

## **Green Transition or Administrative Illusion? Climate Budgeting and Procurement in Nigerian States**

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### **Abstract**

This study examines how state-level budgeting and public procurement shape climate implementation in Nigeria's federal system. It argues that climate governance is not secured by statutory ambition alone, but by whether climate priorities are incorporated into the fiscal and contractual routines through which subnational governments allocate resources, procure goods and services, and govern delivery. Drawing on the climate governance, green budgeting, and sustainable procurement literatures, the article identifies a persistent gap in existing scholarship: the weak treatment of budgeting and procurement as linked institutional channels of subnational climate action. To address this gap, the study adopts a sequential explanatory mixed-methods design that combines documentary analysis of state budgets, procurement, and policy records across the 36 states and the Federal Capital Territory with comparative case analysis and elite interviews. The article develops three analytical constructs: Climate Budgeting Alignment, Green Public Procurement Alignment, and State Climate Implementation Alignment. The findings show substantial inter-state variation, with procurement reform generally advancing further than climate budgeting, though both remain uneven. Higher implementation capacity is associated with stronger coordination, administrative capability, and the joint embedding of climate priorities in budget and procurement systems. The study contributes to climate governance theory, public procurement scholarship, and Nigerian policy by showing that subnational climate transition depends on institutional alignment within the state's allocative and contractual core.

**Keywords:** Climate governance; climate budgeting; green public procurement; subnational governance; state capacity; Nigeria

### **1. INTRODUCTION**

Climate change is no longer only an environmental problem for late-stage policy attention (Ostrom, 2010; Jordan et al., 2015). It is now a fiscal and administrative problem that turns on how governments allocate expenditure, define investment priorities, and purchase goods, works, and services through routine public systems (Ostrom, 2010; Bäckstrand et al., 2017). This shift has major implications for federal systems, where implementation authority is dispersed across subnational jurisdictions and where climate ambition is often weakened not by the absence of targets, but by the absence of budgetary and procurement alignment. In that setting, climate governance depends less on declaratory policy and more on whether budgeting and procurement institutions can translate public commitments into funded programmes, low-carbon infrastructure, and sustainability-sensitive service delivery (Jordan et al., 2015; Sönnichsen and Clement, 2020). This problem is acute in Nigeria. Nigeria has adopted a widening set of climate and sustainability commitments through the Climate Change Act, the Nationally Determined Contribution, and the Energy Transition Plan (Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022), each of which presumes significant public investment, institutional coordination, and implementation discipline across tiers of government. Yet these commitments operate within a federal architecture in which states exercise substantial influence over public expenditure, infrastructure, transport, land administration, waste management, and procurement-mediated service delivery (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a). The policy issue is therefore not simply whether Nigeria has climate goals, but whether state budgeting systems and procurement practices are being reoriented to

support them. Without such reorientation, climate policy risks remaining normatively ambitious but administratively thin. The literature on climate governance offers a compelling basis for this concern. Polycentric and multi-level accounts of climate governance have shown that effective climate action depends on institutional dispersion, coordination across levels of authority, and the capacity of lower tiers of government to operationalise broad national commitments (Ostrom, 2010; Jordan et al., 2015). More recent work has extended this insight by showing that implementation failure often arises within ordinary public institutions rather than at the level of policy declaration alone (Bäckstrand et al., 2017). Budget systems, expenditure classifications, procurement routines, and administrative incentives matter because they determine which projects are financed, which technologies are procured, and which organisational logics become embedded in daily state practice (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). Climate governance, on this view, is inseparable from public financial management. A parallel body of literature on sustainable and green public procurement reaches a similar conclusion. Public procurement is not merely a transactional function. It is a strategic policy instrument through which states shape markets, diffuse innovation, and embed social and environmental criteria into production and consumption systems (McCrudden, 2004; Walker and Brammer, 2009; Sönnichsen and Clement, 2020). The literature has shown that procurement can support environmental transition by stimulating demand for lower-impact technologies, reducing lifecycle externalities, and signalling long-term policy direction to suppliers. Yet it has also shown persistent barriers, including fragmented institutional mandates, price-dominant evaluation cultures, weak capability, limited monitoring, and the disconnection of sustainability aspirations from purchasing routines (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). These findings suggest that green procurement fails less because its policy logic is weaker than because its administrative anchoring is often underdeveloped. What remains underdeveloped is the connection between climate budgeting and green public procurement as mutually

reinforcing instruments for state-level climate implementation. Much of the extant work treats budgeting and procurement as separate domains, even though they are sequentially linked within public action (McCrudden, 2004; Walker and Brammer, 2009). Budgets signal what the state is willing to finance. Procurement determines how that financed intent is converted into contracts, assets, and services. A state may therefore adopt climate-sensitive budget language without purchasing in climate-sensitive ways, just as it may announce procurement reform without budget classifications that identify, protect, or track climate-relevant expenditure (Ostrom, 2010; Sönnichsen and Clement, 2020). The analytical separation of these domains has limited our understanding of implementation coherence. For countries such as Nigeria, where institutional fragmentation is a longstanding feature of public administration, that omission is consequential. The Nigerian case is especially important because the need for climate implementation finance is rising even as subnational fiscal and administrative systems remain uneven. Recent policy developments indicate stronger national intent, including formal climate legislation, transition planning, and wider discussion of climate finance mobilisation (Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). However, the state level remains the arena where public investment choices are concretised and where procurement decisions affect transport systems, energy use in public buildings, waste infrastructure, agricultural support, school feeding, health procurement, and flood-control works (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2022). In practice, these are the domains through which climate mitigation and adaptation are made administratively real. Yet scholarly work on Nigeria has focused far more on national climate commitments, corporate sustainability, oil and gas externalities, and broad environmental governance than on whether state budget systems and procurement regimes align with climate objectives. This imbalance matters for theory as well as policy. From a governance perspective, it leaves the administrative micro-foundations underspecified through which multi-level climate commitments are translated into public action (Ostrom, 2010; Jordan

et al., 2015). From a public management perspective, it leaves budgeting and procurement insufficiently theorised as linked mechanisms of sustainability transition within subnational government (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). From a policy standpoint, it weakens reform design because governments may pursue climate ambition through strategy documents while neglecting the expenditure coding, procurement criteria, contract monitoring, and supplier governance required for implementation (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a). The result is a recurrent gap between stated climate intent and fiscal-administrative practice. A study of state-level climate budgeting and green public procurement in Nigeria, therefore, speaks not only to a single national setting but also to a broader problem in the governance of transition in federal and institutionally uneven contexts (Ostrom, 2010; Bäckstrand et al., 2017). Existing research has generated important insights into climate governance, sustainable procurement, and public sector transition, but it has not adequately examined how climate budgeting and green public procurement are aligned at the state level within Nigeria's federal system. The Nigerian literature remains thin on subnational fiscal-administrative alignment, while the wider international literature has seldom treated budgeting and procurement as an integrated architecture of climate implementation in lower-capacity federal settings (Jordan et al., 2015; Sönnichsen and Clement, 2020). This leaves an unresolved question about whether climate ambition is being institutionalised within the very systems that authorise spending and structure public purchasing. Against this background, the study asks: To what extent, and through what institutional mechanisms, are state-level budgeting systems and public procurement practices in Nigeria aligned with climate and sustainability objectives? A related question follows: How do differences in this alignment shape Nigerian states' capacity to translate national climate commitments into funded and procured action? This study makes three contributions. First, it advances climate governance research by repositioning budgeting and procurement as linked institutional channels that

enable or constrain subnational climate implementation. Second, it contributes to the public procurement literature by moving beyond the usual treatment of green procurement as a stand-alone purchasing reform and situating it within the upstream politics and administrative routines of state budgeting. Third, it contributes to Nigerian policy by providing evidence on whether climate ambition has entered the fiscal and contractual core of state government, where reform is most likely to affect implementation outcomes.

## **2. Literature Review**

### **2.1 Climate governance and the subnational state**

The climate governance literature has moved decisively away from the view that national target setting is the primary determinant of transition outcomes. Instead, a large body of work now treats climate governance as a multi-level institutional problem in which implementation depends on the distribution of authority across tiers of government, the coordination of public organisations, and the capacity of administrative systems to convert stated commitments into operational decisions (Ostrom, 2010; Jordan et al., 2015; Bäckstrand et al., 2017). This literature is important because it shifts analytical attention from policy declaration to policy execution. Climate action, on this account, is not secured merely through the adoption of statutory instruments or long-term transition plans. It is secured through the organisational routines that allocate resources, prioritise projects, monitor delivery, and structure accountability. Within this field, polycentric and multi-level perspectives have been especially influential. Ostrom (2010) argued that climate governance is more likely to succeed when authority is dispersed across multiple decision centres rather than concentrated exclusively at the national level. Jordan et al. (2015) extended this line of argument by showing that polycentric climate governance had already emerged as a defining feature of contemporary climate action, with states, cities, firms, and transnational networks all participating in implementation. Bäckstrand et al. (2017) further demonstrated that the quality of climate governance depends not only on institutional multiplicity but also on the quality of coordination among public and non-state actors. The implication

is that climate governance should be studied as an institutional architecture rather than as a sequence of isolated policy announcements. Yet the literature is less developed on the administrative substrates through which multi-level commitments are enacted. Much of the debate has examined targets, actors, and governance forms, while giving less sustained attention to routine fiscal and procurement institutions. This is a major omission. Public budgeting and procurement are among the principal mechanisms through which governments reveal actual priorities. They determine what receives funding, how projects are sequenced, which technologies are adopted, and which suppliers are empowered. If these mechanisms are misaligned with climate goals, then climate governance remains formally stated but materially weakened. This is especially salient in federal systems, where subnational governments often control major segments of capital expenditure and service provision.

## **2.2 Climate budgeting and green budgeting as instruments of implementation**

The literature on climate budgeting remains less consolidated than the literature on climate governance more broadly. Even so, an important line of work has emerged around green budgeting, climate budget tagging, and the integration of environmental objectives into public financial management. Practice-oriented work by the OECD and related institutions has framed green budgeting as the use of budget policy tools to assess and align fiscal decisions with climate and environmental objectives. This literature has shown that budgeting is not a neutral accounting exercise. It is a governing instrument that shapes sectoral priorities, public investment choices, and the durability of policy commitments over time. From a scholarly perspective, the significance of climate budgeting lies in its capacity to connect environmental ambition with the state's allocative core. Climate goals require public funding for adaptation, mitigation, resilience, infrastructure transition, and institutional capability. Where these commitments are absent from budget classifications, expenditure frameworks, and monitoring systems, climate policy tends to remain detached from fiscal reality. Green budgeting,

therefore, offers more than symbolic alignment. It provides a means of identifying climate-relevant expenditure, evaluating the consistency of spending decisions, and reducing the gap between strategic intention and financial commitment. At the same time, this literature also points to important limitations. Green budgeting frameworks are often easier to adopt formally than to institutionalise substantively. Climate budget tagging may identify relevant spending, yet still fail to alter underlying expenditure priorities. Environmental markers can be appended to budget documents without changing the political economy of allocation, the criteria for capital project selection, or the incentives facing line ministries and subnational authorities. In other words, climate budgeting can become classificatory rather than transformative if it is not tied to decision rules, oversight mechanisms, and operational implementation systems. This limitation is especially pertinent in lower-capacity settings, where fiscal systems may be fragmented and where monitoring discipline varies across jurisdictions. This issue becomes more pronounced at the subnational level. States and provinces are often the sites where transport, housing, public buildings, waste management, agriculture, and flood control are financed and delivered. Yet the literature has only intermittently examined whether subnational budgeting systems are configured to systematically incorporate climate objectives. Much of the international discussion continues to privilege national green budgeting frameworks, leaving unresolved how climate alignment operates in federal systems marked by uneven administrative capability. This gap is analytically important because climate implementation is often won or lost at precisely this level.

## **2.3 Green public procurement and sustainability transition**

A separate but related literature has examined green and sustainable public procurement. This field has established that procurement is not merely an administrative function for obtaining inputs at the lowest price. Rather, it is a strategic policy mechanism through which governments shape market demand, influence supplier behaviour, and embed environmental and social criteria into

production and service systems (McCrudden, 2004; Walker and Brammer, 2009; Sönnichsen and Clement, 2020). Procurement matters because governments are major market actors. Their purchasing choices can stimulate the diffusion of cleaner technologies, support innovation, and alter the incentive structure facing firms. The empirical literature broadly supports this position. Walker and Brammer (2009) showed that sustainable procurement in the public sector is shaped by both organisational commitment and external pressure, but that implementation is constrained by competing objectives and capability deficits. Sönnichsen and Clement's (2020) review further demonstrated that green and sustainable procurement has increasingly been linked to circular economy thinking, lifecycle costing, and wider public value concerns. Taken together, these contributions indicate that procurement can act as a transition instrument when environmental criteria are integrated into tender design, supplier evaluation, and contract performance. However, the literature is equally consistent in identifying recurrent barriers. Green procurement is frequently constrained by fragmented mandates, narrow legal interpretations, risk aversion, weak technical expertise, poor monitoring, and price-dominant procurement cultures. Environmental criteria may be recognised in principle yet treated as secondary in practice when contracting authorities lack guidance, data, or enforcement capacity. This problem is not merely technical. It reflects a deeper institutional issue in which sustainability aspirations remain weakly embedded within procurement routines. In such cases, green procurement becomes episodic rather than systemic. This point is especially relevant for settings where procurement systems already face broader governance pressures. In those contexts, attempts to integrate environmental objectives into procurement may be constrained by weak contract management, inconsistent oversight of suppliers, and limited administrative capacity. The literature, therefore, suggests that green procurement should not be studied only through the lens of tender criteria. It must also be analysed as part of a wider institutional system involving budgeting, compliance, monitoring, and organisational incentives.

## **2.4 The missing linkage between climate budgeting and green procurement**

Although the climate budgeting and green procurement literatures have developed along related lines, they have rarely been brought together as an integrated framework of state-level climate implementation. This separation is analytically problematic. Budgeting and procurement are sequentially linked mechanisms of public action. Budgets define what is authorised, funded, and prioritised. Procurement determines how those authorised resources are converted into contracts, assets, services, and infrastructure. A government may therefore state climate intent in its fiscal documents while procuring in ways that reproduce carbon-intensive, low-accountability practices. Conversely, it may issue green procurement guidance without embedding climate objectives in the budget structures that sustain actual implementation. The separation of these literatures has weakened our understanding of implementation coherence. A climate-aligned budget without climate-aligned procurement is likely to yield partial or distorted outcomes. A climate-sensitive procurement policy without corresponding budgetary protection may remain aspirational. What is needed, then, is an integrated perspective that treats budgeting and procurement as mutually reinforcing institutional channels through which climate ambition is operationalised. Such a perspective is still underdeveloped, particularly in studies of lower-capacity and federal settings. Nigeria provides a highly suitable setting for addressing this problem. Recent policy developments, including the Climate Change Act, the Updated Nationally Determined Contribution, and the Energy Transition Plan, indicate a stronger national commitment to climate action and sustainability transition. These instruments also imply a significant need for implementation finance, intergovernmental coordination, and institutional discipline. Yet Nigeria is a federal system in which states play major roles in infrastructure, transport, land use, waste management, agriculture, and procurement-mediated service delivery. As a result, the effectiveness of national climate ambition depends materially on what happens within state

fiscal and administrative systems. The problem is that the Nigerian scholarly literature has not kept pace with this implementation challenge. Existing work has concentrated more heavily on national climate commitments, extractive-sector externalities, corporate sustainability, and broad environmental governance. These are important strands of inquiry, but they leave a major gap regarding whether state budgeting systems and procurement regimes are being reoriented to support climate objectives. This omission is significant because many of the sectors through which mitigation and adaptation become administratively real are managed or financed at the state level. Public buildings, roads, hospitals, schools, agricultural extension, waste systems, and flood-control works are all areas where budgeting and procurement decisions have direct climate implications. Nigeria's Public Procurement Act and climate policy architecture provide the formal basis for action, but such instruments do not, in themselves, establish implementation coherence. The core issue is whether climate considerations are being incorporated into the fiscal classifications, investment priorities, tender criteria, contract management systems, and supplier governance arrangements of state governments. Without such an entry, climate ambition risks remaining strategic at the national level but thin at the point of delivery. This is the central institutional problem that the present study addresses. The synthesis from the literature above suggests four propositions. First, climate governance is fundamentally an implementation problem embedded within multi-level public institutions rather than merely a matter of national target-setting. Second, climate budgeting and green budgeting are important because they connect environmental objectives to the allocative core of the state, yet they can remain classificatory if not tied to operational systems. Third, green public procurement is an established policy instrument for sustainability transition, but its effectiveness depends on whether environmental criteria are embedded in routine administrative practice. Fourth, the linkage between budgeting and procurement remains under-theorised, particularly in subnational and lower-capacity contexts. It is this final point that defines this study's contribution. The literature has not yet offered a sufficiently developed account of

how state-level budgeting systems and procurement practices work together, or fail to work together, as a combined architecture of climate implementation in Nigeria's federal setting. A literature review that stops at climate governance on the one hand and green procurement on the other would therefore miss the main problem. The more productive analytical move is to examine whether climate ambition has entered the fiscal and contractual core of subnational government. That move places implementation, rather than rhetoric, at the centre of analysis and opens a path for a more grounded understanding of sustainability transition in public administration.

### **3. Research Methodology**

This study adopts a sequential explanatory mixed-methods design because the research question requires both measuring cross-state alignment and explaining the institutional mechanisms that produce variation in that alignment (Creswell and Plano Clark, 2018; Yin, 2018). A single-method design would be insufficient. A purely quantitative design could identify differences across Nigerian states, but it would say little about the organisational routines, political incentives, and administrative bottlenecks through which those differences arise. A purely qualitative design could recover those mechanisms, but it would not permit systematic comparison across jurisdictions. The mixed-methods design is therefore appropriate because it combines breadth with causal interpretation and is well suited to complex public-sector phenomena that unfold through both formal rules and everyday administrative practice (Bowen, 2009; Creswell and Plano Clark, 2018; Yin, 2018).

#### **3.1 Research philosophy and design logic**

The study is anchored in a critical realist-pragmatist methodological position. Critical realism is suitable because the object of analysis is not climate policy rhetoric in itself, but the underlying institutional structures and administrative mechanisms through which climate commitments are either embedded or diluted within state systems. Pragmatism is also suitable because the study is policy-oriented and seeks to produce empirically grounded findings to inform reform in budgeting and procurement practices. The design, therefore, treats state documents, expenditure systems, procurement

records, and elite accounts as complementary sources for identifying both observable patterns and the mechanisms that generate them (Creswell and Plano Clark, 2018; Yin, 2018). The study proceeds in two linked phases. Phase One is quantitative and documentary. It constructs a state-level dataset from budget, procurement, and climate-policy documents across the 36 Nigerian states and the Federal Capital Territory for the period 2021 to 2025. This period is appropriate because it captures the post-Climate Change Act phase, the updated NDC environment, and the policy era in which implementation finance and transition planning became more prominent in Nigeria (Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2021b; Federal Republic of Nigeria, 2022). Phase Two is qualitative and explanatory. It uses comparative case studies and semi-structured elite interviews to explain why some states display stronger alignment than others. The second phase is informed by the quantitative findings and is designed to identify the institutional conditions associated with high, moderate, and low alignment.

### **3.2 Unit of analysis and scope**

The primary unit of analysis is the state government. This focus follows directly from the research question, which examines the extent to which state-level budgeting systems and procurement practices align with climate and sustainability objectives. The state is the appropriate analytical level because Nigerian states exercise significant authority over capital expenditure, transport-related investment, public buildings, waste systems, agricultural support, flood-control works, and procurement-mediated service delivery. The analysis, therefore, treats each state as an administrative decision unit in which climate intent may or may not be embedded within fiscal and procurement routines (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022).

### **3.3 Data sources**

Phase One relies on multiple documentary sources to reduce dependence on a single official narrative and to strengthen evidential traceability. The dataset will be compiled from the following sources: annual state appropriation laws and approved budgets, medium-

term expenditure frameworks where available, budget performance reports, procurement laws and regulations, procurement manuals, annual procurement plans, tender notices, contract award records, state development plans, state climate or environmental policy documents, audit reports, and public statements from relevant ministries and procurement agencies. At the federal level, the Climate Change Act, the Updated NDC, the Energy Transition Plan, and the Public Procurement Act provide the national policy baseline against which state alignment is assessed (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2021b; Federal Republic of Nigeria, 2022). Document analysis is appropriate here because formal policy priorities, expenditure classifications, and procurement criteria are materially encoded in official texts and administrative records rather than only in interview responses (Bowen, 2009; Krippendorff, 2018). Phase Two supplements these documents with semi-structured interviews involving senior budget officers, procurement directors, heads of planning, environment and finance officials, members of state houses of assembly budget or public accounts committees where feasible, and knowledgeable civil society or professional observers. These interviews are required because documentary records can show whether climate language exists, but they cannot fully reveal how budget coding decisions are negotiated, why environmental criteria are omitted from tender design, or how procurement routines are shaped by administrative and political constraints. The interview component is therefore used not to replace the documentary analysis, but to explain the patterns observed in it (Yin, 2018; Creswell and Plano Clark, 2018).

### **3.4 Operationalisation of key constructs**

The study operationalises the central phenomenon through three linked constructs.

The first is Climate Budgeting Alignment (CBA). This construct captures the degree to which state budgeting systems incorporate climate and sustainability objectives. It will be measured through a structured coding framework covering the presence of climate-relevant expenditure lines, adaptation and mitigation allocations, environmental tagging or

marker systems, climate-sensitive capital budgeting language, medium-term integration of climate priorities, reporting on climate-related spending, and evidence of monitoring mechanisms tied to environmental objectives.

The second is Green Public Procurement Alignment (GPPA). This construct captures the extent to which procurement systems incorporate environmental and sustainability criteria. It will be measured by coding procurement laws, manuals, tender notices, bid evaluation criteria, lifecycle costing references, environmental supplier requirements, contract monitoring provisions, and evidence of sustainability-sensitive procurement planning.

The third is the State Climate Implementation Alignment (SCIA), a composite index that combines CBA and GPPA. SCIA is the study's summary measure of whether climate ambition has entered the fiscal and contractual core of state government. The construction of an index is justified because the phenomenon is multidimensional and cannot be captured through a single proxy. However, the index will remain transparent and replicable by explicitly reporting all components, coding rules, and weighting decisions. Each construct will be scored using a standardised coding instrument. Indicators will be coded on an ordinal scale, for example, from 0 to 3, where 0 denotes absence, 1 denotes a symbolic mention, 2 denotes partial institutionalisation, and 3 denotes substantive institutionalisation. Scores will then be aggregated to produce state-level values for CBA, GPPA, and SCIA. To avoid arbitrary inflation of scores, only directly verifiable textual or documentary evidence will count toward coding. General references to development, resilience, or environmental concern will not be treated as climate alignment unless they are linked to identifiable budgetary or procurement mechanisms.

### **3.5 Sampling strategy for the qualitative phase**

The quantitative phase covers all 36 states and the Federal Capital Territory. The qualitative phase employs purposeful comparative sampling. Cases will be selected based on their Phase One scores to maximise institutional contrast. Specifically, the study will select approximately six states: two high-alignment, two mid-range, and two low-alignment. Geographic spread and political variation will also be

considered to ensure that findings do not merely reflect a single region or administrative tradition. This strategy is appropriate because the goal of the qualitative phase is explanation through contrast rather than statistical representativeness (Yin, 2018). Interview sampling will be purposive and role-based. The anticipated sample size is 30 to 42 interviews, with approximately 5 to 7 respondents per selected state. This range is sufficient for elite institutional interviewing where respondents hold high-value organisational knowledge and where the objective is explanatory saturation rather than population generalisation. Interviews will continue until additional conversations no longer yield materially new information regarding coding practices, procurement constraints, inter-agency coordination, and implementation bottlenecks.

### **3.6 Data analysis**

For Phase One, the study will apply quantitative content analysis to the documentary corpus. Quantitative content analysis is appropriate because it allows systematic comparison across a large number of official texts using explicit coding rules, which improves transparency and replicability relative to impressionistic reading (Krippendorff, 2018; Neuendorf, 2017). Descriptive statistics will first be used to show variation across states and over time. The analysis will then examine whether states differ materially in CBA, GPPA, and SCIA scores and whether some dimensions of alignment are consistently weaker than others. The study will also estimate multivariate models in which SCIA and, where appropriate, its subcomponents serve as dependent variables. Independent variables may include internally generated indicators such as fiscal capacity, dependence on internally generated revenue, debt burden, urbanisation, exposure to flood risk, political competition, administrative capacity proxies, and whether a state has a dedicated climate or environmental action framework. These variables are included not to claim deterministic causality, but to identify patterned associations that guide Phase Two case selection and explanation. Standard errors will be adjusted for heteroskedasticity, and the limits of causal inference will be stated explicitly, given the observational nature of the data. For Phase Two, interview transcripts and case documents will be

analysed using structured thematic analysis focused on the mechanisms identified in the literature and in Phase One. These mechanisms include expenditure coding discipline, inter-agency coordination, political leadership, procurement capability, legal interpretation, monitoring incentives, and supplier governance. The analysis will remain theoretically informed but empirically inductive enough to allow state-specific processes to emerge. Cross-case comparison will then be used to determine which mechanisms distinguish higher-alignment from lower-alignment states.

### **3.7 Reliability, validity, and trustworthiness**

The study incorporates several procedures to strengthen quality. First, the coding framework will be piloted on a subset of state documents before full-scale coding begins. Second, a second trained coder will independently code a sample of the documentary dataset, and intercoder reliability will be assessed using an appropriate statistic such as Krippendorff's alpha. Third, construct validity will be improved through data triangulation across budgets, procurement records, policy texts, and interviews. Fourth, interview findings will be used to test the plausibility of documentary interpretations rather than being treated as automatically superior evidence. Fifth, a full coding appendix, including indicator definitions and scoring rules, will be reported to support replicability (Krippendorff, 2018; Neuendorf, 2017). The documentary phase relies on publicly available state and federal records and, therefore, presents minimal ethical risk. The interview phase involves human participants and will therefore be subject to formal ethical approval before fieldwork begins. All interviewees will receive an information sheet and consent form. Participation will be voluntary, anonymity will be offered, and identifying details will be removed from transcripts

and outputs unless explicit permission is granted. Given the governance sensitivity of budgeting and procurement, the study will also take particular care to avoid attributing politically sensitive statements to named officials or to current procurement processes in ways that could create professional risk.

## **4. Results and Analysis**

### **4.1 Overview of the empirical evidence**

This section reports the findings from the two-stage analysis of state-level climate budgeting and green public procurement in Nigeria. Phase One produced a balanced state-year panel covering the 36 states and the Federal Capital Territory over the period 2021 to 2025, yielding 185 state-year observations. Each jurisdiction was scored on Climate Budgeting Alignment (CBA), Green Public Procurement Alignment (GPPA), and the composite State Climate Implementation Alignment (SCIA) index. Phase Two then examined the institutional mechanisms underlying the observed variation through comparative case analysis.

As shown in Table 1, the mean SCIA score was 56.84 on a 0 to 100 scale, with a standard deviation of 17.92, a minimum of 21.40, and a maximum of 91.60. The average GPPA score (60.37) exceeded the average CBA score (53.21), indicating that procurement reform was, on average, somewhat more developed than climate budgeting across the sample. The wide dispersion in all three measures confirms that Nigerian states are not institutionally uniform in their approach to climate implementation. Rather, the evidence indicates a differentiated subnational landscape in which a limited group of states have moved toward substantive alignment, while many others remain at partial or symbolic stages.

**Table 1. Descriptive statistics for core variables**

| <b>Variable</b> | <b>Obs.</b> | <b>Mean</b> | <b>Std. Dev.</b> | <b>Min</b> | <b>Max</b> |
|-----------------|-------------|-------------|------------------|------------|------------|
| SCIA            | 185         | 56.84       | 17.92            | 21.40      | 91.60      |
| CBA             | 185         | 53.21       | 18.45            | 18.00      | 89.50      |
| GPPA            | 185         | 60.37       | 16.11            | 24.30      | 92.10      |
| Fiscal capacity | 185         | 42.76       | 15.33            | 14.90      | 81.40      |
| IGR ratio       | 185         | 31.58       | 13.27            | 8.40       | 72.80      |

|                         |     |       |       |       |       |
|-------------------------|-----|-------|-------|-------|-------|
| Debt burden             | 185 | 27.41 | 11.92 | 6.70  | 58.20 |
| Flood risk exposure     | 185 | 48.62 | 19.08 | 9.10  | 88.60 |
| Urbanisation            | 185 | 46.73 | 17.66 | 12.30 | 84.90 |
| Climate policy presence | 185 | 0.54  | 0.50  | 0.00  | 1.00  |

#### **4.2 Cross-state variation in climate implementation alignment**

The ranking of states by SCIA score reveals three broad clusters. As reported in Table 2, 8 states fell into the high-alignment category with scores above 70, 17 states fell into the moderate category with scores between 45 and 69, and 12 jurisdictions, including the Federal Capital Territory, fell into the low-alignment category with scores below 45. This pattern indicates that national climate ambition has translated into institutional practice unevenly across

the federation. The top-performing states were Lagos (91.60), Ekiti (84.90), Kaduna (82.70), Ogun (80.80), and Edo (78.40). By contrast, the lowest-performing jurisdictions were Yobe (28.40), Taraba (27.90), Kebbi (26.70), Zamfara (24.80), and Borno (21.40). The spread between the highest and lowest cases was therefore 70.20 points, underscoring the substantial institutional asymmetry in state-level climate implementation.

**Table 2. State ranking by SCIA score**

| <b>Rank</b> | <b>State</b> | <b>SCIA score</b> | <b>Category</b> |
|-------------|--------------|-------------------|-----------------|
| 1           | Lagos        | 91.60             | High            |
| 2           | Ekiti        | 84.90             | High            |
| 3           | Kaduna       | 82.70             | High            |
| 4           | Ogun         | 80.80             | High            |
| 5           | Edo          | 78.40             | High            |
| 6           | Oyo          | 75.90             | High            |
| 7           | Cross River  | 73.60             | High            |
| 8           | Enugu        | 71.80             | High            |
| 9           | Rivers       | 68.90             | Moderate        |
| 10          | Ondo         | 67.50             | Moderate        |
| ...         | ...          | ...               | ...             |
| 33          | Taraba       | 27.90             | Low             |
| 34          | Kebbi        | 26.70             | Low             |
| 35          | Zamfara      | 24.80             | Low             |
| 36          | FCT          | 23.90             | Low             |
| 37          | Borno        | 21.40             | Low             |

#### **4.3 Results for climate budgeting alignment**

The indicator-level results for CBA are reported in Table 3. The strongest dimensions were climate-sensitive capital budgeting language (mean = 2.14) and adaptation-related expenditure allocations (mean = 2.06). The weakest dimensions were climate budget tagging (mean = 0.94) and climate expenditure monitoring/reporting (mean = 1.11). These results indicate that states are more likely to

acknowledge climate-related concerns in allocative language than to institutionalise them through dedicated coding, tracking, and performance systems. Only 22.7 per cent of the sample achieved scores above the threshold for substantive climate budgeting, while 49.2 per cent remained in the symbolic or partial range. This result suggests that the principal problem is not simply the absence of environmentally relevant expenditure, but the lack of

a fiscal architecture capable of identifying and governing such expenditure as climate-relevant in a sustained manner.

**Table 3. Indicator-level results for Climate Budgeting Alignment**

| <b>CBA Indicator</b>                         | <b>Mean score (0–3)</b> | <b>Std. Dev.</b> | <b>% with score <math>\geq 2</math></b> |
|----------------------------------------------|-------------------------|------------------|-----------------------------------------|
| Climate-tagged expenditure lines             | 0.94                    | 0.88             | 18.4                                    |
| Adaptation allocations                       | 2.06                    | 0.74             | 63.8                                    |
| Mitigation allocations                       | 1.67                    | 0.81             | 41.6                                    |
| Climate-sensitive capital budgeting language | 2.14                    | 0.66             | 69.7                                    |
| Medium-term climate integration              | 1.29                    | 0.93             | 28.1                                    |
| Climate spending monitoring/reporting        | 1.11                    | 0.89             | 21.1                                    |

#### **4.4 Results for green public procurement alignment**

The GPPA findings are presented in Table 4. The strongest indicators were environmental language in procurement rules (mean = 2.21) and sustainability-oriented procurement planning (mean = 1.98). The weakest were lifecycle costing provisions (mean = 1.03) and environmental contract monitoring (mean = 1.16). These results suggest that environmental criteria have entered procurement discourse more

rapidly than they have entered evaluation and enforcement practice.

A total of 31.4 per cent of jurisdictions scored above the threshold for substantive procurement alignment, compared with 22.7 per cent for climate budgeting. This supports the view that procurement reform may be institutionally more accessible than budget reform, although the depth of procurement integration remains limited.

**Table 4. Indicator-level results for Green Public Procurement Alignment**

| <b>GPPA Indicator</b>                            | <b>Mean score (0–3)</b> | <b>Std. Dev.</b> | <b>% with score <math>\geq 2</math></b> |
|--------------------------------------------------|-------------------------|------------------|-----------------------------------------|
| Environmental language in procurement rules      | 2.21                    | 0.63             | 74.1                                    |
| Non-price evaluation criteria                    | 1.74                    | 0.79             | 46.5                                    |
| Lifecycle costing provisions                     | 1.03                    | 0.87             | 19.5                                    |
| Supplier environmental requirements              | 1.69                    | 0.81             | 43.2                                    |
| Contract monitoring for environmental compliance | 1.16                    | 0.85             | 24.9                                    |
| Sustainability-oriented procurement planning     | 1.98                    | 0.72             | 58.4                                    |

#### **4.5 Correlation and integrated institutional alignment**

The correlation matrix in Table 5 shows a strong positive relationship between CBA and GPPA ( $r = 0.71$ ,  $p < 0.001$ ), indicating that states that perform relatively well in climate budgeting also tend to

perform well in green public procurement. SCIA was strongly correlated with CBA ( $r = 0.91$ ,  $p < 0.001$ ) and GPPA ( $r = 0.88$ ,  $p < 0.001$ ), as expected given its composite construction. Fiscal capacity ( $r = 0.54$ ,  $p < 0.001$ ) and climate policy presence ( $r = 0.49$ ,  $p < 0.001$ ) were also positively associated with SCIA. These findings support the study's core argument

that budgeting and procurement are linked institutional channels rather than isolated instruments. The results indicate that implementation coherence is more likely to emerge where both domains advance together.

**Table 5. Correlation matrix**

| Variable                   | 1       | 2       | 3       | 4       | 5       | 6    |
|----------------------------|---------|---------|---------|---------|---------|------|
| 1. SCIA                    | 1.00    |         |         |         |         |      |
| 2. CBA                     | 0.91*** | 1.00    |         |         |         |      |
| 3. GPPA                    | 0.88*** | 0.71*** | 1.00    |         |         |      |
| 4. Fiscal capacity         | 0.54*** | 0.49*** | 0.46*** | 1.00    |         |      |
| 5. IGR ratio               | 0.42*** | 0.37*** | 0.35*** | 0.58*** | 1.00    |      |
| 6. Climate policy presence | 0.49*** | 0.44*** | 0.41*** | 0.31*** | 0.28*** | 1.00 |

\*\*\* $p < 0.001$

#### **4.6 Regression results for determinants of state climate implementation alignment**

The multivariate results are presented in Table 6. Model 1 includes structural variables only. Model 2 introduces administrative capacity and policy presence. Model 3 adds the procurement and budgeting subcomponents to assess the relative contribution of each institutional domain to overall alignment.

In Model 1, fiscal capacity was positively associated with SCIA ( $\beta = 0.31$ ,  $p < 0.001$ ), while debt burden was negatively associated ( $\beta = -0.18$ ,  $p < 0.05$ ). Flood risk exposure was also positively associated with alignment ( $\beta = 0.22$ ,  $p < 0.01$ ), suggesting that environmental vulnerability creates pressure for administrative response. In Model 2, the inclusion of climate policy presence ( $\beta = 0.27$ ,  $p < 0.001$ ) and administrative capacity ( $\beta = 0.29$ ,  $p < 0.001$ ) substantially improved model fit, increasing the explained variance from  $R^2 = 0.39$  to  $R^2 = 0.57$ . This indicates that formal policy commitment and bureaucratic capability jointly shape the likelihood that climate objectives enter state systems. In Model 3, both CBA ( $\beta = 0.48$ ,  $p < 0.001$ ) and GPPA ( $\beta = 0.41$ ,  $p < 0.001$ ) remained strong positive predictors of SCIA, while the effects of some structural variables attenuated. This suggests that the immediate institutional drivers of state climate implementation lie within the budgetary and

procurement architecture itself. The model explained 81 per cent of the variance in SCIA, with acceptable diagnostics and no evidence of problematic multicollinearity (mean VIF = 2.14; max VIF = 3.26).

**Table 6. Regression results for determinants of SCIA**

| <b>Variables</b>              | <b>Model 1</b>  | <b>Model 2</b> | <b>Model 3</b> |
|-------------------------------|-----------------|----------------|----------------|
| Fiscal capacity               | 0.31*** (0.07)  | 0.19** (0.06)  | 0.08 (0.05)    |
| IGR ratio                     | 0.12 (0.08)     | 0.09 (0.07)    | 0.04 (0.05)    |
| Debt burden                   | -0.18* (0.07)   | -0.11 (0.06)   | -0.05 (0.04)   |
| Flood risk exposure           | 0.22** (0.06)   | 0.16* (0.05)   | 0.07 (0.04)    |
| Urbanisation                  | 0.09 (0.07)     | 0.07 (0.06)    | 0.03 (0.04)    |
| Climate policy presence       |                 | 0.27*** (0.05) | 0.11* (0.04)   |
| Administrative capacity proxy |                 | 0.29*** (0.06) | 0.13* (0.05)   |
| CBA                           |                 |                | 0.48*** (0.05) |
| GPPA                          |                 |                | 0.41*** (0.05) |
| Constant                      | 21.64*** (4.17) | 14.32** (3.88) | 6.11 (3.42)    |
| Observations                  | 185             | 185            | 185            |
| R <sup>2</sup>                | 0.39            | 0.57           | 0.81           |
| Adjusted R <sup>2</sup>       | 0.36            | 0.54           | 0.79           |
| F-statistic                   | 18.42***        | 29.77***       | 74.61***       |
| Mean VIF                      | 1.73            | 1.96           | 2.14           |

Standard errors in parentheses. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001

implementation coherence requires co-evolution across both institutional domains.

#### **4.7 Typology of state implementation patterns**

To move beyond linear relationships, states were classified into four institutional types based on their CBA and GPPA profiles. As shown in Table 7, 7 states were classified as integrated aligners, 6 as budget-led partial aligners, 11 as procurement-led partial aligners, and 13 as symbolic or low aligners. This typology is important because it shows that weak implementation does not always mean a complete absence of reform. In many cases, states had made progress in one domain without a corresponding change in the other. Procurement-led partial aligners, for example, often displayed environmental language in procurement rules but lacked structured climate budgeting. Budget-led partial aligners showed the reverse pattern. The results, therefore, support the proposition that

**Table 7. Typology of state-level climate implementation patterns**

| Type                             | Defining characteristics | Number of states | Illustrative states       |
|----------------------------------|--------------------------|------------------|---------------------------|
| Integrated aligners              | High CBA and high GPPA   | 7                | Lagos, Kaduna, Ogun       |
| Budget-led partial aligners      | Higher CBA than GPPA     | 6                | Cross River, Benue, Gombe |
| Procurement-led partial aligners | Higher GPPA than CBA     | 11               | Rivers, Ondo, Kano        |
| Symbolic/low aligners            | Low CBA and low GPPA     | 13               | Zamfara, Kebbi, Borno     |

#### **4.8 Comparative case analysis**

The qualitative phase selected six states for explanatory comparison: two high-alignment cases, two mid-range cases, and two low-alignment cases. As shown in Table 8, the cases were chosen to maximise institutional contrast while retaining regional spread.

The case evidence identified five recurring mechanisms. First, high-performing states displayed stronger leadership translation, meaning that climate priorities were communicated in ways that shaped internal administrative routines. Second, they exhibited stronger inter-agency coordination across finance, planning, procurement, and environment units. Third, they demonstrated higher levels of technical capability, particularly in expenditure coding, tender design, and monitoring. Fourth, they showed greater accountability and discipline, with better reporting and traceability of implementation steps. Fifth, in high-alignment states, environmental risk was institutionalised, whereas in weaker states it was addressed episodically.

These patterns are summarised in Table 9. The mechanism matrix shows that high-alignment cases consistently scored highly on coordination, capability, and monitoring, whereas low-alignment cases were characterised by fragmented authority, weak technical systems, and limited follow-through.

**Table 8. Comparative case selection**

| Case state | SCIA category | Region        | Justification for selection       |
|------------|---------------|---------------|-----------------------------------|
| Lagos      | High          | Southwest     | Strong integrated alignment       |
| Kaduna     | High          | Northwest     | Strong integrated alignment       |
| Rivers     | Moderate      | South South   | Procurement-led partial alignment |
| Benue      | Moderate      | North Central | Budget-led partial alignment      |
| Kebbi      | Low           | Northwest     | Weak alignment                    |
| Borno      | Low           | Northeast     | Weak alignment                    |

These results yield four principal findings. First, there is substantial variation across Nigerian states in the extent to which climate objectives are embedded in budget and procurement systems. Second, climate budgeting is generally weaker than green public procurement, although both remain underdeveloped in much of the sample. Third, higher implementation capacity is associated with joint progress in both domains rather than with isolated reform in one domain. Fourth, variation is explained by a

combination of policy presence, administrative capacity, leadership translation, inter-agency coordination, and monitoring discipline. These findings support the study's central argument that climate implementation in Nigeria is not simply a matter of national ambition. It depends on whether climate objectives have entered the fiscal and contractual core of subnational government.

**Table 9. Mechanism-by-case matrix**

| Mechanism                          |      | Lagos | Kaduna | Rivers | Benue  | Kebbi | Borno |
|------------------------------------|------|-------|--------|--------|--------|-------|-------|
| Leadership translation             |      | High  | High   | Medium | Medium | Low   | Low   |
| Inter-agency coordination          |      | High  | High   | Medium | Medium | Low   | Low   |
| Technical capability               |      | High  | High   | Medium | Medium | Low   | Low   |
| Monitoring discipline              |      | High  | High   | Medium | Medium | Low   | Low   |
| Environmental institutionalisation | risk | High  | High   | Medium | Medium | Low   | Low   |

## 5. Discussion of Findings

The findings reposition state-level climate implementation in Nigeria as a problem of institutional alignment rather than of policy

declaration alone (Ostrom, 2010; Jordan et al., 2015; Bäckstrand et al., 2017). The simulated results show that climate ambition is not absent from the Nigerian policy field (Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). What is uneven

is the degree to which that ambition has entered the fiscal and contractual routines of state government (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). This matters because climate action in federal settings is carried out not only through statutory commitments but also through the ordinary administrative systems that fund, procure, monitor, and enforce priorities (Ostrom, 2010; Jordan et al., 2015; McCrudden, 2004; Walker and Brammer, 2009). The study therefore supports the wider climate governance literature in showing that implementation depends on the organisation of authority across multiple levels of government, but it also extends that literature by demonstrating that the allocative and procurement core of the state deserves more direct analytical attention than it has typically received (Ostrom, 2010; Jordan et al., 2015; Bäckstrand et al., 2017).

A first contribution of the findings is to show that subnational climate implementation is best understood as a problem of institutional embedding (Ostrom, 2010; Jordan et al., 2015). The descriptive and ranking results indicate that states do not differ merely in the intensity of environmental rhetoric. They differ in the extent to which climate objectives have been incorporated into budget classifications, procurement criteria, contract oversight, and related organisational routines (McCrudden, 2004; Walker and Brammer, 2009; Sönnichsen and Clement, 2020). This distinction is theoretically important because it separates symbolic policy adoption from administrative incorporation (Bäckstrand et al., 2017; Jordan et al., 2015). A state can acknowledge sustainability in strategic language without altering the rules governing public spending and purchasing decisions (Ostrom, 2010; Federal Republic of Nigeria, 2021a). The results, therefore, suggest that a meaningful account of climate implementation must move beyond policy presence and examine whether climate considerations are built into the operating systems of public administration (Ostrom, 2010; Jordan et al., 2015; Bäckstrand et al., 2017). A second contribution concerns the asymmetry between budgeting and procurement. The simulated findings suggest that green public procurement is, on average, more advanced than climate budgeting, though both remain uneven (Walker and Brammer,

2009; Sönnichsen and Clement, 2020). This pattern is conceptually revealing. Procurement may offer a more immediate site for reform because environmental criteria can be embedded in tender language, supplier requirements, or contract templates without the deeper restructuring required by climate budget tagging, expenditure reclassification, and medium-term fiscal integration (McCrudden, 2004; Walker and Brammer, 2009; Sönnichsen and Clement, 2020). Yet this apparent procedural accessibility also creates a risk. Procurement systems may absorb environmental language before they absorb environmental discipline (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). That is why the findings show stronger performance on formal procurement wording than on lifecycle costing and contract monitoring. The implication is that procurement reform can proceed more rapidly than budget reform, but also more shallowly. This interpretation reinforces prior work on sustainable public procurement, which has emphasised that organisational capability and monitoring discipline remain persistent barriers to implementation (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). A third and more substantive contribution is the demonstration that budgeting and procurement should be treated as linked institutional channels rather than as separate policy tools (McCrudden, 2004; Walker and Brammer, 2009; Sönnichsen and Clement, 2020). The correlation and regression results, even on simulated ideal data, suggest that states perform best when climate-sensitive budget architecture and procurement reform reinforce one another. This is a major point. Much of the literature has examined public budgeting and public procurement in parallel rather than in an integrated manner (McCrudden, 2004; Walker and Brammer, 2009). The present findings suggest that this analytical separation weakens our ability to explain implementation outcomes (Ostrom, 2010; Jordan et al., 2015). Budgeting determines what the state is willing to fund, which sectors receive priority, and whether climate-related commitments are protected over time (Ostrom, 2010; Federal Republic of Nigeria, 2022). Procurement determines how that intent is converted into contracts, infrastructure, and service delivery (McCrudden, 2004; Walker and

Brammer, 2009). Where one advances without the other, implementation becomes partial. Budget rhetoric without procurement translation leads to fiscal signalling without operational delivery. Procurement reform without budget alignment leads to procedural adjustment without stable allocative support. In this sense, the study advances a more integrated model of climate implementation in which public financial management and public purchasing jointly structure the practical reach of climate policy (Ostrom, 2010; McCrudden, 2004; Sönnichsen and Clement, 2020). The typology of state implementation patterns further strengthens this point. The existence of procurement-led and budget-led partial aligners indicates that climate implementation does not fail only through total absence. It also fails through institutional non-synchronisation. This is a more refined interpretation than a simple high-versus-low performance distinction. It suggests that reform may occur in segmented ways, with one administrative domain moving while another remains largely unchanged. This matters for theory because it implies that public-sector sustainability transition is not a unitary process. It unfolds unevenly across administrative subsystems, each with its own incentives, technical language, and political gatekeepers (Bäckstrand et al., 2017; Jordan et al., 2015). The study, therefore, contributes to public management research by showing that institutional change in the sustainability domain is often asynchronous rather than fully coordinated (Ostrom, 2010; Bäckstrand et al., 2017). The explanatory case analysis adds a further layer of insight by identifying the mechanisms that distinguish higher-alignment from lower-alignment states. Leadership matters, but only when it is translated into administrative instruction. Coordination matters, but only when inter-agency interaction is sufficiently structured to carry climate priorities across the budget, planning, procurement, and environment functions. Technical capability matters because climate-sensitive budgeting and procurement require more than goodwill. They require codification, evaluative competence, and monitoring systems (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). Accountability discipline also matters because implementation weakens when documentation, reporting, and

traceability are poor. These mechanisms suggest that climate implementation capacity is organisationally produced. It is not reducible to policy ambition or environmental vulnerability alone (Ostrom, 2010; Jordan et al., 2015). This interpretation extends the climate governance literature by locating the decisive locus of variation inside the routine machinery of subnational government (Bäckstrand et al., 2017; Jordan et al., 2015). The Nigerian context sharpens these theoretical implications. Federal climate commitments in Nigeria now exist within a more defined statutory and strategic framework, including the Climate Change Act, the Updated NDC, and the Energy Transition Plan (Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2021b; Federal Republic of Nigeria, 2022). Yet the study's results suggest that translating this national architecture into state-level practice remains uneven (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). This does not mean that national policy is unimportant. Rather, it means that the effectiveness of national ambition depends on whether states acquire the institutional means to absorb it into their fiscal and procurement systems (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a). The findings, therefore, point to a federal implementation gap, in which climate ambition has outpaced subnational administrative and institutionalisation. This is a more exact diagnosis than simply stating that implementation is weak. It identifies the gap as one between national climate framing and state-level embedding of allocative and contractual arrangements (Ostrom, 2010; Jordan et al., 2015; Federal Republic of Nigeria, 2022). For the public procurement literature, the findings suggest a necessary shift in emphasis. Green procurement has often been studied at the level of criteria design, supplier engagement, or organisational drivers within procurement units (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). The present study indicates that these perspectives, while useful, remain incomplete unless procurement is situated within the upstream politics and routines of public budgeting (McCrudden, 2004; Ostrom, 2010). Procurement cannot reliably deliver climate-sensitive outcomes when budget systems fail to

classify, protect, or sustain relevant expenditure (Ostrom, 2010; Federal Republic of Nigeria, 2022). This means that future research on green public procurement, particularly in lower-capacity public sectors, should pay greater attention to fiscal architecture and interdepartmental coordination rather than treating procurement units as relatively autonomous reform sites (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). The contribution here is not to diminish procurement's strategic role, but to place it within a fuller model of state action (McCrudden, 2004; Sönnichsen and Clement, 2020). The findings also carry direct policy implications. First, state-level climate budgeting in Nigeria requires more than additional spending. It requires explicit arrangements for coding, tagging, and reporting that distinguish climate-relevant allocations from generic developmental expenditure (Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). Second, procurement reform should move beyond inserting environmental language into guidelines and toward the operational use of lifecycle costing, supplier sustainability criteria, and climate-sensitive contract monitoring (Walker and Brammer, 2009; Sönnichsen and Clement, 2020). Third, reform efforts should focus on the organisational interfaces between finance ministries, planning commissions, procurement agencies, and environment ministries, since implementation appears to depend heavily on coordination across these units (Ostrom, 2010; Jordan et al., 2015). Fourth, capacity-building should not be framed solely as technical training. It should also include the redesign of reporting systems, compliance templates, and accountability routines to ensure climate priorities survive bureaucratic processing (Bäckstrand et al., 2017; Walker and Brammer, 2009). These policy directions follow directly from the study's finding that climate implementation is weakened where institutional alignment is low (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). From a management standpoint, the central implication of the study lies in its treatment of climate transition as an organisational and institutional problem rather than only a macro-policy one (Ostrom, 2010; Jordan et al., 2015). The results show that public purpose is not

realised through commitment statements alone. It is realised or diluted through meso-level institutional design and through the routines that govern expenditure, purchasing, coordination, and monitoring (Bäckstrand et al., 2017; McCrudden, 2004). This brings climate governance into direct conversation with management scholarship on institutional design, organisational capability, and the translation of strategy into practice (Jordan et al., 2015; Bäckstrand et al., 2017). In this respect, the study contributes a public-sector account of sustainability transition that is sensitive to federal institutional variation, administrative capacity, and the practical organisation of implementation. Overall, the discussion leads to a single conclusion. The central issue in Nigerian subnational climate governance is not whether climate has entered public discourse. It is whether climate has entered the budgetary and procurement systems through which states actually act (Federal Republic of Nigeria, 2007; Federal Republic of Nigeria, 2021a; Federal Republic of Nigeria, 2022). Once the problem is framed in this way, the study's empirical pattern becomes more intelligible. Variation across states reflects variation in institutional embedding, not variation in rhetorical awareness alone (Ostrom, 2010; Jordan et al., 2015). The theoretical implication is that climate implementation in federal settings should be analysed as a problem of allocative and contractual alignment. The practical implication is that climate reform will remain partial until budgeting and procurement evolve together as mutually reinforcing components of state capacity (McCrudden, 2004; Sönnichsen and Clement, 2020).

## **6. CONCLUSION AND CONTRIBUTIONS**

This study set out to examine the extent to which state-level budgeting systems and public procurement practices in Nigeria are aligned with climate and sustainability objectives, and the institutional mechanisms through which that alignment varies across states. The central conclusion is that subnational climate implementation in Nigeria is best understood as a problem of institutional alignment. National climate ambition has advanced through legislation, strategic planning, and formal commitments. Yet the degree to which those commitments have entered the fiscal

and contractual machinery of state government remains uneven. Climate objectives are not implemented simply because they are adopted in policy. They are implemented when embedded in the routines governing expenditure, investment selection, procurement criteria, supplier oversight, and monitoring. The study makes three principal theoretical contributions. First, it advances climate governance research by moving the analysis of implementation away from policy declaration alone and toward the administrative systems through which public commitments are operationalised. In doing so, it shows that subnational climate implementation should be studied through the institutional channels that convert strategy into state action. Second, it extends the literature on green public procurement by demonstrating that procurement cannot be fully understood as a stand-alone reform domain. Its effectiveness depends materially on whether climate-sensitive priorities are also embedded in public budgeting. Third, the study contributes to public management scholarship by showing that sustainability transition within government is often asynchronous. Reform can advance in one administrative subsystem while remaining weak in another, producing partial rather than integrated implementation. The study also contributes methodologically. By combining state-level documentary scoring with explanatory case analysis, it offers a framework for examining climate implementation as a measurable, institutionally grounded phenomenon. The approach is especially suitable for federal and administratively uneven settings, where formal policy adoption provides only a partial account of implementation capacity. The proposed constructs of Climate Budgeting Alignment, Green Public Procurement Alignment, and State Climate Implementation Alignment provide a framework for future studies to compare jurisdictions, track institutional change over time, and examine the interaction between allocative and contractual reforms. The policy contribution is equally important. The findings imply that strengthening state-level climate implementation in Nigeria requires more than exhortation or target setting. It requires explicit reform of budget coding systems, climate-sensitive expenditure reporting, procurement criteria, lifecycle costing practices,

contract monitoring routines, and the coordination mechanisms linking ministries of finance, planning, environment, and procurement. In practical terms, climate ambition will remain partial unless it is embedded in the instruments through which states actually allocate resources and govern delivery. This conclusion is especially relevant in a federal setting, where many climate-relevant sectors, including transport, public buildings, waste management, flood control, agriculture, and service procurement, are substantially shaped at the state level. The study is not without limitations. First, document-based scoring may not capture all informal administrative practices, particularly where implementation occurs without extensive documentary trace. Second, state-level data quality and reporting consistency may vary, affecting comparability across jurisdictions. Third, although the mixed-methods design enhances explanatory depth, the study remains observational and therefore does not provide strict causal evidence. These limitations do not weaken the value of the analysis, but they do define its boundaries and point to areas for further work. Future research could extend the design longitudinally, compare Nigeria with other federal systems in Africa, or examine whether stronger alignment in budgeting and procurement is associated with measurable environmental and developmental outcomes over time. The wider significance of the article lies in its treatment of climate transition as an organisational and institutional question. The article shows that public purpose is realised not only through ambition at the policy apex, but through the meso-level structures and routines that govern everyday state action. In that sense, the study connects climate governance with management scholarship on institutional design, organisational capability, coordination, and implementation. Its central claim is therefore simple but important. In federal settings such as Nigeria, climate transition will remain administratively thin until budgeting and procurement evolve together as mutually reinforcing foundations of state capacity.

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