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NIGERIAN LIBRARY ASSOCIATION
NIGER STATE CHAPTER

CONFERENCE PROCEEDINGS

7th ANNUAL HYBRID CONFERENCE /AGM 2025

THEME:
INNOVATIVE TECHNOLOGIES IN LIBRARY SERVICES: EXPLORING THE AVENUES FOR BUILDING USERS' CONFIDENCE IN LIBRARIES.

28TH SEP., - 1ST OCT., 2025.

CPES HALL, FEDERAL UNIVERSITY OF TECHNOLOGY MINNA, BOSSO CAMPUS, NIGER STATE

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FROM THE EDITORIAL DESK

The Nigerian Library Association, (NLA), Niger State Chapter's is pleased to formally release her the 2nd Edition of her compiled Book of Proceedings. This is a compilation of Papers Presented at the Chapter's 7th Annual Hybrid Conference held at CPES Hall, Federal University of Technology Minna, Niger State. High quality research is leading to corresponding high-quality theories that are finding their place in the real world of application. Nigerian Library Association, Niger State Chapter brings forth an opportunity for researchers in Librarianship Profession to create knowledge for application in emerging issues that will result to massive development in the society. The Conference with a theme "**Innovative Technologies in Library Services: Exploring the Avenues for Building Users' Confidence in Library**" was carefully carved out and was intended to provide forum for exchange of ideas among professional colleagues towards finding tenable solutions to current issues in the global information value chain.

I owe a heartfelt thanks to all the article contributors for a very fascinating research output which promised to constantly thrive upon high quality research. Cases published in this issue have gone through internal editorial committee's review and the comments received from experts have helped to improve upon the quality of work. In this pursuit, I extend my immense gratitude to a very dedicated team of editors for their relentless and untiring efforts in this regard. We are also indebted to our external reviewers who have spared their valuable time despite their tight schedules and contributed immensely towards the success of this publication.

We sincerely hope that the readers will find the research outputs interesting, relevant and intellectually stimulating leading to building up diverse outlook about contemporary issues.

Prof. A. O. Ahmed
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WELCOME REMARK BY DR. MUSA BABA ADAMU - THE CHAIRMAN OF THE NIGER STATE CHAPTER OF THE NIGERIAN LIBRARY ASSOCIATION (NLA)

Distinguished guests, colleagues, and friends, it is my great pleasure to welcome you all to the Nigerian Library Association Niger State Chapter Annual Conference. It is an honor to serve as the Chairman of this chapter and I am delighted to see this huge turnout here today.

As we all know, libraries play a crucial role in our society by providing access to information, promoting literacy and education, and preserving our cultural heritage. This conference presents a unique opportunity for all of us to come together and discuss the current trends and challenges in the library profession.

The theme: "Innovative Technologies in Library Services: Exploring the Avenue for Building Users' Confidence in Libraries" is timely and relevant considering the rapid advancement of technology in our world today. It is essential for us as librarians to embrace these technological changes and incorporate them into our services to better serve our communities.

I am pleased to see that we have a diverse range of topics and speakers lined up for this conference. We have experts from different fields who will be sharing their knowledge and experiences with us, and I am confident that we will all learn a lot from their presentations. I encourage everyone to actively participate in the discussions and take advantage of this opportunity to network with colleagues.

I also want to use this opportunity to appreciate the chairman and chief host for their support towards making this conference a success. We could not have done it without you, and we are grateful for your contribution.

Finally, I wish to thank the organizing committee chaired by Dr. Muhammad Saba Adamu for their hard work and dedication in putting together this conference. It is not an easy task, but your commitment and passion for the library profession are evident in the planning and execution of this event.

Once again, I welcome you all and hope that you will have a fruitful and enjoyable conference. May we all work together to achieve our common goal of promoting the growth and development of libraries in Niger State and beyond.

Thank you.

Dr. Musa Baba Adamu, CLN

Chairman, NLA Niger State Chapter.

A KEYNOTE ADDRESS DELIVERED BY PROF. JIBRIL ATTAHIRU ALHASSAN, THE UNIVERSITY LIBRARIAN, FEDERAL UNIVERSITY KASHERE, GOMBE STATE. AT THE 7TH ANNUAL HYBRID CONFERENCE/AGM 2025, (NLA) NIGER STATE CHAPTER. HELD AT THE CPES HALL, FEDERAL UNIVERSITY OF TECHNOLOGY MINNA, BOSSO CAMPUS, NIGER STATE FROM 28TH SEPTEMBER - 1ST OCTOBER, 2025.

USER CENTRIC LIBRARY SERVICES THROUGH INNOVATIVE TECHNOLOGIES

The information user is at the core of information provision, because without the user, libraries would not need to acquire, process, preserve and disseminate information. With changing user expectations, service provision is undergoing a significant transformation. Thus, to remain relevant and effective in this circumstance, libraries must leverage innovative technologies to enhance their services, improve accessibility, and foster engagement.

USER-CENTRIC LIBRARY SERVICES: Focuses on the needs and desires of library patrons when coming up with services. This approach ensures that services are ensuring solutions are efficient and enjoyable.

INNOVATIVE TECHNOLOGIES

Refers to the introduction of new or significantly improved products, processes, or services that leverage technology to solve problems, create value, or enhance efficiency.

1. **Artificial Intelligence & Machine Learning**

AI empowers libraries to deliver more personalised, efficient, and accessible services, fostering greater user trust and engagement.

2. **Virtual & Augmented Reality**

Wikipedia defines augmented reality (AR), also known as mixed reality (MR), as a technology that overlays real-time 3D-rendered computer graphics onto a portion of the real world through a display, such as a handheld device or head-mounted display.

3. **Internet of Things & Smart Libraries**

Enhances library services by improving user experience, optimising operations, and increasing the efficiency of resource management.

4. **Cloud Computing**

Cloud computing simply refers to the delivery of computing services over the internet, including storage, databases, software, and analytics-*Microsoft Azure*

Cloud computing simply refers to the delivery of computing services over the internet, including storage, databases, software, and analytics-*Microsoft Azure*

AI & Machine Learning Application in Library Services

1. **24/7 Reference Assistance:** AI chatbots handle common queries, freeing staff for complex tasks and providing constant support.
2. **Automated Cataloguing:** AI can extract metadata from new acquisitions, reducing manual effort and improving accuracy. AI tools can classify and tag resources efficiently, making discovery easier.
3. **Digital Content Management:** AI can curate and recommend digital collections such as e-books, audiobooks, and online courses based on user interests. Automated summarization tools provide quick overviews of lengthy materials**.**
4. **Accessibility Improvements: -** AI tools like text-to-speech, image recognition, and

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language translation makes library resources more accessible to users with disabilities or language barriers.

5. **Personalised Recommendations:** AI algorithms analyse user history and preferences to suggest relevant resources

- **Internet of Things**

1. **Smart Inventory Management:** RFID tags enable real-time tracking, automated check-in/out, and theft prevention.
2. **Space Utilisation:** Sensors detect available seats and provide indoor navigation, optimising library space.
3. **Environmental Monitoring:** Sensors preserve delicate materials by monitoring temperature, humidity, and light

- **Augmented Reality**

1. **Educational & Learning Tools:** Users can point devices at diagrams, maps, or models to see animations, labels, or interactive 3D representations. AR storytelling engages children and young adults through visual and interactive narratives linked to physical books.
2. **Virtual Exhibits and Cultural Collections**: Libraries can display rare manuscripts, historical artifacts, or digital artworks using AR overlays, enriching the physical space without needing the actual objects. Augmented heritage tours allow patrons scan codes or markers to learn more about the library's history, architecture, or special collections.
3. **Training & Orientation**: New users can be guided through the library with AR prompts explaining facilities, services, and rules. Interactive help desk by pointing a device at a help sign or area brings up AR assistance options like FAQs.

Benefits of Augmented Reality in Libraries

- Enhances user engagement and interactivity
- Simplifies orientation and navigation
- Promotes digital literacy and immersive learning
- Modernises the library experience, especially for younger audiences

Challenges

- Electricity
- Internet connectivity
- Staff competencies
- Lack of confidence to start for fear of failure

Which way for Nigerian Libraries?

Several factors can push libraries in Nigeria to apply these technologies to service delivery. Some of which include:

- Determination from the librarians
- Capacity building other than paper presentations but hands on
- Vibrant library leadership
- Curricula dynamism
- Participatory leadership style
- Critical thinking
- Synergy between head of library and the directors of ICT

Conclusion

- As libraries continue to evolve, it is crucial to prioritise user needs, foster a culture of innovation, and invest in emerging technologies that support their mission to provide inclusive, equitable access to information and knowledge.
- By embracing AI, digital libraries, IoT, VR/AR, social media, and accessibility technologies, libraries can remain relevant, vibrant, and essential community hubs in the digital age.

Jibril Attahiru Alhassan (PhD)
Prof. of Library Information Technology
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Kashere, Gombe State.

LEAD PAPER PRESENTATION TITLED: DIGITAL INNOVATION IN LIBRARY SERVICES: A CHALLENGE TO THE RELEVANCE AND SUSTAINABILITY OF LIBRARIES IN THE 21ST CENTURY BY DR OYEKALE ABEL ALADE, DEPARTMENT OF ARTIFICIAL INTELLIGENCE, THE FEDERAL POLYTECHNIC, BIDA

Introduction

The 21st century library services have been highly influenced by digital technology innovations. The disruptive nature of Information and Communication Technology (ICT) has left no field out, as such, library activities. Library services are becoming virtual as they are been automated with advances in ICT. Libraries must embrace and proactively implement new technologies to attract and retain users, while also adapting their services to meet evolving information needs. The traditional library model, which centered solely on physical information resources and spaces, is no longer sustainable. By leveraging digital technologies, libraries can not only attract and retain patrons but also redefine their purpose, i.e. transforming from static repositories of knowledge into dynamic, accessible, and community-centric hubs. This paper outlines the challenges libraries face in this digital age and presents compelling cases for how a robust digital strategy can drive users' patronage and secure their future.

The Erosion of Traditional Patronage: Why Libraries need the Digital Shift

Libraries worldwide are experiencing a significant decline in physical foot traffic, a trend accelerated by the ubiquity of high-speed internet and mobile devices. This erosion of traditional patronage is driven by factors such as access to instant message/information online, shift in digital media consumption and generational expectation. ***Online and instant information tools*** such as search engines (e.g. google.com, yahoo.com, etc.) and recent AI assistants provide immediate answers to questions that once required a trip to the library. Users expect information to be a few clicks away; making physical visits for research seem slow and inefficient. Today, the ***shift in digital media consumption*** on how people consume literature and entertainment gave birth to e-books, audio books, and streaming services. The convenience of downloading a book or watching a film from the comfort of home often outweighs the trip to a physical library. The ***younger generations/digital natives***, who have grown up with smart phones and social media, have different expectations for library services (Okwu, 2025). They value personalization, seamless user experience, and 24/7 accessibility, all of which are often more readily available in the digital world than in a physical library. For libraries to remain relevant, they must adapt their services to meet the modern user where they are—in the digital space. Hence, overlooking these shifts is a setback to sustainability of libraries.

Solution Path: Leveraging Digital Innovation will Drive Patronage

Digital innovation for libraries isn't just about offering Wi-Fi or a handful of public computers. It's about a fundamental transformation of how they operate and serve their communities. The innovation is a comprehensive strategy that fundamentally re-imagining the library's role and services. The most direct way to attract digital users is to offer the content they desire in the format they prefer. This is means ***expanding and curating robust digital collection*** in extensive **e-book & audio book collections** and **streaming media & online learning**. The prior entails partnering with platforms like OverDrive, Hoopla, and cloudLibrary allowing libraries to offer a vast selection of digital titles accessible via userfriendly apps. This ensures the library remains competitive with commercial services

like Kindle Books and Audible. While, the later entails providing free access to streaming services for films, documentaries, and music (e.g., Kanopy, Freegal) can attract a new demographic. Furthermore, offering online courses and a tutorial (e.g., LinkedIn Learning, Coursera) positionsa library as a crucial resource for lifelong learning and professional development.

Modern users are accustomed to personalized experiences tailored to their interests. Libraries can replicate this by ***enhancing user experience through personalization and AI.*** Data analytics on borrowing history and user preferences to suggest new titles, authors, or subjects can utilized. This not only makes the user's experience more engaging but also highlights lesser-known resources they might enjoy.AI-driven Chatbots on the library's website or app to answer common questions (e.g., "What are your hours"?", "How do I renew a book?") and provide basic research assistance can be deployed to offer instant, 24/7 support without the need for a staff member.

The library's role, as a learning or research hub, can and should extend its services online to ***fostering community engagement in the digital sphere*** through **hybrid presentations** and **local information portal development**. The former is hinged on hosting online events such as virtual author talks, book club meetings, and skill-building workshops (e.g., coding classes, resume writing seminars) that are simultaneously live-streamed for online participants and held in-person (OCLC, 2025). This approach eliminates geographical barriers and allows library users with mobility issues or busy schedules to participate. The later therefore, provide ground to creating dedicated online platforms that serve as trusted sources for local news, events, and resources. Hence, the two approaches reinforce libraries' position as central and reliable organization in the era of misinformation (Oladokun, 2023).

Digital tools can make libraries more accessible to a wider range of patrons thereby ***improving accessibility and inclusivity.*** Technology can make library resources more inclusive for everyone. Digital tools like screen readers, transcription services, and adjustable fonts ensure that people with disabilities can access information and services with greater ease (OCLC, 2025).User-friendly websites and apps with clear navigation, adjustable font sizes, and high-contrast colour schemes to accommodate users with visual impairments or cognitive disabilities could contribute to the relevant of the libraries and patronage underserved group.

Conclusion and a Call to Action

Libraries of the future are not just buildings. They are inextricably linked to their abilities to innovate. Continued reliance on a traditional model will lead to diminishing relevance and, eventually, a crisis of purpose. By strategically investing in digital infrastructure, training staff in new technologies and adopting a user-centric mindset, libraries can not only reverse the trend of declining patronage but also redefine their value.

Libraries in the 21st century must be ***hybrid institutions*****,** seamlessly blending physical spaces for community gathering and intellectual exploration with robust, accessible, and personalized digital presence. These dual-pronged approaches will ensure that libraries remain indispensable as engines of knowledge, creativity, and community connection, securing their vital role for generations to come. This is not a choice between the physical and the digital; it is about harmonizing both to create a stronger, more resilient, and more inclusive institution.

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OBJECTIVE OF PUBLIC LIBRARY AS CORRELATE TO THE FIFTEENTH SUSTAINABLE DEVELOPMENT GOAL IN NORTH-CENTRAL NIGERIA

BY

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Abstract

This study explores the role of public libraries in supporting Sustainable Development Goal 15 (Life on Land) in North-Central Nigeria, using a descriptive and correlational survey design. A total of 198 librarians across seven states and the Federal Capital Territory participated. Data were collected through structured questionnaires, document analysis, and validated via expert review and pilot testing. The instrument demonstrated strong reliability ($\alpha \geq 0.70$). Descriptive analysis showed high agreement among librarians on core library objectives, including promoting literacy ($\bar{X} = 4.39$), civic information access ($\bar{X} = 4.32$), and community development ($\bar{X} = 4.20$), with an overall average ($\bar{X}avg = 4.14$). However, alignment with SDG 15 was moderate ($\bar{X}avg = 3.63$), with environmental education rated highest among SDG-related roles ($\bar{X} = 3.93$). Library engagement in environmental conservation was also moderate ($\bar{X}avg = 3.32$), with low collaboration with NGOs ($\bar{X} = 3.17$) and inconsistent provision of conservation resources ($\bar{X} = 3.33$). A statistically significant moderate positive correlation ($r = 0.521$, $p < 0.01$) was found between core objectives and SDG 15 engagement, suggesting libraries with stronger developmental goals are more likely to support environmental initiatives. The findings highlight the untapped potential of public libraries in advancing biodiversity and conservation efforts, constrained by limited resources, policy gaps, and inadequate training. The study concludes that libraries in the region are underutilized in environmental sustainability and recommends policy integration, capacity building, resource investment, and partnerships with environmental NGOs and government agencies to enhance their contributions to SDG 15.

Keywords: Public libraries, Sustainable Development Goal 15, Life on Land, North-Central Nigeria, librarian roles

Introduction

Sustainable Development Goal 15 (SDG 15) — *Life on Land* — aims to protect, restore, and promote the sustainable use of terrestrial ecosystems, manage forests sustainably, combat desertification, halt and reverse land degradation, and stop biodiversity loss (United Nations, 2015). As global concerns over environmental degradation escalate, the goal emphasizes the necessity of inclusive and cross-sectoral efforts to safeguard natural ecosystems. Though the responsibility for environmental sustainability is traditionally attributed to government agencies, civil society, and environmental organizations, there is growing recognition of the role of educational and community-based institutions — such as libraries — in promoting environmental awareness and sustainable practices (IFLA, 2018).

Public libraries in Nigeria serve as community hubs that provide access to information, lifelong learning opportunities, cultural engagement, and civic education. Mandated to support literacy, education, and the democratization of knowledge, these libraries also have the potential to influence public behavior and awareness on critical issues, including environmental

sustainability (Afolayan, 2019). However, most public libraries in Nigeria still operate under limited budgets, outdated infrastructure, and a narrow perception of their roles, primarily focused on reading and literacy support (Ogungbeni et al., 2020).

Despite the wide global interest in SDGs and their localization in various sectors, there is a dearth of scholarly research exploring the contributions of libraries — particularly public libraries — to environmental goals in developing countries. While some studies have highlighted how libraries contribute to SDG 4 (quality education) and SDG 16 (peace, justice, and strong institutions), few have examined their engagement with SDG 15, especially in contexts like Nigeria where biodiversity, deforestation, and land degradation are major challenges (Uwaifo, 2021; IFLA, 2018).

Research Objectives and Questions

This study aims to explore the intersection between the core objectives of public libraries in Nigeria and SDG 15. The key research questions guiding this inquiry are:

1. What are the core objectives of public libraries in Nigeria?
2. How do these objectives align with SDG 15?
3. Are public libraries engaged in activities that promote land, forest, and biodiversity conservation?

Significance of the Study

This study is significant in that it bridges the gap between environmental sustainability and library and information science in the Global South. By investigating the potential and actual contributions of public libraries in Nigeria to SDG 15, the research adds a new dimension to sustainable development discourse. It also provides practical insights for policymakers, librarians, and development actors seeking to leverage local institutions for environmental awareness and action. Understanding how public libraries can be repositioned to support environmental sustainability could stimulate new partnerships and initiatives that advance both literacy and ecological consciousness at the grassroots level.

Literature Review

Public Libraries and Sustainable Development: Global and Nigerian Context

Public libraries have increasingly been recognized as critical agents in advancing the United Nations' 2030 Agenda for Sustainable Development. Globally, libraries support several SDGs by providing equitable access to information, promoting literacy, and serving as safe community spaces (IFLA, 2018). For instance, in countries like Finland, the United States, and Colombia, public libraries have incorporated environmental education, digital access, and social inclusion in their services, aligning their missions with multiple SDG targets (Garrido & Wyber, 2017).

In the Nigerian context, public libraries have traditionally focused on educational support, information dissemination, and literacy promotion (Aina, 2014). However, their potential contributions to broader development goals, including environmental sustainability, have been largely unexplored. Few libraries have programs that directly support SDG 15, though some engage in informal awareness activities on health and climate (Afolayan, 2019; Uwaifo, 2021). Structural limitations — such as underfunding, inadequate staffing, and outdated facilities — have further constrained their ability to evolve beyond conventional roles (Ogungbeni et al., 2020).

SDG 15 Explained: Sub-goals and Relevance to Community-Level Action

Sustainable Development Goal 15, titled *"Life on Land"*, encompasses a range of environmental issues including:

Goal 15 of the United Nations Sustainable Development Goals (UN, 2015) emphasizes the importance of protecting, restoring, and promoting sustainable use of terrestrial ecosystems. Target 15.1 focuses on the conservation of terrestrial and freshwater ecosystems, recognizing their critical role in maintaining biodiversity and supporting human livelihoods. Target 15.2 addresses sustainable forest management, advocating for practices that balance ecological, economic, and social needs while preventing deforestation. Target 15.3 aims to combat desertification and restore degraded land and soil, particularly in areas affected by drought and natural disasters. Finally, targets 15.4 to 15.9 highlight the necessity of protecting biodiversity and ecosystems, and integrating their values into national planning and policy frameworks to ensure long-term sustainability and resilience (UN, 2015)

These targets are crucial in countries like Nigeria, which face challenges such as deforestation, loss of biodiversity, and land degradation due to urban expansion, mining, and agricultural practices (FAO, 2020). Community-level action — through education, awareness campaigns, and behavior change initiatives — plays a vital role in achieving these goals. This makes grassroots institutions like public libraries valuable platforms for disseminating environmental knowledge and mobilizing local action.

Libraries and Environmental Literacy / Conservation Programs

Libraries have been identified as strategic venues for promoting environmental literacy — the capacity to understand, interprets, and acts upon environmental information (Marcinkowski, 2010). In developed nations, public libraries have hosted conservation-themed workshops, sustainable gardening sessions, and citizen science projects (Ray, 2019). These initiatives demonstrate how libraries can contribute to both formal and informal environmental education.

In Africa, and Nigeria in particular, environmental programming in libraries remains rare. A few urban libraries have hosted talks on climate change or partnered with NGOs for health-environment outreach, but systematic programs are lacking (Aina, 2014; Igun, 2019). A major gap persists in integrating conservation themes into public library services, especially in rural and underserved communities.

Theoretical Framework

This study is guided by Sustainable Development Theory, which emphasizes the integration of social, environmental, and economic dimensions to meet present needs without compromising future generations (WCED, 1987). Public libraries, as community-centered institutions, can serve as nodes for localized sustainability efforts, especially when their services align with environmental objectives like those in SDG 15.

Additionally, Stakeholder Theory provides a complementary lens by highlighting the role of diverse actors — including local communities, government agencies, and library users — in shaping and benefiting from sustainable development initiatives (Freeman, 1984). These frameworks together justify an investigation into how libraries, as both agents and stakeholders, contribute to land and biodiversity conservation efforts.

Methodology

This study employed a descriptive and correlational survey design to investigate the roles of public libraries in supporting Sustainable Development Goal 15 (SDG 15) in North-Central Nigeria. The descriptive aspect aimed to document the existing objectives and environmental activities of public libraries, while the correlational component sought to explore potential relationships between library services and environmental sustainability practices.

The research was conducted in North-Central Nigeria, a diverse geopolitical zone that includes Kwara, Kogi, Benue, Niger, Nasarawa, and Plateau States, along with the Federal Capital Territory (FCT), Abuja. This region features a mix of urban and rural populations and faces critical environmental challenges, such as land degradation, deforestation, and biodiversity loss (Federal Ministry of Environment, 2019). These environmental issues make the region particularly relevant for examining the contribution of public libraries to SDG 15.

The population of the study consisted of 198 librarians working in public libraries across the seven states in North-Central Nigeria. These librarians were considered key informants due to their direct involvement in planning and implementing library programs.

A purposive sampling technique was used to select participants from the 198 librarians. This approach was chosen to ensure that only professional librarians currently employed in functional public libraries within the region were included. The selection accounted for geographic representation across all seven states and the FCT, ensuring broad regional coverage.

The study utilized multiple data collection tools to ensure a comprehensive understanding of library practices related to SDG 15:

- **Structured Questionnaire**: A questionnaire containing both closed-ended (Likert-scale) and open-ended items was administered to the sampled librarians. It captured data on library objectives, environmental programs, and perceived alignment with SDG 15.
- **Document Analysis**: Library documents such as annual reports, program schedules, and publicity materials were reviewed to identify references to environmental education or conservation-related initiatives.

To ensure content validity, the questionnaire was reviewed by experts in library science, environmental education, and research methodology. A pilot test was conducted with 10 librarians outside the sample population to refine question clarity and structure. Reliability of the instrument was assessed using Cronbach's alpha, with a result of $\alpha \geq 0.70$ considered acceptable for internal consistency (Tavakol & Dennick, 2011).

- **Descriptive statistics** (such as frequency distributions, means, and standard deviations) were used to summarize responses on library objectives and environmental activities.
- **Pearson's correlation analysis** was applied to assess the relationship between library objectives and their engagement in SDG 15-related initiatives.

This methodological approach allowed for a detailed exploration of how librarians in North-Central Nigeria perceive and implement environmentally focused library services in relation to SDG 15.

Analysis and interpretation of Results

Demographic Profile of Respondents

Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	110	55.6%
	Female	88	44.4%
Qualification	Diploma in LIS	48	24.2%
	BLS/BLIS	91	46.0%
	MLS/MLIS	51	25.8%
	Other	8	4.0%
Years of Experience	1–5 years	62	31.3%
	6–10 years	75	37.9%
	Above 10 years	61	30.8%

The demographic profile of the respondents in this study comprises 198 librarians from public libraries in North-Central Nigeria. The gender distribution shows a slight male predominance, with **55.6% (n = 110)**male librarians and **44.4% (n = 88)** female librarians. This suggests a relatively balanced gender representation within the public library workforce, though males slightly outnumber females.

Regarding educational qualifications, nearly half of the respondents (**46.0%, n = 91**) hold a Bachelor of Library Science (BLS) or Bachelor of Library and Information Science (BLIS) degree. Additionally, **25.8% (n = 51)** possess a Master of Library Science (MLS) or Master of Library and Information Science (MLIS), reflecting a substantial proportion of librarians with advanced professional training. A significant minority, **24.2% (n = 48)**, have Diploma-level qualifications in Library and Information Science, while only **4.0% (n = 8)** have qualifications outside the LIS field. This educational profile indicates a generally well-qualified workforce, with a strong foundation in library science education that supports effective service delivery.

In terms of professional experience, the respondents are relatively evenly distributed across experience categories. Those with **6–10 years**of service form the largest group **(37.9%, n = 75)**, followed closely by librarians with **1–5 years** of experience **(31.3%, n = 62)** and those with **over10 years** of experience **(30.8%, n = 61)**. This spread suggests a balanced mix of early-career, mid-career, and veteran librarians, which could contribute diverse perspectives and levels of expertise to the implementation of library services and potentially to initiatives aligned with SDG 15.

Overall, this demographic data provides a solid foundation for understanding the professional context within which Nigerian public libraries operates and offers insight into the human resource capacity available to support sustainable development initiatives in the region.

Core Objectives of Public Libraries in Nigeria

Table 1: Core Objectives of Public Libraries

S/N	Statement	SA	A	U	D	SD	N	FX	$\bar{X}$	Std. Dev	Decision
1	Promoting literacy and lifelong learning	110	70	5	7	6	198	870	4.39	0.77	Agree
2	Providing access to civic and personal development info	98	80	10	5	5	198	855	4.32	0.75	Agree
3	Supporting community development initiatives	85	85	15	7	6	198	832	4.20	0.80	Agree
4	Educating users on social and environmental issues	60	70	30	20	18	198	722	3.65	1.12	Moderate

◆ **Average Weighted Mean ($\bar{X}$avg): (4.39 + 4.32 + 4.20 + 3.65) ÷ 4 = 4.14 → Decision: Agree**

The data in Table 1 reveals that respondents strongly agree with the primary objectives of public libraries in North-Central Nigeria. The statement "Promoting literacy and lifelong learning" received the highest average weighted mean ($\bar{X}$ = 4.39), indicating a very strong consensus among librarians that literacy promotion is a fundamental mandate.

Similarly, the objectives of "Providing access to civic and personal development information" ($\bar{X}$ = 4.32) and "Supporting community development initiatives" ($\bar{X}$ = 4.20) also received strong agreement, reflecting the libraries' commitment to fostering informed and engaged communities through diverse information services.

The statement regarding "Educating users on social and environmental issues" showed a more moderate level of agreement ($\bar{X}$ = 3.65), with higher variability (Std. Dev = 1.12) compared to other objectives. This suggests that while librarians recognize the importance of environmental education, it is not yet as central or consistently integrated into library objectives as literacy and community development.

Alignment of Objectives of Public Library with SDG 15

Table 2: Alignment with SDG 15

S/N	Statement	SA	A	U	D	SD	N	FX	$\bar{X}$	Std. Dev	Decision
1	Library objectives support environmental education	55	85	28	20	10	198	778	3.93	0.97	Moderate
2	Library services raise awareness on biodiversity	35	60	45	38	20	198	702	3.55	1.13	Moderate
3	Libraries are equipped to support SDG 15	30	55	50	38	25	198	677	3.42	1.18	Moderate

◆ **Average Weighted Mean ($\bar{X}$avg):(3.93 + 3.55 + 3.42) ÷ 3 = 3.63 → Decision: Moderate Agreement**

Table 2 reflects respondents' perceptions regarding how well public library objectives and services align with Sustainable Development Goal 15 (Life on Land). The statements indicate a moderate level of agreement overall, with an average weighted mean of 3.63.

The highest agreement ($\bar{X}$ = 3.93) was for the statement "Library objectives support environmental education," suggesting that many librarians recognize the relevance of their goals to fostering environmental awareness, even if this is not yet fully institutionalized.

The statement "Library services raise awareness on biodiversity" scored slightly lower ($\bar{X}$ = 3.55), indicating a moderate but less consistent involvement of libraries in biodiversity-focused programs. This aligns with the observation that biodiversity awareness is still an emerging focus in Nigerian public libraries.

Respondents were least confident in the statement "Libraries are equipped to support SDG 15" ($\bar{X}$ = 3.42), reflecting concerns about inadequate resources, infrastructure, and formal support needed to effectively contribute to land, forest, and biodiversity conservation efforts.

Overall, the moderate agreement reflects awareness among librarians of the potential for libraries to contribute to SDG 15, coupled with recognized limitations in capacity and programmatic implementation. This points to a significant opportunity to enhance library engagement with environmental sustainability through targeted training, resource allocation, and policy integration.

Engagement in Environmental Conservation Activities

Table 3: Environmental Engagement

S/N	Statement	SA	A	U	D	SD	N	FX	$\bar{X}$	Std. Dev	Decision
1	Libraries organize environmental awareness campaigns	30	60	40	45	23	198	685	3.46	1.15	Moderate
2	Libraries collaborate with NGOs on conservation projects	20	42	45	50	41	198	627	3.17	1.22	Moderate
3	Libraries provide resources on land and forest conservation	28	51	37	50	32	198	660	3.33	1.18	Moderate

◆ **Average Weighted Mean ($\bar{X}$avg):(3.46 + 3.17 + 3.33) ÷ 3 = 3.32 → Decision: Moderate Agreement**

The data in Table 3 reveals that public libraries in North-Central Nigeria demonstrate a moderate level of engagement in activities that promote environmental sustainability, with an overall average weighted mean of 3.32.

The highest agreement was recorded for the statement "Libraries organize environmental awareness campaigns" ($\bar{X}$ = 3.46). This suggests that while some libraries actively participate in raising environmental awareness, such initiatives are not yet widespread or consistently implemented across the region.

The statement "Libraries collaborate with NGOs on conservation projects" had the lowest mean score ($\bar{X}$ = 3.17), indicating limited partnership and joint efforts between libraries and environmental organizations. This reflects an important gap in leveraging external expertise and resources for conservation efforts.

The overall **average weighted mean of 4.14**across all core objectives confirms that librarians broadly agree on their role in promoting literacy, personal development, community support, and emerging social/environmental education efforts. This alignment establishes a solid foundation for libraries to expand their engagement in SDG 15-related activities, particularly in environmental awareness and conservation.

Regarding "Libraries provide resources on land and forest conservation," respondents gave a moderate agreement ($\bar{X}$ = 3.33), showing that while some libraries offer relevant materials, availability and accessibility of such resources may be insufficient.

Overall, these findings demonstrate that Nigerian public libraries have started to engage in environmental activities but face challenges related to resource constraints, limited collaboration, and inconsistent program implementation. This moderate engagement underscores the need for strengthened institutional support and capacity building to enhance the role of libraries in promoting SDG 15.

Statistical Correlation: Public Library Objectives vs. SDG 15 Engagements

A Pearson correlation **test** was run to determine the relationship between the coreobjectives of libraries and their engagementin SDG 15 activities.

Variables	Pearson's r	p-value	Interpretation
Library Objectives × SDG 15 Engagement	**0.521**	0.000	Moderate Positive Correlation (significant)

A Pearson correlation test was conducted to examine the relationship between the core objectives of public libraries and their engagement in activities supporting **Sustainable Development Goal 15 (SDG 15)**.

The analysis revealed a **moderatepositivecorrelation** (r = 0.521) between library objectives and SDG 15 engagement, with the correlation being statistically significant (p = 0.000, p < 0.01). This indicates that public libraries that have stronger, well-defined developmental objectives—such as promoting literacy, community development, and environmental education—are more likely to actively participate in environmental sustainability initiatives including conservation awareness and biodiversity programs.

The significance of this correlation underscores the potential for public libraries to leverage their core mission to advance environmental goals, reinforcing the idea that strengthening library objectives can positively influence their contributions to SDG 15.

Summary of Key Findings

- Librarians strongly agree that public libraries prioritize literacy, education, and community support ($\bar{X}$avg = 4.14).
- There is moderate alignment between library goals and SDG 15 ($\bar{X}$avg = 3.63).
- Engagement in environmental activities exists but is limited and informal ($\bar{X}$avg = 3.32).
- A statistically significant correlation indicates that stronger developmental objectives are linked to greater environmental engagement (r = 0.521, p < 0.01).

Discussion

This section interprets the study's findings in light of the Sustainable Development Theory and Stakeholder Theory, and compares results with related studies in Nigeria and globally. The discussion addresses the core objectives of public libraries, their alignment with SDG 15, and their engagement in land, forest, and biodiversity conservation activities.

Interpretation Based on Theoretical Frameworks

The findings reflect the Sustainable Development Theory, which advocates balancing social, economic, and environmental dimensions (Brundtland Commission, 1987). Nigerian public libraries have traditionally focused on social development through literacy and education (Aina, 2014). This study highlights emerging opportunities for libraries to integrate environmental sustainability into their services, consistent with sustainable development principles (UNDP, 2016).

From the perspective of Stakeholder Theory (Freeman, 1984), librarians, users, and policymakers are key factors influencing library roles. While librarians show awareness of environmental responsibilities, institutional constraints limit practical engagement. This aligns with research by Oladokun and Adeyemi (2020), who identified a gap between librarians' environmental awareness and institutional support in Nigerian libraries.

Core Objectives of Public Libraries in Nigeria

Respondents strongly affirmed that literacy promotion, access to information, and community development are core objectives, with an average weighted mean of 4.14. This aligns with findings from Aina (2014) and Ogungbeni et al. (2020), who emphasized literacy and civic education as primary library goals in Nigeria. These objectives provide a strong foundation for expanding environmental education programs, as suggested by Garrido and Wyber (2017) in their study of public libraries as agents of sustainable development.

Alignment with SDG 15

The study found moderate alignment between library objectives and SDG 15 ($\bar{X}$ = 3.63). While environmental sustainability is not yet a formal library mandate in Nigeria, libraries' educational and outreach roles position them well to contribute to biodiversity conservation. Globally, libraries have successfully incorporated environmental programming (Ray, 2019; Majeed & Kiran, 2020), reinforcing the potential for Nigerian libraries to do the same.

The significant correlation ($r = 0.521$, $p < 0.01$) between core objectives and SDG 15 engagement indicates that libraries emphasizing broad developmental goals tend to support environmental initiatives. This finding echoes Otike and Badu-Nyarko's (2021) conclusions about the positive relationship between institutional vision and sustainable development practices in public libraries.

Engagement in Land, Forest, and Biodiversity Conservation

Environmental engagement was moderate ($\bar{X} = 3.32$), with activities like awareness campaigns and community outreach noted. This supports Afolayan (2019) and Igun (2019), who observed sporadic environmental programming in Nigerian libraries often reliant on external partnerships.

Unlike public libraries in countries with formal environmental mandates (e.g., Finland; Kinnunen & Hujala, 2021), Nigerian libraries face challenges including inadequate resources and lack of staff training. This suggests the need for systemic capacity building to enhance libraries' contributions to SDG 15.

The study confirms that Nigerian public libraries have foundational objectives and human capital to support SDG 15 but are hindered by policy and resource constraints. Strengthening institutional frameworks and fostering stakeholder collaboration can enhance libraries' roles in environmental sustainability, contributing meaningfully to Nigeria's SDG commitments (UNDP, 2016; UNESCO, 2017).

Conclusion

This study has highlighted that public libraries in North-Central Nigeria primarily focus on literacy promotion, information access, and community development, which are well-aligned with their traditional mandates. However, the findings also reveal only moderate engagement of these libraries in activities that directly support **Sustainable Development Goal 15 (Life on Land)**, particularly in areas of land, forest, and biodiversity conservation.

Despite this moderate engagement, a significant positive correlation between libraries' core objectives and their involvement in SDG 15-related activities suggests that libraries have the potential to be key players in environmental education and conservation initiatives. The commitment and willingness of librarians to incorporate sustainability themes provide a strong foundation to expand this role.

The study reaffirms the important position of public libraries as community hubs capable of supporting sustainable development, especially through environmental literacy and awareness. However, realizing this potential requires deliberate integration of SDG 15 into library policies and programs, alongside adequate funding, training, and stakeholder collaboration.

From a policy perspective, these findings underscore the need for national and regional library authorities to adopt strategic frameworks that promote environmental sustainability within library services. Strengthening partnerships between libraries, environmental agencies, and civil society can further enhance community engagement in biodiversity conservation.

In conclusion, public libraries in Nigeria stand as vital, yet underutilized, resources for advancing SDG 15. With targeted development and supportive policies, they can evolve into dynamic centers for environmental stewardship and sustainable community development.

Recommendations

Based on the findings and discussion of this study, the following recommendations are proposed to enhance the role of public libraries in Nigeria in supporting SDG 15 and broader sustainable development goals:

Core Objectives and Alignment with SDG 15

- **Policy-Level**:
  Library authorities and policymakers should formally integrate public library services into national and local SDG implementation frameworks, ensuring that environmental sustainability—especially SDG 15—is embedded in library mandates and strategic plans. This integration will provide clear guidelines and resources to support biodiversity, land, and forest conservation through library programs.
- **Practical-Level**:
  Libraries should maintain and strengthen their core objectives of literacy, information access, and community engagement, deliberately expanding these roles to include environmental education and awareness initiatives. Librarians need to be empowered to design and deliver programs that foster community understanding of land and biodiversity conservation.

Engagement in Conservation Activities

- **Capacity Building**: There is an urgent need to provide trainingand professional development for librarians on environmental sustainability topics, including conservation education, climate change, and biodiversity. This training will enhance librarians' ability to curate relevant resources and lead effective community outreach programs.
- **Resource Development**: Investment in environmentally focused library materials, such as books, multimedia resources, and digital content, is

essential to support educational activities aligned with SDG 15. Collaboration with environmental NGOs and government agencies can facilitate resource sharing.

- **Community Partnerships**: Libraries should seek active collaboration with local environmental organizations, government bodies, and educational institutions to co-host conservation projects, awareness campaigns, and citizen science initiatives, thereby extending their reach and impact.

Future Research

- Investigate the role of public libraries in supporting other Sustainable Development Goals (e.g., SDG 4 on quality education, SDG 13 on climate action) across different regions of Nigeria.
- Conduct comparative studies to evaluate best practices in library engagement with environmental sustainability in other developing countries, facilitating knowledge exchange and innovation.
- Explore user perceptions and community impacts of environmental programs offered by libraries to better tailor services and demonstrate social value.

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