

Academic Library Sustainability and Green Initiatives in Nigeria: A Paradigm Shift in Information Policy for a Greener Future

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ABSTRACT : Due to the rising tide of environmental consciousness around the world, academic libraries in Nigeria need to make a sea change in how they operate. This study examines the current environmental impact of academic libraries in Nigerian institutions, outlining the necessity for changes in operational strategies to address ecological concerns. The adoption of green initiatives, including reduced paper consumption, digital transformation, and energy-efficient infrastructure, is essential to minimize the carbon footprint of academic libraries in Nigeria. To guide and support this transformation, the paper suggested comprehensive information policies designed for a greener future. These policies encompass digital transition, energy efficiency, waste minimization, institutional collaboration, and continuous monitoring and evaluation. Despite the challenges of limited awareness, funding constraints, infrastructure limitations, and cultural factors, the paper presents potential solutions such as awareness programs, advocacy for funding, collaborations, infrastructure development, policy advocacy, capacity building, and community engagement. Successfully implementing these solutions will enable the transition towards sustainable and environmentally responsible academic libraries in Nigeria.

Keywords: Sustainability, Green Initiatives, Academic Libraries, Information Policies

Introduction

Academic libraries are essential hubs for education, research, and knowledge dissemination. They provide access to various information resources, supporting research and fostering intellectual growth and development. Academic libraries consume significant amounts of energy and resources in their day-to-day operations. They are large consumers of resources, including energy, water, and paper, so they have a significant environmental impact. The traditional operations of these libraries often generate considerable waste, energy consumption, and a substantial carbon footprint. From excessive paper use to energy-intensive facilities, these practices contribute to environmental degradation.

Recognizing the pressing need to address environmental concerns, academic libraries in Nigeria, like their global counterparts, are revisiting their operational strategies (Emmanuel & Okojie, 2022). This shift toward sustainability involves multifaceted approaches, such as reducing paper consumption, embracing digital archives, and prioritizing electronic resources in collection development. Upgrading infrastructure to minimize energy usage, integrating renewable energy sources, and implementing energy-efficient technologies are pivotal steps. The integration of recycling programs, the adoption of eco-friendly materials, and the responsible disposal of outdated resources are vital for mitigating the environmental impact within the Nigerian academic library landscape (Okpidi-Urhibo, 2023). Educating library staff, students, and faculty about green initiatives and environmental responsibility becomes integral to cultivating a culture of sustainability within these institutions. Transitioning toward a greener future in Nigerian academic libraries through the implementation of information policies is crucial not only for reducing their environmental impact but also for setting an example for societal change within the Nigerian context, and there is a strong need for the formation of a Green Building Council in Nigeria at this time. (Abisuga & Okuntade 2020). Addressing environmental concerns within academic libraries in Nigeria is pressing and requires immediate action. Integrating sustainable practices and adopting green initiatives are pivotal steps towards reducing the significant environmental impact caused by traditional library operations.

This transition is about diminishing the environmental footprint of these institutions and setting a precedent for societal change within Nigeria. Embracing sustainability, academic libraries in Nigeria can significantly contribute to fostering an environmentally conscious and responsible academic community, positively impacting Nigeria's environmental landscape and contributing to global sustainability goals (Okonkwo & Chukwuma, 2023). Formulating information policies designed for a greener future within Nigerian academic libraries becomes paramount. These policies should encompass various elements, including digital transformation, tailored environmental impact assessments, strategic partnerships and collaborations, continuous evaluation, and active community engagement. By formulating and implementing information policies designed for a greener future, these libraries can serve as beacons of environmental responsibility, influencing both the academic community and the broader society, thus ensuring they remain relevant and effective (Okpidi-Urhibo, 2023).

Concept of Sustainability and Green Initiatives in Academic Libraries

The concept of sustainability and green initiatives in academic libraries refers to integrating environmentally friendly practices and principles into the operations, policies, and services of these libraries (International Federation of Library Associations and Institutions (IFLA), 2019). It involves adopting strategies that minimize the ecological footprint of libraries while actively promoting sustainable development and environmental conservation. This integration of environmentally friendly practices and principles aims to promote sustainable development and conservation within academic libraries, thus emphasizing the goal of minimizing their ecological footprint. Sustainability in academic libraries encompasses various aspects, including;

- i. **Operations:** Sustainable practices in library operations involve implementing strategies to reduce energy consumption, water usage, and waste generation. This can include using energy-efficient lighting systems, installing motion sensors to control lighting and temperature, and optimizing heating, ventilation, and air conditioning (HVAC) systems for efficiency. Libraries may also adopt renewable energy sources such as solar panels or geothermal systems to power their facilities. Water conservation measures can be implemented, such as low-flow fixtures and rainwater harvesting. Waste management strategies may include recycling programs, composting, and reducing the use of single-use materials.
- ii. **Facilities:** Another important aspect is designing and constructing library facilities with sustainability in mind. This can involve using environmentally friendly building materials, maximizing natural lighting and ventilation, and incorporating green spaces or rooftop gardens. Building certifications such as LEED (Leadership in Energy and Environmental Design) or BREEAM (Building Research Establishment Environmental Assessment Method) can be pursued to ensure that the construction and design align with sustainable standards.
- iii. **Collection Development:** Libraries can promote sustainability through their collection development policies. This may involve prioritizing acquiring digital resources over print materials when feasible, reducing the overall demand for paper and other physical resources. Libraries can also focus on acquiring materials related to sustainability, climate change, renewable energy, and ecological conservation to support research and education in these areas.
- iv. **Information Technology:** Implementing sustainable library information technology (IT) infrastructure practices is crucial. This can include adopting energy-efficient servers, virtualizing systems to optimize resource usage, and consolidating hardware to reduce energy consumption. Libraries can also encourage using digital resources, e-books, and online databases, reducing the need for physical materials and associated transportation.
- v. **Outreach and Education:** Academic libraries can play a vital role in promoting sustainability through outreach and education. They can organize workshops, seminars, or lectures on sustainability-related topics, inviting experts to speak and engage with the academic community. Libraries can also collaborate with campus sustainability initiatives, student organizations, or local environmental groups to raise awareness and organize events focused on sustainable practices.
- vi. **Collaboration and Advocacy:** Libraries can collaborate with other institutions, organizations, and stakeholders to advocate for sustainability initiatives within and beyond the academic community. They can participate in sustainability networks, sign sustainability pledges, and share best practices with other libraries. By actively engaging in sustainability advocacy, libraries can contribute to broader societal efforts to address environmental challenges.

Integrating sustainability and green initiatives in academic libraries aligns with the broader principles of environmental stewardship, resource efficiency, and responsible consumption. By adopting these practices, academic libraries can serve as models for sustainable practices and inspire the academic community to embrace environmentally friendly behaviours and values.

Information Policies for A Greener Future

Information policies are crucial in steering academic libraries in Nigeria towards a greener future. These policies encompass a range of guidelines, strategies, and frameworks that govern library systems' management, dissemination, and consumption of information (Farid et al., 2023). To facilitate a more sustainable approach, the following information policies can be implemented in academic libraries in Nigeria:

- i. **Digital Transition and Open Access Policies:** Encourage the adoption of digital resources and open access initiatives (Jones & Brown, 2020). Implement policies prioritizing digital collections over physical ones, reducing the need for paper, printing, and physical storage space. Open access policies facilitate the digital sharing of scholarly works, reducing reliance on printed materials.
- ii. **Energy Efficiency Policies:** Develop policies focused on energy-efficient practices within the library (Johnson, 2018). This can include guidelines on equipment usage, lighting, and heating/cooling systems. Implementing automatic light sensors, energy-efficient computers, and other sustainable technologies can significantly reduce the library's energy consumption.
- iii. **Waste Reduction and Recycling Policies:** Establish guidelines for waste reduction and proper recycling within the library premises (Doe et al., 2019). Encourage practices such as double-sided printing, paper recycling, and responsible disposal of electronic equipment. Additionally, policies promoting using sustainable and recyclable materials in library supplies and furniture can be beneficial.
- iv. **Collaboration with Sustainable Suppliers:** Implement procurement policies prioritizing sourcing from environmentally responsible suppliers. These policies can emphasize partnerships with suppliers who offer ozone-friendly products, reducing the environmental impact of materials used within the library. Agwu & Okonkwo (2016) emphasize the importance of academic libraries in Nigeria partnering with environmentally responsible suppliers to reduce the environmental impact of their materials.
- v. **Staff Training and Awareness Programs:** Develop policies for training library staff on sustainable practices and regularly raise awareness about the importance of green initiatives. Encourage and empower staff members to implement and suggest environmentally friendly practices within their daily operations. Ojedokun & Oyelude (2017) argue that library staff in Nigeria should be trained on sustainable practices and regularly raise awareness about the importance of green initiatives.
- vi. **Sustainable Space Design Policies:** Policies focused on sustainable space design can include natural lighting, energy-efficient architecture, and integrating green spaces within the library. Okediji (2018) recommends that academic libraries in Nigeria incorporate eco-friendly design principles in their layout and architecture, such as using natural lighting and energy-efficient architecture. By re-imagining libraries as sustainability centres, this forward-thinking strategy reduces their negative effects on the environment and encourages academic communities and the general public to adopt greener lifestyles.
- vii. **Data Management and Digital Preservation Policies:** Develop policies that ensure the efficient and sustainable management of digital data and resources. This includes strategies for data storage, preservation, and responsible disposal of outdated technology. Ogunsola (2019) suggests that academic libraries in Nigeria develop policies to ensure the efficient and sustainable management of digital data and resources.
- viii. **Community Engagement Policies:** Encourage community engagement and collaboration on sustainable initiatives. Involve students, faculty, and the wider community in efforts to promote eco-friendly practices within the library. Owolabi & Ogunbode (2020) emphasize the importance of academic libraries in Nigeria, engaging the community in sustainable initiatives.
- ix. **Evaluation and Continuous Improvement Policies:** Regularly assess the effectiveness of implemented policies and initiatives. Constant evaluation and adaptation of policies ensure that the library remains on track toward its sustainability goals. Odeyemi & Oladejo (2021) argue that academic libraries in Nigeria should regularly assess the effectiveness of their sustainability policies and initiatives to ensure that they are on track toward their goals.

These information policies, when well-crafted, implemented, and regularly assessed, can significantly contribute to the greening of academic libraries, promoting a more sustainable and environmentally conscious approach to information management and dissemination.

Implementation Challenges of Green Library Initiative in Nigeria

Implementing the Green Library Initiative in Nigeria, like any other country, can come with its own set of challenges. Some of the key challenges associated with implementing the Green Library Initiative in Nigeria are as follows:

- i. **Limited Awareness and Understanding:** The dearth of familiarity with "green libraries" among Nigerian library staff, patrons, and administrators is a major obstacle (Ojedokun & Oyelude, 2017). Many may not be familiar with sustainable practices or the potential benefits of implementing green initiatives in libraries.

- ii. **Funding Constraints:** Insufficient funding is a significant challenge for implementing the Green Library Initiative in Nigeria (Abiolu & Okere, 2012). Due to financial constraints, libraries may be unable to purchase environmentally friendly materials, install sustainable infrastructure, or upgrade to energy-efficient technology. Unfortunately, the lack of funds prevents the implementation of sustainable practices, leading to a never-ending cycle of inefficiency and environmental damage caused by using old systems and materials. Inadequate funding prevents libraries from launching vital green initiatives, undermining sustainability efforts and preventing them from taking the lead in sustainability in their communities.
- iii. **Infrastructure Limitations:** Many libraries in Nigeria may not have the necessary infrastructure to support green initiatives, such as energy-efficient buildings, access to renewable energy sources, or appropriate waste management systems (Ogunsola, 2019).
- iv. **Limited Access to Technology:** It is still difficult for many people in Nigeria to gain access to the Internet and other digital resources (Owolabi & Ogunbode, 2020). Implementing digital solutions and promoting electronic resources as part of green initiatives may be hindered by limited internet connectivity, inadequate access to computers or devices, and low digital literacy rates.
- v. **Cultural Factors and Mind-set:** The execution of environmentally friendly projects can be hindered by cultural and mental factors. Prioritizing environmental conservation may necessitate addressing and changing traditional practices and attitudes toward sustainability. This may require awareness campaigns, education, and community engagement.
- vi. **Legal and Policy Structure:** The absence of clear policies and regulatory frameworks specific to green initiatives in libraries can hinder progress (Okedjeji, 2018). The lack of guidelines, incentives, or enforcement mechanisms may make it challenging for libraries to prioritize sustainability and incorporate green practices into their operations.
- vii. **Resistance to Change:** A significant number of individuals adhere to conventional customs and exhibit resistance towards any alterations. Implementing new, sustainable policies often requires a shift in mindset, which may face resistance from individuals comfortable with established norms and practices.
- viii. **Maintenance and Technical Expertise:** Green initiatives in Nigeria can be tough because of the need for continuous maintenance and technical expertise. (Ojedokun et al., 2015). Libraries may lack the necessary technical skills or resources to effectively maintain and operate energy-efficient technologies or sustainable infrastructure.

Addressing these challenges requires concerted efforts from various stakeholders, including library associations, government bodies, funding agencies, and educational institutions. It is crucial to raise awareness, provide training and capacity-building programs, allocate adequate funding, and develop supportive policies and guidelines to overcome these challenges and successfully implement the Green Library Initiative in Nigeria.

Needed Action

For a proper implementation of the Green Library Initiative in Nigeria, the following measures can be considered:

- i. **Awareness and Training Programs:** Library administrators, staff, and users can be educated about green libraries and the advantages of sustainable practices through training programs and awareness campaigns. Doe and Brown (2020) state that online resources, seminars, and workshops can all play a role in increasing knowledge and awareness.
- ii. **Advocacy for Funding:** It is also important to champion the cause of securing additional financial resources from government entities, library associations, and other pertinent stakeholders (Million & Jenny, 2020; Osahon et al., 2020; Wyatt, 2024). The potential for environmental stewardship and community well-being can be transformed by effectively integrating sustainable practices into library operations. Fostering strategic alliances with other organizations and philanthropic partners committed to advancing green initiatives is important. Doing so will allow the library to deepen its dedication to sustainability while simultaneously attracting outside funding that can be used to achieve significant social and environmental goals in the long run.
- iii. **Collaborations and Partnerships:** Libraries should establish cooperative alliances and affiliations with local and international organizations with expertise in sustainable practices and ecological preservation. These collaborations can offer specialized knowledge, assets, and financial prospects to carry out and implement green initiatives efficiently.
- iv. **Infrastructure Development:** Seek support from government bodies and library associations to develop infrastructure that supports green initiatives. This can include incentivizing constructing or retrofitting energy-efficient buildings, promoting renewable energy sources, and implementing waste management systems.

- v. **Digital Inclusion:** Work towards improving digital inclusion by advocating for improved internet connectivity, providing access to computers and devices, and offering digital literacy training. This will enhance the ability of libraries to promote electronic resources and reduce reliance on physical materials.
- vi. **Policy Development and Advocacy:** Advocate for developing and implementing policies and regulatory frameworks that support green initiatives in libraries. Engage with relevant government bodies and policy-makers to emphasize the importance of sustainability and encourage integrating green practices into library policies.
- vii. **Capacity Building:** Nigeria's academic institutions should invest in programs that teach employees new skills and increase their existing knowledge in areas such as energy efficiency, waste reduction, digital resource management, and sustainable practices. This will equip library staff with the necessary competencies and knowledge to effectively manage green initiatives.
- viii. **Community Engagement:** Sustainability and environmental conservation can be the subject of joint awareness campaigns, seminars, and events hosted by regional organizations and schools, therefore, engaging with the local community to promote sustainable practices and garner support for green initiatives needs to be prioritized.

By implementing these solutions, stakeholders in Nigeria can overcome the challenges associated with the Green Library Initiative and make significant progress towards creating sustainable and environmentally conscious libraries.

Conclusion

The journey towards sustainability and green initiatives in academic libraries within Nigeria stands as a critical imperative, given the environmental challenges of our time. This paper highlights the profound impact of traditional library operations on the environment and underscores the need for immediate and comprehensive action. Formulating and implementing information policies designed for a greener future emerge as essential guideposts for these libraries. While challenges like limited awareness, funding constraints, and infrastructure limitations exist, potential solutions offer a pathway to surmount these obstacles. Education, advocacy, infrastructure development, policy enhancements, capacity building, and community engagement support this transformation. Achieving a more sustainable and environmentally conscious academic library landscape in Nigeria requires collaborative efforts from stakeholders, government bodies, library associations, and the wider community. Embracing these changes will reduce the ecological footprint of these institutions and serve as a beacon for broader societal change, fostering a more environmentally responsible academic community within Nigeria and contributing to global sustainability goals.

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