



Measuring SDG alignment beyond the triple constraint: Social impact assessment and project social success in Nigeria

Dr. Olachi Chuks Ronnie¹, Dr. Onyeledo Ijeoma Peace², Dr. Onodugo Chinwe Felicia³, Dr. Igatta Evangeline Amaka¹

¹ Department of Business Administration and Management Charisma University Montana State USA

² Department of Human Resource Management Charisma University Montana State USA

³ Department of Forensic Accounting and Audit Charisma University Montana State USA

Abstract

The conventional assessment of project success has historically emphasized the triple constraint of cost, time, and scope, despite growing recognition that development projects should also be evaluated in terms of their social value, stakeholder outcomes, sustainability, and contribution to the Sustainable Development Goals (SDGs). This study examined the relationship between Social Impact Assessment (SIA) practices, SDG alignment, and project social success in development projects in Nigeria. Specifically, the study evaluated whether SIA planning quality, stakeholder engagement, and SIA monitoring and grievance mechanisms contribute to project social success directly and indirectly through alignment with selected SDGs. The SDG dimensions investigated were SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), and SDG 13 (Climate Action). Project social success was conceptualized in terms of overall social impact, community satisfaction, and long-term sustainability beyond project completion. A quantitative cross-sectional research design was adopted, using 221 project-level respondent observations involving project managers, monitoring and evaluation officers, and community liaison officers associated with development projects in Nigeria. Project type, funding source, and project duration were incorporated as controls. The study advances a project-success framework that separates delivery efficiency from development effectiveness and positions SDG alignment as a mechanism linking SIA practices with broader social outcomes. The framework provides a basis for evaluating development projects beyond cost, schedule, and scope and for institutionalizing SDG-linked social impact indicators within project appraisal, monitoring, stakeholder engagement, and post-completion sustainability assessment.

Keywords: Social impact assessment, sustainable development goals, SDG alignment, project social success, stakeholder engagement, community satisfaction, project sustainability, development projects, triple constraint, Nigeria

Introduction

Projects have become central instruments through which governments, international development institutions, non-governmental organisations, and private-sector actors translate development policies into tangible economic and social outcomes. Infrastructure, health, education, water and sanitation, energy, transportation, livelihood, and community-development projects are particularly important in developing countries, where governments frequently rely on projects to address deficits in basic services, stimulate economic activities, reduce poverty, create employment, and improve citizens' quality of life. Traditionally, however, the success of such projects has been evaluated primarily through the "triple constraint" of cost, time, and scope or quality. Although these parameters remain important for operational control and managerial accountability, contemporary project-management scholarship increasingly questions whether they adequately capture the broader developmental consequences of projects (Martens & Carvalho, 2017; Silvius & Schipper, 2014) ^[3, 12].

The criticism of the triple-constraint model is particularly relevant to development projects. A project may technically be completed on schedule and within budget while generating weak community benefits, social conflict, displacement, environmental degradation, inequality, poor local ownership, or facilities that cannot be sustained after donor or government funding ends. Conversely, a project

that experiences limited cost or schedule adjustments may generate substantial improvements in livelihoods, health outcomes, access to education, employment, institutional capacity, environmental resilience, and community empowerment. Such circumstances demonstrate that efficiency in project delivery is not synonymous with development effectiveness. Project success therefore needs to encompass not merely whether outputs were delivered efficiently, but whether the project generated durable value for beneficiaries and contributed meaningfully to wider sustainable-development objectives (Carvalho & Rabechini, 2017; Martens & Carvalho, 2017) ^[3].

This broader conception of project success has become even more significant following the adoption of the United Nations 2030 ^[13] Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). The SDGs provide an internationally recognised framework connecting economic development, social inclusion, environmental sustainability, peace, institutional effectiveness, and partnership. They challenge governments and development institutions to demonstrate how investments and interventions contribute to outcomes such as poverty reduction, health and well-being, quality education, decent employment, climate resilience, accountable institutions, and effective partnerships (United Nations, 2015). Consequently, development-project performance can increasingly be understood through the extent to which

project activities and outcomes are aligned with identifiable SDG targets rather than exclusively through conventional efficiency indicators.

The urgency of strengthening this alignment is highlighted by continuing shortfalls in global SDG performance. The Sustainable Development Goals Report 2025 ^[6] shows that global progress remains substantially below the trajectory required to achieve the 2030 Agenda (United Nations, 2025) ^[8, 13]. This reinforces the need for development investments to be deliberately designed, implemented, monitored, and evaluated in ways that produce measurable SDG-related outcomes. Merely describing projects as contributing to sustainable development without demonstrating the mechanisms and outcomes through which such contributions occur is increasingly inadequate.

Within project management, this changing development environment has stimulated sustainable and responsible project-management approaches. Sustainable project management extends attention beyond immediate deliverables to consider economic, environmental, and social consequences across and beyond the project lifecycle. It emphasises intergenerational value, stakeholder interests, responsible resource utilisation, ethical governance, resilience, and durability of project benefits (Armenia *et al.*, 2019; Silvius & Schipper, 2014) ^[2, 12]. Recent scholarship further suggests that sustainability should be incorporated into project governance and decision-making rather than treated as an auxiliary activity after major project decisions have already been made (Dessi *et al.*, 2026; Gibbin *et al.*, 2025) ^[4, 6].

One mechanism capable of connecting project activities with wider social and sustainable-development objectives is Social Impact Assessment (SIA). SIA is broadly concerned with analysing, monitoring, and managing intended and unintended social consequences, both positive and negative, arising from planned interventions. Its purpose goes beyond mitigating harm; it seeks to promote more equitable and sustainable environments, strengthen community capacity, enhance development opportunities, and improve outcomes for affected populations (Vanclay, 2003; Vanclay *et al.*, 2015) ^[17, 18]. Contemporary SIA therefore represents a continuous management process rather than a one-off document prepared solely to obtain regulatory approval.

Effective SIA begins with the quality of social-impact planning. Planning establishes the social baseline against which subsequent changes can be assessed; identifies affected communities and vulnerable groups; anticipates potential positive and negative consequences; defines impact indicators; allocates responsibilities; and establishes mitigation, enhancement, monitoring, and reporting mechanisms. Weak planning can result in important social risks being discovered only after implementation has commenced, when mitigation may be more costly and politically difficult. Conversely, comprehensive planning can incorporate social considerations into project design before irreversible commitments are made (Vanclay *et al.*, 2015) ^[18].

Stakeholder engagement constitutes another critical dimension of SIA. Development projects operate within complex stakeholder environments involving beneficiaries, host communities, vulnerable populations, government agencies, financiers, contractors, civil-society organisations, traditional institutions, and other interested actors. Stakeholder theory suggests that sustainable organisational

and project outcomes depend on recognising and managing the legitimate interests of groups affected by organisational decisions (Freeman, 1984) ^[5]. Applied to development projects, meaningful engagement enables communities to articulate priorities, communicate perceived risks, identify context-specific knowledge, participate in decisions, and hold implementing institutions accountable.

SIA monitoring and grievance mechanisms provide a third major dimension through which social-impact objectives can be translated into outcomes. Social conditions are dynamic, and impacts predicted during project preparation may evolve during implementation. Continuous monitoring allows managers to compare actual impacts with forecasts, identify emerging risks, assess whether mitigation strategies are functioning, and adjust implementation accordingly. Grievance mechanisms complement monitoring by providing accessible channels through which project-affected persons can raise concerns, report adverse impacts, seek remedies, and participate in resolving disputes.

The proposed relationship between SIA practices and project social success is also theoretically connected to SDG alignment. In this study, SDG alignment is represented through five development dimensions: poverty reduction (SDG 1), health and well-being (SDG 3), quality education (SDG 4), decent work and employment opportunities (SDG 8), and climate action/environmental resilience (SDG 13). Rather than assuming that good SIA practices automatically constitute project success, the study proposes that SIA planning, stakeholder engagement, and monitoring mechanisms facilitate identifiable SDG-related outcomes, which in turn enhance overall social impact, community satisfaction, and long-term project sustainability.

This question has particular relevance to Nigeria. Government ministries and agencies, international financial institutions, United Nations agencies, NGOs, development partners, and public-private partnerships implement numerous projects intended to address poverty, healthcare, education, water access, transportation, electricity, employment, infrastructure, and environmental challenges. Nigeria has formally incorporated the SDGs into national planning architecture through the Nigeria SDGs Implementation Plan 2020–2030 ^[10, 13] and related national monitoring and financing mechanisms (Office of the Senior Special Assistant to the President on Sustainable Development Goals [OSSAP-SDGs], 2020, 2025) ^[6, 10].

Nigeria's third Voluntary National Review in 2025 ^[11] reaffirmed the country's commitment to implementing the 2030 ^[13] Agenda through a whole-of-government and whole-of-society approach. It highlighted national statistical alignment, development financing mechanisms, inclusive data initiatives, and country-led evaluations of priority SDGs (OSSAP-SDGs, 2025). These initiatives indicate increasing institutional recognition that development programmes require measurable, evidence-based links to sustainable-development outcomes.

Nevertheless, a significant empirical and managerial gap remains. Project-performance assessment often continues to privilege completion rates, budget utilisation, schedules, and physical outputs. Existing studies also frequently examine sustainability, stakeholder engagement, SIA, or social value separately rather than integrating multidimensional SIA practices, explicit SDG alignment, and social project outcomes in a single explanatory framework. Evidence from African and Nigerian development-project settings is

comparatively limited, particularly regarding whether SDG alignment operates as an intervening mechanism between SIA practices and project social success.

Accordingly, this study examines the relationships among SIA planning quality, stakeholder engagement, SIA monitoring and grievance mechanisms, SDG alignment, and project social success in Nigerian development projects. Project social success is defined through overall social impact, community satisfaction, and long-term sustainability. The study further controls for project type, funding source, and duration. Conceptually, it contributes by positioning SDG alignment as a mediating mechanism; empirically, it tests an integrated model within a Nigerian development-project context; and practically, it offers a framework for governments, donors, international agencies, NGOs, and PPP actors seeking to evaluate development effectiveness beyond the traditional triple constraint.

Review of Related Literature

1. Social Impact Assessment in Development Projects

Social Impact Assessment has evolved from a relatively narrow procedure for identifying social consequences into a broader framework for anticipating, managing, monitoring, and evaluating social outcomes throughout the project life cycle. In development projects, SIA is concerned with how interventions affect people, communities, livelihoods, institutions, equity, social inclusion, well-being, and long-term development prospects. It is particularly important because health facilities, schools, water systems, roads, electricity infrastructure, and livelihood programmes can generate significant benefits while also producing unintended consequences such as displacement, livelihood disruption, unequal distribution of benefits, social conflict, exclusion, or environmental burdens (Vanclay, 2003; Vanclay *et al.*, 2015)^[17, 18].

2. SIA Planning Quality

SIA planning quality refers to the extent to which potential social consequences, stakeholder needs, vulnerabilities, distributional impacts, mitigation measures, and expected social benefits are systematically incorporated into project preparation. Effective planning moves SIA upstream in the project cycle rather than treating it as an administrative requirement after key decisions have been taken. High-quality planning should establish social objectives, identify affected stakeholder groups, develop baseline indicators, identify positive and negative impacts, formulate mitigation strategies, and specify monitoring arrangements. Sustainability-oriented project management similarly emphasizes life-cycle thinking and integration of social, economic, and environmental considerations into planning and control (Armenia *et al.*, 2019; Dessi *et al.*, 2026)^[2, 4].

3. Stakeholder Engagement in Social Impact Assessment

Stakeholder engagement refers to the systematic involvement of individuals, communities, institutions, implementing agencies, civil-society organisations, beneficiaries, and other parties affected by or capable of influencing a project. Stakeholder Theory holds that organisational decisions should account for the legitimate interests of multiple parties rather than concentrating solely on project sponsors (Freeman, 1984)^[5]. In development projects, engagement can improve project design by

incorporating local knowledge, identifying overlooked risks, strengthening legitimacy, improving transparency, and creating greater community ownership. It also corresponds with SDG 16 on inclusive institutions and SDG 17 on partnerships.

4. SIA Monitoring and Grievance Mechanisms

Planning and participation alone do not guarantee positive social outcomes. Social effects can evolve during implementation, while unforeseen problems may emerge after implementation begins. SIA monitoring therefore involves continuous collection and use of information concerning project-related social outcomes. Grievance mechanisms complement monitoring by providing affected stakeholders with accessible channels through which complaints, concerns, disputes, and adverse experiences can be communicated and resolved. These mechanisms strengthen accountability, responsiveness, and adaptive management.

5. Sustainable Development Goal Alignment

The SDGs provide a globally recognised framework for translating sustainability into identifiable development priorities. The key challenge at project level is operationalisation: projects should establish measurable pathways connecting practices, outputs, outcomes, and specific sustainable-development objectives. The present study operationalises SDG alignment through poverty reduction (SDG 1), health improvement (SDG 3), quality education (SDG 4), decent work (SDG 8), and climate action (SDG 13). Areesophonpichet *et al.* (2025)^[1] demonstrate the feasibility of explicitly connecting social-impact assessment with SDG-related societal value, while Leal Filho *et al.* (2025)^[8] underscore the continuing implementation challenge surrounding the Goals.

6. SDG 1: No Poverty

Development projects can contribute to poverty reduction through employment generation, improved infrastructure, access to essential services, livelihood enhancement, reduced vulnerability, and increased economic opportunities. SIA is important because aggregate project benefits may conceal unequal distribution. Identifying who gains, who bears costs, and whether vulnerable groups are included is essential to credible project-level alignment with SDG 1.

7. SDG 3: Good Health and Well-being

Although SDG 3 is most directly related to health projects, water, roads, electricity, education, and environmental interventions can also influence health through sanitation, accessibility, safety, information, and socioeconomic pathways. SIA provides a mechanism for identifying these direct and indirect effects and for assessing whether project benefits translate into improved well-being.

8. SDG 4: Quality Education

SDG 4 emphasizes inclusive and equitable quality education. Education projects directly contribute to this objective, while infrastructure, electricity, water, digital access, and community-development interventions can also affect participation and learning conditions. From an SIA perspective, meaningful alignment requires attention to

accessibility, inclusion, quality, and opportunities for intended beneficiaries.

9. SDG 8: Decent Work and Economic Growth

Development projects can create employment, stimulate local businesses, support skills acquisition, improve productive infrastructure, and generate longer-term economic opportunities. However, the decent-work dimension also requires attention to working conditions, inclusion, fairness, safety, and sustainability. SIA helps distinguish temporary project-related employment from broader socioeconomic transformation.

10. SDG 13: Climate Action

Climate change is simultaneously an environmental and social issue because climate-related hazards affect livelihoods, health, food security, displacement, poverty, and infrastructure resilience. Projects may generate short-term social benefits while creating environmental vulnerabilities that compromise those benefits over time. Sustainable project management therefore requires simultaneous consideration of environmental, social, and economic consequences throughout the project life cycle (Armenia *et al.*, 2019)^[2].

11. Project Social Success Beyond the Triple Constraint

The traditional iron triangle of time, cost, and scope remains operationally important but provides an incomplete assessment of development-project success. A project may meet technical delivery criteria yet generate weak community benefits or fail to sustain outcomes after funding ends. Sustainable project-management scholarship therefore distinguishes project-management efficiency from broader project success and increasingly incorporates social and environmental value (Carvalho & Rabechini, 2017; Martens & Carvalho, 2017)^[3]. In this study, project social success comprises overall social impact, community satisfaction, and long-term sustainability.

12. Theoretical Review: Stakeholder Theory

Stakeholder Theory provides a major foundation for explaining the relationship between SIA practices and project social success. Applied to projects, stakeholders include sponsors, government agencies, project teams, contractors, communities, beneficiaries, civil-society organisations, and other affected groups. The theory challenges the assumption that project success can be assessed solely from the sponsor's perspective and supports the inclusion of beneficiary perceptions, participation, legitimacy, and community satisfaction (Freeman, 1984)^[5].

13. Theoretical Review: Triple Bottom Line and Sustainable Development

The Triple Bottom Line broadens performance beyond financial outcomes to economic, social, and environmental value. In project management, it provides a conceptual challenge to the traditional triple constraint by asking whether project activities are economically viable, socially beneficial, and environmentally responsible. Sustainable Development Theory similarly emphasizes meeting present needs without undermining future generations, making long-term sustainability, institutional capacity, community ownership, and environmental resilience integral to development-project success.

14. Empirical Review and Research Gap

Empirical evidence generally supports positive relationships among sustainability-oriented project practices, stakeholder management, and broader project-success measures. Carvalho and Rabechini (2017)^[3] reported a positive relationship between sustainability management and project success. Areesophonpichet *et al.* (2025)^[1] provide more direct evidence concerning integration of SIA and SDGs. Gibbin *et al.* (2025)^[6] demonstrate the growing use of systematic mechanisms to assess project-management adherence to SDGs, while Dessi *et al.* (2026)^[4] argue for formalising sustainability as a core project-management process. Despite this progress, important gaps remain. Studies frequently examine stakeholder engagement, sustainability practices, social value, or SIA independently; SDG alignment is often treated as an endpoint rather than an intervening mechanism; and evidence from African development-project environments remains comparatively limited. The present study therefore tests the pathway SIA Practices → SDG Alignment → Project Social Success in Nigeria, deliberately excluding cost, time, and scope from the dependent construct in order to examine social success beyond the triple constraint.

Methodology

1. Research Design

The study adopted a quantitative cross-sectional survey research design to investigate the relationship among Social Impact Assessment practices, Sustainable Development Goal alignment, and project social success in development projects in Nigeria. The analytical framework was explanatory and examined both direct relationships and the indirect pathway through SDG alignment.

2. Study Context and Unit of Analysis

The study was situated within the Nigerian development-project environment. Projects represented health, education, water, road, and power sectors and different funding arrangements, including Federal Government, donor, public-private partnership, and NGO funding. Respondents comprised project managers, monitoring and evaluation officers, and community liaison officers. The respondent constituted the observational unit, while measurements referred substantively to the development project with which the respondent was associated.

3. Population and Sample

The analytical sample comprised 221 valid observations ($N = 221$). Because the supplied dataset does not contain a documented sampling frame, response-rate information, organisational roster, or field-selection sequence, no unsupported probability-sampling claim is made. The analysis is therefore explicitly based on the 221 valid project-level respondent observations available in the study dataset.

4. Measurement of Variables

The substantive constructs were measured on five-point Likert-type scales, with higher scores representing stronger or more favourable assessments. SIA practices comprised SIA planning quality (SIA_PLAN), stakeholder engagement (SIA_STAKE), and SIA monitoring/grievance mechanisms (SIA_MON). SDG alignment comprised SDG_POV, SDG_HEALTH, SDG_EDU, SDG_JOBS, and SDG_ENV.

Project social success comprised SOC_IMPACT, COMM_SAT, and SUSTAINABILITY. Controls were project type, funding source, and project duration.

5. Composite Indices

For composite-level analysis, the SIA Practice Index was defined as the arithmetic mean of SIA_PLAN, SIA_STAKE, and SIA_MON. The SDG Alignment Index was defined as the mean of the five selected SDG dimensions. The Project Social Success Index was defined as the mean of SOC_IMPACT, COMM_SAT, and SUSTAINABILITY. These indices retain the original 1–5 metric.

6. Control Variables

Project type was coded 1 = Health, 2 = Education, 3 = Water, 4 = Road, and 5 = Power. Funding source was coded 1 = Federal Government, 2 = Donor, 3 = Public-Private Partnership, and 4 = NGO. Project duration was measured in years. In regression models, nominal project type and funding source should be dummy-coded rather than treated as continuous variables.

7. Model Specification

The mediation framework specifies SIA Practices → SDG Alignment → Project Social Success. The first-stage model estimates SDG alignment as a function of SIA practices and controls. The outcome model estimates project social success as a function of SIA practices, SDG alignment, and controls. The indirect effect is the product of the SIA-to-SDG pathway and the SDG-to-social-success pathway.

8. Hypotheses

H1: SIA practices have a significant positive relationship with SDG alignment. H1a–H1c test the individual SIA dimensions. **H2:** SDG alignment has a significant positive relationship with project social success. **H3:** SIA practices have a significant positive relationship with project social success beyond conventional triple-constraint measures. **H4:** SDG alignment significantly mediates the relationship between SIA practices and project social success.

9. Data Analysis

Analysis should proceed through data screening, descriptive statistics, Pearson correlations, multiple regression, and mediation analysis. The indirect effect should preferably be evaluated using 5,000 bootstrap resamples and a 95% confidence interval, with an interval excluding zero indicating statistical evidence of mediation (Hayes, 2022)^[7]. Statistical significance is evaluated at $p < .05$, while coefficients, confidence intervals, R^2 , adjusted R^2 , and F-statistics should be reported where appropriate.

10. Diagnostic and Measurement Considerations

Regression assumptions include linearity, independence of errors, homoscedasticity, approximate normality of residuals, and acceptable multicollinearity. Variance Inflation Factor and tolerance statistics should be inspected because the SIA and SDG dimensions may be strongly correlated. The supplied dataset contains aggregated construct scores rather than item-level responses; therefore, Cronbach's alpha, factor loadings, composite reliability, average variance extracted, and discriminant validity should

not be reconstructed or fabricated from the aggregate variables.

11. Ethical Considerations

Standard survey-research principles include voluntary participation, confidentiality, appropriate anonymity, secure data handling, and legitimate research use. No personally identifying respondent information is contained in the analytical dataset. Any publication should report only the ethical approval or institutional review arrangements actually used during original data collection; an approval number should not be invented.

Results and Discussion

The exact statistical output previously requested for this study is not available in the recoverable conversation record used to compile this document. To preserve empirical integrity, numerical descriptive statistics, correlation coefficients, regression coefficients, p-values, model fit statistics, and bootstrap mediation estimates have not been invented. This section therefore records the required reporting structure and should be populated directly from the cleaned N = 221 dataset before journal submission.

1. Data Screening

The analysis should use one unique observation for each ID from 1 to 221 and exclude duplicated pasted blocks. Any malformed source row should be reconciled against the original data record rather than silently imputed. The final manuscript should report the number of valid cases retained and any corrections or exclusions.

2. Descriptive Statistics

Report means, standard deviations, minima, and maxima for SIA_PLAN, SIA_STAKE, SIA_MON, the five SDG variables, SOC_IMPACT, COMM_SAT, SUSTAINABILITY, and the three composite indices. Frequencies and percentages should be reported for project type and funding source.

3. Correlation Analysis

Present the Pearson correlation matrix for the principal SIA, SDG-alignment, and project-social-success variables. Interpret both direction and magnitude, and flag unusually high intercorrelations because the supplied data are highly patterned and may create multicollinearity.

4. Regression and Mediation Results

Report the first-stage regression predicting SDG alignment, the total-effect model predicting project social success from SIA practices, and the mediation model including both SIA practices and SDG alignment. Report unstandardized and/or standardized coefficients consistently, standard errors, t-values, p-values, confidence intervals, R^2 , adjusted R^2 , F-statistics, and VIF/tolerance diagnostics. The mediation conclusion must be based on the bootstrapped indirect-effect confidence interval.

5. Discussion of Findings

The discussion should be written only after the exact estimates are available. Each hypothesis should be classified as supported or not supported based on its corresponding coefficient and significance test. The discussion should compare the observed pattern with Stakeholder Theory, the

Triple Bottom Line perspective, sustainable project-management literature, and prior empirical work, while distinguishing statistical association from causal inference.

Conclusion and Recommendations

1. Conclusion

This study develops and evaluates a framework for understanding development-project success beyond the traditional emphasis on cost, time, and scope. It conceptualises Social Impact Assessment through planning quality, stakeholder engagement, and monitoring/grievance mechanisms; SDG alignment through selected dimensions of poverty, health, education, decent work, and climate action; and project social success through overall social impact, community satisfaction, and long-term sustainability.

The study's principal conceptual contribution is the separation of project-delivery efficiency from development effectiveness. Cost efficiency, schedule compliance, and technical completion remain important elements of competent project management, but they do not by themselves establish whether a development intervention generated durable societal value. SIA and SDG alignment provide a structured basis for extending performance assessment toward beneficiary outcomes and sustainability. Because the exact inferential output is not reproduced in the recoverable record used for this compiled document, this conclusion deliberately avoids claiming that a particular SIA dimension was statistically significant, that a specific SDG dimension was strongest, or that mediation was full, partial, or statistically supported. Those statements should be inserted only after reconciliation with the final regression and bootstrap tables.

2. Recommendations

1. Institutionalise Social Impact Assessment across the project life cycle, from identification and feasibility through implementation, monitoring, closure, and post-project evaluation.
2. Integrate explicit SDG targets and project-level indicators into logical frameworks, monitoring plans, performance dashboards, and evaluation reports.
3. Expand project-success criteria beyond cost, time, and scope to include social impact, beneficiary satisfaction, stakeholder inclusion, environmental outcomes, and long-term sustainability.
4. Strengthen stakeholder engagement from project conception through post-completion evaluation, with deliberate inclusion of affected and vulnerable groups.
5. Establish functional and accessible grievance-redress mechanisms with clear documentation, response timelines, escalation procedures, and feedback channels.
6. Incorporate community satisfaction and beneficiary experience into project evaluation rather than relying exclusively on technical completion certificates and financial reports.
7. Conduct post-project sustainability assessments covering maintenance, recurrent financing, local institutional capacity, community ownership, utilisation, and continuity of benefits.
8. Build the SIA and SDG-measurement capacity of project managers, M&E officers, community liaison

officers, government officials, and implementing partners.

9. Develop standardised Nigerian project-level indicators for SDG alignment while allowing sector-specific adaptation for health, education, water, roads, power, and related interventions.
10. Integrate social-impact indicators into mainstream monitoring and evaluation systems so that physical, financial, social, and sustainability performance can be reviewed together.

3. Recommendations for Further Research

Future studies should collect item-level measurement data to permit confirmatory factor analysis, reliability and validity assessment, and latent-variable structural equation modelling. Longitudinal designs should examine whether SIA practices during implementation predict actual social outcomes after project closure. Further research should compare government-funded, donor-funded, NGO, and PPP projects, undertake sector-specific analyses, incorporate beneficiary perspectives alongside managerial assessments, and directly compare conventional time-cost-scope models with expanded social-impact-SDG-sustainability models.

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