Chapter One

Introduction

1.1 Background to the Study

In an era of rapid global transformation, sustainable education emerges as a beacon of hope, intertwining the fabric of society with the aspirations of national development. As higher institutions shape tomorrow's leaders, they not only impart knowledge but also forge the resilience and creativity required to navigate complex socio-economic landscapes[1]. This confluence of learning and societal progress illuminates a path where education fuels sustainable growth, propelling communities towards innovation, inclusivity, and environmental stewardship[2]. The dynamic interplay between sustainable education and national development is redefining Nigeria's future, ensuring that progress is both profound and enduring. Their synergy propels enduring societal advancement.

Numerous articles reveal that sustainable education is widely understood as an integrative process that goes beyond the mere transmission of knowledge[3,4]. It embeds sustainability principles—spanning environmental, social, and economic dimensions—into curricula, teaching methodologies, and institutional policies. Scholars argue that this approach equips learners with critical thinking, creativity, and a sense of responsibility, which are essential for addressing complex global challenges[5]. In this view, sustainable education becomes a transformative force, preparing individuals not just for the labour market, but also for active participation in societal advancement.

Parallel to this, the discourse on national development centres on the creation of robust economic, social, and technological systems that foster long-term societal progress[6]. A significant strand of the literature posits that the quality and relevance of an education

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system directly influence a country's ability to achieve sustainable development[7]. Higher education institutions are seen as vital contributors to economic growth, social equity, and technological advancement. This perspective underscores the role of education in nurturing leadership and entrepreneurial spirit—attributes that are critical for national transformation.

The convergence of these two domains is captured by several theoretical models that articulate the dynamic interplay between sustainable education and national development[9]. These models suggest that higher institutions serve as hubs of innovation and knowledge dissemination. They not only generate new ideas through research but also translate these insights into practices that stimulate local economies and build resilient communities. Moreover, the literature frequently draws on multiple theoretical perspectives—ranging from human capital theory to systems thinking—to explain how sustainable education can be a catalyst for broader societal change. These frameworks collectively stress that the development of a skilled and adaptable workforce is a cornerstone of national progress[10].

The international discourse on sustainable education underscores a paradigm shift where institutions worldwide are increasingly leveraging innovation, technology, and community engagement to promote learning that extends beyond traditional academic boundaries. Multiple reports from reputable agencies have documented how countries with advanced education systems have integrated interdisciplinary curricula and technology-enhanced learning environments[11]. These global trends focus on fostering critical thinking, adaptive skills, and sustainability literacy—key ingredients for

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equipping learners to tackle emerging challenges in rapidly changing socio-economic landscapes.

In contrast, the higher education institutions across South West Nigeria face distinct challenges that create a complex local context. States such as Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti are home to diverse institutions where infrastructural limitations, funding constraints, and an often-outdated curriculum structure inhibit the full adoption of these progressive educational models[12]. Studies indicate that while some institutions have initiated steps toward digital learning and curriculum reform, many still grapple with inadequate facilities, limited access to modern teaching technologies, and insufficient training for educators[13]. These challenges are compounded by socio-cultural factors that sometimes hinder the swift adaptation of international innovations.

Despite these obstacles, there is a growing consensus among scholars and policy analysts that international best practices offer a valuable roadmap for local adaptation. Higher education institutions in Southwest Nigeria serve as dynamic engines of socio-economic transformation, acting as catalysts for national development through multifaceted roles in education, research, and community engagement[14]. These institutions, that is, both public and private are not merely centres for imparting academic knowledge but are pivotal in moulding critical thinkers, innovators, and future leaders who can navigate complex development challenges.

Their contribution extends well beyond traditional teaching paradigms by integrating sustainable education into curricula that address pressing environmental, social, and economic issues. Higher institutions foster an environment where students engage in problem-solving and innovation, preparing them to contribute effectively to the nation's

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growth agenda[15]. In curriculum development, higher institutions are increasingly aligning academic programs with the demands of a rapidly evolving global economy. This involves revising course content to include sustainability concepts, digital literacy, and entrepreneurial skills that are essential for modern industries. Institutions have started emphasizing research-based learning and practical experiences, which not only enhance students' competencies but also drive innovation.

However, the implementation of sustainable education within these institutions is not without its challenges. One significant barrier is inadequate funding, which constrains the modernization of facilities, limits access to advanced technological tools, and hinders the recruitment and retention of qualified faculty members[16]. In many cases, outdated curricula and bureaucratic inertia further impede the adoption of innovative teaching methods and the integration of sustainability into educational frameworks. Infrastructure gaps, especially in rural or underfunded urban areas, also limit the ability of institutions to offer state-of-the-art learning environments that are essential for fostering creativity and critical thinking[17].

Despite these challenges, there are substantial opportunities for enhancing sustainable education in the southwest region. The growing emphasis on technological integration offers a pathway to modernize educational delivery through digital learning platforms and smart classrooms. Partnerships between higher institutions and industry can lead to the development of internship programs, research collaborations, and innovation labs that provide students with hands-on experiences in real-world settings. Such collaborations not only enhance the quality of education but also ensure that the skills imparted are aligned with market needs and national development priorities.

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Policy reforms in the education sector can also play a critical role in creating an enabling environment for sustainable education. Governments and educational authorities are increasingly recognizing the need for strategic investments in higher education, particularly in the areas of infrastructure development, faculty training, and curriculum innovation. While fostering a regulatory framework that supports flexibility, innovation, and collaboration, policymakers can help higher institutions overcome existing barriers and unlock their full potential as agents of national development.

While higher education institutions in Southwest Nigeria are at the forefront of driving socio-economic change, realizing the full benefits of sustainable education requires addressing significant challenges. The evolution of educational strategies in the region serves as a microcosm for the broader national effort to harness education as a means to achieve sustainable development, reflecting the intricate balance between visionary policy and the practical realities of institutional implementation. In this environment of continual transformation, the trajectory of sustainable education in Southwest Nigeria offers valuable insights into how educational reform can act as a lever for national development, fostering a future where learning is not only a pathway to individual success but also a cornerstone of societal resilience and progress.

1.2 Statement of the Problem

Sustainable education is increasingly recognized as a pivotal element for driving national development, yet its practical integration within higher institutions remains problematic. Despite numerous policy frameworks advocating for sustainability, higher institutions continue to face significant challenges that hinder their ability to effectively contribute to the nation's socio-economic progress. One major issue is the persistent gap between

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the theoretical commitment to sustainable education and its actual or practical implementation. Although curricula in many institutions have been redesigned to incorporate sustainability themes, these changes are often superficial. Many programs continue to rely on outdated teaching methods and content, which fail to equip graduates with the necessary skills to drive sustainable practices in a rapidly evolving global economy. Inadequate funding and infrastructural deficits further exacerbate this situation, limiting the adoption of innovative technologies and modern pedagogical approaches essential for sustainability.

Previous research has highlighted the potential of sustainable education to enhance human capital, foster innovation, and promote civic responsibility—all of which are vital for national development. Studies conducted in various regions over the years have demonstrated that institutions committed to sustainability tend to produce graduates who are better prepared to address environmental, social, and economic challenges. However, evidence from Southwest Nigeria indicates that the adoption of sustainable practices in higher education is sporadic and poorly coordinated. Researchers have also noted that while individual initiatives exist, there is a lack of a comprehensive strategy that aligns these efforts with national development goals. The fragmented nature of these initiatives suggests that the impact of sustainable education on national progress remains limited.

While existing research has focused on or found that sustainable education enhances human capital and fosters innovation, it also reveals fragmented, inconsistent implementation in higher institutions. This research intends to fill the gap by examining the impact of sustainable education practices on national development among selected higher institutions in Southwest Nigeria from 2012-2024.

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1.3 Aim and Objectives of the Study

The aim of this study is to examine the impact of sustainable education practices on national development among selected higher institutions in Southwest Nigeria from 2012-2024. However, it seeks to understand not only how these practices contribute to developmental progress but also the role government policies and institutional frameworks in facilitating sustainable education. Specifically, the objective of the study was to:

i. appraise how the implementation of sustainable education practices influences various national development outcomes in Southwest Nigeria;
ii. ascertain the extent to which government policies and institutional frameworks facilitate or impede the adoption of sustainable education practices among higher institutions in the region;
iii. identify the key challenges that higher institutions face in implementing sustainable education strategies, as well as the opportunities these challenges may present for improving educational and developmental outcomes; and
iv. ascertain how educators and policymakers perceive sustainable education practices and to determine the correlation between these perceptions and the effectiveness of national development initiatives.

1.4 Research Questions

1. How does the implementation of sustainable education practices influence national development outcomes in Southwest Nigeria?

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2. In what ways have government policies and institutional frameworks facilitated or hindered the adoption of sustainable education practices among higher institutions in Southwest Nigeria?
3. What are the key challenges and opportunities encountered by these institutions in implementing sustainable education strategies?
4. How do perceptions of sustainable education among educators and policymakers correlate with national development initiatives?

1.5 Significance of the Study

The significance of this study is underscored by the urgent need to understand and enhance the role of sustainable education in driving national development, particularly in Southwest Nigeria. In an era marked by rapid technological change, environmental challenges, and socio-economic disparities, education stands as a critical instrument for fostering resilience and progress. This study is important now because it investigates how sustainable education practices can serve as a transformative tool, equipping graduates with the skills, ethical grounding, and innovative mindset necessary for tackling contemporary challenges.

While examining the influence of sustainable education on development outcomes, the research offers evidence-based insights that can inform the design and implementation of more effective educational policies. It addresses current issues such as inadequate infrastructure, limited funding, and policy constraints that impede educational reform, while highlighting opportunities for curricular innovation and improved stakeholder engagement. The potential beneficiaries of this study include policymakers, who can

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utilize the findings to refine regulatory frameworks and drive reforms that align educational outputs with national development needs.

Academic institutions stand to benefit by adapting their curricula and teaching methodologies to foster a more sustainable and dynamic learning environment. Additionally, educators and students will gain from enhanced educational practices that promote critical thinking, creativity, and social responsibility. Lastly, local communities and the broader national economy are poised to benefit from a more capable workforce that can contribute effectively to sustainable development, thereby supporting long-term socio-economic growth and stability.

1.6 Scope of the Study

The study focuses on sustainable education and national development within Southwest Nigeria. The research timeframe spans from 2012 - 2024, a period marked by significant educational reforms, policy shifts, and evolving development challenges. This timeframe is considered to capture the cumulative effects of recent sustainable education initiatives and emerging trends that shape socio-economic progress in the six (6) states that make the southwest region of Nigeria. Earlier periods were excluded as they do not reflect current realities and innovations in educational practices. Thus, the selected period offers a relevant context for assessing sustainable education's impact on national development, ensuring a comprehensive, robust analysis.

1.7 Limitation to the Study

This study has several limitations. The research focuses solely on selected higher institutions in Southwest Nigeria, which may limit the generalizability of findings to

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other regions. Data collection relies heavily on self-reported information, introducing potential bias and inaccuracies. The use of questionnaires may restrict the depth of understanding compared to qualitative methods. Limited secondary data availability might constrain the contextual analysis of sustainable education practices. Additionally, time and resource constraints could affect sample size and response rates, potentially impacting the reliability of conclusions. Despite these limitations, the study provides valuable insights into sustainable education and its impact on national development.

1.8 Operational Definition of Terms

Sustainable Development: Sustainable development refers to the balanced approach to growth and progress that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. It involves the integration of economic, social, and environmental factors to ensure long-term development while preserving resources for the future.

Higher Education Institutions: These are tertiary institutions such as universities, polytechnics, and colleges of education where advanced academic training and research are conducted. In this study, higher education institutions refer to selected universities and polytechnics in the South-West region of Nigeria.

Sustainable Education: This refers to the process of teaching and learning that incorporates principles of sustainability into the curriculum and practices of an educational institution. It aims to equip students with the knowledge, skills, and values necessary to contribute to sustainable development, including environmental preservation, social responsibility, and economic stability.

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National Development: National development encompasses the overall growth and improvement in the economic, social, political, and environmental well-being of a country. It includes progress in infrastructure, education, healthcare, and governance, contributing to the betterment of living standards for all citizens.

South-West Nigeria: This refers to the geopolitical zone of Nigeria that includes six states: Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti. The region is known for its strong educational infrastructure and economic contributions to Nigeria.

Curriculum Integration: In the context of this study, curriculum integration refers to the process of embedding sustainability concepts, issues, and practices into the formal educational curriculum of higher institutions to provide students with a holistic understanding of sustainable development.

Resource Management: Resource management involves the strategic planning and utilization of resources such as materials, energy, and human capital in a manner that minimizes waste and preserves the environment for future use. Sustainable resource management practices are key to achieving long-term sustainability goals.

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Chapter Two

Literature Review

2.1 Conceptual Review

2.1.1 Education

Education has been a cornerstone of human development, social progress, and cultural advancement for centuries. Scholars and educators have long debated its definition, its purpose, and its role in society. While the understanding of education has evolved over time, it remains a multi-dimensional concept with various interpretations across different contexts. The traditional concept of education often emphasizes the transmission of knowledge from one generation to the next. This definition is deeply rooted in the belief that education is primarily about the accumulation of knowledge and skills that prepare individuals for life in society[1]. Historically, education was seen as a formal process of instructions delivered through schools and institutions, with a clear distinction between the teacher and the learner. In this framework, education was largely content-based, focusing on literacy, numeracy, and subject-specific knowledge, such as history, mathematics, and science[2].

However, this perspective has been critiqued for its narrow focus on academic achievement and its limited scope in addressing the broader aspects of human development. Critics argue that this traditional view neglects the development of critical thinking, creativity, and emotional intelligence, which are equally important in today's world[3]. Additionally, the rigid structure of traditional education often fails to accommodate diverse learning styles and the needs of students with varying abilities.

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From a functionalist perspective, education serves to meet the needs of society by socializing individuals and preparing them to contribute to the economy and the social order. In this view, education is an essential institution that provides individuals with the skills and values required for them to function effectively in society. Education, therefore, becomes a means to integrate individuals into the social fabric and ensure societal stability and cohesion[4].

Education is a fundamental activity that individuals and societies engage in, shaping the transmission of cultural values, ideologies, customs, and skills from one generation to another. Every society, whether traditional or modern, simple or complex, has always been involved in ensuring that its cultural heritage, including beliefs, philosophies, and norms, is passed down to its youth[5]. This transmission, which forms the core of education, can take different forms depending on the type of society in which it occurs. Some societies engage in formal education, where structured learning takes place in institutions with set curricula, while others rely on informal or non-formal education, which occurs through daily life experiences, mentorship, and community engagement[6].

Education has been regarded as the process of preserving, developing, and transmitting culture from one generation to another[7]. This process is crucial in ensuring continuity and stability within societies while also allowing for growth, development, and adaptation to new realities. Furthermore, education enables individuals to acquire the knowledge, values, and skills necessary to participate in decision-making processes at personal, communal, and global levels[8]. The role of education in societal transformation is evident in various dimensions, including economic development, environmental conservation, poverty alleviation, human rights advocacy, gender equality, cultural diversity, and global

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peace initiatives. Consequently, education is widely recognized as a powerful tool for achieving sustainable development, fostering social cohesion, and ensuring the empowerment of individuals and communities[9].

One of the most enduring definitions of education is that it is the acquisition of knowledge, skills, attitudes, and experiences necessary for individual and societal development[10]. From this broad definition, three major strands of education have emerged. The first strand views education as the totality of all experiences acquired in the process of living. This perspective emphasizes that education is not limited to formal institutions but extends to everyday experiences and interactions. While this definition is widely accepted, it is considered vague because it lacks specificity in terms of structure, objectives, and methodologies[11].

The second strand defines education as the acquisition of knowledge, skills, attitudes, and experiences within formal institutions such as schools, colleges, and universities. This perspective is narrow and restricted, as it does not acknowledge the role of non-formal and informal learning in shaping an individual's intellectual and social development. Many essential skills and knowledge are acquired outside of structured educational institutions, including through apprenticeships, cultural practices, and life experiences. The third and most widely accepted definition, which serves as a working definition, conceptualizes education as an organized learning activity designed to facilitate knowledge acquisition among individuals, regardless of age. This definition implies the presence of fundamental components in the educational process, including a teacher or facilitator, a learner or student, a structured curriculum or content, and appropriate

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pedagogical methods[12]. The presence of these components ensures that education is systematic, goal-oriented, and measurable in terms of learning outcomes.

Education plays a critical role in societal development by equipping individuals with the necessary tools to navigate and contribute effectively to their communities. It serves as a medium through which people develop cognitive abilities, practical skills, and social awareness required to participate actively in economic, political, and cultural spheres. The impact of education on development is evident in multiple domains, including economic growth, social transformation, environmental sustainability, and global peace initiatives[13]. One of the most significant contributions of education to society is its role in economic growth and development. Education enhances human capital, which in turn improves labor productivity, innovation, and economic competitiveness[14]. Countries with high literacy rates and advanced education systems tend to experience rapid economic growth and technological advancements. Research has shown that investment in education leads to increased earnings for individuals, higher employment rates, and overall national prosperity.

Additionally, education fosters entrepreneurship by equipping individuals with critical thinking skills, problem-solving abilities, and financial literacy necessary for establishing and managing businesses. Entrepreneurial education has been recognized as a key factor in fostering self-employment and reducing dependency on government and corporate jobs. Education is instrumental in shaping societal values, behaviours, and attitudes. Through education, individuals develop moral and ethical values that promote social cohesion, tolerance, and respect for diversit[15]. Formal and informal education systems contribute to the reduction of social inequalities by providing opportunities for marginalized groups,

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including women, persons with disabilities, and ethnic minorities, to access quality education and improve their socioeconomic status.

Gender equality is one of the critical areas where education has had a transformative impact. Educating girls and women has been linked to improved health outcomes, lower infant mortality rates, increased family income, and overall national development[16]. Gender-sensitive education policies and initiatives have been implemented in various countries to promote equal access to education and bridge gender disparities in literacy and professional development[17].

The role of education in promoting environmental awareness and sustainability has gained global recognition in recent years. Education for Sustainable Development (ESD) is an approach that integrates environmental concerns into learning processes to equip individuals with the knowledge and skills required to address climate change, resource conservation, and sustainable living[18]. Schools and universities have incorporated environmental studies into their curricula to raise awareness about issues such as pollution, deforestation, and renewable energy sources.

In contemporary Nigeria, the functionalist view of education is evident in the country's emphasis on formal education as a way to address issues such as unemployment, poverty, and social inequality. Education is seen as a tool for economic empowerment and upward social mobility. However, the challenge in Nigeria is that the quality of education often fails to align with the needs of the labour market, leading to a mismatch between the skills taught in schools and those required in the workforce[19]. This issue is compounded by underfunding, outdated curricula, and overcrowded classrooms, which hinder the ability of the education system to fully equip students for the challenges of modern society.

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The humanistic perspective of education shifts the focus from the transmission of knowledge to the development of the whole person. To this view, education should foster personal growth, emotional well-being, and the cultivation of moral and ethical values. The humanistic approach emphasizes self-directed learning, critical thinking, and the development of creativity and autonomy. Education, in this sense, is not just about preparing students for the workforce but about fostering individuals who can contribute to society in meaningful ways[20].

In Nigeria, where education has often been associated with economic and social advancement, the humanistic approach remains largely underrepresented in the formal curriculum. While there have been attempts to integrate values education into the system, it is often sidelined in favour of more measurable outcomes such as examination results and academic achievement. The Nigerian education system's overemphasis on rote learning and exam success has led to concerns about students' lack of critical thinking and problem-solving abilities[21]. As the country grapples with challenges such as insecurity, corruption, and political instability, there is an urgent need to reconsider the role of education in cultivating a more ethical and socially responsible citizenry.

Progressive education is centred around the idea that education should be learner-centred and focus on the development of students as active participants in their own learning process. This approach advocates for the inclusion of experiential learning, collaboration, and problem-solving in the curriculum. Progressive educators believe that students should be encouraged to explore their interests and engage in hands-on, real-world experiences that foster critical thinking and creativity[22].

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In Nigeria, the progressive approach to education has found support among educators and reform advocates who argue for a shift away from rigid, examination-focused teaching methods towards more flexible, student-centred models. However, despite calls for reform, many schools in Nigeria continue to rely heavily on traditional pedagogical approaches that emphasize memorization and rote learning. This is partly due to systemic issues such as overcrowded classrooms, lack of teacher training, and limited access to resources[23]. While some private schools in urban areas have adopted more progressive methods, the majority of Nigerian schools—particularly those in rural regions—remain stuck in traditional modes of education that stifle creativity and critical thinking.

Critical pedagogy takes a more radical approach, challenging the very foundations of traditional education systems. This perspective argues that education should empower students to question societal structures, including power dynamics, inequality, and injustice. Critical pedagogy emphasizes the importance of education as a tool for social change, focusing on the development of critical consciousness and the ability to challenge oppressive systems[24].

In the context of Nigeria, critical pedagogy has particular relevance given the country's complex socio-political landscape. Nigeria is characterized by deep-rooted issues such as corruption, ethnic division, and inequality, all of which are reflected in the education system. The focus on rote learning and examination success often discourages students from questioning the status quo and developing the skills necessary to engage in social activism or critical inquiry. There is a growing recognition among some educators and activists in Nigeria that the education system must be reformed to encourage students to

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think critically about their society and take an active role in addressing the country's challenges[25].

In recent years, the concept of lifelong learning has gained increasing importance in educational discourse. Lifelong learning emphasizes the idea that education should not be confined to formal schooling but should be a continuous, lifelong process. This perspective reflects the changing nature of work and the rapid pace of technological innovation, which requires individuals to constantly update their skills and knowledge throughout their lives[26]. In Nigeria, where access to education remains limited for many, especially in rural areas, the idea of lifelong learning offers an opportunity to bridge the educational gap. However, the country faces significant challenges in terms of providing opportunities for education, vocational training, and continuous professional development. The lack of infrastructure, funding, and governmental support for lifelong learning initiatives means that many Nigerians remain excluded from opportunities to enhance their skills and knowledge after completing formal education[27].

The concept of education has evolved from a traditional, content-based view to a more dynamic and inclusive understanding that emphasizes personal development, critical thinking, and lifelong learning. While various definitions of education offer valuable insights into its purpose and function, the challenge in Nigeria lies in aligning these theoretical perspectives with the realities of the education system. The Nigerian education system, burdened by inadequate funding, overcrowded classrooms, and outdated curricula, often fails to equip students with the skills and knowledge needed to thrive in today's globalized world[28].

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There is an urgent need for educational reforms in Nigeria that move beyond rote learning and examination success to focus on the development of critical thinking, creativity, and social responsibility. Additionally, the education system must be restructured to provide more opportunities for lifelong learning and the development of practical, job-related skills. The future of education in Nigeria depends on the ability to blend traditional educational models with more progressive, humanistic, and critical approaches that prepare students to navigate the challenges of the 21st century.

2.1.2 Education as a Tool for Global Peace and Human Rights Advocacy

Education serves as a fundamental pillar for fostering global peace and advancing human rights advocacy, as it provides individuals with the knowledge, skills, and ethical frameworks necessary to cultivate understanding, tolerance, and justice within societies. Scholars argue that education has the transformative power to shape human behaviour, mitigate conflicts, and promote coexistence in diverse cultural and socio-political contexts[29]. While equipping individuals with critical thinking skills, education empowers them to challenge oppressive systems, advocate for social justice, and contribute to policy formulation that upholds human dignity and fundamental freedoms.

One of the core aspects of education's role in promoting global peace lies in its ability to dismantle prejudices and foster intercultural dialogue. Through exposure to diverse historical narratives, philosophical discourses, and ethical considerations, education nurtures empathy and tolerance, thereby reducing the likelihood of intergroup conflicts[30]. It has been observed that societies with higher literacy rates and equitable access to education exhibit lower tendencies toward violent extremism and political instability. Educational institutions that incorporate peace education within their curricula facilitate

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an environment where students learn conflict resolution techniques, negotiation strategies, and nonviolent communication skills, all of which contribute to the establishment of harmonious societies[31].

Furthermore, education enhances social cohesion by addressing structural inequalities that often serve as catalysts for unrest. When educational opportunities are distributed equitably across gender, ethnicity, and socioeconomic backgrounds, individuals from marginalized communities are more likely to participate in civic activities and political processes[32]. The inclusion of human rights education in school syllabi helps instil principles such as justice, equality, and respect for individual freedoms from an early age, reinforcing a culture of democracy and good governance. Countries that have integrated human rights education into their national education policies have reported significant reductions in discriminatory practices and human rights violations.

The role of education in preventing radicalization and violent extremism has also been widely studied. Research suggests that individuals deprived of educational opportunities are more susceptible to recruitment by extremist groups due to the lack of alternative sources of empowerment and socioeconomic mobility. In contrast, access to quality education that promotes critical thinking, ethical reasoning, and civic responsibility has been linked to decreased levels of radicalization[33]. In post-conflict regions, educational programs designed to rehabilitate former combatants and reintegrate displaced populations have proven instrumental in fostering long-term peacebuilding efforts.

Another significant contribution of education to global peace and human rights advocacy is its role in empowering women and promoting gender equality. Gender disparities in education have historically contributed to systemic oppression and social injustices that

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hinder the realization of sustainable peace[34]. When women receive equal educational opportunities, they are better equipped to challenge patriarchal norms, participate in decision-making processes, and contribute to conflict resolution initiatives. Studies have demonstrated that societies that prioritize female education experience lower rates of domestic violence, improved maternal health, and greater economic stability, all of which contribute to a more peaceful global landscape.

Moreover, the integration of digital technologies into education has expanded access to knowledge and advocacy tools, enabling individuals from remote or underprivileged areas to participate in global human rights movements[35]. Online learning platforms, virtual classrooms, and open-access educational resources have democratized education, allowing activists, policymakers, and grassroots organizations to collaborate on pressing human rights issues. The role of digital literacy in shaping informed global citizens cannot be overstated, as it enables individuals to critically evaluate information, detect misinformation, and engage in constructive dialogue on complex socio-political matters[36].

Despite these positive impacts, challenges persist in ensuring that education fulfils its potential as a catalyst for peace and human rights advocacy. Socioeconomic disparities, political instability, and cultural resistance to progressive educational reforms often hinder efforts to implement inclusive and equitable educational policies[37]. In many developing nations, limited access to quality education exacerbates existing inequalities, creating environments conducive to social unrest and human rights abuses. To address these challenges, policymakers and educators must collaborate to develop holistic educational frameworks that prioritize peace education, human rights literacy, and democratic engagement.

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Education also plays a crucial role in equipping future leaders with the competencies required to navigate global conflicts and implement effective governance strategies. Higher education institutions that offer specialized programs in peace and conflict studies, international law, and human rights advocacy contribute to the cultivation of experts who can address contemporary global challenges through diplomacy and legal mechanisms[38]. The influence of academic research on policymaking has been instrumental in shaping international treaties, conflict resolution mechanisms, and humanitarian interventions that uphold human dignity and fundamental freedoms.

The inclusion of indigenous knowledge systems and traditional conflict resolution mechanisms in educational curricula has also gained recognition as a means of promoting localized peacebuilding efforts. Indigenous education models emphasize community-based reconciliation practices, environmental stewardship, and collective decision-making processes, all of which align with broader human rights principles[39]. Societies can cultivate a more holistic approach to peace and justice that reflects diverse cultural values and historical contexts.

In the context of global migration and refugee crises, education has emerged as a critical tool for promoting social integration and protecting the rights of displaced populations. Refugee education programs that provide language training, vocational skills, and psychosocial support have demonstrated significant success in reducing xenophobia and fostering social cohesion between host communities and migrant populations[40]. Educational institutions that adopt inclusive policies and culturally responsive teaching strategies contribute to the creation of more inclusive societies where human rights are respected and upheld.

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Additionally, the role of youth engagement in peace education and human rights advocacy cannot be overlooked. Young people have been at the forefront of social movements that demand accountability, transparency, and justice in governance structures worldwide[41]. Student-led initiatives, advocacy campaigns, and interfaith dialogues facilitated through educational institutions have played a significant role in challenging systemic injustices and advocating for policy reforms that prioritize peace and human rights. When young individuals are empowered through education, they become agents of change who contribute to sustainable development and global stability.

Education serves as an indispensable tool for promoting global peace and human rights advocacy by fostering intercultural understanding, addressing social inequalities, preventing radicalization, and empowering marginalized groups. Through inclusive and equitable educational policies, societies can cultivate a culture of peace, democracy, and respect for fundamental freedoms. However, the full realization of education's potential in this regard requires collaborative efforts among governments, civil society organizations, educators, and international bodies to ensure that all individuals have access to quality education that promotes justice, tolerance, and human dignity[42].

2.1.3 The Structure of the Educational System in Nigeria

The educational system in Nigeria is structured into four distinct levels. The first level is the informal education system, which serves as a preparatory stage for children before they are introduced to formal education. The remaining three levels—primary, secondary, and tertiary education—form the formal education system in the country. These levels are designed to cater to the educational needs of individuals at different stages of life, ensuring

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the acquisition of knowledge, skills, and values necessary for personal and national development.

i. Informal Education (Pre-Primary Education)

Informal education in Nigeria, also known as pre-primary education, is aimed at young children within the age range of two to five years. Although this level of education is not part of the formal structure, it plays a fundamental role in shaping the cognitive, social, and emotional development of young learners. Pre-primary education is primarily delivered through daycare centres and nursery or kindergarten schools, which are often operated by private individuals, organizations, and religious institutions[43]. The establishment of pre-primary schools was officially recognized under Decree No.16 of 1985, which set national minimum standards for educational institutions in Nigeria. The core objective of this level of education is to provide a nurturing environment that fosters early learning, cultivates a positive attitude toward schooling, and instils foundational literacy and numeracy skills. It also emphasizes socialization, emotional intelligence, and behavioural development, preparing children for the more structured setting of primary education.

ii. Primary Education

Primary education is the first level within Nigeria's formal educational structure. It is designed to offer a comprehensive six-year academic program to children typically aged six to twelve years. This stage of education is considered a crucial foundation for lifelong learning, as it serves as the starting point for literacy and numeracy acquisition. The Nigerian government regards primary education as a fundamental human right, ensuring

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that children across the country have access to basic education[44]. The primary education curriculum covers a wide range of subjects, including English, Mathematics, Science, Social Studies, and indigenous languages. The key objectives of primary education include equipping learners with permanent and functional literacy, numeracy, and communication skills. Additionally, it seeks to foster critical thinking, problem-solving abilities, and a sense of civic responsibility. Primary education is also instrumental in shaping children's character and values, helping them develop discipline, teamwork, and a positive attitude toward learning. Upon completion of this stage, students are expected to transition to the next level of formal education—secondary education.

iii. Secondary Education

Secondary education in Nigeria serves as an intermediary stage between primary education and tertiary education. It provides students with more advanced knowledge, preparing them for higher education or vocational pursuits. The secondary education system is divided into two distinct phases: the Junior Secondary School (JSS) and the Senior Secondary School (SSS)[45].

iv. Junior Secondary School (JSS)

The junior secondary level spans three years and accommodates students within the age range of twelve to fifteen years. During this stage, students undergo a comprehensive academic and vocational curriculum, which includes subjects such as English Language, Mathematics, Basic Science, Social Studies, Agricultural Science, and introductory vocational training. This phase is particularly crucial as it allows students to explore their interests, talents, and abilities. The curriculum also includes prevocational subjects,

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enabling students to acquire basic technical and entrepreneurial skills. At the end of junior secondary school, students are required to take the Junior Secondary School Certificate Examination (JSSCE). Those who pass are eligible to progress to the senior secondary level, while students who are unable to cope with the academic demands are encouraged to enrol in vocational training programs[46]. This stage is regarded as a talent-hunting phase, where students' aptitudes and interests are identified and nurtured for future career paths.

v. Senior Secondary School (SSS)

The senior secondary school level covers another three years of education, typically accommodating students aged fifteen to eighteen years. At this stage, students are offered a more specialized curriculum that aligns with their interests and career aspirations. They are guided in selecting subjects from designated fields, such as sciences, humanities, business studies, and technology[47]. Despite the specialization, students must also take compulsory subjects, including English, Mathematics, and at least one Nigerian language. Evaluation at the senior secondary level is based on continuous assessment and standardized national examinations. The two main external examinations taken by students at this level are the West African Senior School Certificate Examination (WASSCE) and the National Examinations Council (NECO) exam. Success in these examinations qualifies students for entry into tertiary institutions, where they can further their education in specialized fields.

i. Tertiary Education (Universities, Polytechnic, College of Education)

Tertiary education represents the highest level of education in Nigeria, catering to students who have successfully completed secondary education. It is provided through universities,

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polytechnics, colleges of education, and other specialized institutions. The objective of tertiary education is to develop students' intellectual capacity, equip them with advanced knowledge, and enhance their technical and professional competencies in various fields[48]. Universities represent the most prestigious institutions within Nigeria's tertiary education system. They are categorized into federal, state, and private universities. Admission into Nigerian universities is highly competitive and is based on candidates' performance in the Unified Tertiary Matriculation Examination (UTME), conducted by the Joint Admissions and Matriculation Board (JAMB). Students must also have a minimum of five credit passes in relevant O-level subjects.

Universities in Nigeria offer degree programs at various levels, including Bachelor's, Master's, and Doctorate (PhD) degrees. The standard duration for a Bachelor's degree program is typically four to six years, depending on the field of study. Professional courses such as Medicine and Law often require longer study periods. Universities also provide diploma programs, professional certifications, and research opportunities, fostering academic excellence and innovation[49].

Colleges of education serve as specialized institutions focused on training teachers for primary and secondary schools. These institutions offer a three-year program leading to the award of the Nigerian Certificate in Education (NCE). Some colleges of education have affiliations with universities, allowing them to offer degree programs in education[50]. The curriculum at colleges of education emphasizes pedagogical training, equipping students with the necessary skills to become effective educators.

Polytechnics play a crucial role in Nigeria's educational system by providing vocational and technical education. Their primary objective is to train middle-level professionals and

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skilled manpower in various fields, such as engineering, technology, business, and applied sciences. Polytechnic education is structured into two phases: the National Diploma (ND) and the Higher National Diploma (HND). Each phase typically lasts two years, after which graduates may choose to enter the workforce or further their studies at a university through a direct entry program[51].

In addition to universities, colleges of education, and polytechnics, Nigeria has several specialized institutions, including monotechnics, inter-university centres, and schools of health technology. These institutions offer specialized training in areas such as healthcare, agriculture, and teacher education. The presence of these diverse higher education institutions ensures that students have multiple pathways to acquiring knowledge and skills, thereby contributing to national development[52].

The Nigerian educational system is a structured and multifaceted framework that accommodates learners at different levels, from early childhood education to higher education. Each level plays a vital role in the academic and professional development of individuals, equipping them with the knowledge and skills needed for personal and national growth. Given the critical role of education in economic and social development, it is imperative that the objectives of each educational stage are upheld and continuously improved to enhance learning outcomes and overall national progress.

2.1.4 Sustainable Development

Sustainable national development is a multidimensional concept that intertwines the principles of sustainability with national progress. At its core, sustainability refers to the capacity to uphold performance and initiatives over time, ensuring that present needs are

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met without jeopardizing the ability of future generations to meet their own requirements. Sustainable development, as a theoretical and practical framework, has been extensively studied and defined by scholars across various disciplines.

The notion of sustainable development first gained prominence with the Brundtland Commission Report, which described it as a model of growth that ensures present needs are fulfilled while preserving the capacity of future generations to satisfy their own demands[53]. This perspective underscores the intergenerational responsibility that must be upheld in developmental policies and practices. The integration of production processes with resource conservation and environmental preservation is critical in addressing contemporary needs while safeguarding future opportunities. Sustainable development is not a static goal but an evolving concept that adapts to changing economic, social, and ecological conditions. In order to make sure that development is good for everyone, now and in the future, society may use economic growth, social justice, and environmental protection.

A fundamental principle of sustainable development is the equilibrium between economic progress and resource conservation. This balance is necessary to prevent the depletion of natural resources and the deterioration of environmental quality. The Rio Declaration on Environment and Development articulates this by emphasizing that sustainable development must allow for present-day progress without undermining future developmental needs[54]. This framework ensures that policies are designed to enhance the quality of life while maintaining environmental integrity. Sustainable development encompasses not only economic growth but also social, political, and technological advancements. It is an approach that aims to foster qualitative education, employment

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opportunities, security, transparent governance, and respect for human rights. Societies that prioritize sustainability implement policies that enhance governance structures, promote rule of law, and ensure equitable access to resources and opportunities. This broader perspective extends beyond economic growth to include the well-being and empowerment of individuals across various social strata[55].

The concept of sustainability has also been linked to equitable resource distribution, environmental justice, and intergenerational fairness. Economic growth must be pursued with due consideration for finite natural resources, ensuring that current development efforts do not compromise the ability of future generations to thrive. This perspective highlights the necessity of policies that incorporate environmental ethics, social inclusivity, and economic resilience. Sustainable development is a strategic response to global environmental concerns, requiring concerted efforts to address challenges such as climate change, biodiversity loss, and pollution[56].

The classification of a nation's development as either sustainable or unsustainable is contingent on various socio-economic indicators. Unsustainable development is characterized by widespread poverty, food insecurity, inadequate healthcare, gender disparities, poor sanitation, inefficient energy use, lack of water conservation measures, weak infrastructure, and high levels of environmental pollution. Additionally, unsustainable development manifests in the form of human rights violations, social injustice, and a growing number of unemployed or unemployable graduates[57]. Environmental degradation, fuelled by climate change and unchecked industrialization, further exacerbates the challenges associated with unsustainable development.

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A key aspect of sustainable development is the active participation of diverse stakeholders. Achieving sustainability requires collaborative efforts involving government entities, educational institutions, non-governmental organizations, and citizens from different backgrounds[58]. This participatory approach ensures that sustainable development strategies are not only effective but also widely accepted and implemented. Policies should be inclusive and take into account the perspectives of various demographic groups, irrespective of religion, age, gender, educational qualifications, or social standing. Through collective action and shared responsibility, societies can overcome developmental challenges and foster a more sustainable future.

A critical examination of sustainable development reveals its inherent complexity and the necessity of an interdisciplinary approach. The concept extends beyond mere economic growth to encompass environmental stewardship and social equity. It is a dynamic process that evolves in response to emerging challenges and opportunities, requiring continuous assessment and adaptation. The integration of sustainable development principles into national policies is essential for long-term progress and stability. The effectiveness of sustainability-oriented policies is determined by their ability to create an equitable society that prioritizes economic prosperity, environmental protection, and social well-being[59].

Incorporating sustainability into governance frameworks requires the establishment of robust institutional mechanisms. Governments must implement policies that encourage responsible resource management, promote renewable energy adoption, and ensure environmental sustainability. Additionally, education systems should integrate sustainability concepts to equip future generations with the knowledge and skills

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necessary to drive sustainable development initiatives[60]. Public awareness campaigns and policy interventions play a vital role in fostering a sustainability-conscious society.

The transition toward sustainable development necessitates comprehensive policy reforms and strategic interventions. This includes investment in clean energy, sustainable agriculture, waste management, and eco-friendly industrial practices. Urban planning strategies should focus on creating green infrastructure, enhancing public transportation systems, and reducing carbon footprints. Moreover, fostering partnerships between the public and private sectors can drive innovation and accelerate progress toward sustainability goals[61].

One widely recognized definition describes it as a process of meeting present needs without compromising the ability of future generations to meet their own needs[1]. This definition emphasizes intergenerational equity, highlighting the need for long-term environmental, social, and economic stability. Another interpretation frames sustainable development as a balanced approach that integrates economic growth, social inclusion, and environmental protection[62]. It stresses that development should be inclusive, ensuring that economic benefits reach all levels of society while maintaining ecological balance.

Some definitions view sustainable development as a framework for improving human well-being within planetary boundaries. This perspective considers that while economic progress is necessary, it must be achieved without depleting natural resources beyond their regenerative capacities. Additionally, another definition sees sustainability as a process of maintaining or enhancing the quality of life without causing irreversible harm to the environment[63]. It suggests that sustainable practices should enable continuous development without degrading essential ecosystems.

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A different school of thought approaches sustainable development from an economic standpoint, defining it as a strategy that fosters long-term economic resilience through efficient resource use and minimal environmental degradation[5]. This definition prioritizes the efficient allocation of resources, arguing that technological advancements and innovation can minimize environmental harm while supporting economic growth. Similarly, another interpretation aligns sustainable development with corporate responsibility, viewing it as an ethical obligation of businesses and industries to operate in a way that minimizes environmental impact while promoting social welfare[64]. This definition is particularly relevant in the corporate sector, where sustainability is often linked to governance, ethical business practices, and community engagement.

While each of these definitions provides valuable insight into sustainable development, they also have certain limitations. The first definition, which focuses on intergenerational equity, is widely accepted but often criticized for being vague and difficult to operationalize. It does not specify how to balance present and future needs or define measurable sustainability goals. Similarly, the definition that integrates economic, social, and environmental dimensions is comprehensive but can be challenging to implement[65]. It assumes that these three pillars can always be harmonized, yet in reality, economic growth often conflicts with environmental protection.

The perspective that emphasizes human well-being within planetary boundaries[3] is practical but may be too restrictive for developing economies. Many countries struggle to balance economic needs with environmental constraints, and strict adherence to this definition could slow economic progress in regions that depend on natural resource exploitation. The view that sustainable development entails maintaining quality of life

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without causing irreversible environmental damage is idealistic but lacks clear guidelines for measuring "irreversible" harm[66]. Without specific indicators, it becomes difficult to enforce sustainability policies effectively.

The economic perspective on sustainable development, which promotes efficient resource use and technological innovation[5], is often criticized for being overly optimistic about technological solutions. While technology can reduce environmental damage, it cannot fully eliminate the risks associated with resource depletion and pollution. The corporate responsibility approach is valuable for encouraging businesses to adopt sustainable practices, but it is often voluntary, and many corporations prioritize profit over sustainability. Without strict regulations, businesses may engage in "greenwashing," where they claim to be sustainable without implementing meaningful changes[67].

Sustainable development is a multifaceted concept that integrates economic growth, environmental conservation, and social equity. It requires a balanced approach that considers the needs of both present and future generations. Unsustainable development, marked by poverty, environmental degradation, and social disparity. societies can achieve sustainable national development. The realization of this vision depends on collaborative action, continuous innovation, and the commitment of individuals and institutions alike to uphold sustainability principles in all aspects of development[68].

Sustainable development can be understood as a concept that promotes equitable and balanced progress, ensuring that development continues indefinitely while maintaining harmony among different groups within the same generation and across multiple generations[1]. This requires a simultaneous focus on several interconnected dimensions, including economic stability, social equity, and environmental preservation[69]. It

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emphasizes that development should not only meet the present needs of society but also safeguard the ability of future generations to meet their own needs without compromise.

The principle of sustainability suggests that human progress must be guided by a holistic approach that integrates the advancement of human capital through education and technological innovations alongside the growth of physical capital such as infrastructure, machinery, and tools. This perspective highlights that sustained progress in any society is only achievable when deliberate efforts are made to improve literacy and numeracy levels. The development and implementation of educational programs serve as essential tools in fostering sustainable growth, equipping individuals with the necessary knowledge and skills to contribute meaningfully to their communities[70].

Furthermore, sustainable development is recognized as a trajectory that ensures the maximization of human well-being for the present generation without causing a decline in the quality of life for future generations. This perspective underscores the importance of aligning current developmental efforts with long-term sustainability, ensuring that economic prosperity and social welfare are achieved without depleting essential resources. The essence of this approach lies in the promotion of conditions that enable both current and future populations to thrive in a manner that is ecologically sound and socially inclusive[71].

The conceptualization of sustainability has evolved beyond mere environmental concerns to encompass a broader societal commitment to meeting the essential needs of all people while simultaneously considering the long-term implications of development. The emphasis is not solely on preventing environmental degradation but also on fostering inclusive growth that prioritizes equitable access to resources and opportunities. In this

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regard, sustainable development requires active participation from all members of a society, ensuring that initiatives are designed and implemented in a manner that reflects collective interests and promotes shared benefits[72].

Education emerges as a crucial enabler of sustainable development by fostering awareness, shaping attitudes, and empowering individuals to participate effectively in programs designed for national growth[5]. It serves as a transformative force that facilitates societal progress by equipping individuals with the knowledge and competencies necessary to drive innovation, economic growth, and social cohesion. The role of education extends beyond academic instruction to include the inculcation of values and principles that promote sustainability, encouraging responsible behaviour and ethical decision-making that contribute to long-term development[73].

The relationship between education and sustainable development is deeply interconnected, as the quality and accessibility of education directly influence a society's capacity to sustain growth and progress[74]. Through structured learning, individuals acquire the necessary skills to engage in productive economic activities, adapt to technological advancements, and address emerging challenges in a manner that ensures continued prosperity. Moreover, education fosters critical thinking and problem-solving abilities, which are essential for devising innovative solutions that support sustainable practices in various sectors.

For development to be meaningful and enduring, it must be supported by mechanisms that encourage widespread participation and inclusivity. Education provides the foundation for this engagement by raising awareness, disseminating knowledge, and equipping individuals with the tools needed to contribute effectively to sustainable initiatives[7]. The

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mobilization of citizens for national development programs is facilitated through educational institutions, which serve as platforms for knowledge exchange, skill development, and capacity building[75].

Sustainable development thus requires an integrated approach that balances economic, social, and environmental considerations while ensuring that future generations are not deprived of opportunities for growth and advancement. The emphasis on equitable progress highlights the necessity of fostering a society in which all individuals have access to resources, education, and opportunities that enable them to contribute meaningfully to the collective well-being. As societies continue to evolve, the principles of sustainability must remain at the forefront of development planning, ensuring that human advancement is pursued in a manner that respects the needs of both present and future populations[76].

Given the various interpretations and their limitations, a simple and practical definition of sustainable development is: a development approach that ensures economic progress, social well-being, and environmental preservation in a way that meets present needs without compromising future opportunities. This definition acknowledges the interconnectedness of these three pillars while emphasizing the importance of balance and long-term sustainability.

2.1.5 Sustainable Development Goal 4

Sustainable education plays a pivotal role in national development by directly supporting Sustainable Development Goal 4 (SDG 4), which aims to ensure inclusive, equitable, and quality education and promote lifelong learning opportunities for all. SDG 4 recognizes education as a fundamental driver of sustainable development, equipping

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individuals with the knowledge, skills, values, and attitudes necessary to address complex global challenges and contribute to economic, social, and environmental progress. SDG 4's targets emphasize universal access to quality education at all levels; from early childhood to tertiary and vocational education—and the elimination of disparities based on gender, disability, and vulnerability. Achieving these targets strengthens national development by:

Building Human Capital: Quality education develops relevant skills, including technical and vocational competencies that enhance employability and entrepreneurship, driving economic growth and innovation.

Promoting Social Inclusion and Equity: Ensuring equitable access to education reduces inequalities, empowers marginalized groups, and fosters social cohesion, which are essential for stable and prosperous societies.

Fostering Sustainable Lifestyles: This specifically highlights education for sustainable development (ESD), which integrates sustainability principles, global citizenship, human rights, gender equality, and peace into learning. This prepares learners to make responsible decisions that benefit society and the environment.

ESD is recognized as the lynchpin of the sustainable development agenda because it enables individuals to understand the environmental and social impacts of their choices and encourages collective action toward sustainable solutions. It expands beyond formal education to lifelong learning and community engagement, making education a strategic investment in national development.

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By mainstreaming ESD into curricula, teacher training, and educational policies, countries can empower citizens to actively participate in sustainable development, thereby enhancing resilience to challenges such as climate change, poverty, and inequality.

SDG 4 also addresses the need to build and upgrade education facilities to be child-, disability-, and gender-sensitive, ensuring safe and inclusive learning environments. Increasing the supply of qualified teachers and expanding scholarships for disadvantaged countries further strengthens national education systems, enabling them to meet development goals.

The Sustainable Development Goals (SDGs) 4 represent a global agenda aimed at addressing critical developmental challenges, fostering human well-being, and ensuring environmental protection for future generations. Launched in 2015, these goals are built upon the foundations of the Millennium Development Goals and designed to be more inclusive, covering social, economic, and environmental aspects of global development. Education is not only a standalone goal but a critical catalyst in achieving many other SDGs by empowering individuals with knowledge, skills, and values that foster sustainable practices[77]. The integrated nature of the SDGs highlights education's centrality in achieving long-term societal transformation. Education shapes the capacity of individuals and communities to contribute to economic growth, participate in social progress, and maintain ecological balance, making it indispensable to sustainable development.

Education contributes significantly to the achievement of various SDGs by equipping individuals with the tools needed to make informed decisions and adapt to emerging challenges. It fosters critical thinking, problem-solving, and innovation, which are essential in addressing poverty, inequality, and climate change[78]. Through education, individuals become

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more conscious of global issues, including environmental conservation, responsible consumption, and social equity. Moreover, education acts as a driver for economic development by enhancing employability and promoting entrepreneurship, especially among marginalized groups. Access to quality education fosters resilience, adaptability, and collaboration, empowering communities to implement sustainable solutions in agriculture, health, energy, and infrastructure sectors[79]. Educational institutions, therefore, play a vital role in disseminating knowledge that promotes responsible action towards the attainment of the SDGs.

Education for Sustainable Development provides a framework through which learners acquire values, behaviours, and lifestyles compatible with sustainable development. ESD goes beyond imparting knowledge; it emphasizes transformative learning that encourages critical reflection, participatory decision-making, and long-term thinking. It equips learners with skills to address real-life challenges in economic, social, and environmental domains. Schools and higher education institutions integrate ESD into curricula through interdisciplinary approaches, fostering collaboration between fields like environmental science, economics, and social studies. The implementation of ESD further involves experiential learning opportunities, such as community projects, environmental conservation initiatives, and youth leadership programs that bridge the gap between theoretical knowledge and practical action[80]. Thus, ESD fosters personal responsibility and global citizenship.

Quality education, with its emphasis on inclusiveness and equity, remains a vital pillar for sustainable development. An inclusive and equitable educational system ensures that all individuals, regardless of gender, disability, or socioeconomic status, have access to learning opportunities that enable them to contribute meaningfully to society. Quality education entails

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not only providing adequate infrastructure and learning materials but also fostering a learning environment that promotes creativity, critical thinking, and respect for diversity. Effective teacher training and continuous professional development are essential for maintaining quality education standards. Furthermore, lifelong learning opportunities ensure that individuals continually adapt to new technologies and changing environmental contexts[81]. In this way, quality education directly impacts sustainable development by nurturing informed, innovative, and ethical global citizens.

Gender equality is another crucial aspect of sustainable education. Ensuring equal access to education for girls and women transforms not only individual lives but entire communities. Educated women are more likely to participate in decision-making processes, promote health and well-being in their families, and contribute to economic productivity. Gender-sensitive education policies and practices dismantle cultural and systemic barriers that limit educational access for women and girls. Additionally, promoting girls' education helps address broader social issues such as child marriage, gender-based violence, and economic dependency. Educational institutions, by embedding gender awareness and equity into their frameworks, serve as platforms for fostering inclusive social change and breaking cycles of poverty[82].

Lifelong learning is another critical educational component linked to sustainability. It promotes the continuous acquisition of knowledge, skills, and competencies throughout an individual's life, enabling them to adapt to dynamic socio-economic and environmental changes[83]. The concept of lifelong learning supports individual development and social cohesion, making societies more resilient to crises and changes. Adult education, vocational training, and informal learning opportunities enhance employability, reduce inequality, and foster innovation. Lifelong learning also strengthens community engagement, enabling people to

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participate actively in sustainable local and global development initiatives[84]. Therefore, investment in lifelong learning programs is essential for maintaining adaptive and productive societies.

Technology has revolutionized education and holds significant potential in advancing sustainable education. Digital learning platforms and tools increase access to education for learners in remote or underserved areas. Technology also facilitates innovative teaching methods, such as blended learning, virtual simulations, and interactive content, which enhance learner engagement and understanding. Moreover, digital technologies support lifelong learning by providing flexible learning opportunities beyond traditional classroom settings. However, addressing digital divides and ensuring equitable access to technology are essential to maximizing the potential of technology in promoting sustainable education[85]. Schools and institutions must invest in infrastructure and digital literacy to ensure that technology serves as a tool for inclusion rather than exclusion.

Climate action and environmental stewardship are key areas where education directly contributes to sustainability. Environmental education fosters awareness, responsibility, and proactive behaviours toward conserving natural resources and combating climate change. Schools and universities integrate environmental studies and sustainability principles into curricula to nurture environmental literacy from an early age. Through participatory projects and community engagement, learners become agents of environmental change, applying knowledge to real-world conservation efforts. Furthermore, environmental education encourages innovation in renewable energy, waste management, and sustainable agriculture[86]. Consequently, education shapes attitudes and behaviours that are vital for long-term environmental sustainability.

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Education remains the cornerstone of sustainable development, with its impact felt across economic growth, social equity, and environmental protection. Through quality, inclusive, and lifelong learning opportunities, education fosters resilience, innovation, and responsible citizenship. Society may enable people to take an active role in sustainability efforts by incorporating sustainable development education into legislation and practices. Technology and environmental education further strengthen this effort by promoting accessibility and ecological consciousness. Therefore, sustainable education is an indispensable instrument for achieving the broader goals of sustainable development[87].

2.1.6 The Link between Education and Sustainable Development

Education plays a critical role in achieving sustainable development by equipping individuals with the knowledge, skills, and values necessary to drive social, economic, and environmental progress. The interconnection between education and sustainable development has been extensively explored in academic literature, highlighting the transformative power of education in addressing global challenges such as poverty, inequality, environmental degradation, and economic instability[88].

Education is widely recognized as a fundamental tool for fostering sustainable development through its capacity to empower individuals, enhance economic productivity, and promote social inclusion. It contributes to poverty reduction by equipping people with the necessary competencies to secure employment, increase their income, and improve their overall quality of life. Studies emphasize that access to quality education enhances human capital, which is essential for economic growth and innovation[3]. Through education, individuals can develop skills in problem-solving, critical thinking, and leadership, which are necessary for addressing sustainability challenges in various sectors[89].

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In the context of social sustainability, education plays a key role in fostering gender equality, reducing social disparities, and promoting peace and democratic governance. It strengthens civic participation by equipping citizens with the knowledge to engage in decision-making processes, advocate for their rights, and contribute meaningfully to their communities. Furthermore, education has been linked to improved health outcomes, as it raises awareness about hygiene, nutrition, and disease prevention, ultimately enhancing the well-being of societies[90].

The integration of sustainability principles into educational curricula is crucial for promoting environmental awareness and fostering responsible behaviours toward natural resources. Research suggests that education can instil a sense of environmental stewardship in individuals, encouraging them to adopt sustainable lifestyles and contribute to environmental conservation efforts[91]. Through the integration of sustainability principles into disciplines like economics, geography, and physics, education enables students to comprehend the intricacies of ecological systems and the consequences of human actions on the earth.

Educational initiatives that focus on climate change, biodiversity conservation, and waste management have proven effective in cultivating pro-environmental attitudes. Many scholars argue that sustainable development can only be achieved when individuals are equipped with the knowledge and motivation to implement eco-friendly practices in their personal and professional lives[92]. Additionally, education fosters innovation in environmental technologies and sustainable business practices, which are essential for reducing carbon footprints and mitigating the adverse effects of industrialization.

Education is a key driver of economic sustainability, as it enhances workforce productivity, fosters innovation, and supports entrepreneurship. Studies have shown that investments in

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education contribute to higher earnings, reduced income inequality, and increased economic resilience[93]. Countries that prioritize education tend to experience long-term economic growth, as a well-educated population is better positioned to adapt to technological advancements and shifting labour market demands. Moreover, vocational and technical education programs have been identified as effective means of equipping individuals with specialized skills needed in various industries. Low unemployment rates and long-term economic growth are both possible when educational programs are tailored to employers' demands. Furthermore, lifelong learning and continuous professional development are critical for maintaining economic competitiveness in a rapidly evolving global economy[94].

Despite the significant contributions of education to sustainable development, several challenges hinder its effectiveness. One major challenge is the unequal access to quality education, particularly in developing countries where financial constraints, inadequate infrastructure, and socio-cultural barriers limit educational opportunities. Gender disparities, child labour, and early marriages further exacerbate educational inequalities, preventing many individuals from acquiring the necessary knowledge and skills to contribute to sustainable development[95].

Another challenge lies in the traditional education system, which often focuses on rote learning rather than fostering critical thinking and practical problem-solving skills. Many education systems do not adequately integrate sustainability concepts into their curricula, leading to a gap in awareness and action among students. Furthermore, limited teacher training in sustainability education affects the ability of educators to effectively impart knowledge on environmental, social, and economic sustainability[96].

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2.1.7 Some Strategies for Enhancing the Role of Education in Sustainable Development

To strengthen the link between education and sustainable development, there is a need for comprehensive reforms in educational policies and curricula. Governments and educational institutions should prioritize the inclusion of sustainability education across all levels of learning[97]. This can be achieved through interdisciplinary approaches that integrate environmental science, social studies, and economics to provide students with a holistic understanding of sustainability challenges.

Capacity-building initiatives for teachers are essential to enhance their ability to deliver sustainability education effectively. Professional development programs that focus on sustainability teaching methods, experiential learning, and real-world applications can improve the quality of education and inspire students to take action for sustainable development[98]. Public-private partnerships can also play a crucial role in advancing sustainability education. Collaboration between governments, businesses, and civil society organizations can facilitate the development of innovative educational programs, research initiatives, and community engagement projects that promote sustainability.

Education is a fundamental pillar of sustainable development, driving economic growth, social inclusion, and environmental conservation. It equips individuals with the knowledge, skills, and values necessary to address sustainability challenges and contribute to a more equitable and resilient world. However, significant challenges such as unequal access to education, outdated curricula, and limited teacher training must be addressed to maximize the impact of education on sustainable development[99]. To achieve long-term

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sustainability, society should embrace a multi-faceted strategy that incorporates sustainability education into both formal and informal learning environments.

2.1.8 Challenges of Repositioning Education for Sustainable National Development in 21st Century Nigeria

Education, in its various forms, is a fundamental pillar of national development. It is a powerful tool for social, political, economic, and cultural transformation, and serves as the foundation for achieving sustainable national development. In 21st-century Nigeria, however, the process of repositioning education to meet the demands of the evolving national and global landscape is fraught with numerous challenges. These challenges range from financial constraints to inadequate infrastructure, corruption, and the lack of skilled personnel. The country faces several systemic issues that hinder the realization of education's full potential as a vehicle for sustainable national development[100].

i. Poor Funding of the Education Sector

One of the most significant challenges hindering the repositioning of education in Nigeria is the poor funding allocated to this sector. Despite education being a critical driver of development, the Nigerian government has consistently allocated inadequate financial resources to education, particularly to the sub-sector of adult and non-formal education. When compared to other sectors in the Nigerian economy, education, in general, receives a disproportionately low share of the national budget. The lack of adequate financial support has had far-reaching implications for the infrastructure, quality of teaching, and overall effectiveness of educational institutions across the country. The limited financial resources also mean that many schools lack basic resources such as books, computers, and

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classrooms, which significantly affects the quality of education being delivered. This inadequate funding is exacerbated by a lack of proper financial planning and budgeting at various levels of government, which prevents the education sector from achieving its full potential in contributing to national development[101].

ii. Corruption in the Education Sector

Corruption is another major challenge that has hindered the effective functioning of the education sector in Nigeria. Political officeholders and education administrators often lack an understanding of the importance of education in driving national development. As a result, funds allocated for educational purposes are frequently misappropriated, diverted, or stolen. This rampant corruption impacts the quality of education and prevents the implementation of key educational projects, such as the construction of new classrooms or the procurement of teaching materials[102]. Moreover, the funds allocated for such projects are often awarded to political allies or individuals with little interest in the welfare of the education sector. This lack of accountability and transparency in the management of education funds undermines the sector's ability to contribute to sustainable national development. Furthermore, the mismanagement of resources often results in unfinished projects and the non-fulfilment of the basic needs of educational institutions, further impeding the growth of the sector.

iii. Infrastructural Deficiencies

Infrastructural deficiencies remain a significant barrier to the effective repositioning of education for sustainable national development. Many schools, especially in rural areas, lack the necessary physical infrastructure, including classrooms, toilets, libraries, and

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laboratory spaces. Additionally, the lack of electricity and other essential utilities in many schools makes it difficult to incorporate modern technologies, such as computers and other ICT tools, into the educational process. This infrastructural gap not only hampers the ability of schools to offer a quality education but also limits the opportunities for students to engage with digital learning tools that have become central to modern education. The lack of access to power is particularly problematic in regions where students could benefit from online learning platforms, virtual classrooms, and other modern educational technologies. Without adequate infrastructure, it becomes almost impossible to keep up with the demands of a rapidly changing world where technology is essential to educational success[103].

iv. Lack of Qualified Instructors

Another critical challenge is the shortage of adequately trained teachers and educational professionals, particularly those with specialized skills in subjects such as science, technology, and ICT. The education sector is faced with a severe lack of qualified instructors who can effectively teach students and help them develop the necessary skills to thrive in the modern world. Many teachers are inadequately trained, with limited access to professional development opportunities, and as a result, their teaching methods are often outdated. Furthermore, the lack of teachers with ICT skills is a particular concern, as technology continues to play an increasingly important role in education. Without well-trained educators who can incorporate modern technologies into the classroom, students are at a disadvantage and are not equipped with the skills they need to succeed in the global economy. Moreover, the low salaries and poor working conditions for teachers often lead to high turnover rates, further exacerbating the shortage of skilled educators[104].

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v. Inadequate Monitoring and Evaluation

Effective monitoring and evaluation are crucial for the successful implementation and development of educational programs. However, in Nigeria, the education sector suffers from inadequate monitoring and evaluation processes, which makes it difficult to assess the effectiveness of educational initiatives and make necessary improvements. The lack of trained personnel in monitoring and evaluation further exacerbates this problem. Without proper oversight, it becomes challenging to track the progress of educational reforms, measure the impact of various programs, and ensure that resources are being utilized efficiently. Effective monitoring and evaluation systems are necessary for identifying gaps in the education system, assessing the needs of learners, and determining the success of teaching methodologies. The absence of such systems means that many educational programs fail to achieve their desired outcomes, which impedes the sector's ability to contribute to sustainable national development[105].

vi. Poor Record Keeping

The issue of poor record keeping in the education sector also poses a significant challenge to the repositioning of education for national development. Accurate record keeping is essential for tracking the progress of students, managing educational resources, and planning for future educational needs. However, many schools in Nigeria struggle with maintaining accurate and up-to-date records. This failure to document important information impacts the ability to track students' academic progress, monitor the success of educational programs, and make informed decisions regarding curriculum development and resource allocation. Furthermore, poor record keeping hinders the planning and execution of educational policies, as decision-makers lack the necessary data to inform

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their strategies. Without a reliable system for recording and managing educational data, it becomes difficult to assess the effectiveness of the education system and make improvements where necessary[106].

vii. Politicisation of Education

The politicization of education is another significant challenge in repositioning the education sector for sustainable national development in Nigeria. Political and tribal affiliations often influence key decisions regarding admissions, employment, and the allocation of educational resources. This politicization undermines the quality of education and limits opportunities for students from diverse backgrounds. Political interference in the education sector has led to a situation where meritocracy is sidelined in favour of political and tribal interests, resulting in the appointment of unqualified individuals to key educational positions. This lack of merit-based decision-making further exacerbates the challenges facing the sector and limits its ability to contribute to national development. The politicization of education also leads to instability within educational institutions, as political changes can have a direct impact on the curriculum, administration, and funding of schools[107].

2.1.9 Prospects of Repositioning Education for Sustainable National Development

Despite these challenges, there are significant prospects for repositioning education to contribute to sustainable national development in Nigeria. Education plays a crucial role in promoting democracy, as it empowers citizens to understand their rights and responsibilities and encourages active participation in political processes. Democracy may be strengthened and an educated electorate can be created via public education on

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democratic ideas and ideals[108]. In this way, education contributes to political stability and governance, which are essential components of sustainable national development.

Moreover, education can help address key national challenges, such as poverty, inequality, and insecurity. Education can help to fight poverty and elevate living standards by building up skills that a person needs to succeed. Furthermore, education fosters social cohesion by promoting tolerance, understanding, and respect for diversity, which are essential for national unity and stability. Through education, individuals can be empowered to become agents of change in their communities, driving social, economic, and political development[109].

Repositioning education for sustainable national development in 21st-century Nigeria is essential for the country's growth and progress. While there are numerous challenges that hinder the sector's potential, there are also opportunities for transformation. Addressing issues such as poor funding, corruption, inadequate infrastructure, and a lack of qualified instructors will go a long way in improving the quality of education and ensuring that it contributes to sustainable development. A better future for Nigerians is within reach if the country prioritises and allocates resources to education, making sure it is accessible to everyone and of good quality.

2.1.10 Curriculum Development on Quality Education in Nigeria

The concept of "curriculum" is derived from the Latin word *currere,* which means "to run a course." This etymological root emphasizes the structured pathway through which knowledge and learning are transmitted. A curriculum refers to a well-organized program of study designed to foster a school's academic growth. It comprises the arrangement of

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courses, content, and subject matter, offered in a qualitative and structured format, ensuring students gain valuable knowledge and skills for certification. It is not merely the sequence of subjects but also the systematic structuring of content intended to positively influence the cognitive and social development of learners, particularly in helping them internalize critical concepts[110].

A curriculum's function transcends the mere organization of academic subjects. It serves as a vehicle for intellectual and personal growth, aiming to shape students into responsible, competent citizens. In the broader context, the curriculum should also focus on shaping students' reasoning abilities, guiding them toward ethical conduct, and providing tools to navigate complex societal challenges. The ultimate goal of education, particularly through a carefully designed curriculum, is to unlock the inherent potential in each child, helping them become productive members of society. This purpose becomes even more significant when we consider the need for critical thinking as a core component of educational systems, enabling students to understand and confront societal issues such as selfishness, greed, and societal inequality[111].

Critical thinking, an essential aspect of modern education, helps learners develop a deeper understanding of their environment, enabling them to address societal problems and contribute positively. This educational model promotes an approach that transcends rote learning and encourages inquiry, analysis, and problem-solving. Moreover, it is critical to shape children into individuals who can discern between good and evil, steering them toward virtuous paths. The influence of philosopher thinkers, who advocated for education as a means of promoting virtue, underscores the importance of aligning educational

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curricula with the goal of fostering ethical and responsible citizenship[112]. This approach is crucial for societal development and, by extension, the flourishing of nations.

Quality education is intrinsically tied to the effective design and administration of educational curricula. Successful curriculum planning and management ensure that students are exposed to relevant, rigorous, and dynamic learning experiences, thus enabling them to achieve academic success. At all levels of education—primary, secondary, and tertiary—the curriculum must be tailored to meet the specific developmental needs and objectives of the students[113]. When teachers are aware of their students' requirements, they may tailor lessons to meet those needs in a way that promotes their holistic development. As such, the curriculum is not a static set of prescribed subjects but a dynamic process that must evolve with societal changes.

To achieve the aim of delivering quality education, it is crucial for nations, including Nigeria, to adhere to global educational frameworks. The World Education Forum (2000), for example, articulated a set of educational objectives that have become the foundation for modern educational reforms. These include mobilizing national and international political support for education, developing strategic national action plans, and significantly investing in basic education. Furthermore, these initiatives advocate for an education system that not only focuses on academic excellence but also integrates principles of social justice, peace, and equity. Ensuring that all individuals, regardless of background, have access to education is a key aspect of these reforms[114].

Nigeria, like many developing nations, faces a range of challenges in realizing the goal of providing quality education. These challenges are often compounded by insufficient funding, lack of infrastructure, and a shortage of qualified teachers. Inadequate funding is

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perhaps the most pressing issue, as the success of any educational policy or reform is inherently tied to the availability of financial resources. Without substantial investment, even the most well-designed policies are unlikely to produce the desired outcomes. The education sector's dependence on government funding necessitates a re-evaluation of budgetary allocations to prioritize education as a key driver of national development[115].

Moreover, teacher capacity remains a major challenge in Nigeria's educational landscape. Teachers play a pivotal role in the effectiveness of any educational system. Without properly trained educators, the quality of education suffers, and students' potential remains unrealized. It is, therefore, essential for both the government and educational policymakers to provide the necessary resources and support to ensure that teachers are well-equipped to deliver the curriculum effectively. Continuous professional development programs, access to modern teaching tools, and proper incentives for teachers are necessary to ensure high standards of instruction across all levels of education[116].

In addition to teacher training, the state of educational infrastructure poses another significant barrier to quality education. Many schools in Nigeria, particularly in rural areas, suffer from inadequate facilities, including outdated classrooms, insufficient teaching aids, and a lack of basic amenities such as clean water and sanitation. These conditions create an environment that is not conducive to effective learning, hindering students' ability to succeed[117]. Therefore, addressing the infrastructural deficits in Nigerian schools is critical to ensuring that students have the proper environment in which to learn.

Beyond infrastructure, there is also a need for effective supervision and inspection of educational programs. In many cases, Nigeria's educational policies and curricula are not properly monitored during implementation. Without proper oversight, it is difficult to

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assess whether the intended learning outcomes are being achieved. Regular inspections, audits, and assessments of educational programs would ensure that they are operating as intended and achieving the desired results. This process would also allow for the identification and correction of any shortcomings, thus ensuring that educational standards are consistently met[118].

The delivery of quality education also requires addressing gender disparities, particularly in rural and disadvantaged areas. Despite advances in gender equality, there are still significant barriers to the education of girls in certain parts of Nigeria. These barriers include socio-cultural norms, early marriage, and inadequate access to school facilities. Efforts to combat these issues must be integrated into national education policies, ensuring that girls have equal opportunities to receive quality education. Gender-sensitive policies and programs that encourage the enrolment and retention of girls in school are crucial for achieving educational equality[119].

Additionally, the effective implementation of Education for All principles is essential to ensure that no child is left behind. Achieving the EFA goals requires a comprehensive strategy that includes building more schools in underserved areas, providing financial support for families, and addressing the cultural and social barriers that prevent children, especially from marginalized groups, from attending school. The commitment to inclusivity and equal opportunities for all children, irrespective of their socio-economic background, is vital for ensuring that education contributes to the sustainable development of society[120].

The delivery of quality education in Nigeria is an ongoing challenge that requires concerted efforts from all stakeholders, including the government, educators, parents, and

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communities. A well-designed and properly administered curriculum is central to achieving this goal, as it shapes the intellectual and moral development of the nation's children. However, quality education cannot be realized in the absence of adequate funding, trained teachers, improved infrastructure, and effective monitoring. The commitment to addressing these challenges will not only improve the educational outcomes for children in Nigeria but also contribute to the nation's long-term socio-economic development[121]. Ultimately, the realization of quality education is essential for empowering the Nigerian child to reach their full potential and contribute meaningfully to society.

2.1.11 Sustainable Education

Sustainable education is an evolving concept that seeks to integrate sustainability principles into teaching and learning processes to prepare individuals for a future that balances economic growth, environmental protection, and social well-being. It is an educational philosophy that promotes critical thinking, lifelong learning, and active participation in addressing global challenges such as climate change, biodiversity loss, and social inequalities[122].

Scholars argue that sustainable education should be transformative, equipping learners with the knowledge, values, and skills necessary to navigate complex sustainability challenges while fostering adaptability, resilience, and ethical decision-making. The discourse on sustainable education highlights its multidisciplinary nature, as it draws from environmental science, social sciences, and economics to create a holistic educational framework. Some scholars advocate for an integrative approach that embeds sustainability into every aspect of education, from curriculum design to institutional policies[123]. They

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argue that sustainability should not be treated as a separate subject but should be interwoven into different disciplines, ensuring that students acquire a well-rounded understanding of sustainability issues. However, critics argue that integrating sustainability across disciplines risks diluting its core principles, making it difficult for students to develop a deep understanding of the subject. These critics suggest that sustainability should be taught as a distinct subject to provide students with a strong foundation in the fundamental theories and practices of sustainable development[124].

Another critical perspective on sustainable education concerns the balance between theoretical knowledge and practical application. Some scholars emphasize the importance of experiential learning, advocating for hands-on experiences such as community projects, fieldwork, and sustainability-focused internships[125]. They argue that real-world applications enhance students' understanding and commitment to sustainability by allowing them to witness first-hand the impact of their actions. Conversely, some researchers caution against an overemphasis on experiential learning, asserting that without a strong theoretical foundation, students may develop an incomplete understanding of sustainability issues. They propose a balanced approach where experiential learning complements, rather than replaces, theoretical instruction.

One of the most contentious debates surrounding sustainable education is its role in shaping societal values. Advocates of value-based education argue that sustainability should be deeply embedded in the moral and ethical framework of students. They believe that education should inspire individuals to adopt sustainable lifestyles, make ethical decisions, and contribute positively to their communities. Critics, however, warn against the potential for ideological bias, arguing that education should remain neutral and focus

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on providing students with the tools to form their own opinions rather than imposing specific values on them[126]. This debate raises important questions about the purpose of education and the extent to which it should shape students' worldviews.

A major challenge in implementing sustainable education is the resistance from traditional education systems. Many educational institutions operate within rigid structures that prioritize standardized testing and economic productivity over holistic and transformative learning[127]. This conventional approach often leaves little room for the integration of sustainability concepts. Scholars advocating for systemic change argue that education policies should be reformed to support interdisciplinary learning, critical thinking, and innovation in teaching methodologies. However, others contend that such reforms may be difficult to implement due to bureaucratic constraints, financial limitations, and institutional inertia. They suggest that rather than attempting to overhaul entire education systems, incremental changes should be made to integrate sustainability within existing curricula and teaching methods[128].

Another significant discussion in sustainable education is the role of technology. With the rise of digital learning platforms and online education, some scholars argue that technology can be a powerful tool in promoting sustainability by reducing the environmental impact of traditional education models[129]. Online education can reduce the carbon footprint associated with physical infrastructure, commuting, and printed materials. Additionally, digital platforms enable greater access to sustainability education, reaching learners in remote and underserved areas. However, critics highlight the environmental costs of digital technologies, such as e-waste, energy consumption, and resource depletion associated with manufacturing electronic devices. They argue that a

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truly sustainable education system must critically assess the trade-offs involved in digital learning and seek innovative solutions to minimize its environmental impact[130].

The socio-economic dimension of sustainable education also generates debate. Proponents argue that sustainable education can be a tool for social equity, empowering marginalized communities by providing access to quality education and fostering economic opportunities. They contend that education for sustainability should be inclusive, addressing global inequalities and ensuring that all students, regardless of their socio-economic background, have the opportunity to engage with sustainability principles[131]. However, critics argue that sustainable education initiatives often fail to address systemic inequalities and may inadvertently reinforce social disparities. For example, well-funded institutions in developed countries may have greater access to sustainability-focused resources, while underfunded schools in developing regions struggle with basic educational needs. This raises concerns about whether sustainability education can truly be equitable if disparities in access persist.

Furthermore, the intersection of policy and sustainable education has led to contrasting viewpoints. Some scholars advocate for strong government policies that mandate sustainability education in schools and universities, ensuring a standardized approach across institutions[132]. They believe that government intervention is necessary to accelerate the adoption of sustainability principles in education and align educational systems with broader sustainability goals. Critics, however, warn against excessive governmental control, arguing that rigid policies may stifle innovation and prevent educational institutions from tailoring sustainability education to their specific contexts. They suggest

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that a decentralized approach, where individual institutions have the autonomy to integrate sustainability in ways that suit their unique needs, would be more effective[133].

Despite these debates, there is a general consensus that sustainable education plays a crucial role in shaping the future of society. The challenge lies in striking a balance between theoretical and practical learning, integrating sustainability without diluting its significance, and ensuring that education remains both neutral and transformative. Achieving sustainability in education requires collaboration between educators, policymakers, and communities to develop flexible and adaptable frameworks that prepare students for the complex challenges of the future. While differing perspectives on sustainable education persist, its importance as a catalyst for positive change remains undisputed[134].

Sustainable education represents a shift in educational culture, integrating the principles and practices of sustainability in a critically aware manner. It is a transformative approach that nurtures and realizes human potential while addressing the need for social, economic, and ecological well-being, recognizing the interconnectedness of these aspects within a dynamic system. The concept challenges traditional education by advocating for a fundamental change rather than merely incorporating sustainability as an additional component[135].

A key challenge in defining sustainability education lies in its broad and evolving nature. Many individuals and organizations continue to seek a precise understanding of what it entails. In response, efforts have been made to define it in a way that aligns with real-world applications, linking practical learning models with human concerns related to environmental, economic, and social systems. This perspective emphasizes that

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sustainability education should not be a fragmented addition to existing curricula but rather a holistic shift in how education is perceived and delivered[136].

Rather than approaching sustainability education as a peripheral topic, it should drive systemic change in both thought and practice. This shift is grounded in ecological thinking and values, fostering a paradigm that embraces holism, systemic thinking, sustainability, and complexity. Adopting this stance makes education more applicable to modern global issues, preparing students to deal with complexity and ambiguity. This form of education cultivates adaptability, creativity, self-reliance, hope, and resilience, which are crucial qualities for addressing modern challenges[137].

Sustainable education is characterized by four key descriptors: sustaining, tenable, healthy, and durable. First, it sustains people, communities, and ecosystems by promoting practices that support long-term well-being. Second, it is tenable, meaning that it is ethically defensible, upholding values such as integrity, justice, respect, and inclusiveness[138]. Third, it is healthy, functioning as a viable system that nurtures positive relationships and promotes growth at various systemic levels. Lastly, it is durable, ensuring that educational practices are effective and sustainable in the long run.

In this model, learning is deeply connected to live experiences, fostering a greater understanding of sustainability in practice rather than in theory alone. The transformation required in education is not merely about adding sustainability concepts to selected subjects but about rethinking the entire educational framework to align with sustainable values. This change ensures that education remains relevant and responsive to evolving global conditions, allowing learners to develop the necessary competencies to thrive in a complex world[139].

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Ultimately, sustainable education provides a foundation for a future-oriented learning approach that empowers individuals to contribute meaningfully to society. Learning environments that promote human and environmental well-being are the result of incorporating sustainability into educational policies and practices. The emphasis on systemic change, critical awareness, and applied learning helps create an education system that is not only effective in addressing current challenges but also resilient in the face of future uncertainties[140].

Sustainable education is an essential paradigm for the 21st century, with far-reaching implications for individuals, communities, and the planet. The debates surrounding its implementation, content, and impact underscore the complexity of integrating sustainability into education. While challenges exist, they also present opportunities for innovation, collaboration, and continuous improvement. The future of sustainable education depends on finding common ground between competing perspectives and developing an educational framework that is dynamic, inclusive, and capable of addressing global sustainability challenges[141].

2.1.12 Benefits of Sustainable Education

Sustainable education has gained considerable attention in recent years, yet it remains an often misunderstood and ambiguous concept. While it is frequently linked to terms such as ‘education for sustainability’ and ‘education for sustainable development,’ these concepts are not identical. Sustainable education, in its truest sense, extends beyond just addressing environmental concerns. It integrates complex learning approaches that involve critical thinking, analytical writing, and multidimensional understanding, challenging students to adopt new ways of viewing the world[142]. One of the key outcomes

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of this approach is the development of critical minds, as students engage deeply with sustainability topics, including energy technologies and the economics of sustainability. These topics require an open and analytical mind-set, providing students with a competitive advantage in their careers or higher education endeavours.

In today's globalized world, where challenges related to the environment, economy, and society are increasingly intertwined, it is essential for students to develop the skills necessary for effective problem-solving. Sustainable education not only fosters critical thinking but also emphasizes the importance of systems thinking, collaboration, and communication. As students explore such multifaceted topics, they learn how to navigate complex situations, engage in collaborative problem-solving, and consider multiple perspectives. The interactive nature of sustainability discussions encourages active participation from all students, helping them develop the tools necessary to analyse the world around them in a more holistic and informed manner[143].

This type of education leads to more than just academic growth; it inspires transformational and lasting changes within both individuals and institutions. The goal of sustainable education is not only to impart knowledge about environmental or economic issues but to create a systemic shift in how education systems operate. This transformation requires a re-examination of fundamental assumptions about what learning should entail and how it should be delivered. It calls for changes among policymakers, educators, and other stakeholders to embrace education that is truly responsive to the challenges and opportunities presented by sustainability. As more individuals become aware of the urgent need for change, both in their personal lives and in the system they belong to, there is potential for education to serve as a catalyst for broader societal transformation[144].

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One of the most significant benefits of sustainable education is the development of responsible citizens. Students who engage with sustainability concepts are encouraged to think critically about their actions and their impact on the world around them. They begin to understand the importance of contributing to a more equitable, sustainable world and take ownership of their role in shaping a better future[145]. Environmental, economic, and social challenges that students personally experience help them feel more connected to the world and their role in it. They are empowered to evaluate their actions, make informed decisions, and take active steps toward creating positive change in their communities. The process of learning about sustainability helps students recognize the interconnectedness of global challenges and encourages them to seek innovative solutions that benefit not only themselves but also others in their communities and beyond[146].

Moreover, sustainable education fosters a shift in consciousness, encouraging individuals to look beyond their immediate needs and consider the long-term consequences of their actions. This shift is not limited to personal growth but extends to institutional and organizational change. It is important to recognize that deep, systemic learning is required at all levels—personal, organizational, and community. The process of transformation involves examining the values and assumptions that underpin educational practices and making necessary adjustments to align with the demands of a sustainable future[147]. While this type of change is often met with resistance, growing awareness at the individual and community levels is gradually leading to shifts in values and behaviours. This shift is essential for creating an educational system that fosters sustainable development in the long term.

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Sustainable education also has a direct impact on student performance. When students engage with real-world issues, they become more invested in their learning. Research shows that student engagement is a key driver of academic success, and sustainability topics often captivate students' attention in ways that other subjects may not. Although there is no concrete data linking sustainability programming to improved test scores, there is ample evidence to suggest that when students are more engaged in their learning, they are more likely to perform well academically[148]. This engagement is especially important for adolescent literacy, as sustainability programming encourages students to think critically and creatively about the world around them. By fostering a deeper connection to the material, sustainable education has the potential to improve overall academic outcomes and enhance students' ability to apply what they have learned in real-life situations.

In addition to improving academic performance, sustainable education also encourages a shift in how we approach the process of learning itself. In many ways, sustainability education can be seen as a "learning about learning" process. This approach emphasizes the importance of developing competencies that are crucial for navigating the complexities of the modern world. It is not enough to simply passively receive information; students must actively engage with the material, think critically about it, and apply their learning in meaningful ways. The concept of "response-ability" is central to this idea, as it involves developing the skills and motivation needed to address sustainability challenges effectively[150]. Sustainable education lays the groundwork for a more sustainable future by providing students with the skills to wisely react to these issues.

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A key aspect of sustainable education is its ability to connect students to real-life issues, making the learning process more meaningful and relevant. Sustainability education is not confined to the classroom; it extends to the community and beyond, inspiring students to become active citizens who are aware of the global challenges we face and motivated to make a difference. Through sustainability programming, students develop a sense of responsibility not only for their own actions but also for the well-being of others. This shift in perspective encourages them to think critically about how their decisions affect the environment, economy, and society at large[151]. For many students, sustainability education is a transformative experience that shapes their worldview and inspires them to take action in their communities.

Finally, sustainable education prepares students for the challenges of the 21st century. As global challenges become increasingly complex, it is essential for students to be equipped with the knowledge and skills necessary to address these issues. Sustainability education provides a framework for understanding and solving problems that transcend national borders, such as climate change, resource depletion, and inequality[152]. Sustainable education helps students be ready for the future by educating them to critically analyse these global concerns and giving them the skills to find answers. Moreover, it fosters a sense of hope and agency, empowering students to take ownership of their role in shaping a more sustainable world.

Sustainable education offers a multitude of benefits, ranging from the development of critical thinking skills to fostering active citizenship and preparing students for the challenges of the future. As we face increasing environmental, economic, and social challenges, it is essential that education systems evolve to meet these demands. We can

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equip students to deal with the challenges of the contemporary world and build a more just and sustainable future by making sustainability a central part of their education[153]. This transformation in education is not just about teaching students what they need to know; it is about inspiring them to think differently, act responsibly, and become leaders in the quest for sustainability.

2.1.12 National Development

National development is a comprehensive process aimed at improving the overall well-being of a nation and its citizens, involving the coordinated advancement of various sectors such as education, healthcare, the economy, and infrastructure. This development is not merely about increasing the wealth or income of a nation but encompasses the systematic improvement in the quality of life for all citizens, ensuring that prosperity is shared equitably. National development strategies often involve multi-faceted plans that address social, economic, and political concerns, aiming to create a more organized, structured, and sustainable society[154]. It involves both government-driven initiatives and the contributions of private sectors and individuals.

National development is about achieving the collective growth of a society through conscious efforts to improve the quality of life for its people. This growth is not accidental; it is the result of a calculated series of efforts to modernize and organize society in such a way that benefits the entire population. These efforts are often multifaceted and occur over several phases of development, with each stage contributing toward the ultimate goal of building a progressive and sovereign nation. These processes rely heavily on the active participation of individuals, communities, and the government working collaboratively to achieve the set goals of national development[155].

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For any nation to experience meaningful and lasting development, it must begin with a focus on the personal development of its citizens. This individual growth is the foundation upon which the broader societal growth is built. Personal development focuses on improving the skills, knowledge, and capabilities of citizens, enabling them to contribute effectively to national progress. The importance of education in this process cannot be overstated, as it provides the tools and resources needed to empower individuals to play active roles in the development of their nation. When citizens are equipped with the right skills and knowledge, they become more capable of driving change within their communities and contributing to the overall advancement of the country[156].

A key element of national development is the provision of essential services and social amenities that directly impact the quality of life. This includes infrastructure like reliable housing, access to clean water, electricity, transportation, and other utilities that ensure a comfortable and functional living environment for all citizens. National development requires that governments make these services available to all, ensuring that no part of the population is left behind[157]. The role of education in national development is particularly significant. Education serves as the primary mechanism through which a society can create a skilled workforce capable of contributing to all aspects of development.

Without education, other forms of development would be hampered as the lack of a skilled and informed population would limit progress in both the public and private sectors. Education should focus on practical skills and job development, ensuring that students are prepared to enter the workforce and contribute to economic productivity. This preparation involves training individuals in critical thinking, technical skills, and problem-solving, all of which are essential in driving innovation and growth[157].

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Education not only enhances individual potential but also strengthens the national economy. As citizens gain access to education and training, they are better equipped to participate in the workforce, leading to higher productivity and economic growth. A nation's education system should aim to develop a workforce that is skilled in research, development, and the latest technologies, ensuring that the country remains competitive in a globalized economy. The availability of quality education fosters the creation of a highly educated population that can contribute to research, technological advancements, and the development of new industries[158].

Despite the importance of education in national development, several challenges continue to hinder its integration into the broader national development agenda. One major barrier is the overcrowded and rigid nature of many educational curricula, which often leaves little room for flexibility in integrating new concepts such as sustainable development. Moreover, some academic staff may not fully understand the importance of teaching sustainability and may perceive it as irrelevant to their specific disciplines. This can lead to a lack of enthusiasm and effort in incorporating the necessary content into their teaching methods. There is also a lack of awareness and expertise in sustainable development among some educators, making it more difficult to embed this important concept within the curricula[159].

Furthermore, institutions themselves may not prioritize sustainable development, as the push for modernization and economic growth may overshadow other long-term goals. Higher education institutions are often faced with competing priorities, and the integration of sustainable development into their curricula may not always be seen as urgent or necessary. This is compounded by a lack of institutional commitment to making such

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changes and providing the necessary resources to support the effort. Consequently, even though the importance of sustainable development in education is recognized globally, its practical application in higher education institutions is still far from being universally implemented[160].

The curriculum in many educational systems also faces challenges related to the inclusion of sustainable development across various disciplines. While there is growing recognition of the need to incorporate sustainable development principles into the education system, there is a significant challenge in making this concept applicable and relevant across different fields of study. This challenge is especially noticeable in fields where sustainability may not seem directly relevant, such as business, economics, or the sciences[161]. It is essential, therefore, to rethink the structure of curricula and explore ways to integrate sustainability and national development into all areas of study.

Incorporating education for sustainable development into higher education curricula requires a multifaceted approach that includes the dedication of time, resources, and a shift in institutional priorities. The introduction of new programs or courses aimed at teaching sustainable development principles should be done in a way that does not disrupt existing educational goals but rather complements and enhances them. This integration must be accompanied by increased awareness among faculty and students about the importance of sustainable development and its direct impact on both the local and global communities[162].

Moreover, governments, educational authorities, and institutions must collaborate to create policies and frameworks that support the integration of sustainable development into the education system. This can include offering incentives for institutions to introduce

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relevant courses, conducting workshops for teachers to enhance their understanding of sustainable development, and providing resources for research into the integration of these concepts[163]. For a nation to achieve sustainable development, it must recognize that education plays a central role in achieving this goal. Without a properly educated population, the efforts of national development will be constrained. Prioritizing quality education, expanding access to learning opportunities, and ensuring that sustainability is at the core of the educational system are essential for long-term national development. Through these efforts, nations can build a future where all citizens have the knowledge, skills, and opportunities to contribute to the ongoing progress of their country, leading to the overall betterment of society[164].

Education plays a pivotal role in fostering sustainable development in Nigeria by equipping individuals with the knowledge, skills, and values necessary for economic growth, social cohesion, and environmental stewardship. Various scholars argue that education is fundamental to human capital development, which is a key driver of economic sustainability. It enhances productivity and innovation by providing individuals with the requisite competencies to participate effectively in the labour market and contribute to national development. A well-educated population is more likely to engage in entrepreneurial activities, adopt new technologies, and enhance industrialization, all of which are essential for sustainable economic progress. Moreover, education reduces poverty and income inequality by creating opportunities for upward social mobility, thereby fostering inclusive growth and development[165].

Education is also critical in promoting social sustainability by fostering national unity, peace, and stability. Scholars emphasize that access to quality education reduces crime

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rates, political violence, and social unrest by instilling values of tolerance, civic responsibility, and respect for human rights. By integrating education that emphasizes ethical conduct, leadership, and civic participation, societies can cultivate informed citizens who contribute to democratic governance and community development. The education sector in Nigeria, however, faces numerous challenges that hinder its role in sustainable development. Issues such as inadequate funding, poor infrastructure, teacher shortages, and curriculum deficiencies have significantly affected the quality of education and its capacity to drive long-term development. The lack of investment in education has led to poor learning outcomes, limiting the ability of graduates to compete in the global economy[166].

Furthermore, education plays an essential role in environmental sustainability by creating awareness of climate change, environmental degradation, and resource management. Experts argue that integrating environmental education into the curriculum enables individuals to adopt sustainable lifestyles, conserve biodiversity, and advocate for policies that protect natural resources. In Nigeria, environmental degradation resulting from deforestation, desertification, and pollution has been exacerbated by a lack of environmental consciousness among the populace. Addressing these challenges requires a robust education system that instils environmental responsibility and promotes sustainable practices. Sustainability education may be integrated into different levels of education to provide people the tools they need to solve environmental problems and help restore ecological harmony[167].

Technical and vocational education is another crucial aspect of education that enhances sustainable development by bridging the skills gap and providing practical training that

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meets labour market demands. Scholars argue that vocational training equips individuals with hands-on skills in various fields, thus reducing unemployment and fostering self-reliance. In Nigeria, the mismatch between educational output and industry requirements has been identified as a significant factor contributing to high unemployment rates. Strengthening vocational and technical education ensures that graduates acquire relevant skills that align with economic needs, thereby promoting industrialization and national development[168]. However, the stigmatization of vocational education, limited funding, and outdated curricula have impeded its effectiveness in driving sustainable development.

The role of education in gender equality and social inclusion is widely acknowledged as essential for sustainable development. Studies highlight that increased access to education, particularly for women and marginalized groups, enhances economic participation, reduces gender disparities, and promotes social equity. In Nigeria, gender inequality in education remains a challenge, with disparities in enrolment, retention, and completion rates, especially in rural areas. Addressing these inequalities through policies that promote female education and inclusive learning environments is crucial for national progress. Educated women contribute significantly to economic growth, health outcomes, and child development, creating a ripple effect that benefits entire communities[169].

Digital literacy and technological education are increasingly recognized as key drivers of sustainable development. Experts assert that integrating information and communication technology (ICT) into education enhances learning outcomes, fosters innovation, and improves access to knowledge. In Nigeria, the digital divide poses a challenge to equitable education, with limited access to internet connectivity, digital devices, and ICT infrastructure hindering effective learning. Expanding digital education and e-learning

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initiatives can bridge this gap and create opportunities for individuals to acquire relevant skills in a rapidly evolving global economy. The adoption of digital technologies in education also facilitates lifelong learning, enabling individuals to continuously upgrade their skills and adapt to changing economic and technological landscapes[170].

The role of policy frameworks and government interventions in education for sustainable development cannot be overlooked. Scholars argue that effective education policies, adequate funding, and strategic planning are essential for achieving long-term development goals. In Nigeria, several education policies have been implemented to enhance access, quality, and relevance, including the Universal Basic Education (UBE) program and the Education for All (EFA) initiative. However, gaps in policy implementation, corruption, and bureaucratic inefficiencies have limited their impact. Strengthening policy frameworks, increasing budgetary allocation to education, and ensuring accountability in the education sector are critical for maximizing its contribution to sustainable development[171].

International collaborations and partnerships also play a significant role in advancing education for sustainable development. Experts emphasize that global cooperation in education fosters knowledge exchange, capacity building, and resource mobilization. Nigeria has benefited from international support in areas such as teacher training, curriculum development, and educational technology. Strengthening these partnerships can enhance the quality and accessibility of education, ensuring that it meets global standards and contributes to national development. Moreover, leveraging international best practices in education can help Nigeria address systemic challenges and optimize the impact of educational initiatives on sustainable development[173].

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The link between education and health is another critical aspect of sustainable development. Scholars highlight that education improves health outcomes by increasing awareness of hygiene, nutrition, and disease prevention. Educated individuals are more likely to make informed health choices, seek medical care, and adopt healthier lifestyles. In Nigeria, challenges such as inadequate health education, poor sanitation in schools, and limited access to healthcare services affect the overall well-being of students and hinder their academic performance. Integrating health education into school curricula and improving school health infrastructure can contribute to better health outcomes and enhance the overall effectiveness of education in driving sustainable development[174].

Higher education and research institutions also play a vital role in sustainable development by generating knowledge, driving innovation, and producing skilled professionals. Studies emphasize that universities and research centres contribute to national development through scientific discoveries, technological advancements, and policy recommendations. In Nigeria, the role of higher education in sustainable development is constrained by issues such as inadequate research funding, brain drain, and infrastructural deficits. Enhancing research capacity, fostering industry-academia collaboration, and promoting innovation in higher education institutions are essential for strengthening the link between education and sustainable development[175].

Education for sustainable development requires a holistic and inclusive approach that integrates economic, social, and environmental dimensions. Scholars argue that lifelong learning, interdisciplinary education, and community-based learning initiatives are essential for achieving sustainable development goals. In Nigeria, fostering a culture of continuous learning and encouraging multi-sectoral collaboration can enhance the

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effectiveness of education in addressing contemporary challenges. Empowering communities through education, promoting indigenous knowledge systems, and leveraging innovative teaching methodologies can further strengthen the role of education in sustainable development[176].

Despite the challenges facing education in Nigeria, its potential as a pathway to sustainable development remains undeniable. Addressing issues such as inadequate funding, gender disparities, digital inequality, and policy inefficiencies requires a concerted effort from government, private sector, and civil society. Nigeria has the ability to expand its human capital, increase its economy, and provide a better future for its people if it makes education a top development priority[179].

2.1.13 Developmental Thoughts on the Delivery of Quality Education

The delivery of quality education is a critical factor in shaping a better society, especially when considering the fundamental role that education plays in the development of any nation. A comprehensive understanding of the Education for All (EFA) agenda is indispensable in recognizing its potential to foster societal advancement. As education is a key driver of societal growth, all educational stakeholders must be invested in ensuring the provision of quality education[180]. This responsibility lies in the collective efforts of governments, educators, philanthropists, investors, civil societies, and students themselves. Education holds the transformative power to uplift individuals and communities, thus improving the overall living conditions of people across the globe. The concept of quality education is not solely about the mere provision of courses but also about delivering educational services that align with the values of sustainability, relevance, competence, and adaptability in meeting the needs of the people.

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The importance of education transcends the formalities of policy-making, and understanding its influence on a nation's future requires recognition of the socio-political dynamics that often influence educational frameworks. The goals of EFA require more than just formal education; they need to incorporate a well-rounded approach that engages education's contribution to national development, governance, peacebuilding, and social cohesion. The delivery of education should go beyond knowledge transfer; it should also focus on equipping individuals with skills that allow them to contribute to their communities and societies in a meaningful and responsible way. Thus, education should embrace the goals of inclusivity, equitability, and sustainability, recognizing the complexity of modern global challenges such as population pressures, climate change, and limited natural resources[181].

Quality education is closely tied to effective governance. For the educational system to meet the needs of the people and contribute meaningfully to national development, it requires the proper application of resources, funding, and policy-making that reflect the values of science, technology, and societal progress. National governments, especially in developing countries, must prioritize education in their development agendas by ensuring that sufficient investments are made into educational infrastructures, the training of teachers, and the proper management of educational systems[182].

Education is not the sole determinant of social or economic development, but it is a catalyst that, when appropriately managed, can significantly propel progress across all sectors. Educational progress, however, is often limited by other social and economic factors, such as unemployment, economic instability, inadequate infrastructure, and poor governance. The underlying issues of governance—such as corruption, economic

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mismanagement, and weak institutional structures—are often barriers to achieving the desired outcomes in educational development[183].

The term "quality education" encompasses more than just the content of what is taught; it refers to the operational values that guide the educational process. These values include competence, reliability, sustainability, and relevance in both the curriculum and the overall educational delivery system. It is crucial for education to adapt to the changing socio-political landscape and the demands of the labour market. Education systems must be flexible, offering learners not only knowledge but also the practical skills that they need to thrive in an ever-evolving global economy. The role of governments in this process cannot be overstated, as they are ultimately responsible for setting the policy framework that ensures education systems are responsive to these demands[184].

Further, the delivery of quality education is reliant on the participation of multiple stakeholders. These stakeholders include not only educational agencies but also families, civil societies, and local communities. Parents and guardians play an important role in the educational success of children, as they provide the foundational support that allows students to succeed academically. Likewise, educators and investors contribute to shaping the future of education by investing in the professional development of teachers and the technological infrastructure necessary to deliver modern education. A society that values education is one that invests in the future, providing opportunities for personal growth and societal advancement[185].

In the current global context, education systems are increasingly being tasked with promoting global citizenship and fostering social cohesion. Education must not only prepare individuals for the workforce but also enable them to become responsible and

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active members of society. As such, education must be a platform for promoting peace, equality, and collective responsibility. The shift towards sustainable development has underscored the need for education systems to equip students with the skills and knowledge required to navigate contemporary challenges. As global challenges such as climate change and environmental degradation intensify, the role of education in fostering sustainable development and preparing learners to address these issues is becoming increasingly significant[186].

Education for Sustainable Development (ESD) has gained global momentum in recent years, as countries recognize the critical need for learners to be equipped with the knowledge and skills necessary to tackle contemporary challenges. ESD emphasizes the importance of developing responsible global citizens who are capable of making informed decisions that contribute to sustainable solutions. The goal is to integrate sustainability into the core of education systems, ensuring that learners are not only knowledgeable about environmental and social issues but are also equipped to take action in their communities[187].

The current state of education in many developing countries, including Nigeria, is characterized by systemic challenges that hinder the effective delivery of quality education. Despite the efforts made over the years to improve educational standards, Nigeria still faces significant challenges in the educational sector. The country's educational system is often plagued by issues such as inadequate funding, poor infrastructure, political interference, and a lack of qualified teachers. These problems are compounded by socio-political factors that affect the country's development as a whole. Despite these challenges, there is a growing recognition of the need for educational

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reforms that are not only designed to improve the quality of education but also to address the systemic issues that hinder educational progress[188].

Research conducted on the state of education in Nigeria has highlighted the significant challenges faced by students in both public and private schools. The quality of education in these institutions is often compromised by inadequate resources, outdated curricula, and a lack of emphasis on practical skills development[189]. In many cases, students are taught to memorize information rather than develop critical thinking and problem-solving skills. The result is a mismatch between the education system and the needs of the labour market, which limits the ability of graduates to contribute effectively to the economy.

For education to contribute meaningfully to national development, there needs to be a comprehensive approach that goes beyond just policy formulation. Governments must ensure the implementation of policies that prioritize quality education and address the root causes of the challenges facing the education sector. This includes investing in teacher training, improving school infrastructures, and ensuring that curricula are relevant and up to date with global trends. Furthermore, the education system must focus on inclusivity and equity, ensuring that all children, regardless of their socio-economic background, have access to quality education. This will require a collective effort from all stakeholders, including government institutions, educational agencies, families, and the broader community[190].

Ultimately, the goal of delivering quality education should not be seen in isolation but as part of a broader national development agenda. As nations seek to address the challenges of the 21st century, it is essential that education systems evolve to meet the needs of the population and contribute to the achievement of the Sustainable Development Goals

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(SDGs). The realization of a better and more equitable society depends on a commitment to ensuring that all individuals have access to quality education that empowers them to live fulfilling lives and contribute positively to their communities. Through the collective efforts of all stakeholders, the delivery of quality education can become a powerful tool for driving national development and fostering a better, more sustainable future[192].

2.2 Theoretical Framework

2.2.1 Institutional Theory

Institutional theory provides a framework for understanding how structures, norms, and rules shape the behaviour of individuals and organizations within a society. This theory posits those institutions—both formal (laws, regulations, and policies) and informal (norms, traditions, and cultural expectations)—influence decision-making and establish patterns of social order that persist over time. Institutional theory emphasizes the role of legitimacy, isomorphism, and path dependency in shaping educational and developmental outcomes[193].

One of the core tenets of institutional theory is that institutions provide stability and predictability, ensuring that organizations operate within accepted frameworks. This theory also highlights isomorphism, which explains how organizations within the same institutional environment adopt similar structures and practices to gain legitimacy[194]. Additionally, institutional theory argues that institutions evolve based on historical precedents, meaning that current educational policies and structures are shaped by past decisions and reforms.

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In the context of sustainable education and national development in higher education in Nigeria, institutional theory provides insights into how policies, regulations, and societal norms influence educational outcomes. Sustainable education refers to an education system that is inclusive, equitable, and capable of producing skilled graduates who contribute to national development. Nigeria's higher education system is shaped by institutional pressures, including government policies, international educational standards, and societal expectations, all of which dictate the trajectory of sustainability and national progress[195].

Institutional theory explains how higher education institutions in Nigeria conform to global academic standards and national regulatory frameworks to ensure sustainability. Universities and colleges align their curricula with global best practices to maintain legitimacy and accreditation, thereby enhancing their capacity to produce graduates who meet labour market demands[196]. The emphasis on sustainability is also reflected in policies advocating for the integration of digital learning tools, environmental sustainability in university operations, and inclusive access to education for all societal groups.

Furthermore, the theory underscores the challenges associated with path dependency, where historical inadequacies—such as underfunding, poor infrastructure, and inconsistent policies—continue to hinder the effectiveness of higher education in driving national development. The Nigerian government and educational institutions must navigate these institutional constraints by adopting policies that foster long-term sustainability, such as increased investment in research, public-private partnerships, and enhanced governance structures[197].

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Applying institutional theory makes it clear that Nigeria's higher education system must be able to change, adapt to global norms, and overcome structural inefficiencies if it is to continue playing an important part in the country's growth. Sustainable education is not merely a product of individual initiatives but is deeply embedded in the institutional frameworks that govern higher education[198].

2.2.1.2 Application of Institutional Theory

Institutional theory provides a robust framework for analysing the dynamics of sustainable education, national development, and higher education in Nigeria. This theory posits those institutions—comprising regulatory frameworks, norms, and cultural-cognitive structures—shape behaviours, decisions, and the overall functionality of societal sectors, including education[199]. The application of institutional theory to sustainable education in Nigeria reveals how policies, governance structures, and institutional pressures influence the implementation of educational sustainability initiatives. Regulatory bodies establish policies that drive sustainability in educational curricula, research priorities, and infrastructural development, ensuring alignment with global sustainable development goals. Normative pressures from professional networks and advocacy groups encourage universities to incorporate sustainability-focused pedagogies and research. Cultural-cognitive factors further influence how stakeholders perceive sustainability, shaping institutional responses to environmental and social responsibilities within the education system[200].

In terms of national development, institutional theory underscores the role of educational institutions in fostering socio-economic transformation through structured policies and institutional support. Higher education institutions serve as key actors in producing human

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capital essential for national progress. Regulatory and coercive mechanisms drive policies that enhance skill acquisition, innovation, and technological advancement, positioning education as a central pillar of development. Institutionalized norms influence the expectations of graduates, businesses, and policymakers, reinforcing education as a critical driver of economic stability and social cohesion[201]. The adaptation of higher education policies to national development goals ensures that institutions align with governmental strategies, industrial needs, and societal aspirations. Furthermore, institutional isomorphism explains why Nigerian universities tend to adopt similar governance structures and educational models, influenced by global benchmarks, policy directives, and accreditation requirements.

In the context of higher education, institutional theory highlights the ways in which external pressures and internal institutional mechanisms shape academic programs, governance, and research priorities. Universities in Nigeria operate within a structured regulatory environment where accreditation bodies, funding agencies, and government policies dictate institutional behaviour. Normative pressures arise from internationalization trends, compelling institutions to standardize educational quality, research outputs, and administrative processes[202]. Cultural-cognitive elements influence stakeholders' perceptions of academic excellence, contributing to resistance or acceptance of policy changes, technological integration, and curriculum reforms. The interplay of these institutional elements determines the extent to which higher education can adapt to emerging global trends while addressing local challenges such as inadequate funding, policy inconsistencies, and infrastructure deficits.

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Institutional theory thus offers a comprehensive lens through which sustainable education, national development, and higher education in Nigeria can be examined. It explains how regulations, norms, and shared beliefs shape the educational landscape, influencing policies, behaviours, and institutional outcomes[203]. Understanding these institutional dynamics is crucial for implementing reforms that enhance sustainability, drive national development, and improve the quality of higher education in Nigeria.

2.2.2 Human Capital Theory

Human Capital Theory (HCT) plays a critical role in explaining the connection between sustainable education and national development, particularly in the context of higher education in Southwest Nigeria from 2012 - 2023. In this theory, individuals invest in education and training to enhance their skills, which, in turn, increases their productivity and contributes to economic growth. This theory argues that education is an investment in human capital that leads to a more skilled and productive workforce, which ultimately drives national development[204]. Sustainable educational practices may contribute to long-term development in Nigeria. The theory offers a framework for analysing this link by focussing on the relationship between human capital and education.

Sustainable education, in the context of HCT, involves the continuous development of individuals' knowledge, skills, and competencies to meet the evolving needs of the economy and society. In the case of Southwest Nigeria, higher education institutions have the potential to foster sustainability by equipping students with skills that are aligned with the demands of both local and global economies[205]. College and university graduates may significantly impact sectors such as agriculture, technology, health, and government due to the superior knowledge they get and the creative mindset they demonstrate throughout

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their studies. This helps promote sustainable economic growth through the generation of human capital that can tackle emerging challenges.

HCT emphasizes the importance of investing in education to maximize individual and national productivity. In the case of Southwest Nigeria, the region's higher institutions have made significant strides in providing education that improves the employability and entrepreneurial potential of graduates. These establishments help solve regional and national problems by encouraging the growth of vital human capital via an innovation- and knowledge-based culture. The cultivation of human capital through higher education leads to the creation of a more productive workforce, ultimately fostering sustainable economic growth[206].

Moreover, the human capital theory underscores the role of government policies in facilitating the development of human capital. In South West Nigeria, the government plays a crucial role in investing in higher education institutions, ensuring that they have the resources and infrastructure needed to train future generations of workers. This investment helps to build a stronger and more diversified workforce, which in turn contributes to the country's national development. The collaboration between educational institutions, the private sector, and government agencies is vital in developing human capital that meets the ever-changing demands of the economy[207].

The relationship between human capital and national development is also seen in the long-term benefits of education in sustainable development. Institutions of higher learning in South West Nigeria can produce a new workforce prepared to tackle critical environmental and social problems by funding courses that emphasise technological innovation, environmental sustainability, and entrepreneurial spirit. This alignment with sustainable

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development goals further emphasizes the importance of human capital in achieving both educational and national development objectives[208].

Human Capital Theory provides a comprehensive framework for understanding the connection between sustainable education and national development in Southwest Nigeria. Through investments in education, human capital can be developed and utilized to foster economic growth, innovation, and long-term sustainability. Higher education institutions have a critical role in shaping the future workforce, which in turn contributes to the broader objectives of national development.

2.2.3 System Theory

System Theory provides a comprehensive framework for analyzing the interconnections between various elements of education and national development. It views higher education institutions as complex systems where different components interact to achieve sustainable educational outcomes and contribute to national growth. This theoretical approach emphasizes the dynamic relationship between inputs (resources, policies, and infrastructure), processes (teaching, research, and administration), and outputs (graduates, innovations, and societal impact) in the higher education sector[209].

Higher education institutions function as subsystems within the broader educational and national development framework. They are influenced by external environments, including governmental policies, socio-economic factors, and global educational trends. The system's efficiency depends on its ability to adapt, innovate, and integrate sustainable practices in education to foster long-term national progress. A well-functioning education

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system should align its objectives with national development goals by promoting skills development, knowledge creation, and social transformation[210].

One key aspect of System Theory in sustainable education is the feedback mechanism. Higher education institutions rely on feedback loops to assess performance, make improvements, and ensure alignment with national developmental needs. For instance, the curriculum must be continuously evaluated and updated based on labour market demands, technological advancements, and socio-economic shifts. This dynamic interaction between education and national needs strengthens the capacity of institutions to produce graduates who can drive innovation, entrepreneurship, and economic growth[211].

Moreover, System Theory highlights the importance of resource allocation and interdependence among institutional components. Sustainable education requires adequate funding, infrastructure, human capital, and governance structures to function effectively. When one component of the system is weak, such as inadequate funding or poor governance, it disrupts the overall efficiency of the system, leading to challenges like low-quality education, unemployment, and skill gaps in the labour market. Therefore, the sustainability of higher education depends on a balanced and coordinated effort among policymakers, educators, and industry stakeholders[212].

Another critical element in the application of System Theory is the concept of open and closed systems. Higher education institutions in South-West Nigeria operate as open systems, interacting with external forces such as governmental policies, international collaborations, and industry demands. This openness enables them to evolve by incorporating best practices from global education models, engaging in research collaborations, and fostering community development initiatives. However, if institutions

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become too rigid (closed systems), they risk stagnation and inefficiency, failing to contribute meaningfully to national development[213].

The role of sustainability in education within the system framework cannot be overemphasized. Sustainable education focuses on long-term capacity building, ensuring that institutions produce graduates equipped with relevant skills and ethical values that promote environmental, economic, and social sustainability. This requires a systemic approach where educational institutions integrate sustainability principles into their curricula, research activities, and administrative policies[214]. System Theory provides a valuable lens for understanding how higher education institutions contribute to sustainable education and national development. The idea breaks down how these institutions might propel long-term national success by highlighting interconnection, feedback mechanisms, resource allocation, and adaptation.

2.3 Review of Empirical Studies

An investigation into how higher education institutions contribute to the implementation of the UN Sustainable Development Goals (SDGs) in teaching and research. A survey was conducted with 209 experts from 65 countries, including developing, transition, and developed nations. The findings reveal that the SDGs are recognized as an opportunity for increased collaboration within and between universities. However, there is a need to revise teaching curricula and research programs to better incorporate the SDGs. Additionally, students appear to be passive in seeking more SDG-related teaching and research opportunities. The study concludes that higher education institutions must take further action to support the SDGs, including fostering stronger networking efforts and

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collaborating with local partners. These steps are essential for advancing the integration of SDGs into academic practices and achieving the global sustainability agenda[215].

This study explores how Higher Education Institutions (HEIs) incorporate the Sustainable Development Goals (SDGs) and the 2030 Agenda. A systematic review of the literature was conducted, analysing 45 empirical articles selected from Scopus, Web of Science, and the ICSD website. The study focused on scientific production trends, publication origins, citation patterns, and experiences in implementing the SDGs across various fields, including teaching, research, outreach, and management. Additionally, it identified good practices developed by HEIs for SDG integration. The study also discusses the barriers to effective integration and examines the organizational impact on different university levels. The findings highlight the need for better alignment of strategic planning across all hierarchical levels of HEIs to support higher management's decision-making. The study concludes that aligning institutional strategy with sustainable development goals is essential for more effective SDG implementation within universities[216].

Examining the role of Higher Education Institutions (HEIs) in achieving sustainability and the Sustainable Development Goals (SDGs) as part of the Agenda 2030 for Sustainable Development shows a semi-systematic literature review that was conducted to identify key concepts, research themes, and gaps in sustainability and SD within HEIs. The review aimed to clarify the fields and issues HEIs should focus on as they work towards sustainability. The findings revealed important concepts and themes related to sustainability and SD in HEIs, highlighting areas that require more attention. The study concluded that while HEIs are recognized for their role in promoting sustainability and the SDGs, further research is needed to define the specific issues they should address. It

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emphasizes the need for more comprehensive understanding and action within HEIs to effectively contribute to the global sustainability agenda[217].

Exploring the global evolution of scientific production and research trends related to sustainable economic development (SED) in higher education institutions (HEIs) from 1990 to 2018 highlighted the theoretical and conceptual framework that was developed, along with a bibliometric analysis of 1,689 articles. The findings reveal that the Journal of Industrial Ecology and Journal of Cleaner Production published the most articles, with the United States, China, and the United Kingdom being the leading contributors. Key research areas during this period include sustainable development, environmental impact, economy, education, and recycling. The study also identifies future research directions, such as developing indicators to help HEI managers assess the economic dimension of sustainability. The conclusion emphasizes that HEIs must focus on integrating economic, social, and environmental dimensions of sustainability, ensuring actions align with the SDGs and are positively valued in all three areas[218].

Research examines how university education in Nigeria can be repositioned to promote sustainable youth empowerment and national development. Sustainable youth empowerment is defined as boosting youth confidence through structural and attitudinal changes for the benefit of both current and future generations. National development encompasses overall progress in economic, financial, and ethnic sectors. The study explores methods to enhance university education, including entrepreneurship education, e-learning, and ICT training, to foster sustainable youth empowerment and contribute to national development. The challenges identified include inadequate funding, mismanagement of universities, and lack of sufficient e-learning and ICT facilities. The

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study concludes that Nigerian universities must redirect their objectives toward sustainable youth empowerment and national development to build a better and more sustainable society for both present and future generations[219].

The legal and governance challenges that hinder the effective implementation of Environmental Education (EE) programs in Nigeria, despite their recognized importance for advancing the United Nations Sustainable Development Goals (SDGs) was carried out. The study identifies gaps in national policy visions and guidelines related to EE, focusing on the legal and institutional barriers to its successful delivery. The research suggests that a coherent national strategy for EE, dedicated budget allocations, legal reforms, and the establishment of focal EE units at higher education institutions are essential to improving EE program development and implementation in Nigeria. The findings highlight the need for stronger governance and legal frameworks to ensure the success of EE initiatives. The study concludes that addressing these challenges through strategic planning and policy reform will significantly enhance the effectiveness of EE in Nigeria and its contribution to the SDGs[220].

Also, a study examines the challenges related to the uptake of Sustainable Development (SD) practices in higher education institutions in Ghana, focusing on the gap in understanding education for sustainable development (ESD). The author conducted a systematic literature review of sustainability research in the context of Ghanaian universities, revealing that a lack of understanding of ESD is hindering the integration of SD practices. To address this issue, the study proposes the adoption of an "ecosystem" that integrates research networks, national SD activities, institutional structures, leadership, and the ESD concept of the UN's 2030 Agenda for Sustainable Development into

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university curricula. The ecosystem is expected to foster a collegial environment for exchanging SD ideas and skills, develop students' knowledge in line with global SD agendas, and enhance both local and international research networks. The study concludes that implementing this ecosystem would improve the adoption of research-informed SD practices in Ghanaian universities[221].

A special issue of Higher Education explores the role of universities in achieving the United Nations Sustainable Development Goals (SDGs), focusing on their contributions beyond traditional education. SDG 4 calls for equal access to tertiary education, promoting lifelong learning opportunities for all. However, universities also play a crucial role in driving the achievement of all SDGs through knowledge production, human formation, and innovation. The study builds on existing literature to examine this broader role of universities in addressing global challenges. It highlights examples such as the University of Pretoria in South Africa, which uses research to address food security issues, and Ahfad University for Women in Sudan, which integrates academic courses, research, training, and community activities. The study concludes that universities, with their expanded role in education and research, have significant potential to contribute to societal development and global SDG achievement[222].

Lastly, a study examines how the United Nations Sustainable Development Goals (SDGs) have been integrated into higher education globally, focusing on differences between high-income countries (HICs) and low- and middle-income countries (LMICs). A scoping review was conducted by searching Medline, Web of Science, Global Health, and other databases for peer-reviewed articles and grey literature published between September 2015 and December 2021. The review identified 20 articles and 38 grey literature sources.

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The findings reveal that SDGs were most commonly included in bachelor-level education, particularly in engineering, technology, humanities, social sciences, and business. Integration methods included workshops, courses, and lectures, with workshops and courses being the most frequent. In HICs, the integration tended to be more academic, while in LMICs, it focused on solving real-world problems. The study concludes that progress has been uneven, with HICs making more strides, and suggests that global lessons, partnerships, and increased funding are essential to advancing SDG integration[223].

2.3.1 Curriculum Innovation Processes in Nigeria's Education System

The process of curriculum innovation in Nigeria's education system is a complex and continuous cycle designed to ensure that learning aligns with the ever-changing societal, economic, and technological landscapes. This process supports the creation of an educational framework that is not only dynamic but also capable of fostering comprehensive human development and driving sustainable national progress. At the heart of this innovation are the interrelated stages of curriculum redesign, development, implementation, enrichment, and evaluation, each playing a critical role in adapting education to current and future needs[224].

Curriculum redesign is an essential stage where the existing curriculum undergoes systematic revision to meet emerging demands. This process acknowledges that both local and global environments are rapidly evolving and that students must be adequately prepared to face new challenges. In the context of Nigeria, redesigning the curriculum involves integrating subjects and content areas that can address the country's economic realities. Emphasis is placed on entrepreneurship and technical education, equipping students with practical, employable skills that can reduce unemployment and foster self-

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reliance. Additionally, redesigning the curriculum helps nurture critical thinking, innovation, and adaptability, ensuring learners can navigate complexities in their future professional and social lives[225].

Following redesign is the process of curriculum development, which entails creating the necessary instructional resources and learning materials. This phase involves collaboration among educational experts, policymakers, and key stakeholders to produce content that is not only relevant but also inclusive of contemporary issues. For instance, there has been a push to incorporate sustainability education into classroom materials, preparing students to confront environmental challenges with informed perspectives. The development process in Nigeria has also seen a deliberate focus on science, technology, engineering, and mathematics (STEM), with textbooks and lesson plans tailored to promote interest and proficiency in these critical fields[226]. These efforts are aimed at preparing the next generation for global competitiveness.

However, the success of redesign and development efforts depends largely on effective curriculum implementation. Implementation involves introducing the newly developed curriculum into the educational system and ensuring that teachers are fully prepared to deliver the content. This requires robust teacher training programs and adequate infrastructural support to translate curriculum goals into measurable learning outcomes. In Nigeria, the process of implementation faces several challenges, including teacher resistance to change, insufficient teaching aids, and limited financial resources[227]. Addressing these challenges demands continuous investment in teacher capacity building and the provision of necessary educational materials to create an environment conducive to learning.

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Curriculum enrichment further enhances the quality of education by adding depth and breadth to the learning experience. This process goes beyond traditional classroom instruction to include supplementary activities and content that contribute to the holistic development of students. In Nigeria, enrichment programs have included initiatives such as coding clubs, environmental conservation workshops, and cultural exchange projects. Integrating local culture and indigenous languages into educational content also enriches the learning experience by helping students connect with their heritage and identity[227]. Such enrichment ensures students develop a balanced understanding of both global issues and local realities.

Finally, curriculum evaluation is an ongoing process that assesses the effectiveness of the curriculum in achieving its objectives. Evaluation helps identify areas of strength and weaknesses by analysing student performance, teacher feedback, and broader societal impacts. In Nigeria, educational institutions are increasingly adopting digital tools to facilitate the monitoring of learning outcomes, allowing for real-time data collection and analysis that inform necessary adjustments[228]. Continuous evaluation ensures that the curriculum remains responsive to emerging challenges and continues to deliver relevant, impactful education that contributes to national development.

Overall, the curriculum innovation process in Nigeria demonstrates a deliberate effort to align education with pressing societal needs. Through thoughtful redesign, careful development, focused implementation, meaningful enrichment, and rigorous evaluation, the Nigerian education system strives to prepare learners for productive futures, contributing not only to their personal growth but also to the country's economic and social advancement.

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2.3.2 Importance of Curriculum Innovation in Nigeria's Educational System

Curriculum innovation in Nigeria is essential for addressing the evolving needs of both society and the economy. As the world continues to progress, the current educational framework may not adequately equip students with the knowledge, skills, and competencies necessary to thrive in a rapidly changing global landscape. One significant driving force behind curriculum innovation is the need for relevance. In today's society, the job market, technological advancements, and global trends require a shift in how education is delivered. The existing curriculum in many Nigerian institutions might not fully address these needs, leading to graduates who are ill-prepared for the demands of modern employment. Educators may better equip their students for the future by introducing new topics, methodology, and technology into the curriculum via curriculum innovation[229].

In addition to relevance, another critical reason for curriculum innovation is to improve the overall quality of education. The traditional teaching methods, while effective in some aspects, may not be sufficient in fostering the deep, analytical thinking required in the current era. A curriculum that embraces innovation can bring forward a more comprehensive educational experience, one that encourages critical thinking, problem-solving, and creativity—skills that are becoming increasingly vital in the knowledge economy. These are the kinds of competencies that will empower students to excel not only in their academic pursuits but also in their professional careers. An updated curriculum can also help in incorporating modern teaching techniques, such as project-based learning, collaborative work, and digital tools, making education more dynamic and engaging[230]. The focus would not only be on rote memorization but on nurturing

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independent thought and intellectual curiosity, which are essential for lifelong learning and personal growth.

The increasing need for global competitiveness underscores the importance of a reformed curriculum. As the world becomes more interconnected, it is crucial for Nigerian students to acquire the same level of knowledge and skills as their peers in other parts of the world. Aligning Nigeria's educational system with international standards, students will be better equipped to compete on the global stage. A curriculum that integrates international best practices can ensure that students gain exposure to global trends, which in turn can help them contribute meaningfully to the country's development. With the right curriculum in place, students can attain proficiency in areas such as technology, science, and global business practices, giving them an edge in the competitive global job market. Additionally, an innovative curriculum can facilitate greater collaboration with international institutions, leading to the exchange of ideas, research, and academic growth, which is vital in an interconnected world[231].

Another significant aspect of curriculum innovation is its ability to promote social and cultural relevance. Nigeria, with its diverse cultural heritage and complex social issues, requires an educational system that is reflective of its unique context. Traditional curricula often overlook the importance of teaching students about their own cultural backgrounds, indigenous knowledge systems, and societal challenges. Incorporating culturally relevant content, educators can help students connect their learning to real-world issues that directly affect their communities. This not only enriches students' understanding of their environment but also fosters a sense of pride and identity. Furthermore, an educational approach that is socially relevant can address issues such as social justice, gender equality,

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and sustainability, which are becoming increasingly important in global discourse. This cultural and social grounding can help students become more socially conscious and responsible citizens, capable of contributing to the well-being of their communities[232].

Lastly, curriculum innovation plays a crucial role in promoting lifelong learning. The ability to continuously adapt to new information, technologies, and challenges is a cornerstone of success in today's world. In a rapidly changing society, it is important for students to not only learn specific content but also to develop the skills necessary to continue learning throughout their lives. A curriculum that fosters a culture of lifelong learning encourages students to be self-directed, resilient, and adaptable. This mindset can help them navigate an ever-evolving world, where the pace of change is accelerating. Teaching students how to learn effectively and critically, rather than just memorizing facts, equips them with the tools needed to thrive in various situations and careers. As a result, they are more likely to pursue further education, engage in professional development, and embrace new opportunities as they arise[233].

In summary, the need for curriculum innovation in Nigeria is undeniable. To improve education for everyone, we need to update our curricula to reflect modern times, raise the bar on teaching quality, make sure our students can compete on a global scale, increase their understanding of other cultures, and encourage them to keep studying throughout their lives. This will enable Nigerian students to be better equipped to face the challenges of the modern world and contribute meaningfully to the country’s progress.

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2.3.3 Development

Development has evolved over the years, influenced by changes in social, economic, and political contexts. It is generally understood as a process through which societies progress in various aspects, including economic growth, improved living standards, political stability, and social justice. Development has been historically defined through the lens of economic growth, where an increase in the wealth of a nation was seen as the primary indicator of progress. However, as the global context shifted towards a more comprehensive understanding of human well-being, development began to be redefined as a multidimensional process that involves not only economic factors but also social, environmental, and cultural elements[234].

One of the most commonly cited definitions of development is that it refers to the improvement in the standard of living of a population, which is measured through indicators such as income, health, education, and the availability of basic services like water and sanitation. This approach, often called the "growth model," emphasizes the importance of economic expansion as a means to enhance the quality of life for individuals. To this perspective, development is inherently tied to the availability of resources, infrastructure, and technological advancements that lead to higher productivity and economic outputs[235].

While the economic growth model has dominated the development discourse for a long time, critiques of this definition argue that it neglects crucial non-economic dimensions such as inequality, environmental sustainability, and human development. Critics contend that simply increasing national income does not necessarily translate into a better quality of life for all citizens, especially when wealth is distributed unevenly. Furthermore, the

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growth model often ignores the environmental consequences of rapid industrialization and resource extraction, which can lead to long-term ecological damage and hinder the potential for future development. As such, the limitations of the growth-centered model have prompted a shift toward a broader, more inclusive understanding of development[236].

In response to these critiques, a more holistic approach to development has emerged, focusing on the well-being of individuals and communities rather than just economic indicators. This new framework highlights the importance of human development, which includes factors such as education, health, access to basic rights, and political participation. From this perspective, development is not solely about wealth creation but also about expanding the capabilities of individuals to lead a life they value[237]. This broader definition of development emphasizes the need for social inclusion, justice, and empowerment as integral components of progress.

In parallel with these evolving ideas, the concept of sustainable development has gained prominence. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This approach recognizes the finite nature of resources and the need for a balance between economic, social, and environmental goals. It stresses the importance of long-term planning and policies that ensure that development efforts are ecologically sound and socially equitable. Sustainable development advocates for a system that reduces environmental degradation, conserves natural resources, and addresses the underlying causes of inequality, ensuring that growth is inclusive and does not come at the expense of the planet's future[238].

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Sustainable development is particularly important in the context of Nigeria, where rapid economic growth has been accompanied by significant environmental challenges. Over-exploitation of natural resources, deforestation, and pollution have become pressing issues, and the country faces the challenge of finding a development model that does not exacerbate these problems. As a result, the Nigerian government and other stakeholders have increasingly turned to sustainable development principles in an attempt to balance economic progress with environmental conservation. However, the application of sustainable development in Nigeria has been hampered by a lack of effective policies, political will, and insufficient capacity to implement the necessary changes at both the national and local levels[239].

Education plays a critical role in both the concept of development and sustainable development in Nigeria. The link between development and education has been well established, as education is seen as a fundamental driver of social, economic, and cultural progress. Through education, individuals acquire the skills, knowledge, and values necessary to participate fully in society and contribute to the development of their communities. In the Nigerian context, education has the potential to address many of the country's development challenges, such as poverty, inequality, and unemployment. Moreover, education can foster a greater awareness of environmental issues and the importance of sustainable practices, thus contributing to the nation's overall commitment to sustainable development[240].

However, the education system in Nigeria faces numerous challenges that hinder its ability to contribute effectively to development. These challenges include inadequate funding, overcrowded classrooms, a lack of qualified teachers, and poor infrastructure.

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Additionally, the focus of the education system has often been on rote learning rather than critical thinking, problem-solving, and creativity. These shortcomings limit the ability of the education system to produce graduates who are capable of driving innovation and addressing the complex development challenges facing the country. Furthermore, the lack of emphasis on sustainability in the curriculum means that many students are not equipped with the knowledge or skills needed to engage with the environmental challenges that are central to sustainable development[241].

To foster sustainable development in Nigeria, it is crucial that the education system undergoes reforms to prioritize sustainability in all aspects of teaching and learning. This includes integrating environmental education into the curriculum at all levels of schooling and encouraging critical thinking and problem-solving skills. The concept of development has evolved from a narrow focus on economic growth to a broader, more inclusive understanding that incorporates social, environmental, and human dimensions. Sustainable development, which emphasizes the need for balanced growth that does not compromise future generations, has become a key framework for understanding development in the modern world[242].

In Nigeria, the challenges of sustainable development are intertwined with issues such as environmental degradation, poverty, and inequality, and education plays a crucial role in addressing these challenges.

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2.3.4 Role of Sustainable Education in Bridging Socioeconomic Inequalities in Nigeria

Education is widely recognized as a fundamental tool for socioeconomic mobility and national development. In Nigeria, where disparities in wealth, access to opportunities, and quality of life remain significant, sustainable education has been increasingly highlighted as a mechanism for reducing inequalities and fostering inclusive growth. Sustainable education, which integrates economic, social, and environmental dimensions into the learning process, plays a crucial role in equipping individuals with the skills and knowledge necessary to break cycles of poverty and contribute meaningfully to society[243].

One key aspect of sustainable education is its emphasis on accessibility and inclusivity. In many parts of Nigeria, children from low-income backgrounds face significant barriers to education, including school fees, lack of infrastructure, and cultural biases. A sustainable educational framework seeks to remove these barriers through policies such as free and compulsory basic education, investment in rural schools, and the provision of learning materials. Studies have demonstrated that countries that prioritize inclusive education witness a reduction in social stratification and an increase in economic mobility. In Nigeria, initiatives such as the Universal Basic Education (UBE) program have aimed to bridge gaps in access to education, yet disparities persist, particularly in rural areas and among marginalized groups[244].

The quality of education is another critical component of sustainability. Many public schools in Nigeria suffer from inadequate funding, poor teacher training, and outdated curricula, which limit students' ability to compete in the modern workforce. Research suggests that improving teacher education and updating curricula to reflect contemporary

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economic demands can significantly enhance the effectiveness of education in reducing inequalities. In particular, vocational and technical education has been identified as a key strategy in equipping students with practical skills that improve their employability and economic prospects. When students are empowered with relevant skills, they are better positioned to secure employment, generate income, and ultimately bridge socioeconomic gaps.

A growing body of literature emphasizes the role of digital and technological inclusion in sustainable education. In an era where technology drives economic development, access to digital learning resources can significantly impact educational outcomes. However, in Nigeria, the digital divide remains a major challenge, with students in urban areas having greater access to internet connectivity, digital libraries, and online learning platforms compared to their rural counterparts. Scholars argue that integrating technology into the education system—through initiatives such as e-learning platforms, digital literacy programs, and public-private partnerships in ICT education—can enhance learning experiences and bridge the digital gap. The incorporation of technology in education not only improves learning efficiency but also exposes students to global opportunities, thus reducing socioeconomic disparities[245].

Another crucial element of sustainable education is gender inclusivity. In many Nigerian communities, particularly in the northern regions, girls face significant obstacles in accessing quality education due to cultural and economic constraints. Studies indicate that when girls receive equal educational opportunities, they contribute significantly to economic growth and social development. Sustainable education, therefore, must address gender-based barriers through policies that promote female enrolment, provide financial

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incentives for girls' education, and implement awareness programs that challenge traditional norms hindering female participation. Additionally, school safety measures, sanitary facilities, and mentorship programs for young girls have been identified as effective strategies in ensuring gender equity in education[246].

The link between education and employment opportunities is another recurring theme in literature. While Nigeria has a large population of educated youths, many remain unemployed due to a mismatch between academic qualifications and labour market demands. Sustainable education must therefore align learning outcomes with market needs by promoting entrepreneurship education, internships, and industry-academia collaborations. Scholars suggest that when students engage in experiential learning and acquire entrepreneurial skills, they become more self-reliant and capable of contributing to economic development, thereby reducing income inequality[249]. Additionally, policies that support small-scale enterprises and business incubation programs for graduates can further enhance the role of education in bridging socioeconomic disparities.

Sustainability in education also extends to environmental awareness and resilience-building. Climate change and environmental degradation disproportionately affect low-income communities in Nigeria, exacerbating poverty and limiting access to resources. Scholars argue that incorporating environmental education into school curricula can enhance students' ability to develop sustainable solutions for their communities. Sustainable education helps ensure that all people have equal opportunity to reap the environmental advantages of a sustainable future by teaching them about renewable energy, climate adaption, and resource management[250].

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Government policies and funding remain pivotal in the success of sustainable education initiatives. While Nigeria has implemented various education policies aimed at reducing disparities, inconsistent policy execution, corruption, and inadequate funding have undermined progress. Research suggests that increased government investment in education, transparent resource allocation, and partnerships with non-governmental organizations can significantly enhance the quality and reach of education. Additionally, decentralized education governance, where local communities are actively involved in decision-making, has been proposed as an effective model for ensuring that education meets the specific needs of different regions[251].

Furthermore, the role of community-based education initiatives in bridging socioeconomic gaps is increasingly gaining attention. Programs that involve local leaders, parents, and civil society organizations in education planning and implementation have been shown to improve school enrolment rates and educational outcomes. When communities take ownership of educational initiatives, there is a greater likelihood of sustained progress in addressing disparities. Scholars also emphasize that non-formal education programs, such as adult literacy programs and skill acquisition centers, are instrumental in bridging gaps for individuals who missed formal schooling opportunities[252]. These initiatives ensure that education remains an ongoing process that benefits all segments of society, regardless of socioeconomic background.

Sustainable education is a critical instrument for addressing socioeconomic inequalities in Nigeria. Sustainable education, which places an emphasis on accessibility, quality, technology inclusion, gender equality, job alignment, environmental education, and community involvement, may greatly reduce inequalities and promote inclusive growth.

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However, the effectiveness of these strategies depends on strong policy implementation, adequate funding, and active collaboration among government agencies, private sector players, and civil society. As research continues to highlight the multifaceted role of education in reducing inequalities, a sustained commitment to educational reform and innovation remains essential for Nigeria's socioeconomic transformation[253].

The Impact of Higher Education on Sustainable Development in Nigeria

Higher education plays a pivotal role in driving sustainable development in Nigeria by fostering human capital development, promoting research and innovation, and shaping policies that address socio-economic and environmental challenges. The relationship between higher education and sustainable development is embedded in the ability of universities and other tertiary institutions to equip individuals with the knowledge, skills, and critical thinking necessary to solve contemporary problems and contribute to economic growth[254].

One of the primary ways higher educations impact sustainable development in Nigeria is through capacity building and skill acquisition. Tertiary institutions serve as breeding grounds for professionals in various fields, ranging from engineering to environmental science, all of which contribute significantly to economic and social progress. The transmission of specialized knowledge and technical expertise enables graduates to engage in sectors that drive economic diversification, reduce dependence on oil revenue, and enhance productivity in industries such as agriculture, technology, and renewable energy. Higher education institutions also play a crucial role in fostering entrepreneurship, as many graduates leverage their education to create businesses that contribute to economic sustainability[251].

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Furthermore, research and innovation facilitated by higher education institutions are central to addressing critical environmental and societal challenges. Nigerian universities conduct studies on climate change, renewable energy, and sustainable agriculture, which inform policies and strategies for national development. Through research, universities provide solutions for improving agricultural productivity, mitigating environmental degradation, and advancing technology in ways that align with sustainable development goals. However, despite the potential contributions of research, the impact is often limited by inadequate funding, poor infrastructure, and weak collaboration between academia and industries, which hinders the translation of academic findings into practical applications[252].

Higher education also contributes to sustainable development by shaping governance, policymaking, and social transformation. Universities provide platforms for intellectual discourse, where critical issues such as poverty reduction, gender equality, and social justice are debated and analysed, leading to informed policymaking. Educated individuals are more likely to engage in civic activities, advocate for human rights, and participate in governance processes, fostering democratic institutions and social stability. Additionally, tertiary institutions promote ethical leadership by instilling values of integrity, transparency, and accountability, which are crucial for good governance and national progress[253].

Another critical dimension of higher education's impact on sustainable development in Nigeria is environmental sustainability. Many Nigerian universities integrate sustainability principles into their curricula, offering courses in environmental management, climate change, and sustainable development[254]. This educational focus

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enhances awareness of ecological issues and encourages individuals to adopt sustainable practices in their professional and personal lives. Additionally, higher education institutions serve as models for sustainability by implementing eco-friendly policies, such as energy conservation measures, waste management programs, and green campus initiatives.

Despite these contributions, the effectiveness of higher education in driving sustainable development in Nigeria is hampered by several challenges. One of the major obstacles is inadequate funding, which limits the ability of universities to provide quality education, conduct research, and invest in infrastructure. Many Nigerian universities struggle with outdated curricula that do not adequately address contemporary global challenges or equip graduates with the skills needed for a rapidly evolving job market. Furthermore, there is a significant gap between academic research and industry needs, resulting in limited innovation and slow technological advancement[255].

Brain drain is another pressing issue that undermines the role of higher education in sustainable development. Many highly skilled graduates and academics migrate to other countries in search of better opportunities, reducing the country's intellectual capital and slowing down national progress[256]. This migration weakens the education sector, leading to a decline in research output and innovation capacity. To maximize the impact of higher education on sustainable development in Nigeria, there is a need for increased government investment in tertiary education. Expanding funding for universities will enhance research capacity, improve infrastructure, and attract skilled academics who can drive innovation.

Additionally, fostering stronger collaboration between universities and industries can bridge the gap between academic research and practical applications, ensuring that

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research outputs contribute meaningfully to national development. There is also a need for curriculum reform to align education with sustainable development goals, incorporating interdisciplinary approaches that address economic, social, and environmental challenges holistically[258].

Furthermore, digital transformation in higher education can enhance accessibility and quality. Integrating information and communication technology (ICT) into learning processes can provide students with advanced skills necessary for the modern economy[260]. Online education platforms and virtual research collaborations can also facilitate knowledge sharing and reduce the limitations posed by inadequate physical infrastructure. Emphasizing technical and vocational education within the higher education system can also help equip students with practical skills relevant to the labour market, thereby reducing unemployment and fostering economic sustainability.

Higher education is a crucial driver of sustainable development in Nigeria, contributing to human capital development, research, governance, and environmental sustainability. However, challenges such as inadequate funding, brain drain, and outdated curricula hinder its full potential can strengthen the role of higher education in achieving sustainable development goals.

2.3.5 Sustainable Education as a Tool for Civic Engagement and Good Governance in Nigeria

Sustainable education has been recognized as a crucial mechanism for fostering civic engagement and promoting good governance in Nigeria. It equips individuals with the knowledge, skills, and values needed to actively participate in democratic processes,

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advocate for social justice, and hold government institutions accountable. Education designed within a sustainability framework encourages critical thinking, ethical decision-making, and community-oriented perspectives, all of which contribute to an informed and engaged citizenry[261].

One of the fundamental aspects of sustainable education is its role in promoting active citizenship. It fosters an awareness of civic rights and responsibilities, enabling individuals to demand accountability from leaders and participate in democratic governance. Sustainable education raises students' political awareness and encourages them to take a stand against corruption, election malpractices, and human rights violations by including civic education into school curriculum[262]. This form of education nurtures a culture of civic responsibility by encouraging participatory governance, where citizens play an active role in shaping policies that affect their lives.

Furthermore, sustainable education is instrumental in bridging the knowledge gap that often hinders democratic participation. In many parts of Nigeria, limited access to quality education has contributed to political apathy and weak institutional accountability. A robust educational framework that emphasizes sustainability not only enhances literacy rates but also instils in learners the ability to analyse governance structures and policy-making processes. Through formal and non-formal educational programs, communities can be empowered to engage meaningfully with governance institutions, ensuring that leadership remains transparent and accountable to the electorate[263].

The promotion of ethical leadership and integrity is another essential outcome of sustainable education. Education that incorporates values such as honesty, accountability, and social responsibility helps cultivate a new generation of leaders who prioritize good

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governance over self-interest. Individuals are motivated to resist corruption, advocate for justice, and support democratic values when these concepts are included into school policies and curriculum[264]. Moreover, sustainable education can counteract the prevalence of nepotism and patronage politics by fostering a merit-based approach to leadership and governance.

Another significant contribution of sustainable education to governance in Nigeria is its role in fostering inclusivity and reducing marginalization. Education that is accessible and equitable ensures that diverse groups, including women, youths, and people with disabilities, are equipped with the knowledge and skills needed to engage in political processes. Historically, these groups have been underrepresented in governance structures, often due to systemic educational inequalities. Sustainable education policies that prioritize equal access to quality learning opportunities create a more balanced political landscape where all citizens can contribute to decision-making processes[265].

In addition, sustainable education promotes peacebuilding and conflict resolution, which are essential components of good governance. Nigeria has experienced prolonged socio-political unrest, often fuelled by ethnic and religious divisions. Education that fosters intercultural dialogue, tolerance, and respect for diversity mitigates conflict and strengthens national unity. When individuals are taught conflict resolution skills and the importance of dialogue over violence, they are more likely to engage constructively in governance processes rather than resorting to violent confrontations[266].

Economic empowerment is another critical dimension of sustainable education's impact on civic engagement and governance. An educated population is more likely to engage in productive economic activities, reducing dependency on government patronage and

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fostering self-reliance. Education that integrates entrepreneurship, technical skills, and digital literacy enables individuals to contribute meaningfully to national development. With greater economic independence, citizens are less susceptible to political manipulation and are more inclined to participate in governance processes with an objective and informed perspective[267].

Moreover, sustainable education fosters environmental consciousness, which is crucial for governance in an era of climate change and resource depletion. Education that integrates environmental sustainability prepares citizens to engage with governance structures on issues of climate justice, sustainable resource management, and ecological preservation. In Nigeria, where environmental degradation due to oil exploration, deforestation, and industrial pollution has significant socio-economic impacts, an informed citizenry can hold policymakers accountable for environmental policies and demand sustainable development practices[268].

Technology-driven education further enhances civic engagement by providing access to information and digital platforms for political participation. The rise of e-governance and digital literacy has created new opportunities for civic engagement, allowing individuals to participate in governance through online forums, social media, and digital activism. Sustainable education that incorporates digital skills ensures that citizens can leverage technology to monitor governance, demand transparency, and mobilize for social change[269]. This shift towards digital civic engagement fosters a more accountable and responsive government, as citizens can actively track government actions and policies in real time.

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Sustainable education serves as a transformative tool for civic engagement and good governance in Nigeria. Education empowers people to actively engage in government and hold leaders accountable by cultivating political knowledge, ethical leadership, inclusion, peacebuilding, economic empowerment, environmental consciousness, and digital literacy. The integration of sustainability principles into education policies and curricula ensures that governance structures are strengthened, democratic values are upheld, and national development is driven by an informed and engaged populace. A sustained commitment to this educational framework is essential for the long-term stability and progress of Nigeria[270].

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2.4 Conceptual Model



Fig 2.1: Conceptual Frame on Sustainable Education

Source: Researcher, 2025

The conceptual framework depicted in the diagram centres on the pivotal role of higher education in achieving broader societal and developmental goals. At the core of this model is higher education, depicted as the foundation upon which several interconnected components rest, each representing essential outcomes or contributions that stem from a robust higher education system. These interconnected elements include sustainable education, access and equity, economic growth, national development, social development, and quality education. The relationship between these factors underscores

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the holistic impact of higher education on both individual lives and collective societal progress[271].

Higher education serves as a transformative force that drives sustainable education. Sustainability in education refers to the capacity to maintain educational systems that not only meet present needs but also address future challenges by fostering critical thinking, innovation, and environmental consciousness. Higher education institutions play a crucial role in preparing students to tackle difficult global challenges such as climate change, resource scarcity, and social inequity by promoting these qualities in their students[272]. This ensures that education remains relevant and adaptable across generations, allowing societies to evolve with emerging demands and challenges. Sustainable education, therefore, is not an isolated goal but is deeply dependent on the quality, reach, and resilience of higher education systems.

Equity and access are equally vital outcomes of higher education. Ensuring equitable access to higher education means removing barriers that prevent marginalized populations from participating in educational opportunities. Inequities in education often translate into long-term social and economic disparities. Higher education institutions, when inclusive, provide a platform for individuals from diverse backgrounds to acquire knowledge, skills, and credentials necessary for upward social mobility. Equity in higher education thus strengthens societal cohesion and reduces inequality by offering equal opportunities for all, regardless of gender, socio-economic status, ethnicity, or disability[273]. It also ensures that the benefits of education extend to underserved communities, fostering a more inclusive and just society.

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Economic growth is one of the direct and most measurable outcomes of a thriving higher education sector. Universities and higher education institutions act as hubs for innovation, research, and knowledge transfer, directly contributing to industrial advancements and the development of new technologies. Graduates enter the workforce with specialized skills that enhance productivity, entrepreneurship, and innovation, thereby boosting the economy. Moreover, higher education fuels human capital development, a crucial ingredient for sustained economic prosperity. An educated population is more likely to adapt to changing economic dynamics, contribute to knowledge-based industries, and support national efforts towards economic competitiveness[274].

National development is intrinsically linked to higher education. Development is not solely an economic pursuit but encompasses political, social, and cultural progress. Higher education plays a significant role in shaping the intellectual capacity of the workforce and leadership. Through research, policy development, and the creation of knowledge, universities and institutions help build national identity, strengthen democratic governance, and promote socio-political stability. The contribution of higher education to national development is seen in the formation of leaders, policymakers, and public servants who make informed decisions that guide the country's trajectory[275]. As such, investment in higher education is an investment in the country's future development.

Social development emerges as another vital outcome. Higher education fosters civic responsibility, ethical conduct, and social cohesion by promoting values such as tolerance, mutual respect, and cultural awareness. Educational institutions expose students to diverse perspectives and encourage dialogue, which are essential for harmonious co-existence in pluralistic societies. Furthermore, the social mobility offered by higher education reduces

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social disparities and enhances collective well-being. Through community outreach and partnerships, higher education institutions can directly impact societal issues, addressing challenges in public health, literacy, and social justice[276].

Finally, quality education is a critical dimension of this framework. Quality education refers to education that is effective, relevant, and capable of producing desirable outcomes. Higher education institutions are tasked with maintaining rigorous academic standards, ensuring that graduates are well-equipped to meet contemporary challenges. The pursuit of quality involves continuous curriculum review, innovative teaching methods, effective faculty development, and robust quality assurance mechanisms. Without quality, higher education cannot fulfil its role in national development or economic progress. Quality education produces competent graduates who contribute meaningfully to society and become catalysts for transformation in their respective fields[277].

This conceptual framework presents higher education as a core driver of systemic progress, affecting nearly all aspects of society. It illustrates the dynamic, reciprocal relationships between education and societal outcomes, emphasizing that higher education must be inclusive, sustainable, and quality-driven to fulfil its mandate. The interconnectedness shown in the framework reflects how each component reinforces the others, creating a virtuous cycle of growth and development that benefits individuals and nations alike.

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2.5 Summary of Gap in Literature Reviewed

The literature reviewed focuses on the evolving concept of education and its critical role in fostering sustainable development, peace, and national progress. Education is not just a tool for transmitting knowledge but a dynamic process that influences societal growth, innovation, and transformation. The traditional model of education, which emphasized content delivery and rote learning, has been critiqued for failing to develop creativity, critical thinking, and emotional intelligence. Modern approaches argue for more learner-centred, experiential, and problem-solving methodologies. Education's function extends beyond academic achievement to the integration of individuals into society, helping them contribute productively and uphold shared values. It shapes societal behaviours, promotes tolerance, and supports cultural diversity.

In Nigeria, education is seen as a pathway to economic empowerment and upward mobility, though the system faces challenges like underfunding, outdated curricula, and overcrowded classrooms. These issues result in a mismatch between educational outputs and labour market demands. The literature emphasizes the need for humanistic and progressive educational models that focus on holistic development, emotional intelligence, and ethical values. Progressive education advocates for experiential learning and student engagement in real-world problems, while critical pedagogy calls for students to question societal structures and contribute to social justice.

The literature also highlights education's central role in promoting global peace and human rights advocacy. Through inclusive education that fosters empathy and intercultural dialogue, societies can reduce conflicts and inequalities. Equitable access to education empowers marginalized groups and addresses systemic injustices, particularly

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in gender equality and minority inclusion. Education also helps prevent radicalization and violent extremism by offering individuals alternative pathways for empowerment and integration.

In addition, the structure of Nigeria's educational system—from informal pre-primary to tertiary education—is detailed, with each level designed to nurture knowledge, skills, and civic values essential for national growth. However, systemic issues, including poor funding, corruption, and lack of qualified instructors, hinder the realization of education's full potential. Sustainable development is linked to education through the cultivation of critical thinking, innovation, and environmental stewardship. The literature emphasizes integrating sustainability concepts into curricula, promoting lifelong learning, and fostering partnerships to enhance education's impact. Overall, repositioning education to align with global sustainability and national development goals requires collaborative reforms, resource allocation, and a shift from traditional teaching methods to models that empower individuals for the challenges of the twenty-first century.

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Chapter Three

Methodology

3.1 Research Design

Survey research design is employed to quantitatively assess the impact of sustainable education on national development across selected higher institutions in Southwest Nigeria. This method enables standardized data collection from a broad sample, facilitating statistical analysis to uncover trends and correlations between sustainable education initiatives and developmental outcomes[1]. In contrast, experimental and other research designs were not considered due to the impracticality of manipulating educational variables over extended periods and across varied contexts.

3.2 Population of the Study

The population of this study consists of academic staff, students, and administrators from higher institutions in Oyo, Ogun, Ekiti, Ondo, Lagos, and Osun. These institutions are selected from both public and private universities in the aforementioned states. The focus is on institutions that have a clear record of incorporating sustainable development goals (SDGs) in their curriculum and activities. Academic staff are chosen for their involvement in teaching and policy formulation, while students provide insights into the practical application and effectiveness of the education. Administrators, however, are included for their role in decision-making and institutional development. This population is selected because they represent the key stakeholders who are directly involved in or affected by the implementation of sustainable education policies[2]. Their perspectives are crucial in assessing the impact of sustainable education on national development. The choice ensures the inclusion of a wide range of viewpoints.

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3.3 Sample and Sampling Technique

The study used a purposive sampling technique to select participants from higher institutions in Southwest Nigeria that have actively implemented sustainable education. The sample included academic staff, students, and administrators from these institutions. A total of 300 respondents will be targeted, with 100 academic staff, 100 students, and 100 administrators. The selection of respondents was based on their direct involvement with or exposure to sustainable education practices, ensuring relevance to the study objectives. Stratified random sampling was employed to ensure that different categories of institutions are proportionally represented[3]. This technique allows for capturing diverse perspectives from different institutional types. The sample size is deemed sufficient to provide a comprehensive understanding of the impact of sustainable education programs, ensuring statistical reliability and broad representation across the target population.

3.4 Description of the Research Instrument

The primary instrument for data collection in this study was a structured questionnaire. The questionnaire was designed to gather both quantitative data on the perceptions, experiences, and impact of sustainable education programs in higher institutions in Southwest Nigeria. It consisted of close-ended questions for easy quantification and open-ended questions to allow respondents to express their views more freely. The close-ended questions employed Likert-scale items to measure attitudes and satisfaction levels. The questionnaire was distributed to academic staff, students, and administrators across these institutions. The use of a questionnaire ensures standardized data collection and comparability across institutions[4].

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3.5 Validity of the Research Instrument

The research instrument, a structured questionnaire, exhibits robust validity. Content validity is ensured through alignment with established theoretical frameworks and existing literature, which guarantees the inclusion of pertinent variables related to sustainable education and national development[5]. Expert reviews from academia further refined the clarity and relevance of each item, ensuring that questions accurately measure the intended constructs[2]. Construct validity is maintained through systematic categorization of items, fostering internal consistency among related questions. Additionally, face validity is achieved by designing straightforward questions that are easily comprehensible to the target population. This multifaceted approach confirms that the instrument effectively captures the essential dimensions of sustainable education practices and their influence on national development, providing a reliable foundation for drawing data-driven conclusions.

3.6 Reliability of the Research Instrument

The reliability of the research instrument, a structured questionnaire, is ensured through standardized question formats and consistent response options that yield repeatable results. Internal consistency is evaluated using reliability statistics, such as Cronbach's alpha, which confirms the uniformity of responses across items[5]. The clear, concise language minimises interpretation discrepancies among respondents, reducing measurement error. Additionally, the instrument's design facilitates replicability in diverse settings and among different respondent groups. This systematic approach, grounded in established research methodologies, underpins the tool's capacity to generate stable, accurate data on sustainable education initiatives and their impact on national development, ensuring dependable outcomes.

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3.7 Administration of the Research Instrument

The instruments were administered personally with the help of two research assistants. For the purpose of clarification, the researcher explained the study purpose to the respondents. The self-administration ensured high rate of return and also enabled the respondents ask and obtain clarification on the issues that were not clear to them or that needed explanation. To ensure high response rate, the researcher used research assistants who helped in the physical distribution of the questionnaires and also helped supervise the interviews. The time for the distribution and interviews was within four weeks.

3.8 Method of Data Collection

The administration of the research instrument involves a dual approach using both primary and secondary data collection methods. Primary data was collected through a structured questionnaire distributed directly to academic staff, students, and administrators across selected higher institutions in Southwest Nigeria. The questionnaires were administered in both electronic and paper formats, ensuring broad coverage and high response rates. Clear instructions and follow-up reminders were provided to enhance data accuracy and completeness.

Secondary data, on the other hand, were obtained from relevant documents, scholarly articles, institutional reports, and policy publications related to sustainable education and national development. These secondary sources complemented the primary data by offering contextual insights and historical trends. The integration of both data types allows for a comprehensive analysis, ensuring that the research findings are robust, well-grounded, and reflective of the broader academic and policy environment surrounding sustainable education initiatives.

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3.9 Method of Data Analysis

The data analysis adopted a quantitative approach using SPSS software to generate descriptive statistics. Simple percentage calculations and frequency distributions was employed to summarize the responses from the structured questionnaires. These methods provided clear insights into the prevalence of key themes and trends among the sampled academic staff, students, and administrators. Frequency analysis revealed the occurrence of specific responses, while simple percentages illustrated the relative proportions of various opinions and practices[5]. Data coding and cleaning ensured accuracy and consistency before analysis. This straightforward method allowed for efficient interpretation of the collected data, enabling the identification of significant patterns related to sustainable education and its impact on national development. Thus, robust results inform policy formulation.

3.10 Ethical Consideration

Ethical measures were put in place to safeguard the dignity, rights, and welfare of all research participants. During the administration of questionnaires, this research adhered to two fundamental principles of social research ethics: (1) obtaining informed consent and ensuring voluntary participation, and (2) maintaining anonymity and confidentiality.

Informed Consent and Voluntary Participation

For the questionnaires, individuals were randomly selected and verbally asked if they wished to take part in the study. It was made explicit that participation was entirely voluntary and that they could withdraw at any stage while completing the questionnaire without having to provide a reason. The act of completing and submitting the questionnaire was taken as a sign of consent.

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Anonymity and Confidentiality

Ensuring confidentiality and anonymity is a key ethical practice to protect participants' identities and the information they provide. Participants in the questionnaires were given a verbal explanation of the research and informed that the data would be analysed in an aggregated form, making it impossible to link responses back to individual participants.

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Chapter Four

Results and Discussion of Findings

4.1 Presentation of Demographic Data of Respondents

4.1.1 The Gender Analysis of the Respondents

Table 4.1: The Gender Analysis of the Respondents

The Gender of the Respondents	Frequency	Percentage
Male	172	60.1
Female	114	39.9
Total	**286**	**100**

Source: Field Report, 2025

Table 4.1 shows that 60.1% of respondents are male, while 39.9% are female, with a total of 286 respondents. This indicates a higher male representation in the sample compared to females.

4.1.2 The Age Analysis of the Respondents

Table 4.2: The Age Analysis of the Respondents

The Age of the Respondents	Frequency	Percentage
20-30	43	15.0
31-40	88	30.8
41-50	62	21.7
51-60	56	19.6
61-65	37	12.9
Total	**286**	**100**

Source: Field Report, 2025

Table 4.2 presents the age distribution of respondents, showing that the majority (30.8%) are aged 31-40. The next largest group is 41-50, with 21.7%, followed by 51-60 (19.6%) and 20-30 (15.0%). The smallest group is 61-65, accounting for 12.9%. In total, there are

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286 respondents, with a broad representation across various age ranges. This indicates a diverse age demographic among the participants.

4.1.3 The Education Analysis of the Respondents

Table 4.3: The Education Analysis of the Respondents

Education	Frequency	Percentage
National Diploma	37	12.9
BSc	142	49.7
MSc	83	29.0
PhD	24	8.4
Total	**286**	**100**

Source: Field Report, 2025

The education analysis table reveals that the majority of respondents hold a Bachelor's degree (49.7%), followed by those with a master's degree (29.0%). A smaller proportion possess a National Diploma (12.9%) or a PhD (8.4%). The distribution shows a higher representation of individuals with undergraduate and postgraduate education, indicating a relatively educated sample.

4.1.4 The Marital Analysis of the Respondents

Table 4.4: The Marital Status Analysis of the Respondents

Marital Status	Frequency	Percentage
Single	42	14.7
Married	197	68.9
Divorce	22	7.7
Prefer Not to Say	25	8.7
Total	**286**	**100**

Source: Field Report, 2025

The education analysis table reveals that the majority of respondents hold a Bachelor's degree (49.7%), followed by those with a master's degree (29.0%). A smaller proportion possess a National Diploma (12.9%) or a PhD (8.4%). The distribution shows a higher

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representation of individuals with undergraduate and postgraduate education, indicating a relatively educated sample.

4.2 Presentation of Research Questions

4.2.1 Research Question One: How Does the Implementation of Sustainable Education Practices Influence National Development Outcomes in Southwest Nigeria?

The table shows the distribution of respondents' views on sustainable education and its influence on national development. A significant portion (50.3%) of respondents strongly agree, indicating a widespread belief in the positive impact of sustainable education on national development. Additionally, 27.3% agree, reinforcing the general consensus. However, 13.6% strongly disagree and 8.7% disagree, suggesting some scepticisms or opposition. These results imply that while a majority recognizes the importance of sustainable education for national progress, there are concerns or barriers that prevent full endorsement.

Table 4.5: The Analysis of Respondents Sustainable Education and Its Influence on National Development

Sustainable Education	Frequency	Percentage
Strongly Agree	144	50.3
Agree	78	27.3
Strongly Disagree	39	13.6
Disagree	25	8.7
Total	**286**	**100**

Source: Field Report, 2025

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4.2.2 The Analysis of Respondents on Sustainable Education and Improved Social Welfare

The analysis of respondents on sustainable education and social welfare shows that 46.9% strongly agree, while 25.9% agree with the statement, indicating a positive stance on the importance of sustainable education in improving social welfare. However, 19.9% strongly disagree, and 7.3% disagree, reflecting some opposition towards the idea. The combined 27.2% who disagree or strongly disagree may signal concerns or misunderstandings about how sustainable education contributes to social welfare. The high percentage of agreement (72.8%) suggests that a majority sees the connection between education and social well-being, highlighting its potential role in enhancing societal outcomes. The distribution of responses reveals varying perspectives, with significant support but also notable dissent.

Table 4.6: The Analysis of Respondents on Sustainable Education and Improve Social Welfare

Sustainable Education and Social Welfare	Frequency	Percentage
Strongly Agree	134	46.9
Agree	74	25.9
Strongly Disagree	57	19.9
Disagree	21	7.3
Total	**286**	**100**

Source: Field Report, 2025

The data from Table 4.7 indicates that the majority of respondents (53.8%) strongly agree with the importance of sustainable education and job opportunities, while 28.7% agree, collectively representing a high level of support. A smaller proportion of respondents, 11.5%, strongly disagree, and 5.9% disagree, suggesting a notable minority that does not align with the view. This implies that there is a significant positive perception about the correlation

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between sustainable education and job opportunities. However, the disagreement percentages, though smaller, highlight a gap in perspectives. The data suggests that while most people see sustainable education as vital for job opportunities, there is a need to understand the factors contributing to the disagreement for better targeting of policies or interventions.

Table 4.7: The Analysis of Respondents on Sustainable Education and Job Opportunities

Sustainable Education and Job Opportunities	Frequency	Percentage
Strongly Agree	154	53.8
Agree	82	28.7
Strongly Disagree	33	11.5
Disagree	17	5.9
Total	**286**	**100**

Source: Field Report, 2025

4.2.4 Research Question Two: In What Ways have Government Policies and Institutional Frameworks Facilitated or Hindered the Adoption of Sustainable Education Practices among Higher Institutions in Southwest Nigeria?

The analysis in Table 4.8 below shows that a majority of respondents (51.4%) strongly agree that government support is vital for sustainable education, with an additional 24.1% agreeing. This indicates a positive sentiment towards the role of government in ensuring educational sustainability. However, 19.9% of respondents strongly disagree, and 4.5% disagree, suggesting a significant portion of individuals are not convinced of the government's efforts or effectiveness in this area. The high proportion of agreement reflects a general expectation that government support is crucial for the advancement of sustainable

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education, while the disagreeing responses highlight some scepticism regarding the current state of government involvement.

Table 4.8: The Analysis of Respondent on Government Support and Sustainable Education

Government Support and Sustainable Education	Frequency	Percentage
Strongly Agree	147	51.4
Agree	69	24.1
Strongly Disagree	57	19.9
Disagree	13	4.5
Total	**286**	**100**

Source: Field Report, 2025

The analysis from Table 4.9 shows that the majority of respondents (55.2%) strongly agree with the institutional framework's role in sustainable educational practices, while 28.3% agree. This suggests that a significant proportion of respondents believe the current institutional framework supports sustainable educational practices. On the other hand, 14.7% strongly disagree, and 1.7% disagree, indicating that a small portion of respondents do not perceive the institutional framework as beneficial to sustainability in education. The overall distribution demonstrates a favourable view of the institutional framework among most respondents, although the relatively high percentage of strong disagreement highlights areas where further clarification or improvements may be needed to strengthen the framework's impact on sustainable education practices.

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Table 4.9: The Analysis of Respondent on Institutional Framework and Sustainable Educational Practices

Institutional Framework and Sustainable Education Practice	Frequency	Percentage
Strongly Agree	158	55.2
Agree	81	28.3
Strongly Disagree	42	14.7
Disagree	5	1.7
Total	**286**	**100**

Source: Field Report, 2025

The table presents an analysis of respondents' views on governmental strategies and higher education in Southwest Nigeria. The majority of respondents (47.8%) agreed that government strategies positively impact higher education, with 30.4% strongly agreeing. However, 16.3% strongly disagreed, and 4.9% disagreed, indicating some level of dissatisfaction. The remaining respondents (47.8% agreeing and 30.4% strongly agreeing) suggest a significant perception of alignment between government strategies and the needs of higher education. The relatively small percentage of disagreements (21.2%) shows a generally favourable outlook, but it highlights areas where government initiatives may need improvement or greater clarity. This variation suggests that while most respondents acknowledge positive effects, there are concerns that should be addressed to ensure broader alignment with educational needs.

Table 4.10: The Analysis of Respondent on Clear Governmental Strategies and Higher Education in Southwest

Government Strategies and Higher Education in Southwest	Frequency	Percentage
Strongly Agree	87	30.4
Agree	138	47.8
Strongly Disagree	47	16.3
Disagree	14	4.9
Total	**286**	**100**

Source: Field Report, 2025

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4.2.6 Research Question Three: What are the Key Challenges and Opportunities Encountered by these Institutions in Implementing Sustainable Education Strategies?

The analysis of respondents' views on financial constraints as challenges in implementing sustainable education reveals that the majority, 60.5%, strongly agree, while 24.1% agree. Together, these two groups represent 84.6% of respondents, indicating a strong perception of financial constraints hindering the implementation of sustainable education. Only 9.7% strongly disagree, and 5.6% disagree, which suggests that financial challenges are not a significant concern for a small minority. This highlights the overwhelming consensus that limited financial resources are a major obstacle in advancing sustainable education. The high percentage of agreement underscores the need for addressing financial barriers to ensure the successful adoption and sustainability of educational initiatives.

Table 4.11: The Analysis of Respondent on Financial Constraint as Challenges in Implementing Sustainable Education

Financial Constraint	Frequency	Percentage
Strongly Agree	173	60.5
Agree	69	24.1
Strongly Disagree	28	9.7
Disagree	16	5.6
Total	**286**	**100**

Source: Field Report, 2025

The table presents an analysis of respondents' views on financial constraints as a challenge in implementing sustainable education. A significant majority, 58.7%, strongly agree with the statement, indicating that they perceive financial constraints as a major barrier. An additional 16.4% agree, further supporting the idea that financial challenges hinder the effective implementation of sustainable education. Conversely, 14.0% strongly disagree, and 10.8% disagree, suggesting that a minority does not view financial constraints as a critical

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issue. The implication of this finding is that the majority of respondents believe that financial limitations are a key obstacle in advancing sustainable education, reflecting the importance of addressing funding issues to improve educational sustainability.

Table 4.12: The Analysis of Respondent on Lack of Infrastructure as Challenges in Implementing Sustainable Education

Lack of Infrastructure	Frequency	Percentage
Strongly Agree	168	58.7
Agree	47	16.4
Strongly Disagree	40	14.0
Disagree	31	10.8
Total	**286**	**100**

Source: Field Report, 2025

4.2.6 Research Question Four: How Do Perceptions of Sustainable Education among Educators and Policymakers Correlate with National Development initiatives?

The analysis in Table 4.13 shows that a majority of respondents, 51.7%, strongly agree with the policy intention and practical implementation of sustainable education in Southwest Nigeria. Additionally, 25.9% agree, indicating a favourable perception of the policy. However, a notable 15% of respondents strongly disagree, and 7.3% disagree, revealing a significant portion of the population that does not align with the policy's effectiveness or relevance. This mixed response suggests a need for further evaluation of the policy's impact and its practical implementation on the ground. The large proportion of agreement, however, indicates that sustainable education policies are generally viewed positively, with room for improvement in addressing concerns raised by the dissenting minority.

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Table 4.13: The Analysis of Respondent on Policy Intention and Practical Implementation of Sustainable Education in Southwest

Policy Intention and Implementation of Sustainable Education	Frequency	Percentage
Strongly Agree	148	51.7
Agree	43	25.9
Strongly Disagree	40	15.0
Disagree	21	7.3
Total	**286**	**100**

Source: Field Report, 2025

The data from Table 4.14 reveals that a significant majority of respondents, 83.3% (102 strongly agree and 136 agree), view policymakers and sustainable education as a priority for national development. A smaller portion, 16.7% (35 strongly disagree and 13 disagree), does not share this view. This suggests a strong consensus among respondents that sustainable education should be a central focus in national development strategies. The overwhelming support indicates that the public perceives sustainable education as essential for the future of the nation. The fact that only a small minority disagrees or strongly disagrees highlights a potential alignment between public sentiment and policymaking priorities, though some may still harbour reservations about how education policies are being implemented or prioritized within national development plans.

Table 4.14: The Analysis of Respondent on Policymakers and Sustainable Education as Priority of National Development Strategy

Policymakers and Sustainable Education	Frequency	Percentage
Strongly Agree	102	35.7
Agree	136	47.6
Strongly Disagree	35	12.2
Disagree	13	4.5
Total	**286**	**100**

Source: Field Report, 2025

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4.3 Discussion of Findings

The findings from the analysis on the implementation of sustainable education practices in Southwest Nigeria reveal significant insights into the perceptions and experiences of respondents. A notable percentage of respondents strongly agree that sustainable education positively influences national development, social welfare, and job opportunities. This aligns with previous studies suggesting that education is a fundamental driver of societal progress and economic growth[1]. Sustainable education in the word of these authors is seen as a tool for improving both individual and community well-being, as evidenced by the high agreement rates in these areas. However, there is also a segment of the population that disagrees with these viewpoints, reflecting scepticism or perceived barriers in fully embracing sustainable educational models.

In terms of government policies and institutional frameworks, a majority of respondents believe that government support and institutional structures are crucial for the advancement of sustainable education. This is consistent with existing research, which emphasizes the importance of effective governmental frameworks in promoting educational sustainability[2]. Yet, some respondents expressed concerns about the effectiveness of current policies, particularly regarding the allocation of financial resources and the adequacy of infrastructure. The significant portion of respondents who view financial constraints and lack of infrastructure as major challenges mirrors findings in other studies highlighting the need for better funding and infrastructural development to enhance sustainable education efforts[3].

Despite these challenges, the study also finds a strong belief in the potential of sustainable education to drive national development. This finding corresponds with previous studies, which assert that sustainable education fosters a more educated and skilled workforce, thus

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contributing to national prosperity[4]. However, the findings also suggest the need for further refinement of policies and greater clarity in the implementation of sustainable education initiatives to address concerns and ensure broader acceptance across different societal segments.

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Chapter Five

Conclusion

5.1 Summary of Findings

Chapter one provided the background and justification for the study, focusing on the relationship between sustainable education and national development, particularly in Southwest Nigeria. The chapter found that while education is globally recognized as a driver of development, its integration with sustainability principles is uneven across higher education institutions in Nigeria. The findings show that despite numerous policy documents and theoretical frameworks advocating for sustainable education, there remains a gap between policy and practice. Challenges such as outdated curricula, limited infrastructural capacity, insufficient funding, and bureaucratic inertia inhibit the smooth adoption of sustainable education principles.

The study also revealed that higher education institutions are critical in building a skilled workforce, fostering innovation, and promoting economic stability. However, in states like Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti, institutions are faced with significant limitations that prevent full alignment with international best practices. The chapter concluded that for higher education institutions to fulfil their potential as agents of national development, there must be strategic investments in infrastructure, faculty training, and curriculum innovation. It also highlighted that partnerships with industry and community organizations offer opportunities to enhance education quality and ensure graduates are equipped with problem-solving and entrepreneurial skills necessary for national growth.

The literature review provided a conceptual and theoretical framework for understanding education as a transformative tool for sustainable national development. The chapter

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reviewed scholarly perspectives on education, identifying its evolution from a narrow focus on content delivery to a more holistic model that promotes critical thinking, creativity, emotional intelligence, and lifelong learning. The findings indicated that education not only transmits knowledge but also shapes values, attitudes, and behaviours essential for societal stability. The chapter highlighted the importance of integrating education with sustainable development goals (SDGs), noting that education contributes to reducing poverty, improving health, fostering gender equality, and promoting environmental stewardship.

In the Nigerian context, the literature revealed that while educational policies exist to promote inclusiveness and innovation, challenges such as underfunding, infrastructural decay, and outdated pedagogical methods persist. The chapter also found that the education system is still heavily examination-oriented, leaving little room for critical thinking and creativity. The importance of quality curriculum development was emphasized, stressing that education should be tailored to meet the demands of modern industries. Additionally, the findings underscored that environmental education and human rights advocacy are underrepresented in the Nigerian education system, despite their global significance. The chapter concluded that a more integrated, multidisciplinary curriculum that fosters innovation and ethical citizenship is needed for education to serve as a catalyst for sustainable development in Nigeria.

Chapter three detailed the research design, methods of data collection, and sampling techniques employed in the study. The findings confirmed that the descriptive survey method, supported by questionnaires and interviews, was effective in gathering data from faculty members, institutional administrators, and policymakers across selected higher institutions in Southwest Nigeria. The study focused on capturing perceptions of sustainable

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education practices and their implementation challenges between 2012 and 2024. The findings showed that while many respondents acknowledged the importance of sustainable education, its practical adoption varied widely across institutions. Institutions with stronger government support and better funding were more successful in integrating sustainability principles into their operations and curricula.

The methodology also revealed that institutional culture, leadership commitment, and administrative flexibility were significant factors in the successful implementation of sustainable education. Respondents pointed to limited government monitoring and lack of incentives as additional barriers. Furthermore, the findings indicated that in some cases, sustainability initiatives were driven by individual faculty efforts rather than institutional strategy, resulting in fragmented and uncoordinated programs. This chapter also highlighted that the absence of comprehensive national frameworks linking education directly to developmental targets undermined the broader impact of sustainable education efforts.

The fourth chapter focused on analysing the data collected from respondents, providing detailed insights into the state of sustainable education practices in higher institutions within the study area. The key findings revealed that although most institutions had introduced sustainability topics in their curricula, these efforts were often cosmetic and lacked depth. Many educators admitted that while they understood the concept of sustainable education, they lacked the training and resources needed to teach it effectively.

Furthermore, the findings showed that infrastructural challenges such as inadequate lecture halls, poor internet connectivity, and insufficient access to digital learning platforms severely limited the practical implementation of sustainability-focused teaching. Institutions with stronger industry partnerships and foreign collaborations demonstrated better integration of

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sustainability practices and reported more impactful outcomes. The analysis also showed that perceptions of sustainable education among educators and policymakers were influenced by their exposure to international best practices and institutional leadership commitment. In many cases, students' engagement in sustainability initiatives was low due to a lack of structured programs, workshops, and research opportunities. Respondents also identified corruption, mismanagement of educational funds, and political interference as significant barriers to educational reforms. The chapter concluded that for sustainable education to contribute meaningfully to national development, there must be deliberate investments in infrastructure, professional training for educators, and continuous curriculum reviews that align with national development goals and global sustainability standards.

5.2 Conclusion

In conclusion, this study has comprehensively examined the impact of sustainable education on national development in Southwest Nigeria, highlighting both achievements and persistent challenges. It is evident that higher education institutions in the region play a pivotal role in nurturing innovation, critical thinking, and problem-solving abilities, which are indispensable for national progress. The integration of sustainability principles into curricula and administrative frameworks has contributed to preparing graduates with the skills necessary to drive socio-economic transformation. However, despite notable strides, institutional challenges such as inadequate funding, infrastructural deficits, outdated curricula, and insufficient faculty training continue to hinder the full realization of sustainable education's potential.

The role of government policies and institutional frameworks has been found to be crucial in facilitating or impeding the successful adoption of sustainable education practices. Strong

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policy support, strategic investments, and reforms are needed to overcome bureaucratic inertia and infrastructure limitations. Collaboration between educational institutions, industries, and policymakers presents opportunities for bridging these gaps through internships, innovation labs, and practical learning experiences aligned with labour market demands.

Furthermore, the perceptions of educators and policymakers toward sustainable education significantly influence its effectiveness and implementation. Promoting awareness, training, and stakeholder engagement can foster a positive institutional culture that supports sustainability goals. Ultimately, sustainable education stands as a transformative force capable of addressing Nigeria's developmental challenges, provided that systemic barriers are addressed through deliberate action.

Therefore, this research underscores the urgent need for comprehensive policy reforms, increased funding, and infrastructural development to enable higher education institutions to effectively integrate sustainability into education and community engagement. By doing so, these institutions can further contribute to national development objectives, fostering resilient communities, driving innovation, and promoting long-term socio-economic growth. The successful repositioning of education in this regard is vital to ensuring that learning remains a powerful instrument for societal progress and sustainable development in Southwest Nigeria and beyond.

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5.3 Recommendations

The study recommends the following:

1. **Increased Government Funding and Investment:** The government should prioritize significant and sustained funding for higher education institutions to improve infrastructure, procure modern learning technologies, and support faculty development. Enhanced financial support will enable institutions to integrate sustainable education effectively and create conducive learning environments.
2. **Curriculum Review and Reform:** Higher education institutions should continuously review and update their curricula to incorporate sustainability concepts, entrepreneurial skills, digital literacy, and real-world problem-solving approaches. This will ensure graduates are well-prepared to address contemporary developmental challenges and meet labour market demands.
3. **Capacity Building for Educators:** Comprehensive training programs should be organized for educators and administrators on sustainability education, innovative teaching methods, and the use of modern instructional technologies. This will enhance their ability to deliver quality education that aligns with sustainable development goals.
4. **Strengthening Industry-Academia Collaboration:** Institutions should build strong partnerships with industries, government agencies, and community organizations to foster research collaborations, internship opportunities, and innovation hubs. These collaborations will bridge the gap between academic knowledge and practical application, contributing to national development.

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5. **Policy Implementation and Monitoring:** Educational policymakers must develop clear frameworks for sustainable education implementation, accompanied by robust monitoring and evaluation mechanisms. Regular assessments and feedback systems should be established to ensure that institutions are meeting set goals and making meaningful contributions to national development.

5.4 Contribution to Knowledge

This study contributes to the existing body of knowledge by providing empirical evidence on the critical role of sustainable education in driving national development in Southwest Nigeria. It highlights how curriculum integration, institutional policies, and government support collectively influence educational outcomes. The research also identifies key institutional challenges, such as inadequate funding and outdated curricula, that hinder effective implementation of sustainable education practices. Additionally, the study offers insights into the perceptions of educators and policymakers toward sustainability, emphasizing their importance in achieving developmental goals. These findings serve as a valuable resource for academic discourse, educational reform, and policy formulation.

5.5 Suggestions for Further Research

Future research should explore the impact of sustainable education in other geopolitical regions of Nigeria to enable comparative analysis and broader generalization of findings. Studies could also examine the long-term career outcomes of graduates from institutions that have adopted sustainable education practices. Furthermore, qualitative research focusing on student and faculty experiences with sustainability-focused curricula would provide deeper insights into its practical effectiveness. Another area for exploration is the role of technology

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in enhancing sustainable education delivery. Lastly, future research could assess the effectiveness of government policies in supporting sustainable education and their direct influence on national development objectives.

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Appendix

Questionnaire

Questionnaire on Sustainable Education and National Development: A Study of Selected Higher Institution in South West Nigeria, 2012-2023

Introduction

I am an PhD student from the Faculty of Management and Social Sciences at Lead City University, Ede, Oyo State conducting a research survey on **Sustainable Education and National Development: A Study of Selected Higher Institution in Southwest Nigeria, 2012-2023.** I solicit your support in filling the questionnaire assuring you of the confidentiality of the information given

Part A: Socio Characteristics of Respondents

Please tick (✓) the appropriate options below:

1. Gender: A. Male { } B. Female { }
2. Age: A. 20-30 { } B. 31-40 { } C. 41-50 { } D. 51-60 { } E. 61-65 { }
3. Level of Education: A. National Diploma (ND) { }. B. BSc { } C. MSc { } D. PhD { }
4. Marital status: A. Single { } B. Married { } C. Divorce { } D. Prefer Not to Say { }
5. Institution of Work: _____
6. Years of Experience in Education: _____

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Part B

Strongly Agree (SA), Agree (A), Strongly Disagree (SD), Disagree (D)

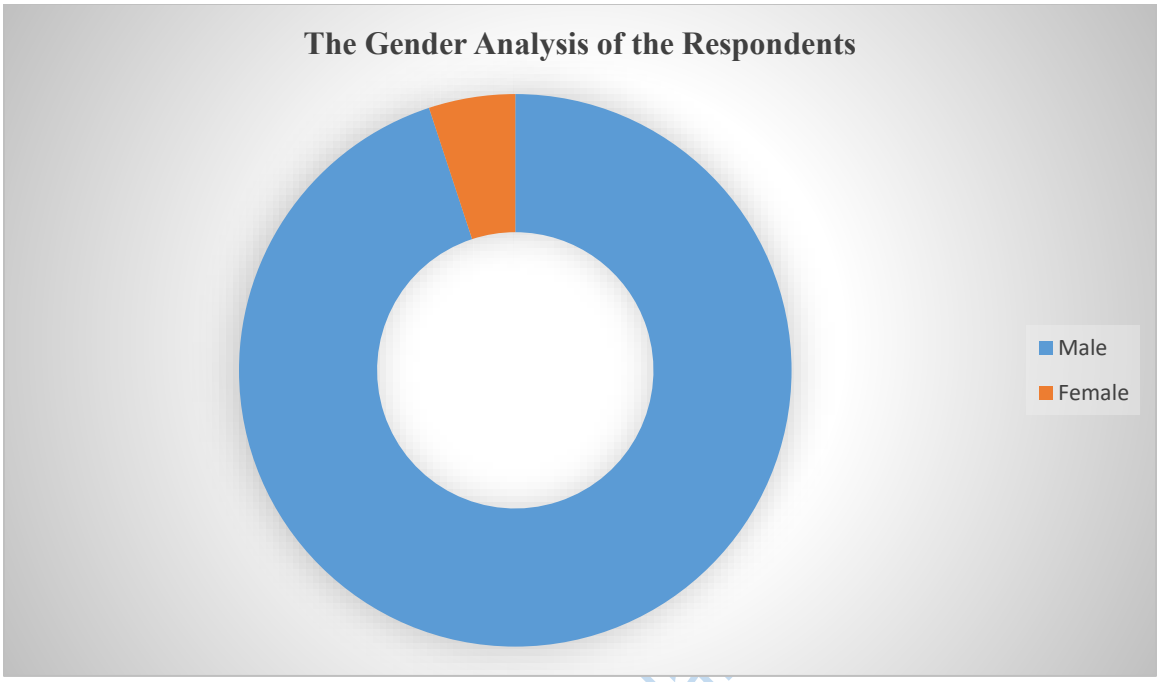
S/N	Items	SA	A	SD	D
1.	Sustainable education practices contribute significantly to the economic development of Southwest Nigeria.				
2.	The adoption of sustainable education practices has improved social welfare and quality of life in Southwest Nigeria				
3.	Sustainable education practices have led to the creation of more job opportunities in Southwest Nigeria.				
4	The integration of sustainability in education positively impacts the overall national development goals of Southwest Nigeria.				
5	Government policies in Southwest Nigeria support the implementation of sustainable education practices in higher institutions.				
6	The current institutional frameworks in Southwest Nigeria are conducive to adopting sustainable education practices.				
7	Government regulations and policies hinder the full adoption of sustainable education practices in Southwest Nigeria.				
8	There is a clear governmental strategy to promote sustainable education in higher institutions in Southwest Nigeria.				
9.	Financial constraints are the major challenge in implementing sustainable education practices in Southwest Nigerian institutions				
10.	There are enough training and development opportunities for educators/administrators to implement sustainable education practices				
11.	Lack of infrastructure is a significant challenge to the successful implementation of sustainable education in Southwest Nigeria.				
12.	Sustainable education strategies present an opportunity for international collaboration and partnerships.				
13.	Educators in Southwest Nigeria are adequately prepared to incorporate sustainable education practices into their teaching methods.				

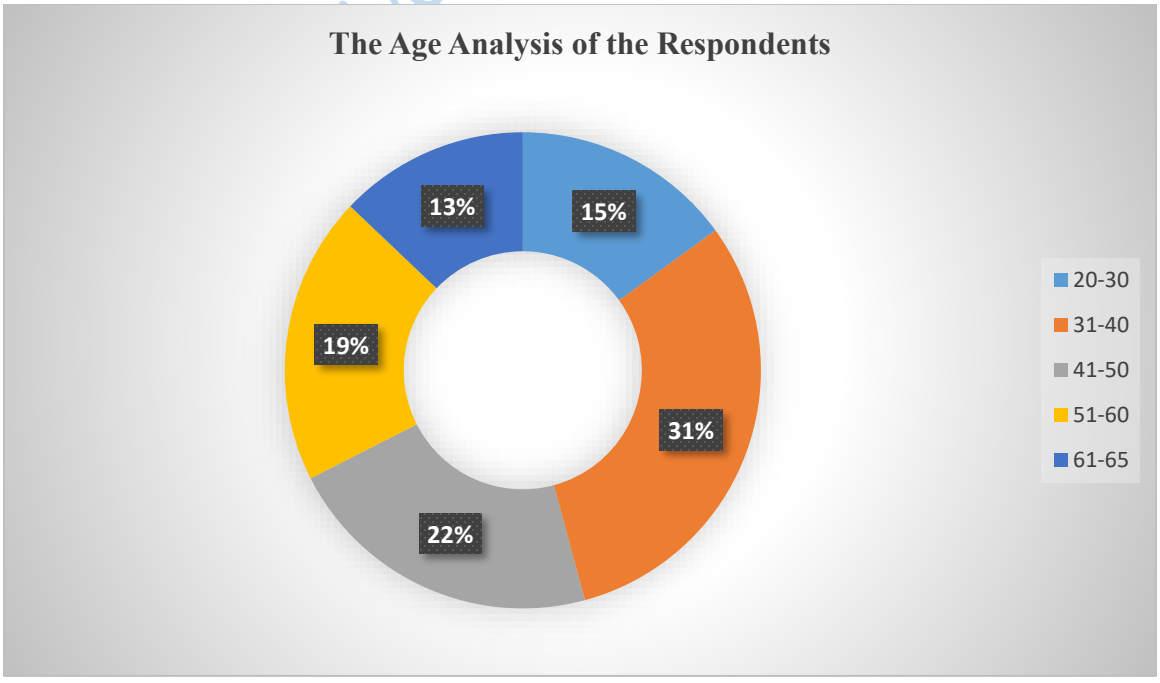
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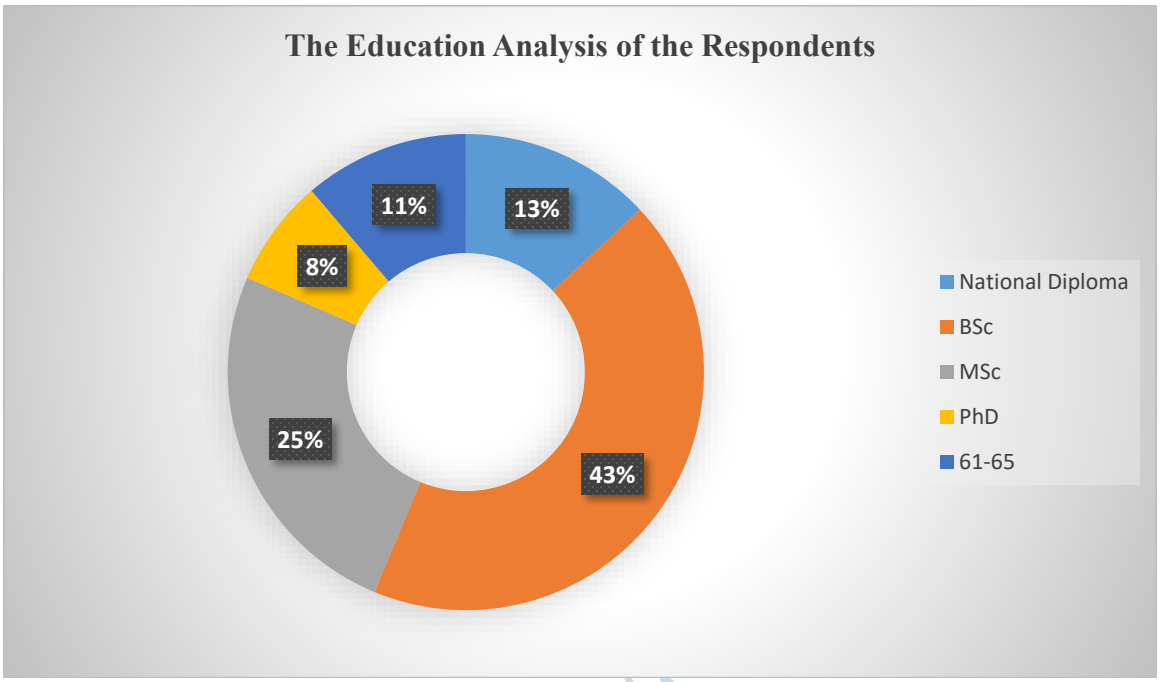
14.	Policymakers in Southwest Nigeria prioritize sustainable education as part of the national development strategy.				
15.	There is a significant gap between policy intention and practical implementation of sustainable education in Southwest Nigeria.				
16.	The national development initiatives in Southwest Nigeria are in alignment with sustainable education goals.				

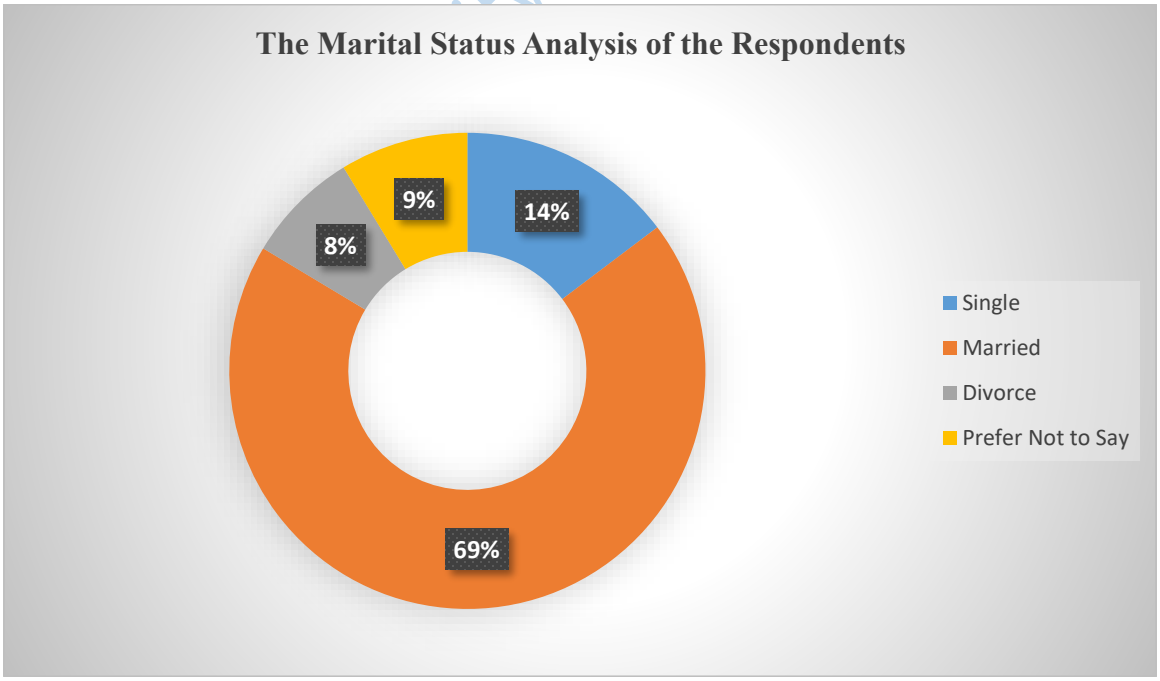
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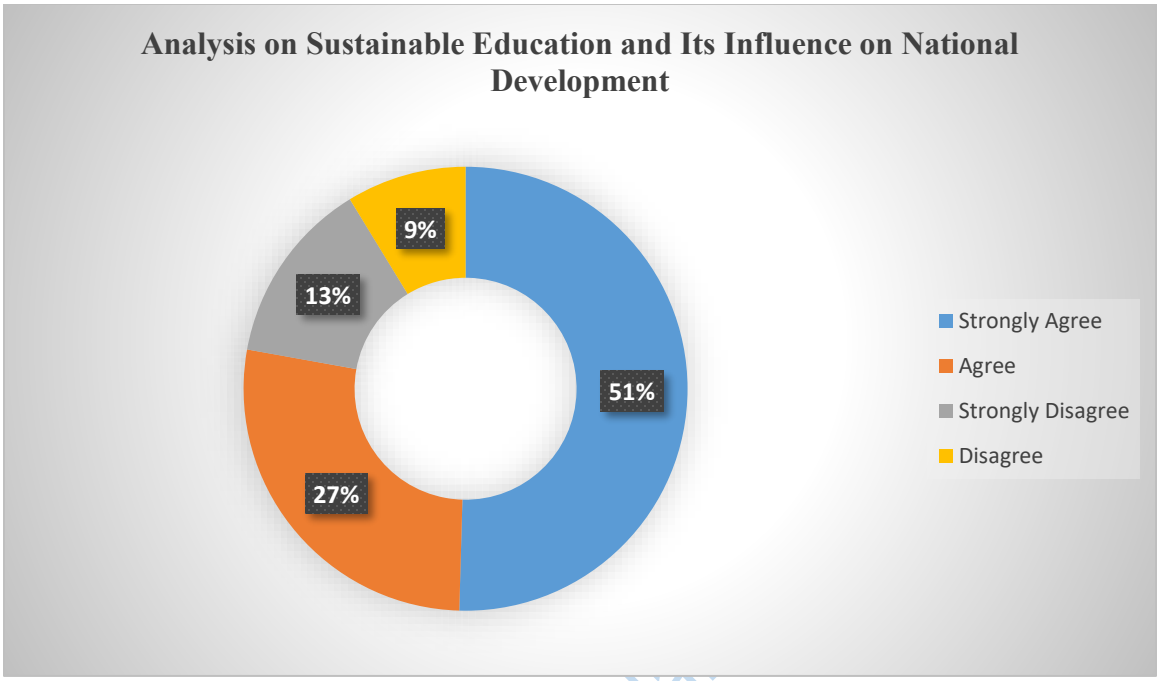
Appendix II

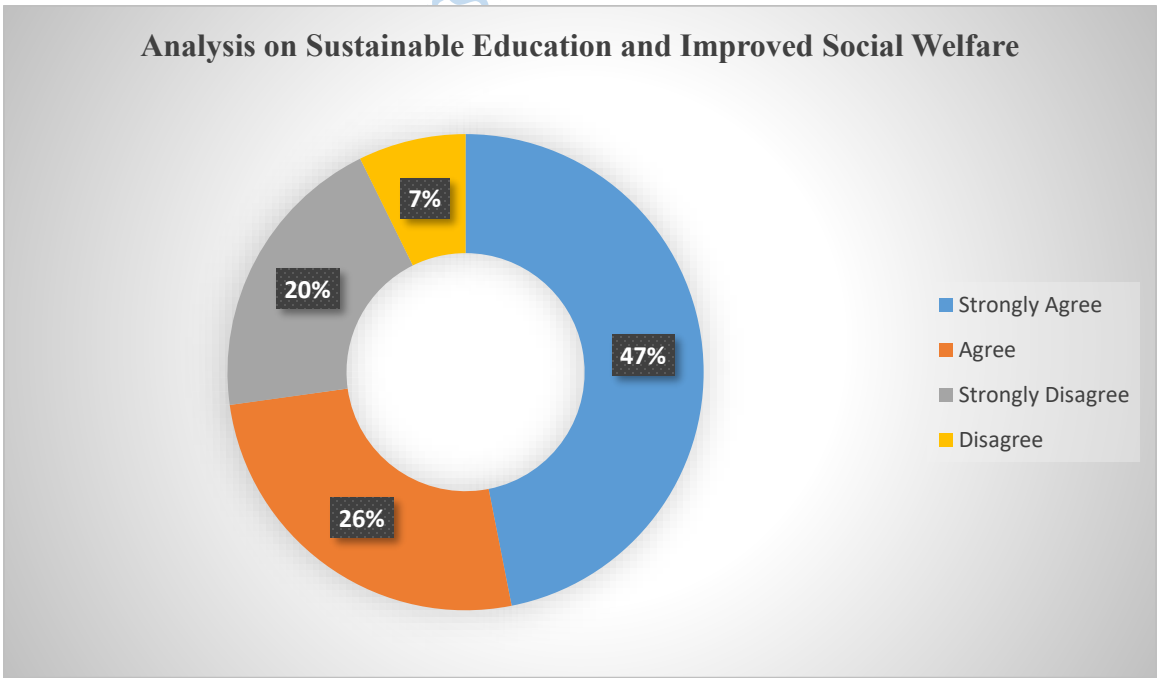

The Gender Analysis of the Respondents
Male
Female

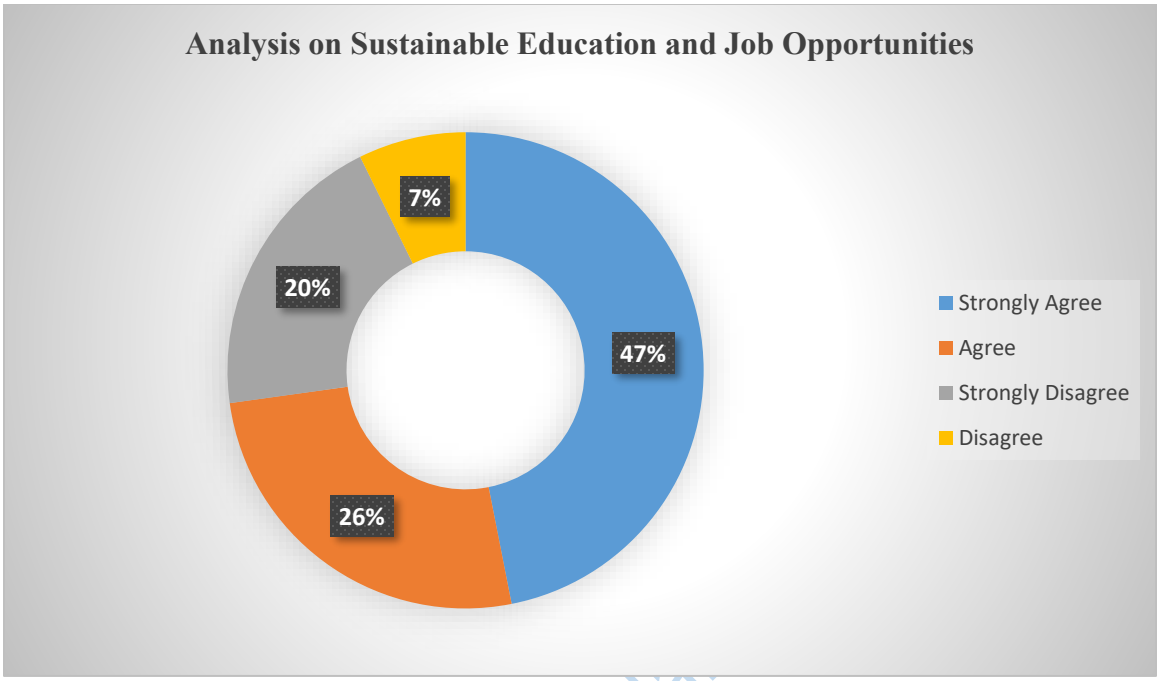

The Age Analysis of the Respondents
15%
31%
22%
19%
13%
20-30
31-40
41-50
51-60
61-65

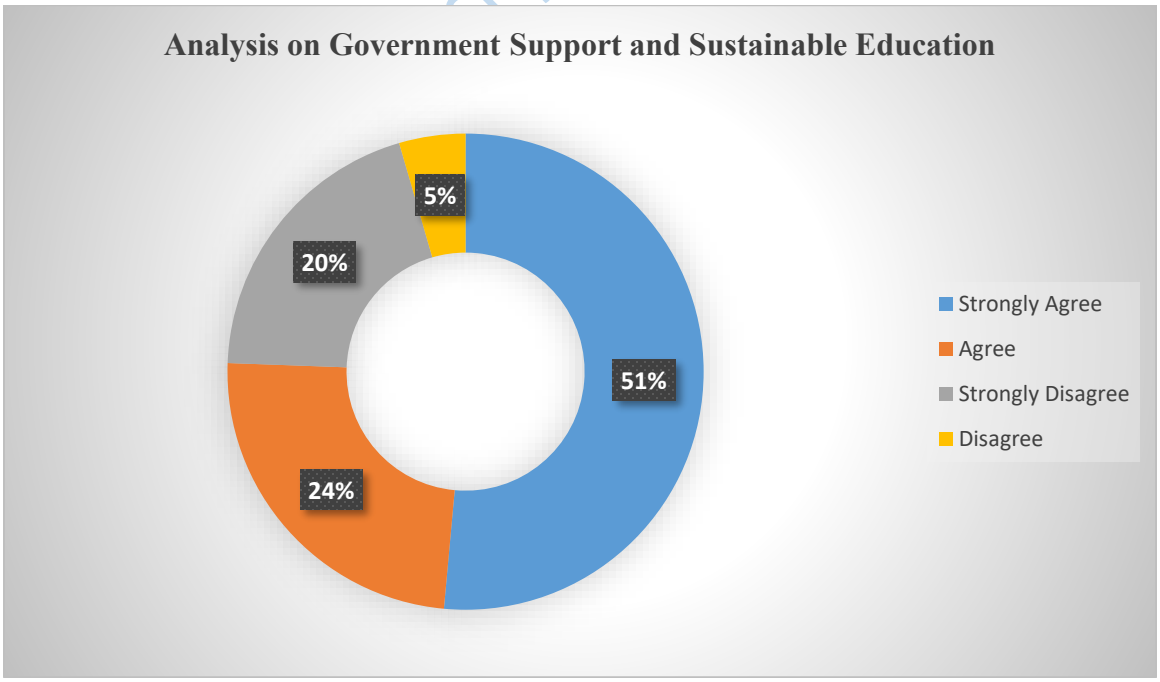

The Education Analysis of the Respondents
13%
43%
25%
8%
11%
National Diploma
BSc
MSc
PhD
61-65

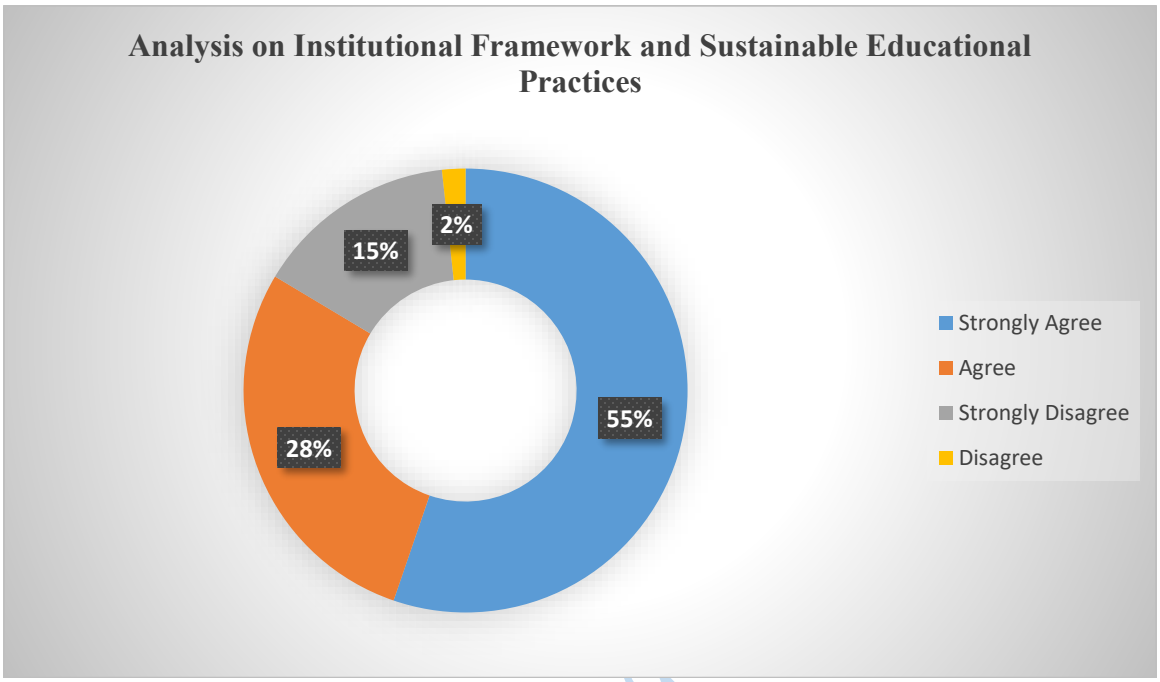

The Marital Status Analysis of the Respondents
14%
69%
8%
9%
Single
Married
Divorce
Prefer Not to Say

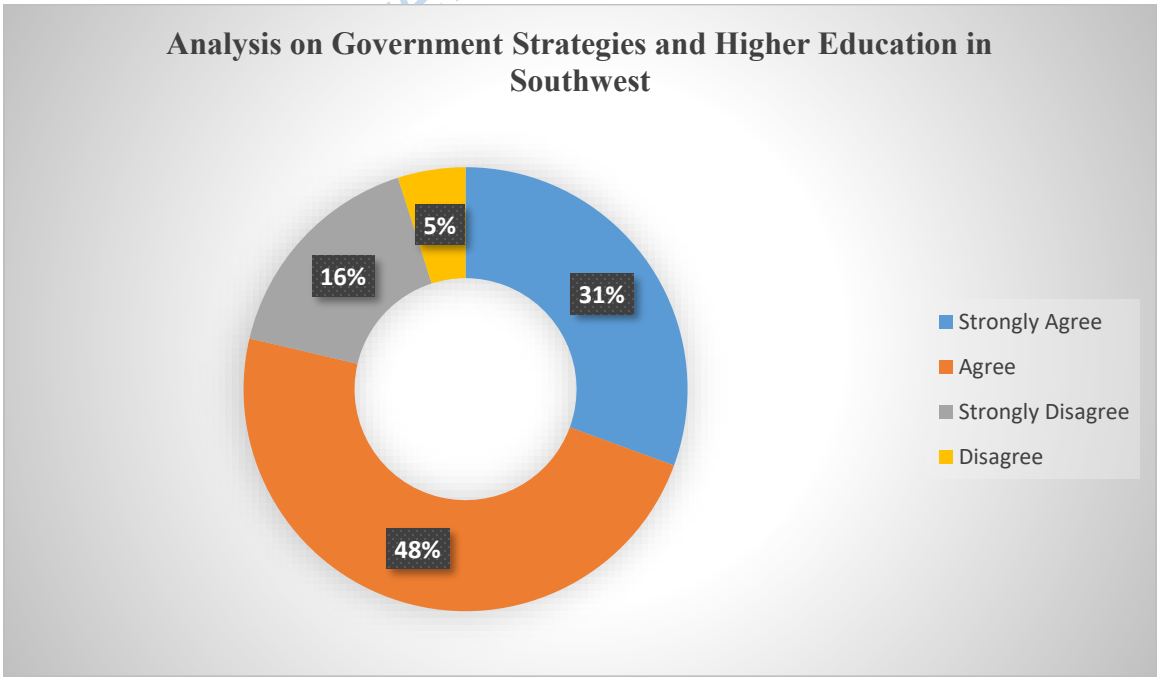

Analysis on Sustainable Education and Its Influence on National Development
9%
13%
51%
27%
Strongly Agree
Agree
Strongly Disagree
Disagree

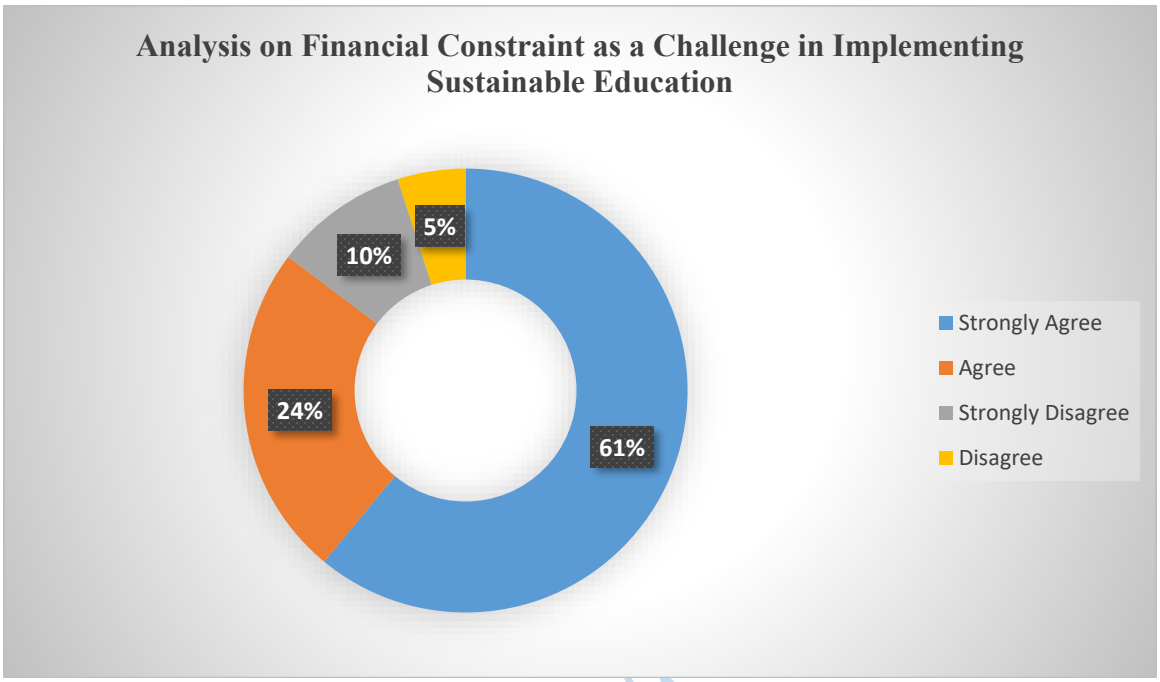

Analysis on Sustainable Education and Improved Social Welfare
7%
20%
47%
26%
Strongly Agree
Agree
Strongly Disagree
Disagree

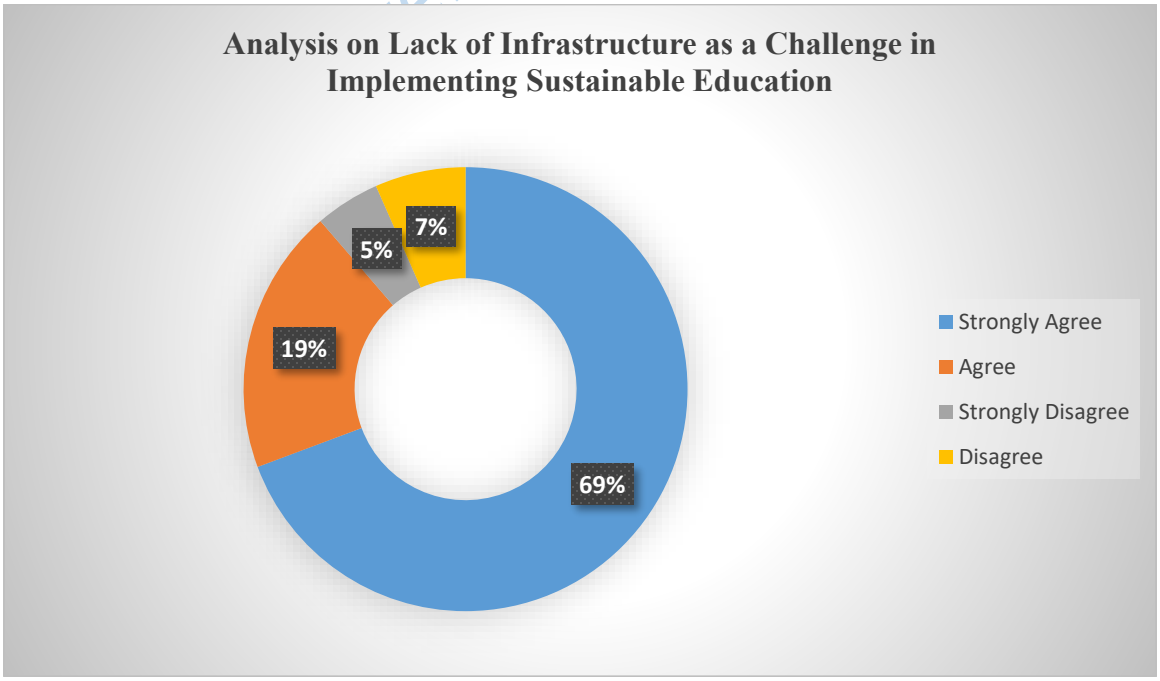

Analysis on Sustainable Education and Job Opportunities
7%
20%
47%
26%
Strongly Agree
Agree
Strongly Disagree
Disagree

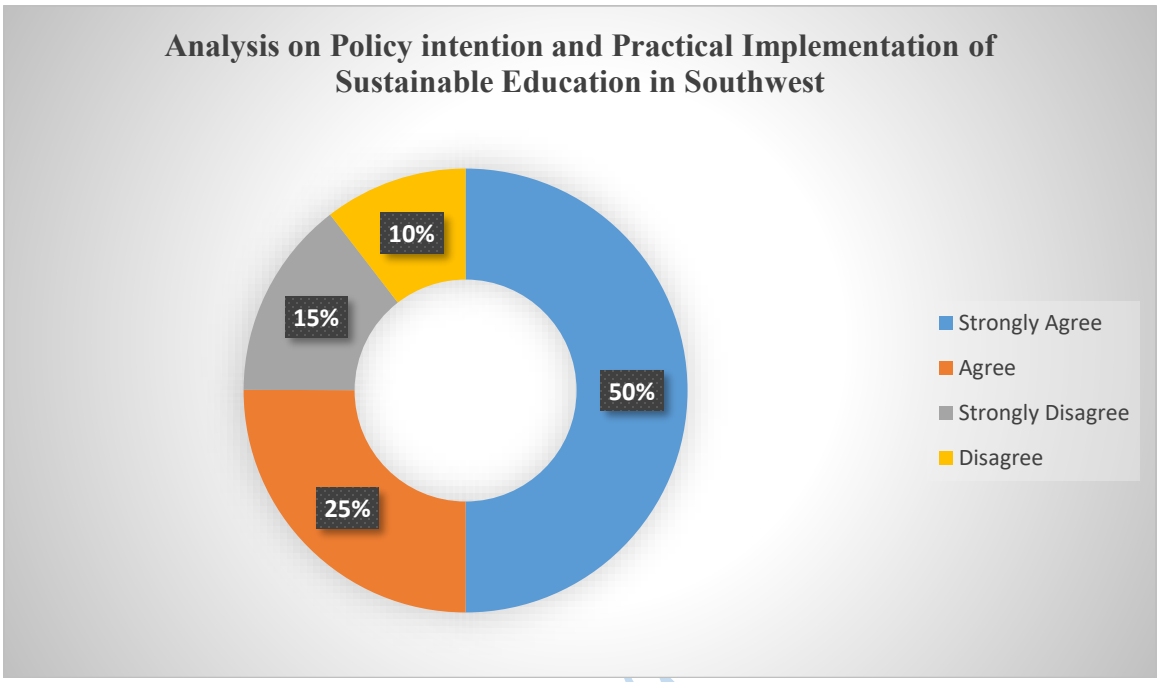

Analysis on Government Support and Sustainable Education
5%
20%
51%
24%
Strongly Agree
Agree
Strongly Disagree
Disagree


Analysis on Institutional Framework and Sustainable Educational Practices
2%
15%
55%
28%
Strongly Agree
Agree
Strongly Disagree
Disagree

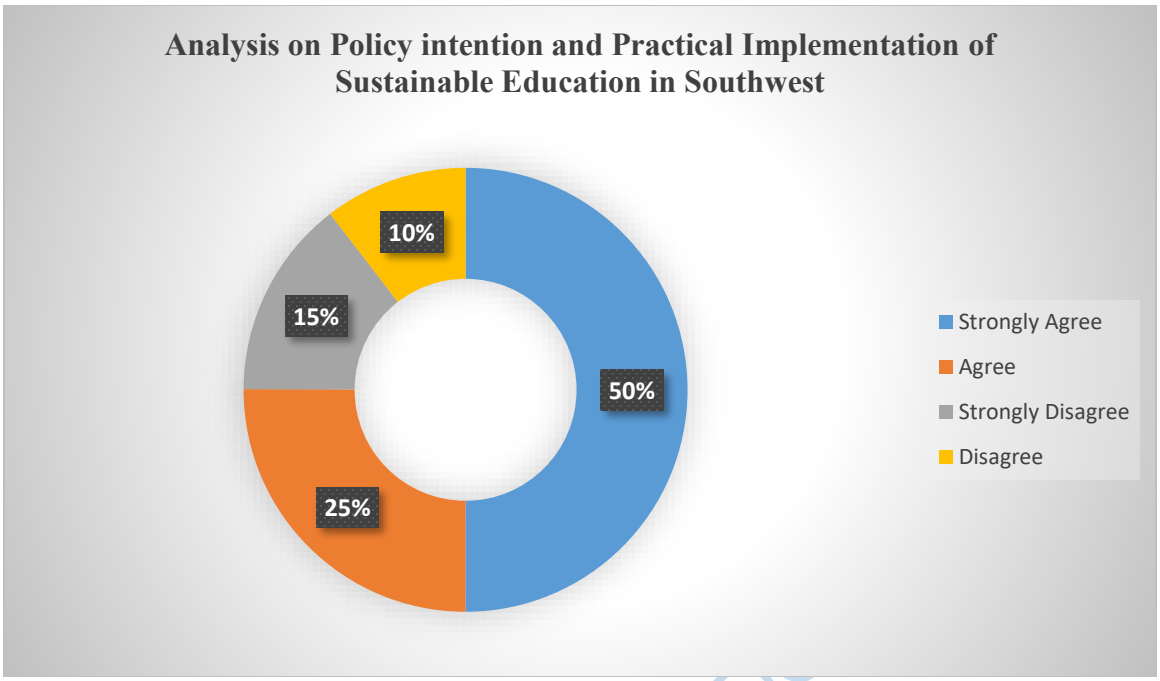

Analysis on Government Strategies and Higher Education in Southwest
5%
16%
31%
48%
Strongly Agree
Agree
Strongly Disagree
Disagree


Analysis on Financial Constraint as a Challenge in Implementing Sustainable Education
5%
10%
24%
61%
Strongly Agree
Agree
Strongly Disagree
Disagree


Analysis on Lack of Infrastructure as a Challenge in Implementing Sustainable Education
7%
5%
19%
69%
Strongly Agree
Agree
Strongly Disagree
Disagree



Lead City University Ibad



Lead City University Ibadan D

Bio-data

A. Personal Data

Full Name:	Michael Olatunde AGBABIAKA
Address:	No 54, Olalekan Street Watergate Bus stop, Sango/Ijoko Road Sango Ota. Ogun State
E-mail:	mcagbabiaka@gmail.com
Phone No:	08033510594
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Place of Birth:	Ilorin, Kwara State
Nationality:	Nigeria
Next of Kin:	Agnes AGBABIAKA
	No 54, Olalekan Street Watergate Bus stop, Sango/Ijoko Road Sango Ota. Ogun State
	08091807770

B. Educational Background

Educational Institutions Attended with Dates and Qualifications

- PhD in International Relations – Lead City University Ibadan 2025
- MSc. Political Science, University of Lagos 2009
- BSc. Public Administration. Ambrose Alli University, Ekpoma 2003
- West Africa Examination Council 1986

C. Working Experience with Dates

Lecturer, Trinity University, Yaba. Lagos State 2020 -Date

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D. Awards and Fellowships (if any)

None yet

E. **Membership**

Member, Nigeria Political Science Association

F. Publication (s)

Upcoming

G. Major Conferences Attended with Dates

None yet

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_____ _____

Signature **Date**

The University Compliance Certification

This is to certify that, this thesis written by **Michael Olatunde AGBABIAKA** with matriculation number **LCU/PG/001640** in the Department of Politics and International Relations in the Faculty of Management and Social Sciences, Lead City University, Ibadan is in full compliance with the approved University format and style.

_____ _____

Signature **Date**

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