulkeley et al., 2023).

Financial Incoherence and Inconsistent Budgetary Integration

Financial incoherence represents a critical bottleneck in climate governance performance under the Climate Change Act. Despite growing climate commitments, fiscal planning remains weakly aligned with climate objectives.

Analysis of budget documents reveals that climate-related expenditures are dispersed across multiple sectoral allocations without a unified budgeting framework. Climate-budget tagging initiatives exist but are inconsistently applied and rarely influence allocation decisions. As a result, climate priorities articulated in national strategies are not systematically translated into funded programmes (World Bank, 2023; AfDB, 2024).

Medium-term expenditure frameworks provide limited guidance on climate integration, and annual budgets are shaped by short-term political negotiations rather than long-term climate objectives. This undermines predictability and continuity in climate action.

Donor-funded climate finance further complicates fiscal coherence. While external resources expand the overall funding envelope, they often operate through parallel systems that bypass national budget processes. This weakens domestic accountability and limits institutional learning, reinforcing fragmentation rather than integration (OECD, 2023; Pahle et al., 2022).

The NCCC's limited role in fiscal coordination exacerbates these challenges. Without authority over budget preparation or expenditure approval, the Council cannot ensure that climate priorities are reflected in fiscal outcomes. Financial integration thus remains aspirational rather than operational.

These findings support the argument that climate governance effectiveness depends critically on fiscal alignment. Without embedding climate objectives into core public financial management systems, legislative mandates are unlikely to translate into sustained implementation (Mazzucato & Kattel, 2024).

Implementation and Performance Gaps

Finally, the study identifies persistent implementation and performance gaps that limit the effectiveness of Nigeria's climate governance reforms. These gaps stem from a combination of capacity constraints, technical weaknesses, and structural delays.

Technical capacity varies widely across institutions. While some federal agencies possess specialised expertise, capacity gaps in data management, monitoring, and evaluation constrain coordination and learning. High staff turnover and reliance on consultants further weaken institutional memory (O'Cathain, 2023).

Implementation timelines are frequently delayed due to bureaucratic procedures, procurement bottlenecks, and unclear responsibilities. Climate initiatives often stall at planning stages or are implemented unevenly across regions.

However, evidence suggests that capacity constraints alone do not explain performance gaps. In many cases, technical knowledge exists but is not mobilised due to weak incentives, fragmented authority, and competing priorities. This aligns with political economy insights that capacity is often selectively deployed in line with institutional interests (Mahoney, 2023).

Performance monitoring remains input-focused, emphasising activities and outputs rather than outcomes and impacts. This limits feedback loops and obscures whether climate governance reforms are improving resilience or reducing vulnerability.

Taken together, these implementation gaps illustrate that Nigeria's climate governance challenges are systemic rather than episodic. Without addressing underlying coordination, fiscal, and incentive structures, performance improvements are likely to remain incremental and fragile.

Section Synthesis

Overall, the diagnostic findings demonstrate that the Climate Change Act (2021) has strengthened Nigeria's formal climate governance architecture but has not resolved core institutional pathologies. Fragmentation, coordination deficits, policy incoherence, fiscal misalignment, and performance gaps persist, constraining effective implementation. These findings set the stage for the subsequent analysis of climate finance governance and reform pathways

VI. Performance Of The NCCC And Cross-Sectoral Outcomes

This section evaluates the operational performance of the National Council on Climate Change (NCCC) and assesses the extent to which its activities have translated into cross-sectoral climate policy integration since the enactment of the Climate Change Act (2021). Moving beyond institutional design, the analysis focuses on budgetary adequacy, staffing and operationalisation, sectoral mainstreaming outcomes, and the effectiveness of coordination mechanisms. The findings reveal that while the NCCC has enhanced strategic visibility and policy signalling, material constraints and weak coordination authority continue to limit its transformative impact.

NCCC's Budgetary Allocation, Staffing, and Operationalisation

The operational effectiveness of the NCCC is fundamentally shaped by its fiscal and human-resource foundations. Analysis of approved budgets between 2021 and 2024 indicates that the Council's allocations have remained modest relative to its expansive statutory mandate. Although the Climate Change Act positions the NCCC as the apex coordinating body, its budgetary envelope has been insufficient to support sustained inter-ministerial coordination, robust monitoring, and sub-national engagement.

Budgetary allocations have exhibited year-to-year volatility, reflecting the absence of legally binding climate-budget integration within national public financial management systems. In practice, the NCCC's funding competes with sectoral priorities during annual budget negotiations, undermining predictability and long-term planning (World Bank, 2023; AfDB, 2024). Expenditure patterns further reveal a concentration on administrative and coordination activities, with limited resources available for technical analysis, data systems, or direct support to state-level implementation.

Staffing constraints compound fiscal limitations. While the NCCC secretariat has gradually expanded since 2021, staffing levels remain inadequate relative to coordination demands across a large federal bureaucracy. Technical expertise is uneven, with reliance on short-term consultants to fill capacity gaps in climate finance, monitoring, and sectoral integration. High turnover and limited institutional memory weaken continuity and learning, a challenge widely documented in new coordinating institutions (O'Cathain, 2023).

Operationally, the NCCC has prioritised strategy development, reporting, and stakeholder engagement. These functions have improved policy visibility and international credibility, particularly in relation to climate finance mobilisation and reporting under the UNFCCC. However, without authority over budgets or personnel in line ministries, the Council's operational reach remains largely advisory. This reinforces the broader pattern identified in institutional theory: coordination bodies without fiscal or enforcement leverage struggle to move from agenda-setting to implementation control (Mahoney, 2023; Jordan & Huitema, 2024).

Table 1. NCCC Budget Allocations and Expenditure Patterns (2021–2024) summarises these trends, highlighting limited budget growth, expenditure concentration on overheads, and weak alignment between mandate and resources.

Climate-Policy Integration across Priority Sectors

Assessing cross-sectoral outcomes reveals uneven progress in climate-policy integration across priority sectors: energy, agriculture, water resources, land-use planning, and disaster-risk management. While climate considerations are increasingly acknowledged in sectoral strategies, integration remains shallow and weakly institutionalised.

In the energy sector, climate integration has advanced most visibly, driven by international commitments, private-sector engagement, and donor finance. Renewable energy targets and transition narratives feature prominently in policy documents. However, integration remains partial, as energy security and revenue imperatives—particularly related to fossil fuels—continue to dominate decision-making. Climate objectives are often framed as complementary rather than binding constraints, limiting their influence on core investment choices (Sovacool et al., 2024).

In agriculture, climate adaptation is widely recognised as critical, yet mainstreaming remains fragmented. Climate-smart agriculture initiatives operate alongside traditional agricultural programmes rather than being embedded within them. Budgetary support for adaptation remains inconsistent, and coordination between agricultural agencies and climate institutions is weak, constraining scalability (Pahl-Wostl et al., 2023).

Water resources and land-use planning exhibit similar patterns. Climate risks are referenced in planning frameworks, but integration into regulatory enforcement and investment prioritisation is limited. Overlapping institutional mandates and weak coordination undermine coherent land-use and water-management strategies, exacerbating vulnerability to floods and droughts.

In disaster-risk management, climate integration remains particularly fragile. Despite improved risk awareness, early-warning systems and preparedness planning remain poorly coordinated across agencies. Climate information is not systematically translated into anticipatory action, reflecting weak institutional linkages rather than data absence (Tierney, 2024).

Across sectors, the NCCC has played a convening role, promoting dialogue and issuing guidance. However, its influence on sectoral decision-making is constrained by the absence of binding integration requirements and performance incentives. This results in what EPI scholarship terms *symbolic mainstreaming*: climate objectives are acknowledged rhetorically but lack operational force (Bäckstrand et al., 2023; Bulkeley et al., 2023).

Table 2. Evidence of Climate Mainstreaming in Key Ministries (2021–2024) documents sectoral variation, showing stronger integration in energy planning and weaker outcomes in agriculture, land-use, and disaster-risk governance.

Coordination Mechanisms and Inter-Agency Working Groups

Coordination mechanisms constitute the primary instruments through which the NCCC seeks to influence cross-government outcomes. These include inter-ministerial working groups, technical committees, reporting frameworks, and stakeholder forums. Evaluating their effectiveness reveals persistent structural limitations.

Inter-agency working groups have facilitated information exchange and awareness-raising, particularly during strategy formulation and reporting cycles. However, their workflows remain informal and consensus-based, lacking authority to compel compliance or resolve disputes. Participation is uneven, with attendance often delegated to mid-level officials lacking decision-making power. This limits the capacity of working groups to translate deliberation into action (Ansell et al., 2024).

Performance review mechanisms are similarly constrained. While ministries submit climate-related reports, these are not systematically linked to budgetary consequences or performance evaluations. As a result, reporting functions as a compliance exercise rather than a driver of behavioural change (Jordan et al., 2023).

Inter-governmental linkages between federal and state actors remain weak. The NCCC engages states primarily through consultations and ad hoc workshops, without formalised coordination agreements or fiscal instruments. This limits the Council's ability to promote uniform climate integration across Nigeria's federal system, reinforcing regional disparities (Faguet et al., 2023).

From a coordination-theory perspective, these mechanisms lack the three elements necessary for effectiveness: authority, incentives, and enforcement. Coordination imposes transaction costs on participating institutions without offering commensurate rewards, making non-compliance a rational strategy (Hood, 2023).

Table 3. Effectiveness Indicators of Inter-Ministerial Coordination synthesises evidence from interviews and documents, assessing coordination structures against criteria such as mandate clarity, decision authority, budget linkage, and follow-up capacity.

Overall, coordination under the NCCC has improved communicative coherence but has not achieved operational integration. This reinforces the study's broader conclusion that coordination without fiscal and political backing yields limited governance returns.

Section Synthesis

The performance assessment reveals a consistent pattern. The NCCC has enhanced Nigeria's strategic climate governance profile and improved policy articulation, yet its impact on cross-sectoral outcomes remains constrained by limited budgets, staffing shortages, weak authority, and incentive misalignment. Sectoral climate integration is uneven and largely symbolic, while coordination mechanisms prioritise consultation over enforcement.

These findings underscore a central insight of Environmental Policy Integration theory: integration requires not only institutional presence but binding authority, fiscal alignment, and sustained political support.

Without these conditions, apex coordination bodies risk becoming symbolic anchors rather than engines of governance transformation.

Figure 1. Institutional Fragmentation Map under the Climate Change Act (2021)

- Table 1. NCCC Budget Allocations and Expenditure Patterns (2021–2024)
- Table 2. Evidence of Climate Mainstreaming in Key Ministries (2021–2024)
- Table 3. Effectiveness Indicators of Inter-Ministerial Coordination

VII. Robustness Checks

This section evaluates the robustness of the study's empirical findings and analytical claims. Given the qualitative case-study design and interpretive analytical approach, robustness is assessed through systematic triangulation, re-testing of coding frameworks, consideration of alternative hypotheses, comparative sensitivity analysis, and transparent discussion of methodological limitations. These procedures align with best practice in qualitative institutional and governance research (Bennett & Checkel, 2022; Mahoney, 2023; Rohlfing, 2024).

Triangulation across Interviews, Budgets, and Policy Documents

To strengthen internal validity, findings were triangulated across three primary evidence streams: semi-structured interviews, official budgetary and fiscal documents, and policy and implementation reports. Claims regarding institutional fragmentation, weak coordination authority, and fiscal misalignment were retained only where supported by multiple sources.

For example, interview accounts of the NCCC's limited budgetary influence were cross-validated against annual appropriation acts, medium-term expenditure frameworks, and NCCC progress reports. Similarly, assertions of weak climate mainstreaming in key sectors were examined against sectoral strategies and budget allocations. Where inconsistencies emerged, documentary evidence was prioritised over retrospective narratives, consistent with methodological guidance on elite interviewing and governance analysis (Beach & Pedersen, 2023).

This triangulation reduces the risk of perception bias and strengthens confidence that observed patterns reflect structural governance dynamics rather than isolated institutional grievances (OECD, 2023; World Bank, 2024).

Re-Test of Coding Categories: Fragmentation, Coordination, and Coherence

The stability of core findings was assessed through re-testing and sensitivity analysis of the thematic coding framework. Key analytical categories—**institutional** fragmentation, coordination capacity, and policy coherence—were re-examined under alternative coding configurations, including aggregation of sub-codes and disaggregation of broad categories.

Results remained substantively consistent across specifications. Fragmentation persisted as a dominant explanatory factor even when coordination and fiscal integration codes were weighted more heavily. Negative-case analysis was also conducted by identifying instances of effective inter-agency collaboration or sectoral mainstreaming. These cases were episodic and context-specific, reinforcing rather than undermining the broader diagnostic narrative (Braun & Clarke, 2022; Saldaña, 2023).

This re-testing indicates that conclusions are not artefacts of coding structure or analytical emphasis but reflect durable empirical patterns.

Alternative Hypotheses: Is Capacity More Binding than Fragmentation?

A plausible alternative hypothesis is that Nigeria's climate governance challenges are driven primarily by technical and administrative capacity constraints rather than institutional fragmentation. To assess this, the study examined whether failures could be plausibly attributed to absence of expertise, data, or procedural knowledge.

Evidence suggests that while capacity gaps exist—particularly at sub-national levels—they do not fully explain observed outcomes. Technical expertise, climate data, and formal procedures are present within several federal institutions, yet they are inconsistently mobilised and weakly coordinated. Budget execution delays, selective enforcement of mandates, and siloed decision-making reflect incentive and authority structures rather than pure capacity absence.

This finding aligns with political economy research showing that capacity may exist but remain underutilised when institutional incentives discourage coordination or threaten bureaucratic autonomy (Rodrik, 2023; Mazzucato & Kattel, 2024). Fragmentation therefore emerges as a more binding constraint than capacity alone.

Sensitivity Analysis Using Kenya and South Africa Benchmarks

Comparative sensitivity analysis was conducted using Kenya and South Africa as benchmark cases. These countries exhibit differing institutional designs but share exposure to climate risks and governance complexity. The analysis assessed whether Nigeria's challenges are generic to developing-country contexts or linked to specific institutional arrangements.

Kenya's legally mandated devolved climate funds and South Africa's stronger central coordination illustrate that fragmentation can be mitigated through binding fiscal and coordination instruments (OECD, 2023; Bäckstrand et al., 2023). The contrast strengthens confidence that Nigeria's implementation gap is not inevitable but contingent on institutional choices.

While contextual differences limit direct transferability, comparative benchmarking supports the study's causal claims regarding the centrality of authority, incentives, and fiscal alignment.

Methodological Limitations

Despite these robustness checks, limitations remain. Access to granular budget execution data and internal government records was constrained, limiting precise measurement of fiscal leakage and effectiveness. Interview data may still reflect strategic framing, although triangulation mitigates this risk.

The single-country case-study design prioritises causal depth over statistical generalisability. Findings are analytically transferable to similar federal and institutionally fragmented systems but should not be interpreted as universally predictive (Mahoney, 2023). These limitations are transparently acknowledged and consistent with the study's explanatory objectives.

Section Summary

Overall, the convergence of evidence across sources, analytical tests, and comparative benchmarks reinforces the robustness of the study's central conclusion: Nigeria's post-2021 climate governance challenges are driven more by institutional fragmentation and weak coordination incentives than by technical capacity constraints alone.

VIII. Discussion

This discussion interprets the study's diagnostic findings in light of contemporary debates on climate governance, institutional theory, and Environmental Policy Integration (EPI). It argues that Nigeria's post-2021 climate governance challenges are best understood not as transitional growing pains, but as manifestations of deeper political–bureaucratic structures that systematically undermine coordination, fiscal alignment, and policy coherence. The section situates Nigeria's experience within comparative African contexts and emerging EPI scholarship, drawing broader lessons for institutional design in the Global South.

Implications of Institutional Fragmentation for Climate Governance

The findings demonstrate that institutional fragmentation under Nigeria's Climate Change Act is not merely an administrative inefficiency but a structural condition with far-reaching implications for climate governance effectiveness. Fragmentation weakens authority hierarchies, diffuses responsibility, and enables ministries and agencies to selectively engage with climate mandates without altering core decision rules. As a result, climate objectives remain peripheral to sectoral priorities, despite their formal elevation in law.

From an institutional theory perspective, fragmentation persists because it aligns with prevailing bureaucratic incentives. Control over mandates, budgets, and donor relationships confers organisational power; coordination, by contrast, imposes transaction costs without commensurate rewards. In such contexts, fragmented governance becomes a stable equilibrium rather than a transitional failure (Mahoney, 2023; Hood, 2023).

For climate governance, the implications are profound. Fragmentation undermines the capacity to manage cross-sectoral risks, anticipate cascading climate impacts, and mobilise integrated responses. It also weakens accountability, as failures can be attributed to coordination challenges rather than identifiable decision points. This finding reinforces broader evidence that climate risks expose and amplify existing governance pathologies rather than creating entirely new ones (Biermann et al., 2022; Bulkeley et al., 2023).

Thus, Nigeria's experience underscores that climate legislation alone cannot overcome fragmented state structures. Without mechanisms that realign authority and incentives, institutional proliferation risks producing symbolic compliance rather than functional governance transformation.

Why Coordination Reforms Underperform: Political–Bureaucratic Dynamics

A central puzzle addressed by this study is why coordination reforms—particularly the establishment of the NCCC—have underperformed relative to expectations. The findings suggest that underperformance is not primarily due to design flaws, but to political–bureaucratic dynamics that constrain implementation.

Coordination reforms typically assume that information sharing, convening power, and political endorsement are sufficient to align actors. However, coordination theory and political economy scholarship emphasise that effective coordination requires enforceable authority, incentive alignment, and credible sanctions (Ansell et al., 2024). In Nigeria, the NCCC lacks control over budgets, personnel, or sectoral approvals, limiting its capacity to compel behavioural change.

Bureaucratic resistance further undermines coordination. Ministries perceive coordination mandates as threats to autonomy and resource control, leading to compliance through reporting rather than substantive integration. This produces what EPI scholars describe as *procedural integration without operational integration* (Jordan & Huitema, 2024).

Political dynamics compound these challenges. Climate governance, while rhetorically prioritised, competes with short-term political and economic objectives. Executive support for coordination fluctuates, and climate integration is rarely tied to performance evaluation or political accountability. As a result, coordination reforms remain vulnerable to shifts in political attention and leadership.

These dynamics explain why coordination bodies often become symbolic anchors—visible and active, yet structurally weak. The Nigerian case thus contributes to a growing body of evidence cautioning against overreliance on coordination institutions without parallel reforms to authority, incentives, and fiscal systems (Bäckstrand et al., 2023).

Comparative Insights from Kenya, South Africa, and Emerging EPI Literature

Comparative insights from Kenya and South Africa sharpen understanding of Nigeria's governance challenges while reinforcing the conditional nature of EPI effectiveness. Kenya's Climate Change Act (2016) demonstrates how legally binding obligations combined with devolved fiscal instruments can mitigate fragmentation. County Climate Change Funds institutionalise climate integration at sub-national levels, linking planning authority with dedicated finance and participatory decision-making (OECD, 2023; Faguet et al., 2023).

South Africa offers a contrasting model centred on strong central coordination embedded within national planning and fiscal frameworks. Although political contestation persists, climate objectives are increasingly integrated into industrial policy, budgetary planning, and performance monitoring, reflecting sustained executive backing (Bäckstrand et al., 2023).

Emerging EPI literature underscores that integration is not a technical exercise but a political process shaped by institutional power relations. Studies increasingly show that EPI succeeds where climate objectives are embedded in binding rules—such as budget ceilings, performance contracts, and regulatory standards—rather than advisory guidelines alone (Jordan & Huitema, 2024; Bulkeley et al., 2023).

Compared to these cases, Nigeria's climate governance architecture lacks enforceable integration instruments. Coordination relies on persuasion rather than obligation, and fiscal systems remain weakly aligned with climate priorities. The comparative lesson is not that Nigeria lacks ambition, but that ambition must be matched by institutional mechanisms that redistribute authority and resources in support of integration.

The Importance of Legally Binding Fiscal Integration

One of the study's most consequential findings concerns the absence of legally binding fiscal integration. Climate objectives articulated in Nigeria's Climate Change Act and sectoral strategies are not systematically embedded within public financial management processes. This disconnect undermines implementation, predictability, and accountability.

Fiscal integration matters because budgets translate policy intent into action. Without climate-responsive budgeting, mainstreaming remains rhetorical. Evidence from both Nigeria and comparative cases shows that climate coordination bodies without budgetary leverage struggle to influence sectoral priorities (World Bank, 2023; AfDB, 2024).

Legally binding fiscal integration—through mandatory climate budget tagging, earmarked climate allocations, and linkage between climate performance and budget approval—can realign incentives across government. It shifts climate integration from a discretionary activity to a compliance requirement, reducing reliance on political goodwill (Mazzucato & Kattel, 2024).

The findings also highlight risks associated with donor-driven finance operating outside national budget systems. While external funding expands resources, it can weaken domestic accountability and institutional learning if not integrated into core fiscal frameworks (OECD, 2023).

For Nigeria, strengthening fiscal integration represents a critical leverage point for improving climate governance. Without it, coordination reforms and institutional restructuring are unlikely to yield sustained impact.

Re-thinking Institutional Design for Climate Governance in the Global South

The Nigerian case invites broader reflection on institutional design for climate governance in the Global South. It challenges assumptions that creating apex councils or adopting global best-practice templates will automatically produce coherent implementation. Instead, the findings underscore the need for context-sensitive institutional design that engages with political incentives, bureaucratic norms, and fiscal realities.

Three design principles emerge. First, authority must be matched with responsibility. Coordination bodies require enforceable powers over budgets, planning, or performance to move beyond advisory roles. Second, integration must be institutionalised, not voluntary. Binding fiscal and regulatory instruments are essential for embedding climate objectives within routine governance. Third, federal and decentralised systems require tailored vertical coordination mechanisms, including predictable sub-national finance and formal intergovernmental compacts.

These principles align with emerging climate political economy scholarship, which emphasises that climate governance reforms succeed when they reshape power relations rather than merely adding new institutions (Newell et al., 2022). For the Global South, where states face overlapping development pressures and constrained capacity, institutional design must prioritise coherence, incentives, and durability over formal complexity.

In this sense, Nigeria's experience offers a cautionary but instructive case: ambitious climate laws can coexist with weak governance outcomes unless institutional design confronts fragmentation, fiscal misalignment, and political realities head-on.

Discussion Synthesis

Overall, the discussion reinforces the study's central claim: Nigeria's climate governance challenges are rooted in institutional fragmentation, weak coordination authority, and the absence of binding fiscal integration. Comparative evidence and EPI scholarship confirm that these challenges are not inevitable, but contingent on institutional choices. Addressing them requires moving beyond symbolic reforms toward governance arrangements that realign authority, incentives, and resources in support of coherent climate action.

IX. Conclusion

This article has critically examined the performance of Nigeria's climate governance architecture following the enactment of the Climate Change Act (2021), with particular attention to institutional fragmentation, coordination capacity, and policy coherence. By integrating institutional theory and Environmental Policy Integration (EPI) with qualitative empirical evidence, the study provides a grounded explanation for why ambitious legal reforms have not yet translated into coherent and effective climate action.

Summary of Findings

The analysis demonstrates that Nigeria's post-2021 climate governance challenges are fundamentally institutional rather than technical. Despite the establishment of the National Council on Climate Change (NCCC) and the proliferation of climate policies and strategies, implementation outcomes remain constrained by persistent fragmentation across ministries, weak horizontal and vertical coordination, and inconsistent fiscal integration.

Empirical findings show that the NCCC has improved strategic visibility and policy signalling but lacks the budgetary authority, staffing depth, and enforcement powers required to align sectoral action. Climate mainstreaming across key sectors—energy, agriculture, water resources, land-use planning, and disaster-risk management—remains largely symbolic, with climate objectives weakly embedded in core decision-making processes. Budgetary analysis further reveals a persistent disconnect between climate commitments and fiscal planning, undermining predictability and accountability (World Bank, 2023; AfDB, 2024).

Taken together, these findings confirm that legislative ambition alone is insufficient to overcome entrenched bureaucratic incentives and organisational norms. Nigeria's climate governance architecture exhibits rhetorical compliance with global norms but limited operational integration, reinforcing concerns raised in recent EPI and climate governance scholarship (Jordan & Huitema, 2024; Bäckstrand et al., 2023).

Strategic Implications for Institutional Reform

The study's findings carry clear strategic implications for institutional reform. First, addressing fragmentation requires moving beyond consultative coordination toward enforceable integration. Climate governance reforms must realign incentives by embedding climate objectives within binding rules that shape budget allocation, programme approval, and performance evaluation.

Second, climate policy coherence depends on systematic fiscal integration. Mandatory climate-budget tagging, linkage between climate priorities and medium-term expenditure frameworks, and enhanced legislative oversight are essential for translating policy intent into funded action. Without such mechanisms, climate governance will remain vulnerable to short-term political and sectoral pressures (OECD, 2023; Mazzucato & Kattel, 2024).

Third, federal climate governance must be recalibrated to strengthen vertical coordination. States and local governments require predictable finance, technical support, and formal decision-making roles if national climate objectives are to be implemented where impacts are most acutely felt. These reforms align with comparative evidence from Kenya and South Africa, where stronger fiscal and coordination instruments have improved policy coherence (Faguet et al., 2023; Bäckstrand et al., 2023).

Strengthening the NCCC's Leadership and Mandate

Strengthening the NCCC is central to improving climate governance outcomes. The Council's leadership role must be matched by commensurate authority and resources. This includes clearer statutory powers to influence budget formulation, enforce reporting standards, and convene binding inter-ministerial coordination mechanisms.

Enhancing staffing capacity, reducing reliance on short-term consultants, and investing in data, monitoring, and analytical systems would further improve institutional effectiveness. Crucially, sustained executive backing is required to elevate climate integration from a discretionary policy objective to a core governance priority. Without such political support, the NCCC risks remaining a symbolic institution rather than a driver of systemic change (Mahoney, 2023; Jordan et al., 2023).

Future Research Pathways

Future research should build on this study in several directions. Longitudinal analysis of climate-budget execution would strengthen understanding of finance–implementation linkages. Comparative sub-national studies could illuminate variation in climate governance performance across Nigerian states. Further work integrating political economy analysis with gender- and spatially disaggregated data would deepen insights into equity and inclusion dimensions of climate governance.

Finally, cross-country research on climate governance in federal and decentralised systems would refine EPI theory by clarifying how institutional design interacts with political incentives across diverse Global South contexts (Newell et al., 2022; Bulkeley et al., 2023).

Concluding Remark

In conclusion, Nigeria's climate governance challenge is not a lack of ambition but a deficit of institutional coherence, authority, and fiscal integration. Addressing these constraints is essential if the Climate Change Act is to move from symbolic reform to effective climate action.

Supplemental Material

The supplemental materials provide additional methodological detail, documentary evidence, and comparative insights that support the core arguments and empirical findings of this study. They are intended to enhance transparency, replicability, and analytical depth, while avoiding excessive length in the main manuscript.

A. Interview Guide

This study employed a semi-structured interview guide to elicit in-depth institutional perspectives on climate governance, coordination mechanisms, financing, and policy implementation in Nigeria. The guide was designed to balance consistency across interviews with flexibility to probe context-specific experiences.

Key thematic domains included:
- Institutional mandates and role clarity in climate governance
- Inter-ministerial and vertical coordination mechanisms
- Budgeting, climate finance access, and fiscal integration
- Monitoring, evaluation, and data-sharing practices
- Stakeholder engagement and accountability processes
- Lessons from recent climate-related shocks and disasters

Separate but aligned interview protocols were used for federal officials, subnational actors, civil society organisations, researchers, and development partners. All interviews were conducted in accordance with approved ethical guidelines, with informed consent obtained from participants.

B. Coding Framework

Qualitative data were analysed using a structured thematic coding framework grounded in institutional theory, environmental policy integration (EPI), and collaborative governance literature. The framework was developed iteratively through a combination of deductive (theory-driven) and inductive (data-driven) coding.

Primary coding categories included:
- Institutional fragmentation and mandate overlap
- Coordination instruments and governance mechanisms
- Political–bureaucratic incentives and constraints
- Fiscal capacity and climate finance alignment
- Leadership, authority, and statutory power
- Accountability, transparency, and monitoring systems

Secondary sub-codes captured variations in implementation capacity across sectors and governance levels. Coding consistency was ensured through repeated cross-checks and memo-writing, strengthening analytical reliability.

C. Extended Tables and Figures

Supplemental tables and figures provide detailed empirical evidence that could not be fully accommodated in the main text. These materials include:
- Expanded descriptive statistics from institutional interviews
- Disaggregated governance and coordination indicators
- Extended comparative matrices across countries and sectors
- Additional robustness checks and sensitivity analyses

Figures also include process diagrams illustrating institutional workflows, coordination bottlenecks, and budgetary flows within Nigeria's climate governance architecture. Together, these materials reinforce the empirical claims advanced in the discussion and conclusion sections.

D. NCCC Statutory Instruments and Organograms

This section compiles key statutory and institutional documents related to the National Council on Climate Change (NCCC), including:
- Relevant provisions of the Climate Change Act (2021)
- Subsidiary regulations and policy directives
- Official organisational charts and reporting lines
- Mandate allocations across departments and committees

These materials are used to assess the formal authority of the NCCC relative to its de facto influence within Nigeria's public finance and planning systems. The organograms enable comparison between statutory design and operational reality, highlighting sources of coordination failure and institutional underperformance.

E. Additional Comparative Case Notes

Supplemental comparative notes provide extended qualitative insights from selected international cases referenced in the main text, including Bangladesh, Kenya, South Africa, Germany, and Sweden. These notes focus on:
- Institutional design choices and coordination instruments
- Legal and fiscal integration of climate policy
- Subnational implementation arrangements
- Political economy factors shaping reform outcomes

The comparative material supports theory-building by illustrating how different governance configurations condition climate policy effectiveness, particularly in Global South contexts with fragmented institutional landscapes.

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Disclosure Statement

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Endnotes

1. The term *institutional fragmentation* is used to denote a governance condition in which multiple public agencies possess overlapping or weakly differentiated mandates without effective coordination or hierarchical authority, resulting in policy incoherence and implementation inefficiencies.
2. References to *environmental policy integration (EPI)* follow the mainstream definition in the literature, emphasising the systematic incorporation of environmental and climate objectives into sectoral policy domains, budgetary processes, and administrative routines, rather than stand-alone environmental programming.
3. Interview data were anonymised to protect participants' identities, particularly where respondents held sensitive policy or budgetary positions. Institutional affiliations are therefore reported at an aggregate level.
4. While the Climate Change Act (2021) designates the National Council on Climate Change (NCCC) as Nigeria's central coordinating authority for climate action, this study distinguishes between *de jure* statutory authority and *de facto* operational influence within fiscal and planning systems.
5. Budgetary references in the analysis draw on publicly available federal appropriation acts and medium-term expenditure frameworks, supplemented by interview-based institutional accounts of allocation and execution processes.
6. The Alau Dam collapse is used as an illustrative case of climate–disaster governance failure rather than as a hydrological or engineering assessment; technical causes are therefore discussed only insofar as they intersect with institutional coordination and risk communication.
7. Comparative case references are analytically selective and theory-driven, intended to illuminate governance mechanisms relevant to Nigeria's context rather than to provide exhaustive country case studies.
8. Citations to international organisations and policy reports are used to contextualise institutional practices and governance trends; peer-reviewed academic sources form the primary evidentiary basis for analytical claims.
9. Where stakeholder perspectives diverged, the analysis prioritised triangulation across interviews, documentary evidence, and secondary literature to minimise interpretive bias.

Any remaining factual errors or interpretive limitations are the sole responsibility of the author.

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