

Legal and Regulatory Compliance Framework for Sustainable Infrastructure Development: Mitigating Construction Liability and Enhancing Safety Standards at Auchi Polytechnic

Nmor Odogu Samson (Barr.)¹, Dr. Bldr. Bamidele Osamudiamen²

*¹Department of Humanities and Social Sciences ²Department of Building Technology
Auchi Polytechnic, Auchi, Edo State, Nigeria
Correspondence: odogusamson@gmail.com*

Abstract— Sustainable infrastructure development in Nigerian polytechnic institutions is often hindered by weak legal and regulatory compliance, inadequate enforcement of the National Building Code, poor occupational health and safety practices, and limited awareness of construction liability frameworks. These challenges contribute to safety risks, financial liabilities, and substandard infrastructure that adversely affect educational service delivery. This study evaluated the legal and regulatory compliance framework governing infrastructure development at Auchi Polytechnic, Edo State, Nigeria. Specifically, it assessed compliance awareness, identified key barriers to compliance, examined liability exposure, and proposed a framework for improving compliance and reducing construction-related risks. A descriptive survey design was adopted, with data collected from 203 respondents comprising construction professionals, institutional administrators, technical staff, and student union representatives. Data were analysed using frequency distributions, Likert-scale mean scores, and chi-square statistics. The study was anchored on Regulatory Compliance Theory and the sustainability framework for infrastructure management. Findings revealed that only 61.4% of respondents were aware of the National Building Code, while just 19.8% reported compliance beyond minimum requirements. Weak institutional enforcement (71.4%) and client-driven cost-cutting (62.1%) emerged as the major barriers to compliance. Occupational health and safety recorded the lowest adequacy rating (mean = 2.87), falling below the acceptable threshold of 3.50. Chi-square analysis showed a significant relationship between compliance culture and site incident rates ($\chi^2 = 41.87$, $p < 0.001$), with low-compliance sites reporting substantially higher incidents. The study concludes that the existing compliance framework is inadequate, particularly in occupational health, safety, and environmental management. A six-pillar Institutional Compliance Framework is proposed, encompassing policy and regulation, contractual liability management, occupational health and safety, environmental compliance, procurement governance, and monitoring and enforcement.

Keywords: *legal compliance; regulatory framework; sustainable infrastructure; construction liability; occupational health safety; National Building Code; Auchi Polytechnic; Nigeria*

I. INTRODUCTION

Infrastructure development in public tertiary institutions is a critical determinant of the quality of educational experience, research productivity, and institutional competitiveness. The physical environment of a polytechnic or university is not merely a passive backdrop for academic activity but an active mediator of student outcomes, staff well-being, and institutional reputation [1]. In Nigeria, public higher education institutions including polytechnics have historically operated with chronic underinvestment in physical infrastructure, producing built environments that frequently fail to meet minimum standards for safety, functionality, and sustainability [2]. Auchi Polytechnic, established in 1963 in Auchi, Edo State, is one of Nigeria's foremost polytechnic institutions, offering National Diploma and Higher National Diploma programmes to thousands of students across multiple schools. The institution has undergone successive phases of physical development driven by growing enrolment, programme expansion, and periodic capital injections from the Tertiary Education Trust Fund. Each phase of construction activity generates legal and regulatory compliance obligations that span contract law, tortious liability, occupational health and safety statutes, environmental regulation, and the National Building Code [3].

The Nigerian construction sector is characterised by a well-documented compliance deficit. A study assessing the impact of legal and regulatory compliance on specifications in the Nigerian construction industry found that while 68% of respondents indicated that specifications were generally followed, only 22% believed compliance exceeded baseline requirements, and 62% acknowledged weak institutional enforcement as a major barrier [4]. Approximately 80% of accidents on construction sites in Nigeria are attributable to unsafe acts and conditions, and no comprehensive Occupational Health and Safety law currently exists in Nigeria, leaving workers and occupants vulnerable to preventable harm [5]. The consequences of compliance deficiency in institutional construction are both human and financial. Under Nigerian construction law, contractors may

be held liable under contractual claims, claims in tort, and failure to comply with health and safety policy requirements [6]. The Insurance Act 2010 mandates that every public building be insured against structural hazards including collapse, fire, earthquake, and flood, and requires liability insurance for construction workers and third parties [6]. Institutional negligence in enforcing these requirements exposes Auchu Polytechnic to legal liability, safety incidents, and reputational damage that are avoidable through structured compliance governance.

This paper addresses the institutional compliance gap at Auchu Polytechnic by conducting the first systematic empirical assessment of legal and regulatory compliance practice in the institution's infrastructure development activities. The paper evaluates compliance awareness and practice across six framework pillars, identifies critical barriers, tests the relationship between compliance culture and safety outcomes, and proposes an evidence-based Institutional Compliance Framework for Sustainable Infrastructure Development.

II. LITERATURE REVIEW

A. *Legal Framework for Construction in Nigeria*

Construction activity in Nigeria is governed by a multi-layered legal framework spanning federal statutes, state legislation, professional regulations, and common law principles. At the apex of the statutory framework, the National Building Code provides a uniform set of standards for the design, construction, and maintenance of buildings across the country, though its enforcement has proven an ongoing challenge reflecting the complex economic, societal, and institutional dynamics of Nigeria's construction environment [7]. The Factories Act Cap F1 LFN 2004, the Employee Compensation Act 2010, and the Workmen's Compensation Act provide the principal occupational health and safety legislative instruments applicable to construction workers, supplemented by state-level building regulations administered through State Physical Planning Authorities [5].

Under Nigerian tort law, the duty of care principle imposes obligations on architects to design safely, contractors to build diligently, and professionals to exercise reasonable skill and care [6]. Where a contractor fails to deliver in accordance with agreed standards, breach of contract arises and the employer may seek damages. Negligence resulting in injury to third parties or workers, or in structural defects that endanger occupants, exposes contractors, supervising professionals, and institutional clients to liability in damages [6]. The absence of a specific Occupational Health and Safety Act comparable to those in Ghana, South Africa, or the United Kingdom means that construction safety obligations in Nigeria

must be assembled from multiple overlapping instruments, creating complexity that contributes to the compliance deficit documented across the sector [5].

B. *Compliance Challenges in Nigerian Construction*

Research consistently documents that compliance with legal and regulatory requirements in Nigerian construction is characterised by minimum-level box-ticking rather than proactive quality management. A study published in the African Journal of Environmental Sciences and Renewable Energy found a significant positive correlation between regulatory compliance and project performance at r equal to 0.46 at p less than 0.01, confirming that compliance is not merely a legal obligation but a determinant of construction quality and safety outcomes [4]. The study identified client-driven cost-cutting, cited by 58% of respondents, and weak institutional enforcement, cited by 62% of respondents, as the two dominant drivers of non-compliance [4].

A systematic review of challenges undermining the efficacy of construction health and safety regulations in major African countries confirmed that there is a significant difference in compliance between foreign or multinational and indigenous construction firms, with indigenous companies showing consistently lower compliance [8]. The review noted that the National Building Code mandates compliance with relevant health and safety laws and standards, but that poor compliance with Personal Protective Equipment requirements in Nigeria, particularly in indigenous construction companies, is driven by lax monitoring and enforcement by government regulatory agencies [8]. This pattern is directly relevant to the Auchu Polytechnic context, where the preponderance of locally contracted construction work follows the indigenous compliance pattern.

C. *Sustainable Infrastructure in Nigerian Higher Education*

Sustainable infrastructure in the context of Nigerian higher education institutions encompasses the three pillars of economic sustainability including cost-effective lifecycle management, environmental sustainability including reduced construction emissions and material waste, and social sustainability including safe, accessible, and dignified physical learning environments [9]. A qualitative study investigating green construction practice implementation in Nigerian public higher education institutions published in Emerald identified managing stormwater, solid and construction waste, and energy efficiency as key sustainability dimensions that require institutional policy frameworks and staff training to address effectively [9].

A study assessing sustainability indicators for smart campuses in Nigerian tertiary institutions using an analytic

hierarchy process with 18 certified town planning professionals identified transportation as the highest-priority sustainability indicator, followed by energy management and physical infrastructure maintenance [10]. This study confirmed that sustainability assessment in Nigerian tertiary institutions remains primarily aspirational rather than operationalised through binding institutional compliance requirements, reflecting the absence of a mandatory institutional sustainability framework.

An Auchu Polytechnic-specific study on compliance, enforcement mechanisms, and legal remedies in construction published in the International Journal of Modern Science and Research Technology documented that the institution's construction activities are regulated by the intersection of national law, federal and state physical planning requirements, and institutional procurement frameworks, but that the gap between these normative requirements and actual practice on construction sites within the polytechnic is substantial and documented [11].

D. Theoretical Framework: Regulatory Compliance Theory

This study is anchored on Regulatory Compliance Theory, which holds that institutional actors comply with regulatory requirements when the perceived benefits of compliance exceed the perceived costs, and when institutional monitoring and enforcement mechanisms create sufficient accountability to deter non-compliance [12]. In the construction context, this theory predicts that compliance levels will be higher where: (a) regulatory awareness is strong; (b) monitoring is active and credible; (c) sanctions for non-compliance are meaningful; and (d) institutional culture prioritises safety and quality over cost minimisation [12]. Each of these conditions is assessed empirically in the present study.

III. METHODOLOGY

A. Research Design, Population and Sampling

A descriptive survey research design was employed, appropriate for measuring compliance awareness, perceptions, and behavioural patterns across a diverse institutional population. The target population comprised construction professionals, building technologists, institutional administrators, TETFund project supervisors, technical staff, and student union representatives at Auchu Polytechnic who had been directly or indirectly involved in infrastructure development activities at the institution. A sample of 230 respondents was targeted using purposive and stratified random sampling to ensure representation across all relevant stakeholder groups. Two hundred and three completed

questionnaires were retrieved and found usable, representing an 88.3% response rate.

B. Instrument Design and Analysis

A structured questionnaire comprising four thematic sections was developed: respondent profile; regulatory compliance awareness and practice; barriers to compliance; and adequacy of the existing compliance framework across six pillars. Awareness and practice items were measured using dichotomous yes or no responses. Framework adequacy was measured on a five-point Likert scale anchored at 1 (Strongly Disagree) to 5 (Strongly Agree), with scores of 3.50 and above interpreted as positive, 2.50 to 3.49 as moderate, and below 2.50 as negative. Cronbach's alpha reliability testing of the Likert instrument yielded a coefficient of 0.83, indicating high internal consistency. Data were analysed using SPSS version 26, applying frequencies, percentages, mean scores, and chi-square tests. A chi-square test examined the relationship between self-reported compliance culture level and incidence of construction-related safety events in the preceding 12 months.

IV. RESULTS

A. Regulatory Compliance Awareness and Practice

Figure 1 presents the distribution of compliance awareness and practice indicators among respondents. Awareness of the National Building Code was recorded among 61.4% of respondents, the highest awareness indicator measured, yet this still leaves 38.6% of construction-involved personnel without awareness of the foundational regulatory instrument. Awareness of NSITF (Nigeria Social Insurance Trust Fund) requirements stood at only 44.2%, and only 31.6% of respondents confirmed the presence of a site safety officer on their most recently observed Auchu Polytechnic construction site. The proportion of respondents reporting compliance exceeding baseline requirements was a critical finding at only 19.8%, consistent with the national pattern of minimum-level compliance documented in the Nigerian construction literature [4].

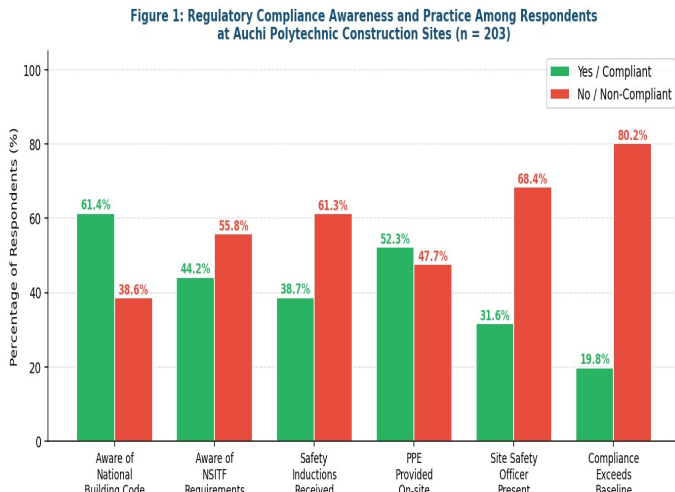


Figure 1: Regulatory Compliance Awareness and Practice Among Respondents at Auchi Polytechnic Construction Sites (n = 203)

Barrier to Compliance	Frequency	Percentage (%)	Classification	Addressable Institutionally?
Weak institutional enforcement	145	71.4	Critical	Yes
Client-driven cost-cutting	126	62.1	Critical	Yes
Inadequate professional training	119	58.6	Moderate	Yes
Absence of site safety officer	111	54.7	Moderate	Yes
Unavailability of PPE	100	49.3	Moderate	Yes
Non-adherence to NBC standards	95	46.8	Moderate	Partially
Procurement irregularities	84	41.4	Minor	Yes
Absence of environmental audit	75	36.9	Minor	Yes

Table 1: Barriers to Legal and Regulatory Compliance in Infrastructure Development at Auchi Polytechnic (n = 203)

B. Barriers to Legal and Regulatory Compliance

Figure 2 presents the barriers to legal and regulatory compliance identified by respondents. Weak institutional enforcement was the most frequently cited critical barrier at 71.4%, followed by client-driven cost-cutting at 62.1%, and inadequate professional training at 58.6%. The dominance of institutional enforcement weakness as the leading barrier is particularly significant for Auchi Polytechnic because, as a public institution, the institutional client is also the enforcement authority, creating a structural conflict of interest that conventional regulatory enforcement models are not designed to manage.

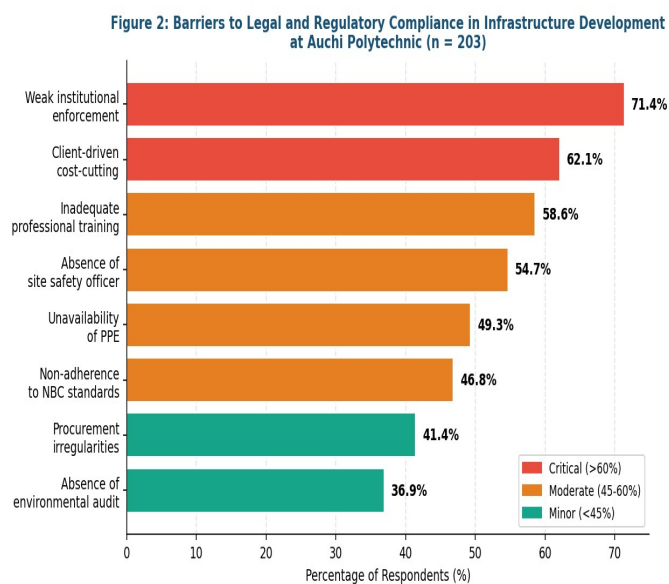


Figure 2: Barriers to Legal and Regulatory Compliance in Infrastructure Development at Auchi Polytechnic (n = 203)

C. Framework Adequacy Assessment

Figure 3 presents the mean Likert scores for the adequacy of six compliance framework pillars at Auchi Polytechnic. Policy and regulation achieved the highest score at 3.42, the closest to the positive threshold of 3.50, reflecting the existence of national policy instruments even where implementation is weak. Contractual liability management scored 3.18. Occupational health and safety achieved the lowest score of 2.87, below the positive threshold, while environmental compliance scored 2.64, the second lowest. Monitoring and enforcement scored 2.73, also below the positive threshold.

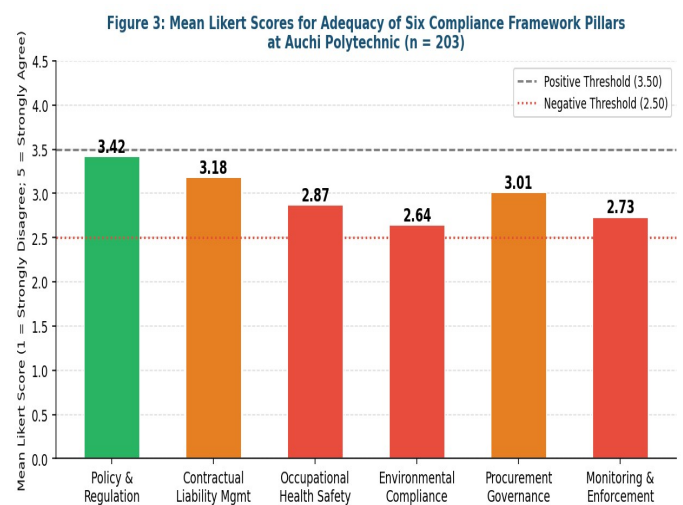


Figure 3: Mean Likert Scores for Adequacy of Six Compliance Framework Pillars at Auchi Polytechnic (n = 203; Threshold Lines at 3.50 Positive and 2.50 Negative)

D. Compliance Culture and Site Incident Rates

Figure 4 presents the relationship between compliance culture level and the proportion of sites reporting safety incidents in the preceding 12 months. Sites with high compliance culture reported an incident rate of only 17.6%, while sites with moderate compliance culture reported an incident rate of 35.3%, and sites with low compliance culture reported an incident rate of 68.8%. The chi-square analysis confirmed this relationship to be highly statistically significant at Chi-square of 41.87 with p less than 0.001, strongly validating the core proposition of Regulatory Compliance Theory that investment in compliance culture directly reduces safety incident frequency.

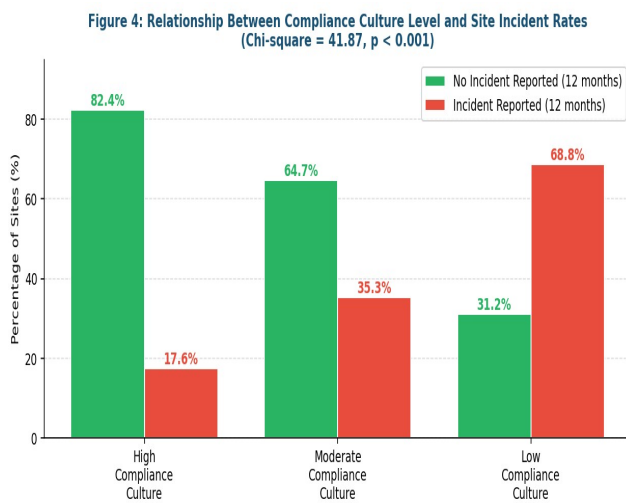


Figure 4: Relationship Between Compliance Culture Level and Site Incident Rates at Auchu Polytechnic Construction Sites (Chi-square = 41.87, p < 0.001)

Framework Pillar	Mean Score	Std Dev	Interpretation	Priority
Policy and Regulation	3.42	0.79	Moderate	Medium
Contractual Liability Management	3.18	0.83	Moderate	Medium
Procurement Governance	3.01	0.87	Moderate	Medium
Monitoring and Enforcement	2.73	0.91	Inadequate	High
Occupational Health and Safety	2.87	0.94	Inadequate	High
Environmental Compliance	2.64	0.96	Inadequate	Critical

Table 2: Framework Pillar Adequacy Scores, Interpretation, and Institutional Priority Ratings (n = 203)

V. DISCUSSION

A. Compliance Deficit and Its Institutional Consequences

The finding that compliance exceeding baseline requirements was recorded by only 19.8% of respondents confirms that Auchu Polytechnic's infrastructure development activities are characterised by minimum-level compliance rather than proactive safety and quality management. This pattern is directly consistent with the national construction compliance literature, which identifies minimum-level box-ticking as the dominant compliance behaviour in Nigerian construction driven by attitudinal barriers and client-driven cost pressures [4]. The institutional consequences of this compliance deficit extend beyond safety risk to encompass legal liability.

Under the Insurance Act 2010, Auchu Polytechnic as a public institution is required to insure every public building against the hazards of collapse, fire, earthquake, storm, and flood, and to maintain liability insurance for construction workers and third parties [6]. Non-compliance with this requirement, in the context of an inadequate site safety framework, creates direct financial exposure that is entirely avoidable through structured compliance governance. The chi-square finding that sites with low compliance culture report safety incident rates of 68.8%, compared to 17.6% at high-compliance sites, provides powerful empirical evidence that the compliance investment required to move from low to high compliance culture yields a proportionate reduction in incident frequency that far exceeds its cost [8].

B. Occupational Health and Safety as the Critical Deficiency

The lowest framework adequacy score across all six pillars was recorded for occupational health and safety at a mean of 2.87, below the positive threshold of 3.50. This finding is consistent with the systemic OHS deficit documented in Nigerian construction more broadly: the absence of a comprehensive OHS Act means that safety obligations must be assembled from the Factories Act, Employee Compensation Act, and common law duty of care, creating interpretive complexity that reduces the practical force of each instrument [5]. Only 38.7% of respondents reported having received safety inductions at Auchu Polytechnic construction sites, and only 31.6% confirmed the presence of a site safety officer. These proportions represent not merely a quality deficit but a potential criminal liability exposure for the institution, given that the duty of care in construction imposes an obligation to take reasonable steps to prevent foreseeable harm [6].

Research on the relationship between green construction practice in Nigerian public higher education

institutions and safety performance confirms that safety barriers and productivity losses are structurally linked to inadequate training and the absence of institutional policy frameworks that mandate safety management across all construction activities [9]. The Auchu Polytechnic findings are consistent with this evidence and confirm that the pathway to improved safety performance runs through institutional policy reform rather than individual behaviour change alone.

C. Environmental Compliance as the Most Critically Rated Pillar

Environmental compliance received the lowest mean score at 2.64, approaching the negative threshold. This finding reflects the broader African infrastructure challenge documented by Zulu et al., who found that environmental protection legislation for infrastructure projects in Africa is generally far behind international standards, with no legislation in many African countries regulating emissions from buildings or guiding sustainable energy use in building infrastructure projects [13]. At Auchu Polytechnic, the absence of environmental audit requirements within the institutional construction procurement framework means that construction activities generate waste, emissions, and site disturbance without systematic monitoring or mitigation, contributing to both environmental degradation on campus and the institution's growing carbon footprint.

The Envision Sustainable Infrastructure Framework and comparable sustainability rating systems confirm that environmental compliance is not merely a regulatory obligation but a risk management and institutional reputation tool, with institutions that embed environmental assessment into their infrastructure planning consistently achieving lower lifecycle costs and reduced regulatory exposure [14]. The alignment of Auchu Polytechnic's infrastructure development practices with the sustainability indicators for smart campuses in Nigerian tertiary institutions identified by ScienceDirect's analytic hierarchy process study would require the environmental compliance pillar to be elevated to the highest institutional priority, which the present study's critical rating confirms it currently is not [10].

VI. PROPOSED INSTITUTIONAL COMPLIANCE FRAMEWORK FOR SUSTAINABLE INFRASTRUCTURE DEVELOPMENT

Based on the empirical findings and the synthesised literature, this paper proposes a six-pillar Institutional Compliance Framework for Sustainable Infrastructure Development (ICFSID) for Auchu Polytechnic. The framework is designed to operationalise the requirements of the National Building Code, the Insurance Act 2010, the Factories Act, the Employee Compensation Act, and the

institution's sustainability obligations within a structured, monitorable, and enforceable institutional governance system.

Pillar	Core Requirement	Institutional Action Required	Regulatory Anchor
1. Policy and Regulation	Institutional policy that mandates NBC compliance across all construction activities	Develop and gazette an Auchu Polytechnic Infrastructure Development Policy aligned to NBC	National Building Code; 1999 Constitution
2. Contractual Liability	All construction contracts to include liability, defects, and insurance clauses	Standardise contract templates incorporating defects liability period, NSITF, and all-risks insurance	Insurance Act 2010; Contract Law
3. Occupational Health Safety	Mandatory OHS plan, site safety officer, PPE provision, and safety inductions	Introduce a pre-commencement OHS clearance certificate for all contractors	Factories Act; Employee Compensation Act
4. Environmental Compliance	Environmental impact screening for all construction above a defined threshold	Adopt an Institutional Environmental Management Plan integrated into procurement process	NESREA Act; FEPA Guidelines
5. Procurement Governance	Transparent contractor prequalification including compliance track record	Establish a Compliance Registry scoring potential contractors on regulatory history	Public Procurement Act 2007; NBC
6. Monitoring and Enforcement	Regular site inspections, compliance reporting, and consequence management	Create an Infrastructure Compliance Desk reporting to the Vice Rector responsible for Physical Planning	NBC; Institutional Governance Statute

Table 3: Proposed Six-Pillar Institutional Compliance Framework for Sustainable Infrastructure Development (ICFSID) at Auchu Polytechnic

VII. CONCLUSION AND RECOMMENDATIONS

This study has provided the first systematic empirical assessment of legal and regulatory compliance in infrastructure development at Auchu Polytechnic, Edo State, Nigeria. The findings are clear and consequential: compliance awareness is moderate, compliance practice is dominated by minimum-level box-ticking, and the most critical framework pillars of occupational health and safety and environmental compliance are both rated below the positive adequacy threshold. The chi-square evidence that sites with low compliance culture report safety incident rates of 68.8% compared to 17.6% at high-compliance sites validates the core proposition that compliance investment directly reduces harm and liability exposure.

The proposed six-pillar Institutional Compliance Framework for Sustainable Infrastructure Development provides a structured, legally anchored, and institutionally actionable roadmap for closing the compliance gap documented in this study. Five priority recommendations follow from the evidence. First, the polytechnic administration should commission the development of a comprehensive Infrastructure Development Policy that formally incorporates NBC requirements and mandates compliance across all funded and contractor-led construction activities. Second, all future construction contracts above a defined threshold should incorporate mandatory OHS clearance, NSITF registration, and all-risks insurance provisions before commencement of any site works, protecting the institution from the liability exposure that the Insurance Act 2010 creates for non-compliant public buildings. Third, a dedicated Infrastructure Compliance Desk should be established within the Physical Planning Division, staffed by qualified engineers, quantity surveyors, and legal officers, with authority to issue stop-work orders on sites that fail safety and compliance inspections. Fourth, all contractors and supervising professionals engaged on Auchi Polytechnic projects should be required to demonstrate proof of professional registration, OHS training, and compliance record through a pre-qualification Compliance Registry. Fifth, an Institutional Environmental Management Plan should be developed and integrated into the procurement process, ensuring that environmental impact screening is conducted for all construction activities and that waste management, stormwater control, and energy efficiency are built into project specifications from the design stage.

The sustainable development of Auchi Polytechnic's physical environment, and the safety of the students, staff, and contractors who occupy and work within it, depend on the institutional will to move from minimum-level compliance to proactive compliance culture. The legal, financial, and human costs of continued non-compliance far exceed the investment required to implement the framework proposed in this paper. Future research should examine the cost-benefit analysis of full ICFSID implementation and evaluate longitudinal changes in compliance and safety outcomes following institutional policy reform.

VIII. DECLARATIONS

Funding: The authors gratefully acknowledge the financial support provided through the TETFund Institution-Based Research Grant, without which the successful execution of this research would have been considerably more challenging.

Conflicts of Interest: The authors declare no conflicts of interest.

Ethical Approval: Ethical clearance was obtained from the institutional research committee. All participants provided informed consent prior to data collection.

Data Availability: Primary data are available from the corresponding author upon reasonable request.

IX. REFERENCES

- [1] Babalola JO. Failures in construction versus management phases of Nigerian public educational institutions. *Journal of Educational Administration and Policy Studies*. 2023;15(1):1-12. doi:10.5897/JEAPS2022.0345
- [2] Ahmed GA. Integrating sustainability into higher education institutions in Nigeria. *Advanced Reports and Reviews*. 2024;20(1):098-107.
- [3] Osamudiamen B. Compliance, enforcement mechanisms and legal remedies in construction regulation at Auchi Polytechnic. *International Journal of Modern Science and Research Technology*. 2025;3(12):1-18.
- [4] Akinrinade OS, Adegbola RA, Nwaudo CP, Adewunmi BJ, Ogunnaik AO. Impact assessment of legal and regulatory compliance on specification in the Nigerian construction industry. *African Journal of Environmental Sciences and Renewable Energy*. 2025;20(1):162-171.
- [5] Eze C, Ayuba P, Shittu A. Overview of building construction safety and legislations in Nigeria. *Journal of Construction in Developing Countries*. 2022;27(1):1-22. doi:10.21315/jcdc2022.27.1.1
- [6] Aluko-Oyebode. Construction law in Nigeria. In: *The Construction Disputes Law Review*. 3rd ed. London: Law Business Research; 2022. pp. 1-22.
- [7] Adedeji AS, Adekola BF, Ogunbodede EF. Evaluation of regulatory framework in the Nigerian construction industry. *Journal of Environmental Management and Construction Research*. 2025;8(4):1-15.
- [8] Manu P, Emuze F, Saurin TA, Hadikusumo BH. A systematic review of challenges undermining efficacy of construction health and safety regulations in major African countries. *Australasian Journal of Construction Economics and Building*. 2024;24(1):1-24.
- [9] Ebekozi A, Aigbavboa CO, Aliu J, Aginah LI. Investigating encumbrances facing green construction practices implementation in Nigeria's public higher education institutions. *Journal of Facilities Management*. 2025. doi:10.1108/jfm-07-2024-0083
- [10] Ogunleye AA, Oduya DO. Assessing the relative importance of sustainability indicators for smart campuses: A case of higher education institutions in

- Nigeria. Smart and Sustainable Built Environment. 2021;10(2):1-18. doi:10.1016/j.ssbe.2020.100763
- [11] Zulu E, Zulu S, Chabala M, Musonda I. Challenges and advocated solutions for environmental protection legislation on infrastructure projects in Africa. *International Journal of Construction Management*. 2022;22(14):1-14. doi:10.1080/15623599.2020.1786532
- [12] Parker C. Regulating government in a democracy: Principles and practice of regulatory compliance. *Administrative Law Review*. 2021;73(2):245-282.
- [13] World Bank, GFDRR. Building Regulations in Sub-Saharan Africa: A Status Review of the Building Regulatory Environment. Washington DC: World Bank; 2015.
- [14] Institute for Sustainable Infrastructure. How Sustainability Frameworks like Envision Support Project Compliance. Washington DC: ISI; 2025. Available from: <https://sustainableinfrastructure.org>
- [15] Umeokafor N, Umeadi B, Jones K. Compliance with occupational safety and health regulations: a review of Nigeria's construction industry. *Journal of Construction Engineering and Management*. 2014;22(1):1-18.
- [16] Federal Republic of Nigeria. Insurance Act 2010. Abuja: National Assembly; 2010. Section 64-65.
- [17] Federal Republic of Nigeria. Employee Compensation Act 2010. Abuja: National Assembly; 2010.
- [18] Albert IN, Shakantu WM, Saidu I. Evaluation of compliance of concreting materials to standards in the Nigerian construction industry. *Construction Economics and Building*. 2021;21(2):1-18. doi:10.5130/AJCEB.v21i2.7648
- [19] Federal Republic of Nigeria. Public Procurement Act 2007. Abuja: National Assembly; 2007.
- [20] Okoye PU, Bamisile O, Omole FK. Enhancing specification accuracy in the Nigerian construction industry: Digital tools and professional capacity building. *International Journal of Construction Engineering and Management*. 2022;11(1):12-20.