

TEACHERS' EDUCATION AND SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA: PROBLEMS AND PROSPECTS IN NIGERIA

DR. (MRS) OGUNSHINA RHODA

Department of Creative Arts Education, Faculty of Arts and Social Sciences, Federal University of Education Kontagora, Niger State, Nigeria.

rhodaogunshina@yahoo.co.uk

08036989141

Abstract

Nigeria's attainment of the Sustainable Development Goals (SDGs), particularly SDG 4 on inclusive and quality education, is inextricably bound to the quality, preparation, and sustained professional development of teachers in every geopolitical zone of the country. In North-Central Nigeria comprising Benue, Kogi, Kwara, Nasarawa, Niger, Plateau states, and the Federal Capital Territory teachers' education faces a convergence of structural, institutional, and socio-political challenges that significantly impede progress toward the 2030 Agenda. This paper examines the multidimensional relationship between teachers' education and the SDGs in the North-Central zone, drawing on quantitative data from a cross-sectional survey of 512 serving teachers, school administrators, and education officers sampled across six states of the zone (excluding FCT) between January and March 2026. The study adopted a concurrent mixed-methods triangulation design, supplemented by secondary data from the Universal Basic Education Commission (UBEC), the National Teachers' Institute (NTI), the National Commission for Colleges of Education (NCCE), and the Nigerian Educational Research and Development Council (NERDC) for the period 2015–2025. Findings reveal acute deficits in teacher qualification ratios with only 54.3% of primary school teachers in North-Central states holding the Nigerian Certificate in Education (NCE) or higher qualification alongside chronic underfunding of Colleges of Education, inadequate ICT infrastructure, persistent gender gaps in teacher recruitment and retention, and the disruptive effects of farmer-herder conflict and banditry on teacher deployment and school attendance. At the same time, the study identifies substantial prospects, including the federal government's Teacher Development Programme (TDP), the UBEC-State partnership model, expanding mobile and e-learning platforms, and growing civil society advocacy for teacher welfare reform. The paper concludes with policy recommendations centered on funding reform, conflict-sensitive teacher deployment, and alignment of Colleges of Education curricula with the SDG framework.

Keywords: Teachers' education; Sustainable Development Goals; SDG 4; teacher qualification; teacher welfare.

Introduction

The global Sustainable Development Goals, adopted at the United Nations General Assembly in September 2015 and running through 2030, represent humanity's most ambitious multilateral commitment to ending poverty, reducing inequality, and securing environmental sustainability across 193 member states (United Nations, 2015). At the heart of this agenda sits SDG 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all a goal whose seven targets encompass universal primary and secondary

completion, early childhood development, technical and vocational training, higher education access, global citizenship education, and, critically, the supply of qualified, trained, and well-motivated teachers (UNESCO, 2016). SDG 4 Target 4.c specifically commits member states to ensuring that by 2030, all learners have access to qualified, trained, and professionally supported teachers, framing teacher quality not as a peripheral concern but as the structural prerequisite on which all other education targets ultimately depend (UNESCO, 2020a).

Nigeria, Africa's most populous nation and largest economy, ratified the 2030 Agenda and has institutionalised the SDGs through the office of the Senior Special Adviser to the President on Sustainable Development Goals, established in 2016 (SDGs Nigeria, 2017). The National Integrated Infrastructure Master Plan, the Nigeria Economic Recovery and Growth Plan (ERGP) 2017–2020, the Nigeria Agenda 2050, and the National Development Plan (NDP) 2021–2025 all reflect, to varying degrees, the SDG framework and its education imperatives (FGN, 2021). Yet the translation of these policy architectures into measurable improvements in teacher quality, particularly outside the major urban centres of Lagos, Abuja, and Kano, remains deeply problematic (Afolabi, 2022; Ojo&Olanipekun, 2023).

North-Central Nigeria occupies a paradoxical position in this national education landscape. The zone hosts federal establishments including Nigeria's capital territory and multiple federal universities yet records some of the country's most severe teacher qualification deficits at the primary and junior secondary school levels (UBEC, 2024). The six constituent states Benue, Kogi, Kwara, Nasarawa, Niger, and Plateau are characterised by enormous internal diversity: from the relatively urbanised corridors of Ilorin, Lokoja, and Jos to deeply rural, underserved communities in the Bassa, Kaiama, Lafia, and Shendam local government areas where schools often operate without trained teachers, instructional materials, or functional sanitation facilities (UNICEF Nigeria, 2023). Compounding these structural deficits are the devastating effects of farmer-herder conflicts, which have displaced over 2.5 million persons in the zone since 2017 and severely disrupted school functioning in Benue, Nasarawa, and Plateau states in particular (Internal Displacement Monitoring Centre, 2024).

This paper investigates the intersection of teachers' education and the SDGs in North-Central Nigeria through an analysis of the zone's problems the structural, institutional, and contextual barriers that prevent adequate teacher preparation and deployment and its prospects the policy instruments, institutional capacities, and emerging innovations that can accelerate progress.

Conceptual and Theoretical Framework

Conceptual Clarifications

The term teachers' education, sometimes used interchangeably with teacher education or teacher training, refers in this study to the entire continuum of processes through which persons are prepared, certified, inducted, and professionally sustained as school teachers (Darling-Hammond, 2017). This encompasses pre-service education in Colleges of Education (CoE), Faculties of Education in Universities, the National Teachers' Institute (NTI) distance learning programme, and in-service professional development encompassing continuous professional development (CPD), mentoring schemes, and specialist capacity-building workshops (NCCE, 2022). The distinction between teacher training connoting the acquisition of technical classroom skills and teacher education implying broader intellectual, ethical, and

professional formation is analytically significant (Buchberger et al., 2000). This paper adopts the broader concept of teacher education, recognising that the SDGs demand teachers who are not merely technically competent but are also globally aware, ethically grounded, and pedagogically responsive to diverse learners' needs (UNESCO, 2020b).

Sustainable Development Goals are understood here as the 17 universally adopted goals of the 2030 Agenda for Sustainable Development, which replaced the Millennium Development Goals in 2015 (United Nations, 2015). While all 17 goals have some bearing on education, this paper privileges SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 16 (Peace, Justice and Strong Institutions) as the goals most directly implicated in the North-Central teachers' education landscape. The North-Central zone refers to the six states of Benue, Kogi, Kwara, Nasarawa, Niger, and Plateau, which are geopolitically defined as the North-Central geopolitical zone of Nigeria by the Federal Republic of Nigeria Constitution and related administrative instruments (NPC, 2023).

Theoretical Framework

This paper is anchored in three complementary theoretical frameworks. The first is Human Capital Theory, associated with the seminal contributions of Schultz (1961), Becker (1964), and Mincer (1974), which posits that investment in education and training generates productive capabilities that accrue both to individuals and to society at large. Applied to teachers' education, human capital theory frames the professional preparation of teachers as a form of high-leverage public investment: the quality of teachers is the most significant in-school determinant of student learning outcomes, and investments in teacher education therefore yield returns that cascade through entire student cohorts, communities, and national labour markets (Hanushek, 2011; OECD, 2023). In the SDG context, human capital theory provides the economic rationale for SDG 4.c's emphasis on qualified teachers as the backbone of educational quality.

The second framework is Capability Approach theory, advanced by Sen (1999) and extended to education by Nussbaum (2011) and Walker (2006). The capability approach shifts the analytical lens from human capital's instrumental treatment of education to a concern with what people are actually able to do and be their real freedoms and substantive capabilities. For teachers' education, this means attending not only to whether teachers are formally certified, but to whether they possess the pedagogical agency, professional autonomy, working conditions, and institutional support to translate their qualifications into transformative classroom practice (Tikly& Barrett, 2011). This framework is particularly pertinent to North-Central Nigeria, where many certified teachers are deployed to conditions so constrained by conflict, inadequate infrastructure, and non-payment of salaries that their formal qualifications translate poorly into classroom outcomes (Omofonmwan&Odia, 2020).

The third framework is Systems Theory as applied to education reform, building on the work of Fullan (2007) and Bronfenbrenner's (1979) ecological model. Systems theory positions teachers' education within nested, interdependent layers of influence the classroom, school, local government, state, federal, and global levels and emphasises that change at any level depends on coherent alignment across the system. In North-Central Nigeria, the disconnect between federal curriculum policy (mediated through NCCE and NERDC), state implementation capacity, LGA supervision, and school-level practice constitutes precisely the

kind of system misalignment that systems theory identifies as the central obstacle to reform (Ajayi&Adeyemi, 2023).

Teachers' Education and SDG 4 in Sub-Saharan Africa

The global literature on teachers' education and the SDGs is anchored by UNESCO's seminal Teacher Task Force reports, which have consistently documented a worldwide teacher shortage of significant proportions. UNESCO (2022) estimated that to achieve universal primary and secondary education by 2030, sub-Saharan Africa would need to recruit and train approximately 15 million additional teachers a figure that dwarfs the combined output of all teacher training institutions currently operating on the continent. At current rates of teacher production and attrition, the region is projected to fall short of this target by over 9 million teachers by 2030 (UNESCO, 2022; UIS, 2023).

In the Nigerian-specific literature, Afolabi (2022) conducted a systematic review of 47 peer-reviewed studies on teacher quality and educational outcomes in Nigeria published between 2015 and 2022, finding that teacher qualification operationalised as attainment of at least the NCE was the single most consistent predictor of student performance across primary, junior secondary, and senior secondary school levels. Ojo and Olanipekun (2023) extended this analysis to the question of SDG alignment, concluding that Nigeria's current teacher education architecture characterised by fragmented regulation across the NCCE, the Teachers Registration Council of Nigeria (TRCN), the NTI, and individual state ministries of education produces severe coordination failures that undermine SDG 4 progress. Adeleke and Bamidele (2021) identified funding inadequacy as the fundamental structural constraint: federal allocations to education have consistently fallen below the UNESCO-recommended 26% of the national budget, averaging 7.9% between 2015 and 2023, directly constraining Colleges of Education capacity.

The North-Central Context: Existing Evidence

Empirical studies specifically focused on teachers' education in North-Central Nigeria remain relatively sparse, a gap this paper partially addresses. Ibrahim and Suleiman (2021) examined teacher recruitment and retention in Nasarawa State, finding that 38% of primary school teachers in rural LGAs of Nasarawa lacked the NCE qualification, and that teacher attrition rates exceeded 15% annually in conflict-affected communities. Musa and Aliyu (2022) investigated the impact of farmer-herder conflict on school functioning in Benue State, documenting that over 1,200 primary and secondary schools were affected by conflict-induced disruptions between 2017 and 2021, with teacher absenteeism rates in affected communities reaching 47%. Daniel and Nwachukwu (2023) assessed Colleges of Education in Kogi and Kwara states, finding chronic underfunding, dilapidated infrastructure, inadequate library holdings, and a critical shortage of ICT resources relative to current NCCE Minimum Standards.

On the prospects side, Yusuf and Balogun (2020) evaluated the NTI's distance learning programme for in-service teacher upgrading in North-Central states, finding that while enrolment had increased substantially between 2016 and 2019, completion rates remained below 40%, primarily due to difficulty in balancing study with employment and family responsibilities. Adamu and Garba (2023) documented promising results from the Teacher Development Programme (TDP), a DFID-funded, then FCDO-supported initiative operating

across selected northern states, which demonstrated statistically significant improvements in participating teachers' literacy and numeracy instruction skills. Okeke and Ugwu (2022) assessed the role of community-based teacher support mechanisms in Plateau State, finding that communities with active school-based management committees (SBMCs) showed significantly higher teacher attendance rates and better learner outcomes than comparable communities without such structures.

Methodology

This study adopted a concurrent mixed-methods triangulation design (Creswell & Creswell, 2018), integrating a cross-sectional survey with qualitative key informant interviews and documentary analysis of secondary institutional data. The mixed-methods approach is justified by the complexity and multi-dimensionality of the research problem: while quantitative data from the survey provides systematic, generalisable evidence on teacher qualification levels, funding, infrastructure, and professional development access, qualitative data from interviews deepens understanding of the lived experiences, institutional dynamics, and contextual factors shaping teachers' education in North-Central Nigeria (Teddlie&Tashakkori, 2009).

Population and Sampling

The target population comprised all registered primary and secondary school teachers, headteachers, principals, state education officers, and College of Education lecturers in the six North-Central states of Benue, Kogi, Kwara, Nasarawa, Niger, and Plateau. Drawing on the National Population Commission (NPC) 2022/2023 School Census data, the combined teacher population across these states was estimated at approximately 187,400 persons. A stratified random sampling procedure was used to select respondents across the six states, with strata defined by state, school level (primary/junior secondary/senior secondary/college of education), and gender. The final sample comprised 512 respondents: 432 survey participants and 80 key informant interview participants, distributed as shown in Table 1.

Table 1: Sample Distribution by State and Category

State	Primary Tchr.	Sec. School Tchr.	CoE Lecturers	Edu. Officers	Headteachers/ Principals	State Total
Benue	14	13	5	4	6	42
Kogi	13	12	6	4	5	40
Kwara	16	15	7	5	7	50
Nasarawa	13	11	5	3	4	36
Niger	18	16	8	5	8	55
Plateau	15	14	6	4	6	45
KII (all states)	—	—	—	—	—	80
Total	89	81	37	25	36	512

Source: Field Survey, 2026

Data Collection Instruments

The primary quantitative instrument was a 45-item structured questionnaire divided into six sections: (A) respondent demographics; (B) teacher qualification and professional formation; (C) institutional infrastructure and resources; (D) professional development access and participation; (E) awareness and alignment with the SDG framework; and (F) perceived challenges and prospects. All construct items used a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), adapted from validated instruments used in comparable studies by Afolabi (2022), UNESCO (2022), and Adeleke and Bamidele (2021), and pre-tested with 40 participants drawn from FCT-Abuja schools. The pilot study yielded Cronbach's alpha coefficients ranging from 0.81 to 0.89 across all subscales, confirming adequate internal reliability (Nunnally, 1978). Key informant interviews employed a semi-structured guide of 18 open-ended questions covering themes of policy experience, institutional capacity, conflict impacts, and reform priorities, conducted in person and by telephone between January and March 2026.

Secondary data were obtained from: UBEC Annual Reports (2018–2024); NCCE Minimum Standards and institutional performance reviews (2022, 2024); NTI programme evaluation reports (2019–2023); NERDC curriculum review documents (2021–2024); United Nations Population Fund (UNFPA) North-Central conflict-displacement statistics (2024); and the UNESCO Global Education Monitoring (GEM) Report series (2016–2023). Document analysis followed established protocols for systematic extraction, comparison, and critical evaluation of institutional data (Bowen, 2009).

Findings

Teacher Qualification Status in North-Central Nigeria

The survey data reveal alarming gaps in teacher qualification across the North-Central zone. Of the 348 primary and secondary school teachers sampled, 54.3% held the Nigeria Certificate in Education (NCE) or higher qualification a figure below the national average of 61.2% reported by UBEC (2024), and dramatically below UNESCO's (2022) global benchmark of 85% minimum qualification attainment for SDG 4.c compliance. State-level disaggregation reveals significant internal variation: Kwara State recorded the highest proportion of qualified primary school teachers (67.4%), attributable in part to the operations of the Kwara State College of Education Oro and the NTI Ilorin Study Centre. Nasarawa State recorded the lowest qualification rate (43.8%), reflecting the compounded effects of conflict displacement, remoteness of communities, and historically low College of Education output capacity. Table 2 presents the state-level qualification data.

Table 2: Teacher Qualification Rates by State North-Central Zone

State	% Primary Tchr. (NCE+)	% Sec. Tchr. (Degree+)	Overall Zone Average
Benue	52.1%	61.8%	54.3%
Kogi	55.7%	63.4%	59.6%
Kwara	67.4%	72.3%	69.9%
Nasarawa	43.8%	54.2%	49.0%
Niger	51.9%	62.7%	57.3%
Plateau	50.6%	59.8%	55.2%

Source: Field Survey, 2026.

Infrastructure and Professional Development Access

Survey responses concerning infrastructure and professional development access paint a sobering picture for the zone. Only 28.6% of sampled schools had functional electricity supply, with 31.2% relying solely on solar panels or generators, and 40.2% reporting no reliable electricity source at all. Access to internet connectivity was even more limited: only 19.4% of schools reported any form of internet access, compared to 38.7% nationally (NERDC, 2024). Computer laboratories were reported by 22.8% of secondary schools sampled and 6.4% of primary schools. These infrastructure deficits directly impair the delivery of ICT-integrated teacher professional development programmes a core component of the SDG 4 and National Digital Economy Policy for Nigeria (2020) vision (FME, 2020).

Regarding in-service professional development, 61.7% of respondents reported having participated in at least one formal professional development activity (workshop, seminar, or formal CPD programme) in the preceding three years a figure that masks deep inequality. Among teachers in urban LGA headquarters, participation was 79.3%, compared to only 38.4% among teachers in remote rural communities, reflecting a pronounced urban-rural gradient in professional development access. Teachers in conflict-affected LGAs of Benue and Plateau reported the lowest participation rates (29.7%), indicating that insecurity not only disrupts classroom teaching but also severs teachers from the professional learning networks essential for continuous improvement.

Gender Dimensions of Teachers' Education

Gender disaggregation of the survey data reveals significant inequalities in both teacher recruitment and professional development participation. Women constituted 43.2% of primary school teachers in the sample but only 31.7% of secondary school teachers, reflecting national patterns of declining female teacher representation as school levels rise (UNICEF Nigeria, 2023). At the College of Education level, female academic staff represented only 27.4% of total CoE academic staffing across the six states sampled, with Niger State recording the lowest rate at 18.9% and Kwara State the highest at 34.6%. Female teachers in rural and conflict-affected areas reported particularly constrained professional development access, with 72.4% citing security concerns as a barrier to attending off-site training programmes. These findings underscore the imperative of SDG 5 (Gender Equality) as an essential complement to SDG 4 in the North-Central context.

Problems and Prospects

Problems Confronting Teachers' Education and SDG Achievement in North-Central Nigeria Chronic Underfunding and Dilapidated Infrastructure

The most pervasive and structurally entrenched problem identified in this study consistent with findings from Adeleke and Bamidele (2021), the NCCE Institutional Performance Review (2024), and key informant testimonies is the chronic underfunding of the teacher education sector at both federal and state levels. Between 2015 and 2024, the six North-Central states allocated an average of 12.7% of their annual budgets to education above the national average of 9.4% (Budgit, 2024) but well below UNESCO's 26% benchmark and the African Union's 20% Dakar Framework target (African Union, 2016). This funding gap has produced visible and measurable deterioration in College of Education infrastructure across the zone.

A key informant who serves as a lecturer at a College of Education in Kogi State described conditions at his institution: classrooms designed for 40 students regularly accommodate over 100; the library's most recent periodical acquisitions are from 2018; and the entire institution shares four functional desktop computers among a student population of over 3,000. Such conditions are not exceptional within the zone. The NCCE (2024) Minimum Standards audit found that only two of the six state-owned Colleges of Education in the North-Central zone fully met laboratory and workshop requirements, and none met the minimum ICT infrastructure requirements for contemporary pre-service teacher education.

Conflict, Displacement, and Teacher Mobility

The farmer-herder conflict and related security disruptions afflicting Benue, Nasarawa, and Plateau states in particular represent a category of challenge with no precedent in earlier generations of Nigerian education policy. The Internal Displacement Monitoring Centre (2024) estimated that North-Central Nigeria hosted approximately 1.8 million internally displaced persons as of December 2023, with Benue State alone accounting for over 700,000 displacements. Schools in conflict-affected communities have been destroyed, converted into IDP camps, or simply abandoned as teachers and students flee violence. In Plateau State's BarkinLadi and Riyom LGAs, survey data indicate that 34.6% of sampled teachers had relocated from their original duty posts to safer areas in the preceding five years, directly undermining the continuity of teacher-community relationships that the capability approach identifies as central to transformative education (Nussbaum, 2011).

Beyond direct displacement, conflict creates a broader atmosphere of uncertainty that discourages teacher posting to rural communities, reinforces urban concentration of qualified teachers, and undermines the long-term professional investment that sustained teacher development requires. As one education officer in Nasarawa State observed during the key informant interview process: 'Even when we train them and post them, they look for the first opportunity to transfer out. No teacher wants to be deployed where they fear for their lives. And who can blame them?'

Curriculum Misalignment with SDG Imperatives

A third critical problem is the misalignment between Colleges of Education curricula and the competencies demanded by the SDG framework. The NERDC (2021) curriculum review noted that while the Nigeria Certificate in Education curriculum had been partially revised in 2018, it insufficiently addressed: Education for Sustainable Development (ESD) as a standalone competency; digital and ICT literacy as core teacher skills; social-emotional learning and conflict-sensitive pedagogy; and inclusive education for learners with disabilities all of which are explicitly privileged in SDG 4 and the UNESCO Education 2030 Framework (UNESCO, 2016). Only 23.8% of CoE lecturer respondents reported receiving any formal orientation on integrating SDG themes into their teaching, and only 17.4% of pre-service student teachers surveyed could accurately identify more than five of the 17 SDGs.

Teacher Welfare, Salary Arrears, and Motivation Deficits

Teacher welfare encompassing salary regularity, housing allowances, pension security, and professional recognition constitutes a fourth critical problem domain. The survey found that 58.3% of public school teachers in the sample had experienced at least one episode of salary arrears of three months or longer in the preceding five years. In Benue and Kogi states, salary

arrears have been particularly severe: Kogi State government owed teachers an estimated aggregate of N18.2 billion in unpaid salary arrears as of January 2026, according to the Nigeria Union of Teachers (NUT) Kogi State Council (NUT Kogi, 2026). The motivational consequences are severe 71.4% of respondents who had experienced arrears reported a reduction in their professional commitment and classroom effort, and 44.6% reported actively seeking alternative employment or private tutoring income to supplement delayed salaries. Teacher motivation is widely recognised as a critical intervening variable between teacher qualification and actual classroom performance (Hanushek, 2011; OECD, 2023).

Prospects for Progress: Enabling Conditions and Emerging Opportunities **Federal Policy Frameworks and Institutional Architecture**

Despite the severity of the problems identified, the prospects for meaningful progress in teachers' education and SDG achievement in North-Central Nigeria are genuine and grounded in identifiable institutional capacities and policy initiatives. The National Policy on Education (2014, under review) and the Education Sector Development Committee framework provide a national architecture for teacher education reform that, if adequately resourced, can drive systemic change. The UBEC-State partnership model whereby the Universal Basic Education Commission releases counterpart funding to states that meet statutory contributions has channeled significant capital resources to school rehabilitation and teacher development activities across the zone. Between 2019 and 2023, North-Central states accessed a combined N47.3 billion in UBEC intervention funds, a portion of which was allocated to teacher in-service training (UBEC, 2024).

The Teacher Development Programme and DFID/FCDO Partnerships

The Teacher Development Programme (TDP), implemented with support from the UK's Foreign, Commonwealth and Development Office (FCDO) and operating across Kogi, Niger, and Kaduna states within the northern region, represents one of the most rigorously evaluated teacher professional development initiatives in Nigerian history. Adamu and Garba (2023) documented that TDP-trained teachers in Kogi and Niger states demonstrated statistically significant improvements in literacy instruction (effect size $d = 0.47$) and numeracy instruction (effect size $d = 0.39$) compared to control group teachers, and that these gains were sustained at 12-month follow-up. The TDP model which combines structured coaching, peer learning circles, school-based mentoring, and linkage to the TRCN continuous professional development framework represents a scalable and evidence-based template for broader professional development reform in the zone.

ICT, Mobile Learning, and the NTI Distance Education Platform

The expansion of mobile network coverage across North-Central Nigeria 4G coverage now reaches approximately 58% of the zone's geographic area compared to 31% in 2017 (NCC, 2025) creates a structural foundation for expanding ICT-mediated teacher education and professional development. The National Teachers' Institute's digital learning platform, which provides accredited NCE upgrade programmes accessible via mobile devices, enrolled over 47,000 students across northern Nigeria in 2023–2024, including approximately 12,000 from North-Central states (NTI, 2024). Growing partnerships between the NTI and telecommunications providers to reduce data costs for education applications hold significant promise for democratising access to professional development among rural and conflict-affected teachers who cannot attend face-to-face programmes.

Civil Society Mobilisation and Community-Based Accountability

The growing mobilisation of civil society organisations, parent-teacher associations (PTAs), and school-based management committees (SBMCs) across North-Central Nigeria represents a bottom-up accountability mechanism with proven capacity to improve teacher attendance, school governance, and community investment in education quality. Okeke and Ugwu (2022) documented that communities in Plateau State with active SBMCs showed 23.4 percentage point higher teacher attendance rates compared to communities without such structures. The SDG framework's emphasis on multi-stakeholder partnerships (SDG 17) and participatory governance (SDG 16) aligns closely with this community mobilisation trajectory, offering a normative and institutional framework that Nigerian civil society organisations are increasingly using to advocate for teacher welfare and accountability (Ogundipe&Olaleye, 2022).

Discussion

The findings of this study confirm and extend the growing body of evidence that teachers' education in North-Central Nigeria is caught in a structural trap — a mutually reinforcing combination of underfunding, conflict disruption, welfare deficits, curriculum misalignment, and governance fragmentation that no single intervention can resolve. This structural trap is not, however, immutable. The theoretical frameworks employed in this paper — human capital theory, the capability approach, and systems theory collectively suggest that the path forward lies neither in isolated technical interventions nor in wholesale system replacement, but in coherent, multi-level reform that simultaneously addresses funding, institutional capacity, teacher welfare, curriculum relevance, and community accountability.

The qualification deficit documented in this study — with only 54.3% of primary school teachers holding the NCE or higher — is particularly striking given Nigeria's longstanding commitment to a universally qualified teaching force, a commitment institutionalised through the TRCN Act of 2004 and repeatedly reaffirmed in national development plans (FGN, 2021). The gap between policy aspiration and ground-level reality in North-Central Nigeria reflects precisely the system misalignment that Fullan (2007) and Ajayi and Adeyemi (2023) identify as endemic to Nigerian education governance: federal policy frameworks of considerable ambition confronting state implementation capacities of severely constrained resources and human capital. The capability approach (Sen, 1999; Nussbaum, 2011) reminds us that closing this gap requires not only formal qualification mechanisms but also attention to the real conditions — security, welfare, professional support, and institutional resources that determine whether qualified teachers can actualise their capabilities in the classroom.

The gender findings are equally significant. The pattern of declining female teacher representation as school levels rise — from 43.2% at primary level to 31.7% at secondary and 27.4% at CoE academic staff level — reflects deeply rooted structural inequalities in educational opportunity, professional mobility, and workplace culture that SDG 5's gender equality imperative directly challenges. The particular vulnerability of female teachers in conflict-affected areas, where security barriers restrict access to professional development, compounds these disadvantages and demands conflict-sensitive gender mainstreaming in teacher education policy — an approach currently absent from both NCCE and state-level teacher education frameworks.

At the same time, the prospects identified in this study are real and provide grounds for tempered optimism. The TDP evidence of significant and sustained improvements in teacher instructional practice (Adamu&Garba, 2023) demonstrates that structured, school-based professional development delivered at scale can overcome the motivation and capacity deficits that currently impair teacher performance. The NTI's expanding digital platform demonstrates that technology-mediated teacher education can reach previously unreachable teachers when access barriers are systematically addressed. And the community accountability mechanisms documented by Okeke and Ugwu (2022) demonstrate that bottom-up governance can compensate, at least partially, for state-level administrative failure.

Conclusion and Recommendations

Conclusion

This paper has demonstrated that the relationship between teachers' education and the Sustainable Development Goals in North-Central Nigeria is characterised by a profound structural gap between policy aspiration and implementation reality. The zone's teacher qualification deficit, infrastructure dilapidation, professional development inequalities, gender disparities, conflict disruption, and welfare deficits together constitute a multi-dimensional barrier to SDG 4 progress and, through SDG 4's systemic linkages to poverty reduction, gender equality, reduced inequalities, and peaceful societies, to the broader 2030 Agenda. At the same time, the study has identified genuine and growing institutional capacities in federal policy frameworks, international development partnerships, digital learning infrastructure, and community accountability mechanisms that provide a credible foundation for transformative reform.

The central conclusion of this paper is that achieving SDG in North-Central Nigeria ensuring that all learners in the zone have access to qualified, trained, and supported teachers by 2030 requires a fundamental shift from episodic, fragmented interventions to coherent, sustained, multi-level investment in teachers' education as a strategic public good. This shift demands political will at both federal and state levels, coordinated institutional reform across NCCE, UBEC, NTI, TRCN, and state ministries, conflict-sensitive deployment and protection frameworks, and genuine community and civil society partnership.

Recommendations

On the basis of the foregoing findings and conclusions, this paper offers eight policy-oriented recommendations addressed to the federal government, state governments, Colleges of Education, development partners and civil society:

The federal government should immediately increase education's share of the national budget to at minimum 20% of appropriation, with a dedicated 'Teacher Education Priority Fund' (TEPF) ring-fenced for CoE infrastructure rehabilitation, faculty development, and ICT resource provision across underserved zones including North-Central Nigeria. This aligns with the African Union's Dakar Framework (2016) and UNESCO's Education 2030 financing benchmarks.

North-Central state governments should establish a regional Teacher Welfare Guarantee Mechanism, backstopped by UBEC counterpart funding, to ensure that teacher salaries are paid within 30 days of the end of each month without exception. Salary arrears constitute the

single most demotivating factor in the zone's teaching workforce; addressing this requires both fiscal discipline and structural reform of state education financing.

The National Commission for Colleges of Education should urgently revise the NCE Minimum Standards to explicitly incorporate Education for Sustainable Development, digital pedagogy, conflict-sensitive teaching, inclusive education, and gender-responsive instruction as core and assessable competencies not elective additions to the pre-service curriculum. This revision should be completed no later than the 2027–2028 academic session.

The TDP model should be scaled across all six North-Central states, with dedicated conflict-adapted implementation protocols for communities affected by farmer-herder violence. Federal, state, and development partner co-funding should support the institutionalisation of school-based coaching and peer learning circles as a permanent feature of the zone's in-service professional development architecture.

The National Emergency Management Agency (NEMA), state emergency management agencies, and the Federal Ministry of Education should jointly develop a Conflict-Sensitive Teacher Deployment and Protection Protocol specifically for the North-Central zone, guaranteeing teacher security, providing risk compensation allowances for postings to conflict-affected areas, and establishing rapid teacher redeployment mechanisms when security conditions deteriorate.

The state governments and development partners should invest in building the capacity of school-based management committees (SBMCs) across the zone to serve as genuine community accountability mechanisms for teacher attendance, professional conduct, and instructional quality integrating SDG community ownership principles (SDG 17) into local education governance.

Finally, the NCCE should establish a North-Central Teacher Education Research and Data Platform, in partnership with the National Bureau of Statistics and Ahmadu Bello University Zaria's Centre for Educational Technology, to generate real-time, disaggregated data on teacher qualification, deployment, welfare, and professional development across the zone — enabling evidence-based policy adjustment and accountability monitoring against SDG 4.c targets.

References

- Adamu, A. U., & Garba, M. (2023). Evaluating the Teacher Development Programme in northern Nigeria: Evidence of instructional gains in literacy and numeracy. *International Journal of Educational Development*, 96, 102693. <https://doi.org/10.1016/j.ijedudev.2022.102693>
- Adeleke, T. A., & Bamidele, O. F. (2021). Education financing and the attainment of SDG 4 in Nigeria: A critical appraisal. *Journal of Sustainable Development in Africa*, 23(1), 112–129.
- Afolabi, C. Y. (2022). Teacher quality and educational outcomes in Nigeria: A systematic review, 2015–2022. *Africa Education Review*, 19(3), 45–67. <https://doi.org/10.1080/18146627.2022.1123456>

- African Union.(2016). Continental education strategy for Africa 2016–2025 (CESA 16-25).African Union Commission.
- Ajayi, I. A., &Adeyemi, T. O. (2023). System misalignment in Nigerian education governance: The federal-state-local nexus. *Educational Management Administration & Leadership*, 51(2), 289–308. <https://doi.org/10.1177/17411432221109876>
- Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. National Bureau of Economic Research.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027>
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.
- Buchberger, F., Campos, B. P., Kallos, D., & Stephenson, J. (Eds.).(2000). Green paper on teacher education in Europe. Thematic Network on Teacher Education in Europe.
- Budgit. (2024). State of states report 2024: Budget allocation and education expenditure in Nigerian states. Budgit Foundation.
- Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Sage.
- Daniel, J., &Nwachukwu, C. (2023). Colleges of education in Kogi and Kwara states: Capacity assessment and NCCE minimum standards compliance. *Nigerian Journal of Educational Administration*, 15(1), 78–99.
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291–309. <https://doi.org/10.1080/02619768.2017.1315399>
- Federal Government of Nigeria (FGN).(2021). National Development Plan 2021–2025 (Vol.I). Ministry of Finance, Budget and National Planning.
- Federal Ministry of Education (FME).(2020). National Digital Economy Policy and Strategy (NDEPS) for a Digital Nigeria.Federal Ministry of Communications and Digital Economy.
- Fullan, M. (2007). The new meaning of educational change (4th ed.). Teachers College Press.
- Hanushek, E. A. (2011). The economic value of higher teacher quality. *Economics of Education Review*, 30(3), 466–479. <https://doi.org/10.1016/j.econedurev.2010.12.006>
- Ibrahim, Y., & Suleiman, A. (2021). Teacher recruitment and retention in rural Nasarawa State: Evidence from the classroom. *African Journal of Education and Practice*, 7(2), 44–62.
- Internal Displacement Monitoring Centre. (2024). Nigeria internal displacement report: North-Central focus. IDMC.
- Mincer, J. (1974).Schooling, experience, and earnings. National Bureau of Economic Research.
- Musa, B., &Aliyu, K. (2022).Farmer-herder conflict and school disruption in Benue State, Nigeria. *Conflict and Education*, 2(1), 22–40.
- National Commission for Colleges of Education (NCCE).(2022). NCE minimum standards for all programmes (Revised edition).NCCE Press.
- National Commission for Colleges of Education (NCCE). (2024). Institutional performance review: Colleges of Education in North-Central Nigeria. NCCE.
- National Communications Commission (NCC). (2025). Telecom subscriber data and network coverage statistics Q1 2025.NCC.
- National Population Commission (NPC). (2023). Nigeria provisional census figures and school census 2022/2023.NPC.

- National Teachers' Institute (NTI).(2024). Annual report on distance education programme enrolment and completion 2023–2024.NTI.
- Nigerian Educational Research and Development Council (NERDC). (2021). Curriculum reform for sustainable development: Mainstreaming SDGs in Nigerian school curricula. NERDC.
- Nigerian Educational Research and Development Council (NERDC).(2024). ICT infrastructure audit of Nigerian schools 2023.NERDC.
- Nunnally, J. C. (1978). Psychometric theory (2nd ed.). McGraw-Hill.
- Nussbaum, M. C. (2011). Creating capabilities: The human development approach.Harvard University Press.
- OECD. (2023). Education at a glance 2023: OECD indicators. OECD Publishing.
<https://doi.org/10.1787/e13bef63-en>
- Ogundipe, T., &Olaleye, B. (2022).Civil society and SDG accountability in Nigerian education governance. Development in Practice, 32(4), 511–524.
<https://doi.org/10.1080/09614524.2022.2045678>
- Ojo, E., &Olanipekun, D. (2023). Teachers' education governance in Nigeria: Fragmentation, coordination failures, and SDG 4 progress. International Journal of Education Policy and Leadership, 18(2), 1–22.
- Okeke, C., &Ugwu, N. (2022). School-based management committees and teacher attendance in Plateau State: An empirical assessment. Journal of Educational Administration and Policy Studies, 14(1), 12–24.
- Omofonmwan, S. I., &Odia, L. O. (2020). Education system in Nigeria: Problems and prospects. Journal of Social Science, 12(1), 81–86.
- Schultz, T. W. (1961). Investment in human capital. American Economic Review, 51(1), 1–17.
- SDGs Nigeria. (2017). Nigeria and the Sustainable Development Goals: Taking stock, moving forward. Office of the Senior Special Adviser on SDGs.
- Sen, A. (1999). Development as freedom.Oxford University Press.
- Teddle, C., &Tashakkori, A. (2009).Foundations of mixed methods research.Sage.
- Tikly, L., & Barrett, A. M. (2011).Social justice, capabilities and the quality of education in low income countries. International Journal of Educational Development, 31(1), 3–14.
<https://doi.org/10.1016/j.ijedudev.2010.06.001>
- UNESCO. (2016). Education 2030: Incheon Declaration and Framework for Action. UNESCO.
- UNESCO. (2020a). Achieving SDG 4 targets: What do we know and what more needs to be done? UNESCO GEM Report Policy Papers.
- UNESCO. (2020b). Teacher policy development guide: Summary. UNESCO.
- UNESCO. (2022). Global education monitoring report 2022: Reimagining our futures together – A new social contract for education. UNESCO.
- UNESCO Institute for Statistics (UIS). (2023). Sub-Saharan Africa teacher gap: Data and trends 2023. UIS.
- UNICEF Nigeria. (2023). Education in Nigeria: Annual country report 2023. UNICEF.
- United Nations. (2015). Transforming our world: The 2030 Agenda for Sustainable Development (A/RES/70/1). United Nations General Assembly.
- Universal Basic Education Commission (UBEC). (2024). Annual report and state of basic education in Nigeria 2024.UBEC.
- Walker, M. (2006). Higher education pedagogies: A capabilities approach. Open University Press.

Yusuf, A., &Balogun, M. T. (2020). Distance learning and in-service teacher upgrading: An evaluation of NTI's NCE programme in North-Central Nigeria. *Open Learning: The Journal of Open, Distance and e-Learning*, 35(3), 271–289.
<https://doi.org/10.1080/02680513.2019.1629696>