

Greening PFM: Climate Responsive Budgeting Practice at the Sub-National Level in Nigeria

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Abstract:- For Nigeria to achieve Goal 13 of the Sustainable Development Goals (SDGs) by 2030, governments at the sub-national level should take urgent and pragmatic steps towards tackling climate change and its impact through effective public financial management using the budget as a veritable tool. This paper examined the climate-responsiveness of public financial management (PFM) systems and processes through the annual budget at the sub-national level in Nigeria. Using a mixed method, the study assessed the current state of awareness about the importance of PFM in achieving climate-smart policies, governments' attitudes towards entrenching climate change sensitivity in the public expenditure culture. The paper interrogated the extent to which the budget reflects government interest in climate-change mitigation and adaptation policy choices. The findings of the study suggest that although there exists high level of awareness and knowledge about the need for climate sensitive public financial management, only a few States in Nigeria have made substantial efforts towards making their PFM systems and processes green. The paper concludes that government at the sub-national level should promote policy reforms that respond to climate change mitigation, adaptation and build resilience through inclusive PFM systems and processes that integrate environmentally sustainable practices.

Keywords:- Public Financial Management, Climate Change, Budget Tagging and Green PFM.

I. INTRODUCTION

Adaption to the impacts of climate change and the decarbonization of the economy pose significant challenges globally (PEFA, 2020). Climate change has become a grave threat to global development and shared prosperity, with the poor and the most vulnerable being in the most disadvantageous position. In fact, sustainable development is effectively defined through the expression of environmental and climate change implications of the actions and inactions by society and the limit to which efforts are made not to endanger the future generation (IMF, 2021).

Nigeria is beginning to acknowledge the importance of climate change in the design of public policy. Both in terms of awareness creation, sensitization, mitigation, and adaptation efforts, and to some extent, behavioral changes. On the 30th of July 2021, the Nigerian government submitted its first Nationally Determined

Contributions (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) – the Paris Agreement, encapsulating the post-2020 climate actions by countries to reduce greenhouse gas emission and adapt to the impacts of climate change (UNDP, 2021).

Nigeria like many other African countries is vulnerable to climate variability and climate change, which affect millions of people and make adaptation efforts more urgent and demanding, as rapid changes in weather patterns erode the productivity of local water and food systems and generate unintended consequences for sustainable development (AfDB, 2022).

The effects of climate change, including frequent massive floods, are severe in Nigeria. For example, in 2012, a vast area of land covering 30 States out of the 36 States of the federation were overflowed, leading to the death of 400 people and displacing 1.3 million others, resulting to about \$ 17 billion worth of damages. In 2019, 277,555 people were affected by floods and 158 were killed, while in 2020 the number of those affected by floods rose to 2,353,647 resulting in the deaths of 69 people across Nigeria (Leon U, 2021).

As stated in the National Climate Change Policy for Nigeria 2021 – 2030, Nigeria developed its Nationally Determined Contribution (NDC) in 2015 to ratify the Paris Agreement on Climate Change. It intends to reduce its greenhouse gas (GHG) emissions intensity of GDP by 20% by 2030 relative to the emissions intensity of GDP in the base period from 2010 to 2014 on an unconditional basis, as well as a further 45% on a conditional basis consequent upon receiving climate finance, technology transfer, and capacity building from developed countries (FME, 2021).

In November 2021, Nigeria passed the Climate Change Bill, which sets a net-zero emissions target for 2050 in line with its NDC commitments. The bill includes provisions to set five-year carbon budgets under the National Climate Change Action Plan to be ratified by the Federal Executive Council (Okereke and Onuigbo, 2021).

At COP26, the Federal Government of Nigeria committed to net zero emissions by 2060, which is in line with the Climate Change Act (UNDP 2022). This certainly has implication for governments' budget and expenditure pattern both at the national and sub-national level.

Consequently, a critical question to ask remains: What is the evidence of government willpower towards activating climate policy action both at the national and sub-national levels in Nigeria through climate-sensitive public financial management? Finding an answer to this question cannot happen without empirical research.

Achieving international climate goals and successfully transitioning to a net zero-carbon economy requires a comprehensive response that includes the reorientation of fiscal, financial, monetary, and expenditure decisions (UNDP, 2021). Mitigation finance was channelled via a more diverse range of financial instruments whereas adaptation in Nigeria is heavily financed via debt (90%). This raises questions in terms of debt sustainability, especially as the frequency of climate shocks increases.

The Climate Policy Initiative in 2022 stated that climate finance to Nigeria has been largely provided by public actors which accounts for (77%) while the private sector contributes (23%). Public climate finance in Nigeria was primarily committed via Multilateral Development Finance Institutions (DFIs) (55%), followed by Bilateral DFIs (20%), and governments (19%), the majority of which was channelled as debt (Stout, S. and Meattle, C., 2022).

Addressing climate change through budgets requires that national governments adopt mainstreaming tools and approaches, as a wide cross-section of government spending is potentially vulnerable to the impacts of climate change and/or is potentially contributing to greenhouse gas (GHG) emissions (CABRI, 2021a).

Absence of a domestic budgetary climate tagging framework limits a robust assessment of climate finance committed by domestic governments. This is why greening public financial management at the federal, national, and sub-national level in Nigeria should be considered imperative. Green PFM, which has been basically defined as a process that promotes the performance of climate and environmental goals (Battersby et al., 2021), is a concept almost synonymous with green budgeting, it goes beyond budgeting (Gonguet et al., 2021). It analyzes the effects of the budgetary process and fiscal policy on the transition to a more environmentally and climate-friendly economy (O'Sullivan and Joyce, 2021). This involves assessing the environmental impacts of budgetary and fiscal policies and their coherence to meeting national and international climate change commitments (OECD, 2021a).

Therefore, governments can develop public financial systems to support national priorities and sustainable development outcomes, by assessing needs and opportunities; building intergovernmental cohesion and knowledge; improving choices and coordination; designing a pathway that accounts for priorities, capabilities, costs, benefits, and risks; and implementing these pathways with strong, rapid feedback mechanisms. Effective PFM must be complemented by appropriate policy and institutional architecture (UNDP, 2015a).

Climate change expenditures in the public sector can broadly be defined as the spending aimed at funding climate change policy responses such as mitigation, adaptation, and management of climate-related disasters and risks. According to Gagnon-Lebrun, F., and Shardul A. (2006), Climate actions have often fallen into one of two strategies first, mitigation efforts to lower or remove greenhouse gas emissions from the atmosphere, and secondly, adaptation efforts to adjust systems and societies to withstand the impacts of climate change (OECD, 2006).

Intuitively, budgets remain a crucial instrument for achieving climate change action and green transition, given that government policy objectives are usually actualized through the budget process. In this context, greening national budgets is key to climate change and green transition. This is because budgets remain one of the main vehicles through which government policy goals and intentions are conveyed, funded, and achieved. Green PFM essentially supports governments' integrated strategies to combat climate change and ensure that green policies are effective and funded within fiscal constraints (Moretti, D, 2021).

Governments both at the national and subnational levels in Nigeria are well placed to identify opportunities for mitigation and the need for adaptation to climate change. However, the cost of these efforts can have important implications for budgets already constrained by high levels of fiscal deficits. Faced with looming environmental threats, governments are expected to gradually deploy climate-sensitive PFM or green budgeting to align their policies with climate and environmental commitments (OECD, 2021b). Green budgeting involves using budgetary policymaking tools to help achieve climate and environmental goals (IMF, 2021).

These tools are part of the traditional budgetary processes from budget planning and preparation using the Development Plans, Medium – Term Sector Strategies (MTSSs), and the Medium – Term Expenditure Framework (MTEF); the annual budget and the budget execution process especially procurement and extends to accounting and reporting on public finances (CABRI, 2021b).

Identifying and evaluating climate expenditures in the public sector, known as budget tagging, has generated increasing attention from multiple stakeholders, not only to assess the government's climate change policy, but also to monitor fiscal risks associated with increasing and unpredictable climate change impacts (UNDP, 2015b).

Climate responsive budgeting is still a new and emerging area and the commonly used entry point pursued by governments is the integration of climate change into policies, plans or strategies (CABRI, 2021c). It is pertinent to note that the entry points for climate responsive budgeting or 'green PFM' go beyond the scope of the budget cycle to include other important PFM interfaces such as climate informed fiscal decentralization, state-owned enterprises

(IMF, 2021), revenue policy, green loans, and debt swaps (CABRI, IBP, IIED, & UNDP, 2021).

It is against this backdrop that this work seeks to investigate through empirical evidence the extent to which government at different levels in Nigeria prepare climate sensitive budgets. The study also considers government ex-ant as well as ex-post interest and willingness to be climate responsive in the management of public finances.

The study employed a survey approach using both structured questionnaires and key informant interviews to elicit information on existing practices and the willingness of sub-national governments to adopt innovative PFM reform approaches and advance the frontier of green public finance in Nigeria. The study aimed to investigate the climate-responsiveness of public financial management (PFM) systems and processes through the annual budget at the sub-national level in Nigeria. The study assessed the current state of awareness about the importance of PFM in achieving climate smart policies, governments' attitudes towards entrenching climate change sensitivity in the public expenditure culture and interrogated the extent to which the budget reflects government interest in climate-change mitigation and adaptation policy choices.

II. LITERATURE REVIEW

In 2017, the Organization for Economic Co-operation and Development (OECD) in collaboration with the governments of France and Mexico, launched the Paris Collaborative on Green Budgeting (PCGB) at the One Planet Summit. The PCGB develops concrete and practical guidance to help governments at all levels embed their climate and environmental goals within their budget framework. It also identifies research priorities and gaps to advance the analytical and methodological groundwork for green budgeting in addition to supporting peer learning and the exchange of data and best practices (OECD, 2019).

The work of the PCGB serves as a crucial step in achieving the central objective of the Paris Agreement on climate change as well as the Aichi Biodiversity Targets and the United Nations' Sustainable Development Goals – aligning national policy frameworks and financial flows on a pathway towards low greenhouse gas emissions and environmentally sustainable development (OECD, 2021).

In 2019, the Coalition of Finance Ministers for Climate Action was launched to foster collective engagement in a transition toward low-carbon and resilient development. Since its founding, finance ministers from over 60 countries have endorsed a set of six non-binding principles, the Helsinki Principles, which promotes national climate action, especially through fiscal policy and the use of public finance (OECD, 2022). Among these, Principle 4 focuses on “taking climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices” (Coalition of Finance Ministers for Climate Action, 2019). Thus, green budgeting is an important area of work for the coalition, as it directly relates

to Principle 4 of the national climate action (World Bank, 2019).

With respect to broader issues that affect financing adaptation financing, Barr et al. (2010) backed the allocation of adaptation finance in a transparent, efficient, and equitable way to ensure best returns from financing adaptation strategies. They argue that adaptation finance should be allocated based on the climate change impacts experienced in a country, a country's adaptive capacity, and its implementation capacity.

A key challenge to adaptation strategies for developing economies is funding. Although the returns of a successful adaptation are substantial, paucity of financial resources for developing economies may constrain the effective implementation of current and future adaptation measures (UNDP, 2015). Though the flow of financial resources towards adaptation, mostly stems from developed to developing economies (UNFPA, 2009), sources of adaptation finance could vary between individual country's commitment to financing (through the budget), to international sources of financing and private or public institutions.

The budget tagging methodology is more precise in capturing allocation weaknesses in tracking adaptation financing since it effectively flags budget codes that are relevant to adaptation in the government's financial system. This method has been used in the Philippines, Nepal, Indonesia, and Bangladesh (Micale, Tonkonogy, & Mazza, 2018; UNDP, 2015).

Climate Budget coding refers to the process of tagging climate-change related activities within budget items and assigning specific codes to programmes and projects so that climate relevant expenditures can be tracked (OECD, 2012).

As noted by the OECD, countries take an adaptive approach to green budget tagging, permitting the scope and procedures to advance as capacities increase over time. For some countries, the starting point would be to identify expenditures that have an explicit relationship with green objectives, and progress from this point to commence the tagging of revenues and budget lines that impact green objectives negatively (OECD, 2021).

Khan and Roberts (2013) analyzed the rise of adaptation agenda from its unsteady foundation in the 1990s, arguing that three factors are responsible for the shift: (i) an increase in climate disasters in recent years, which sharpened the cognitive frame of climate justice; (ii) no ambitious mitigation, so to mollify developing country sentiments, industrial countries made concrete proposals of climate finance in Copenhagen; and (iii) inclusion of the agenda of Loss and Damage (L&D), adding a new momentum in adaptation policy.

Kaur A. and Chakraborty L. (2020) examined the links between the national plan on climate change expenditure and fiscal stance across sectors in the context of the Union

government in India, against the analytical backdrop of environmental federalism. The study concluded that the sustainability of the link between fiscal stance and climate change depends on integrating budget codes in the classification of budgetary transactions, through a clear road map by the Ministry of Finance.

As opined by Daniel Kim (2022) “While external sources of funding like the Green Climate Fund (GCF) are critical to meeting a nation’s Paris Agreement goals, they are often out of reach without domestic financial systems and processes to absorb such funds and use them productively”. To achieve the proper level of financing for national climate initiatives, countries should first look domestically and identify how public financial management (PFM) systems can be tailored to reflect climate priorities and how fiscal tools could be utilized to spur a net-zero market economy through targeted incentives Neil, B. (2017).

Robust PFM is at the heart of a well-functioning public administration, transforming public resources (collected through taxes and fees) into activities and services and creating funding channels to support fiscal policies tied to national objectives and strategies (e.g., Nationally Determined Contributions).

III. CONCEPTUALIZATION

The concept behind this study is that governments at the sub-national level in Nigeria are still at the early stage of implementing climate responsive fiscal and monetary policies and requires an understanding of the critical entry point.

Integrating PFM into climate action has basic entry points which should be contextualized with unique consideration to individual government circumstances and peculiarities. CABRI 2021 provided the entry for mainstreaming climate change sensitivity into the PFM systems and processes. The entry point for any government ought to be properly sequenced in line with the appetite and prevailing political environment and buy-in amongst key stakeholders. The potential points span all stages of the budget cycle, as illustrated in Figure 1 below.

For each of these entry points, there are more and less complex design options to serve a variety of objectives, from improving awareness raising to improving effectiveness of expenditure, or mobilizing additional funding from internal and external sources. It is based on these entry points that the survey instrument for this study was designed.



Fig 1 Entry Points for Integrating Climate Change into the PFM Cycle
Source: Adopted from CABRI, 2021

IV. METHODOLOGY

This study employed a mixed method research design (Robson and McCartan, 2016) with the combination of key informant interviews, survey data collected through google form and secondary data from government fiscal reports

(2023 annual budgets of the 36 States). A structured questionnaire completed via google form, by both key stakeholders in government PFM implementing agencies and CSOs were combined to arrive at the preliminary discoveries about the evolution of green public financial management and climate budgeting in Nigeria.

A non-probability sampling technique (judgmental sampling) formed the basis of targeted interviews with civil society organizations focusing on climate change issues was also conducted to further strengthen the evidence of awareness among critical stakeholders about climate responsive public financial management.

The paper employed a descriptive analysis using Google form descriptive analysis and Micro-Soft Excel to analyze data from both the survey and fiscal data from budget documents. This preliminary work is expected to spur other further research and empirical study in this area.

V. ANALYSIS AND DISCUSSION OF RESULT

The result of this study is expected to open the conversation around the role of good public financial management as a tool for achieving climate change adaptation and mitigation at the sub-national level in Nigeria.

The map below shows the States in Nigeria whose budgets are defined as green – having clearly identified total planned expenditure on climate change related expenditure using a unique chart of account code (budget tagging).

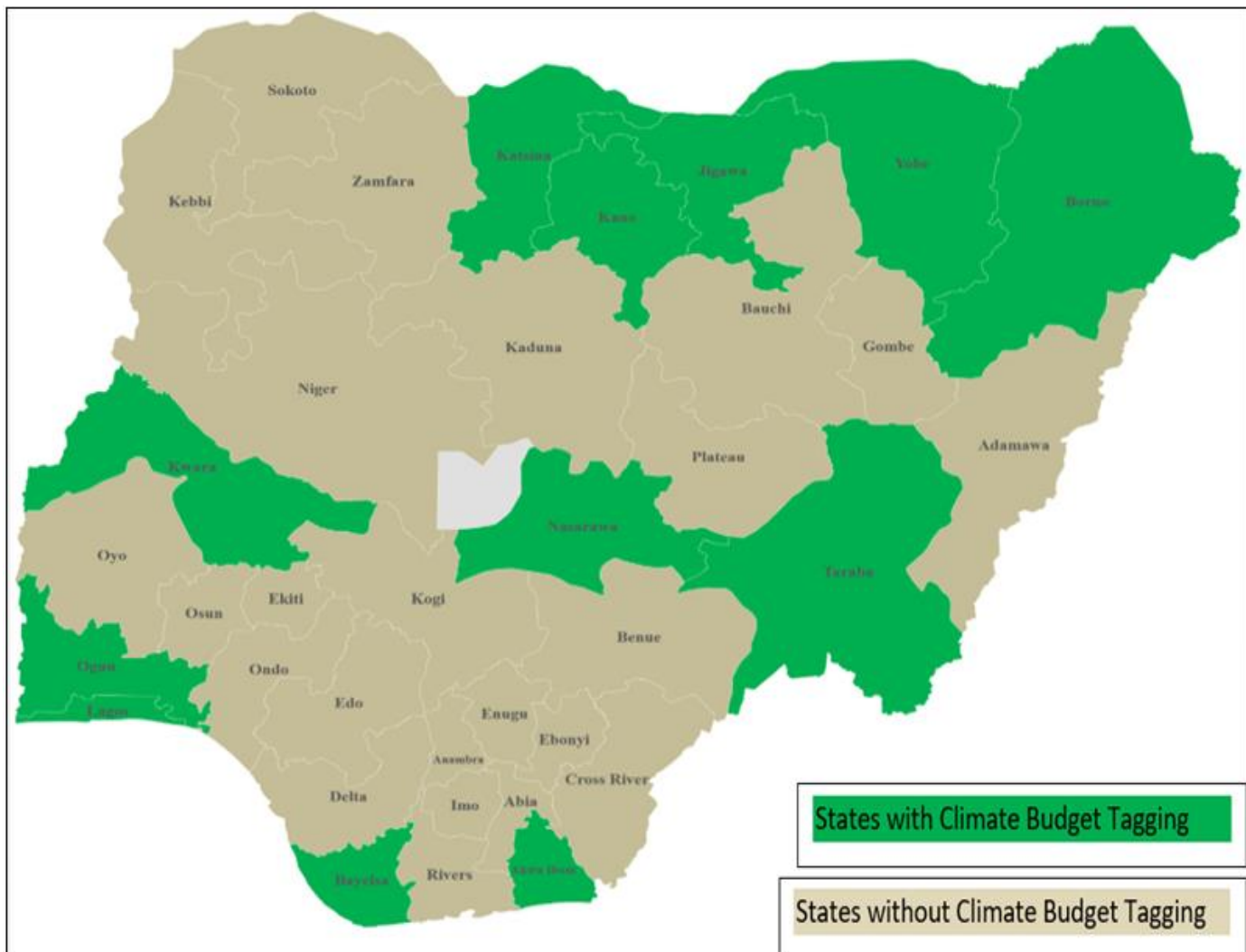


Fig 2 Map of States with Climate Budget Tagging in 2023 Budget

Source: Author’s Computation

The chart below represents the level of climate responsiveness in terms of the size of the budget devoted to climate related expenditure as well as the categorization of State based on whether the annual budget is green i.e., including climate budget tagging and programme segment of the National Chart of Accounts (NCOA).

We observed that 12 States representing 33% of the 36 States are currently implementing a green budget with clear climate budget tagging, using a unique NCOA code to uniquely identify all budgeted expenditures on climate

related expenditure. These twelve States include Katsina, Jigawa, Bayelsa, Nasarawa, Kwara Taraba, Lagos, Borno, Ogun, Kano, Akwa-Ibom, and Yobe State.

Katsina State in the Northwest region of the country had the highest allocation to climate change (10.7%) and is currently implementing a green budget while Zamfara State in the same region had the least allocation (0.1%) to climate change related expenditure in the 2023 fiscal year expenditure plan.

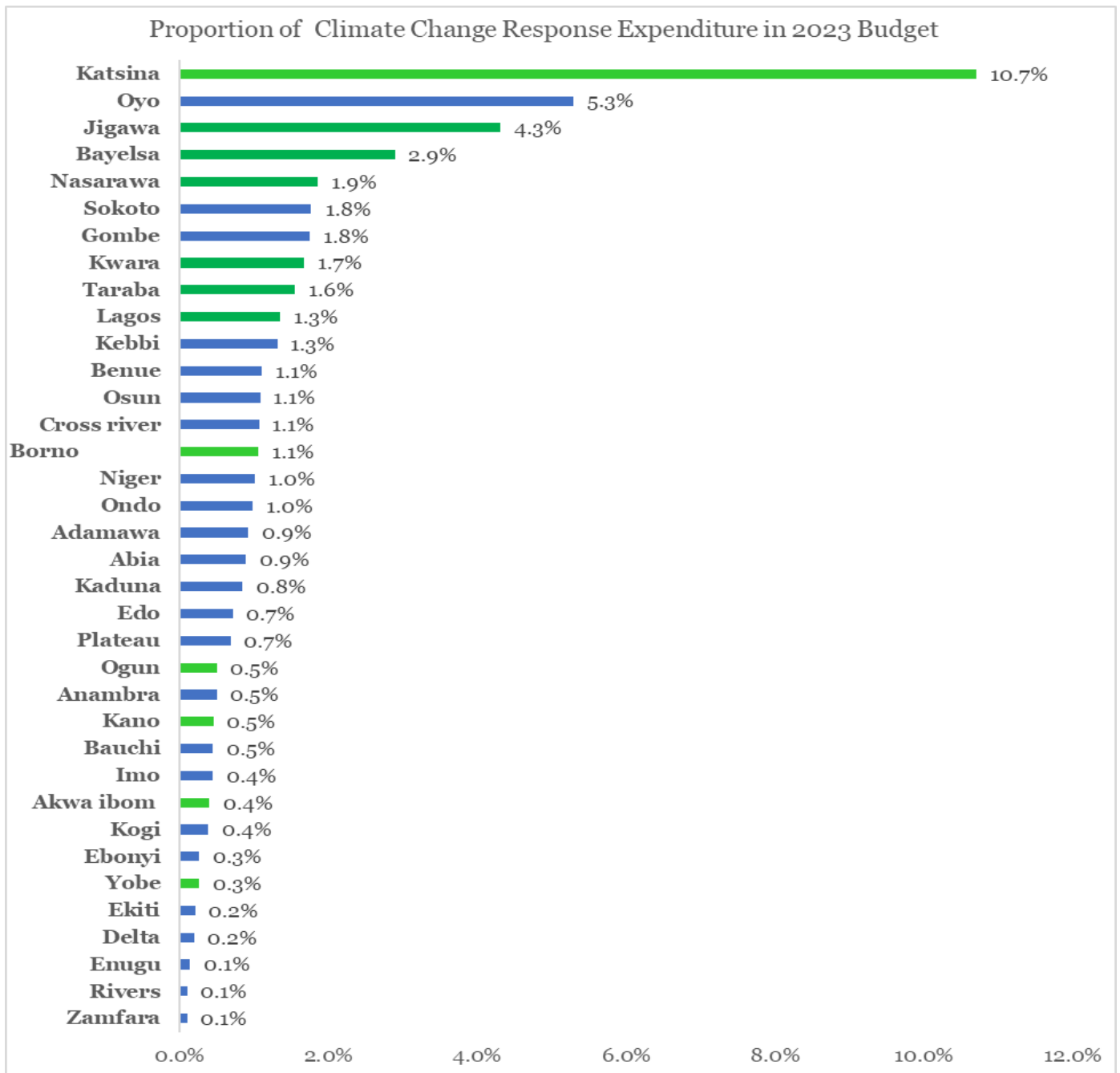


Fig 3 2023 Budget of State Governments and Level of Climate Responsiveness

Source: Author’s Computation Using 2023 Budget of the 36 States

Other States that made high provisions for climate change in 2023 budget include, Oyo State 5.3%, Jigawa State 4.3%, and Bayelsa State 2.9% of total expenditure outlay. Climate change sensitive budget simply refers to the identification of those climate responsive budget items in the National or sub national budget and implementation tracking ways that cater for the interest of a wide range of stakeholders and potential vulnerability (World Bank, 2021).

Following the OECD definitions, expenditure items are marked mitigation if such expenditures contribute to the emissions reduction to tackle climate change, while adaptation expenditures are intended to reduce the vulnerabilities to climate change shocks and build resilience (OECD, 2021).

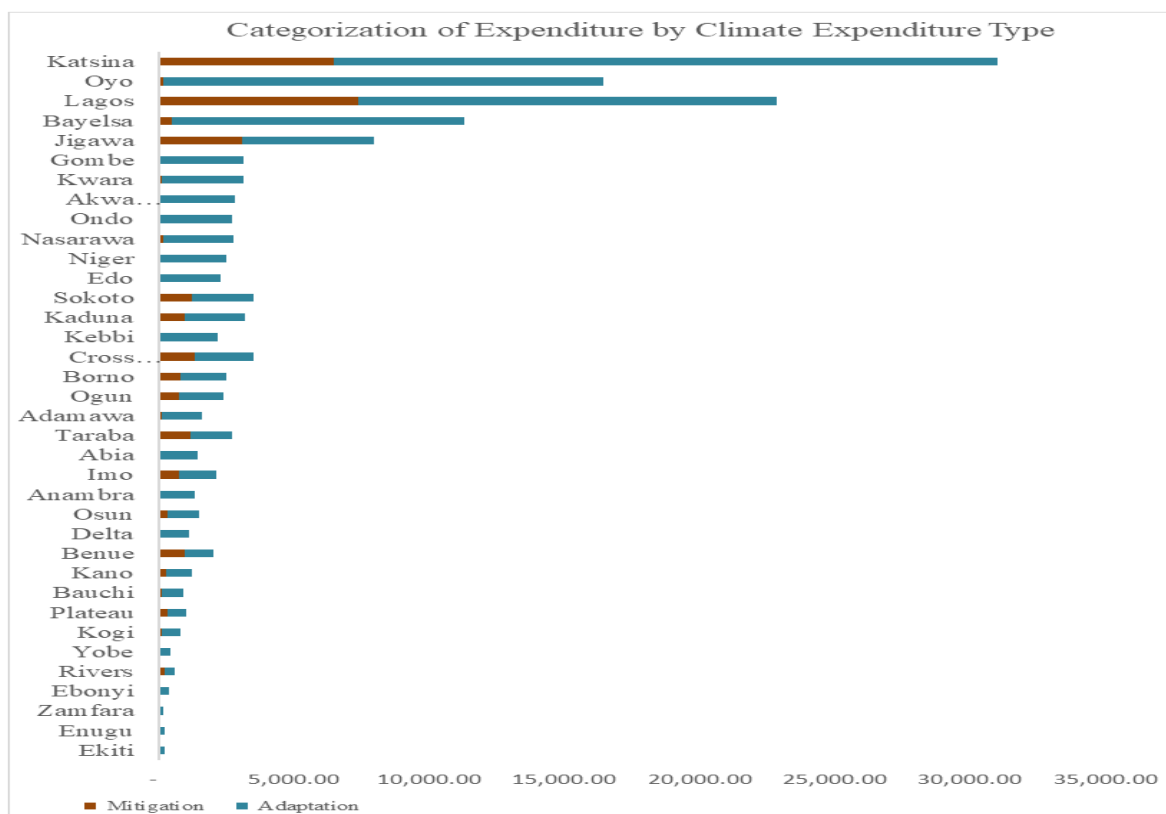


Fig 4 Adaptation and Mitigation Climate Change Responsive Expenditure 2023
Source: Author’s Computation Using 2023 Budget of the 36 States

We observe that adaptation expenditure gulps more of government expenditure than mitigation efforts which currently concentrate on tree planting and efforts geared towards reducing emissions across the 36 States of the federation in 2023. Katsina had the highest allocation on adaptation and mitigation while followed by Lagos State in terms of mitigation efforts.

Table 1 below presents the demographic characteristics of the respondents comprising of government officials (supply-side actors) and Civil Society Members/non-state actors (demand side actors). The total number of respondents used for the study is 343, with 237 of these respondents being government personnel while 106 are non-state actors or CSOs.

Table 1 Selected Socio-demographic Characteristics of Respondents

| Variables and Categories | Frequency | Percentages |
|--|-----------|-------------|
| Respondents by Organization and Position | | |
| Permanent Secretary | 31 | 9% |
| Director, Planning & Budget | 62 | 18% |
| Budget Officers | 41 | 12% |
| Other MDAs Director | 103 | 30% |
| Member of Civil Society Organization | 106 | 31% |
| Total Number of Respondents | 343 | 100% |
| Number of States | 36 | 100% |
| Number of Years in Service | | |
| Above 20 Years | 86 | 25% |
| Above 10 Years | 206 | 60% |
| Below 10 Years | 51 | 15% |
| Knowledge and Awareness of Climate Change | | |
| High | 117 | 34% |
| Average | 199 | 58% |
| Low | 27 | 8% |
| Knowledge of Climate Change Responsive Budgeting and Budget Tagging | | |
| High | 84 | 24% |
| Average | 187 | 55% |
| Low | 72 | 21% |

Source: Author’s Compilation from Field Survey

Amongst the critical stakeholders interviewed from the 36 States in Nigeria, we observed a moderate to high level of awareness about climate change and climate change budgeting with circa 24% of respondents attesting to high knowledge, 55% possessing an average or moderate level of awareness while 21% have relatively low knowledge of climate Change responsive budgeting and budget tagging.

Presented in Table 2 below is the information on existing climate responsive budgeting cum green PFM practice at the sub-national government level in Nigeria. This includes information on whether considerations are

given to climate change sensitivity in the State’s budget or not, existence of legal frameworks with clear policy goals and set targets for climate responsiveness, climate change sensitivity considerations are incorporated during budget preparation, existence of dedicated climate change financing mechanism, and climate or environmental taxation.

These focus areas are based on the introductory guidance and principles published by OECD in 2021 in collaboration with institutional partners working under Helsinki Principle 4 of the Coalition of Finance Ministers for Climate Action (IADB, IMF, UNDP, World Bank).

Table 2 Summary of Findings

| Focused Thematic Area | Number of States | Frequency | Percentage |
|--|------------------|-----------|------------|
| High level of Knowledge about Climate Change Responsive Budgeting | 11 | 105 | 31% |
| Number of State that domesticated climate budget tagging | 12 | 114 | 33% |
| Existence of clear policy goals and targets for Climate Responsiveness | 1 | 9 | 3% |
| Climate change implications are considered during budget preparation | 24 | 229 | 67% |
| Climate Change Adaptation Expenditure is more than Mitigation | 21 | 200 | 58% |
| State’s expenditure on climate change is heavy on mitigation actions | 7 | 67 | 19% |
| Existence of dedicated funding mechanism for climate change expenditure | 1 | 9 | 2.7% |
| State prepares climate-sensitive Medium-Term Expenditure Frameworks (MTEF) | 7 | 68 | 19% |
| State’s Budget Call Circulars provide guideline for climate-responsive budgeting | 3 | 29 | 8% |
| State’s Public procurement and investment are climate change sensitive | 9 | 86 | 25% |
| Existence of State Environmental Taxes e.g (Pollution Tax) | 6 | 57 | 17% |
| State’s Willingness to Adopt Green Budgeting/PFM | 24 | 229 | 67% |

Source: Author’s Compilation from Field Survey

The level of awareness and knowledge about climate change responsive budgeting is still low at the sub-national level in Nigeria with only 31% of the stakeholders surveyed confirmed having high knowledge of climate change responsive budgeting. This justifies why sensitization and awareness have been pointed out to be among the prominent Nigerian government’s strategies towards combating climate change challenges.

Noticeably, in 2023, only 12 States representing 33% of the total 36 States designed budgets described as green with only Lagos State (Lagos Climate Action Plan 2020 – 2025) having a strategy document containing policy goals and targets for Climate Responsiveness. It is possible that there exist climate change mitigation and adaptation strategies in other States, however, these strategies are usually mainstreamed into the mandate of State Ministries of Environment or its equivalent.

The work also considered the composition and categorization of climate expenditure into mitigation and adaptation expenditures and found that most of the States devote more funds towards climate adaptation than climate mitigation efforts. This is in contrast with the findings by some researchers suggesting that more funds are spent on mitigation than adaption efforts (Chukwuemeka, O.O and Daniel, S.U. 2021).

On whether States consider climate change implications during annual budget preparation, it was observed that virtually all the 36 States of the federation

allocate funds for climate change, however, only a few of these State governments are deliberate about using a unique chart of account code to identify and tag climate related expenditures. Also, the extent to which public procurement and investment are conducted with climate change sensitivity is still very low with only 25% of the surveyed group spread across 9 States, confirming the adoption of green public procurement and investment.

It is important to note that most the States do not operationalize contingency planning budget line items or disaster risk preparedness in the annual expenditure plan. Also, only three States’ Budget Call Circulars (Lagos, Akwa – Ibom and Ogun) included guidelines for ensuring climate sensitivity in the 2023 expenditure plan while 5 States (Lagos, Jigawa, Kano, Niger, Yobe, Kwara and Akwa – Ibom) explicitly made commitments for climate sensitivity in their 2023 budgets.

Finally, respondents from six States indicated that their States have started collecting environmental taxes or any climate related taxation as a policy action designed to encourage citizens to adopt more sustainable behaviour as a win-win approach to promoting a clean environment and improving revenue generation for governments at the sub-national level in Nigeria. While other States collect environmental taxes through the Environmental and Waste Management Agencies, no clear policy goal exists for using these taxes to achieve environmental sustainability goals. This is also the case across several countries in Africa as opined by

VI. CONCLUSION AND POLICY RECOMMENDATION

Addressing climate change challenges of mitigation and adaptation in Nigeria have huge financial implications and commitments that government should address through good public financial management processes. Depending on external funds and institutions as the means of tackling climate change mitigation and adaptation problems might not be sustainable in the long run. Therefore, government at the national and sub-national levels should become more deliberate about using domestic fiscal policies and public financial management (PFM) to guarantee fund availability for climate change mitigation, adaptation, and resilience building.

The finding of this paper suggests that although there exists high level of awareness and knowledge about the need for a climate sensitive public financial management, only a few States in Nigeria have made substantial efforts towards making their PFM systems and processes green. Apart from Lagos State, no other State in the country has developed a strategic climate action plan document. Judging from the response from stakeholders across the 36 States, there exist relatively high level of willingness to adopt climate responsive or green PFM, however, many States have not been able to commence the implementation of any components of green PFM. This could be attributed to capacity gap or lack of political especially by States' chief executives.

Greening public financial management at the sub-national level in Nigeria would require logical design of climate sensitive development plans with clear strategy for emission reduction, adaptation and resilience building, systematically linked to an implementation framework that relies on effective resource mobilization and value-for-money guaranteed public investment and green procurement system integrated into the overall PFM system across the four key stages from budget planning, budget preparation, budget execution, and accounting & reporting for revenue and expenditure.

This work reinforces the position of other climate policy experts suggesting that poor governance and stakeholder engagement remain the greatest challenges to climate resilience in Nigeria. Although awareness and understanding of the impacts of climate change are growing among key stakeholders, the government has been unable to galvanize effective collective action for mitigation and resilience (Nwankpa, 2022). The paper concludes that government at the sub-national level should promote policy reforms that respond to climate change mitigation, adaptation and build resilience through the budget and broad PFM system. This could be achieved through the development of a comprehensive fiscal framework, enacting legislation on climate change budget sensitivity, developing clear policy measures to respond to climate change and promoting inclusive budget preparation and policy making engagement with critical stakeholders.

This implies that demand-side actors such as civil society groups and organized private sector should be considered as critical stakeholders in the process of entrenching green PFM. Essentially, to promote government climate change actions on mitigation, adaptation and building resilience through the budget, organized private sector or civil society should work in close collaboration with government during the budget preparation, champion advocacies, and campaign for the development of climate change policy more awareness and sensitization campaigns on Climate Change Mitigation. For Nigeria to achieve Goal 13 of the Sustainable Development Goals (SDGs) by 2030, governments at the sub-national level should take urgent action to tackle climate change and its impact through effective public financial management using the budget as a veritable tool.

This work is expected to spur further empirical research to evaluate the potential impact of climate sensitive PFM in achieving sustainable climate change mitigation and adaptation goals.

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