

## PROMOTING GREEN CONSUMPTION IN TERTIARY INSTITUTIONS IN NIGERIA: CHALLENGES, POLICY GAPS, AND SUSTAINABLE DEVELOPMENT

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### Abstract

Green consumption has become an important strategy for addressing environmental degradation, climate change, and unsustainable resource utilization across the world. However, the level of green consumption in tertiary institutions in Nigeria remains low despite increasing environmental challenges such as poor waste management, excessive use of plastics, indiscriminate disposal of refuse, energy wastage, and weak environmental awareness among students and staff. This paper examined the problems associated with green consumption in tertiary institutions in Nigeria with emphasis on inadequate institutional policies, weak environmental programmes, poor sustainability awareness, and insufficient government support for green initiatives. The paper justified the need for promoting green consumption in tertiary institutions because higher institutions are centres for knowledge production, behavioural transformation, and manpower development. The study adopted a review methodology through the analysis of relevant journal articles, policy documents, textbooks, conference papers, and institutional reports related to green consumption and sustainable development. Findings from the review revealed that many tertiary institutions in Nigeria lack comprehensive environmental sustainability policies and organized programmes capable of promoting environmentally responsible behaviour among members of the academic community. The paper concluded that strengthening green policies, environmental education, waste recycling systems, and sustainable campus initiatives would improve green consumption practices in Nigerian tertiary institutions. The paper recommended among others that government and institutional administrators should develop enforceable green campus policies, integrate sustainability education into academic programmes, and provide adequate support for environmental sustainability projects in tertiary institutions.

**Keywords:** Green Consumption, Tertiary education, Sustainable Development

### 1.0 Introduction

Environmental sustainability has become a major global concern because of the increasing rate of environmental pollution, climate change, deforestation, biodiversity loss, and unsustainable

consumption patterns. Human activities such as excessive consumption of natural resources, indiscriminate waste disposal, overdependence on fossil fuels, and poor environmental management practices have contributed significantly to environmental degradation across the world. In response to these challenges, attention has shifted toward sustainable development and environmentally responsible consumption practices popularly referred to as green consumption.

Green consumption refers to the use of environmentally friendly goods and services that minimize negative impacts on the environment while promoting resource conservation and sustainability. It involves responsible purchasing behaviour, waste reduction, energy conservation, recycling, and the adoption of environmentally sustainable lifestyles. Green consumption encourages individuals and institutions to consume resources in ways that protect the environment for present and future generations (World-Bank, 2020).

Tertiary institutions occupy an important position in the promotion of green consumption because they are centres for research, innovation, knowledge dissemination, and character formation. Universities, polytechnics, and colleges of education influence societal values and behavioural patterns through teaching, research, and community service. Students trained in environmentally responsible practices are likely to transfer such values into society after graduation. Consequently, tertiary institutions are expected to serve as models of environmental sustainability and green practices (Ogunode, 2026a).

The justification for this paper is based on the urgent need to promote sustainable environmental practices in Nigerian tertiary institutions. Since tertiary institutions are responsible for producing future leaders, professionals, and policymakers, strengthening green consumption practices within these institutions will contribute significantly to environmental sustainability in Nigeria. This paper therefore examined the challenges associated with green consumption in tertiary institutions in Nigeria, identified policy and programme gaps, and discussed strategies for promoting sustainable consumption practices within the higher education sector.

## 2.0 Conceptual Terms

### 2.1 Concept of Sustainable Development

Sustainable development refers to “development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission (2020).” This definition emphasizes intergenerational equity and responsible utilization of resources. According to the World Commission on Environment and Development, sustainable development involves balancing economic growth, environmental protection, and social welfare (World Commission on Environment and Development 1987). The United Nations (2015) defines sustainable development as a development approach that seeks to achieve economic prosperity, social inclusion, and environmental sustainability simultaneously for present and future generations. This definition stresses the interconnectedness of environmental, social, and economic systems in development planning. Robert Goodland (1995) defined sustainable

development as a pattern of social and structural economic transformation that optimizes the economic and societal benefits available in the present without jeopardizing the likely potential for similar benefits in the future) IUCN, UNEP, & WWF (1991).

From the above, sustainable development in this paper is the process of improving the quality of human life through economic growth, social progress, and environmental protection without exhausting the resources needed by future generations. It emphasizes balanced development where the needs of the present are met responsibly while ensuring that future generations can also meet their own needs and enjoy a healthy environment.

Tertiary institutions are advanced centres of learning established to provide higher education,

## 2.2 Green Consumption

A green consumer is a person who consciously considers the environmental effects of the products and services they buy, use, and dispose of. Such individuals prefer goods that are environmentally friendly, energy-efficient, reusable, recyclable, or produced through sustainable practices. A green consumer does not only focus on personal satisfaction but also on protecting natural resources and promoting a healthier environment for present and future generations. Ken Peattie (1995) viewed green consumption as the purchasing and use of products and services that have minimal harmful effects on the environment. The United Nations Environment Programme described green consumption as the use of goods and services that respond to basic needs and improve quality of life while minimizing the use of natural resources, toxic materials, and waste emissions throughout the product life cycle (UNEP (2010)). For Yogesh Joshi and Zillur Rahman (2015) green consumption is consumer behaviour involving the purchase and use of environmentally friendly products that are recyclable, energy efficient, and less polluting. Jacquelyn Ottman (2011) viewed green consumption as the conscious selection of products and services that minimize environmental impacts while satisfying consumer wants and needs. From the above, green consumption in this paper refer to the responsible and environmentally sensitive use of goods and services in ways that reduce harm to the environment and support sustainable living. It involves choosing products that conserve energy, minimize waste, reduce pollution, and encourage recycling and environmental protection. Green consumption promotes a lifestyle where people meet their needs without destroying the ecological balance of society.

## 2.3 Tertiary Institutions

The Federal Ministry of Education Nigeria defines tertiary institutions as post-secondary educational institutions responsible for the training of high-level manpower through teaching, research, and community service (Federal Republic of Nigeria (2013)). The UNESCO (2011) defines tertiary institutions as educational establishments that provide education beyond the secondary school level, including academic and professional education. The National Universities Commission (2019) described tertiary institutions as institutions established to provide advanced

knowledge, develop intellectual capacity, and produce skilled manpower for national development.

Tertiary education refers to the level of education that students pursue after completing secondary school. It takes place in institutions such as universities, polytechnics, colleges of education, and other specialized institutions that provide advanced knowledge and professional training. At this stage, education moves beyond basic learning and focuses on developing deeper understanding, specialized skills, and critical thinking that prepare individuals for professional careers and leadership roles in society. Tertiary education plays a very important role in personal and national development. For individuals, it provides opportunities to acquire knowledge, develop talents, and build competencies that can improve their quality of life. Students in tertiary institutions are exposed to new ideas, research activities, innovation, and diverse cultures, which help them grow intellectually and socially. It also helps them become more confident, independent, and capable of solving real-life problems (2026a). The World Bank (2002) defines tertiary institutions as institutions offering post-secondary education designed to develop advanced competencies, innovation, and research capacity.

Sustainable tertiary education refers to a higher education system that is able to continuously provide quality teaching, learning, research, and community service in a way that meets present educational needs without compromising the ability of future generations to benefit from the same system. It focuses on maintaining a balance between academic excellence, responsible management of resources, environmental responsibility, and long-term institutional development. In simple terms, sustainable tertiary education means building universities, polytechnics, and colleges of education that can function effectively over a long period of time despite economic, social, or environmental challenges. It involves ensuring that higher education institutions have the financial resources, qualified staff, modern facilities, and effective policies needed to remain productive and relevant in society (Ogunode 2026).

From the above, tertiary institution in this paper is an organized learning institutions that focus on professional training, research, and community service after secondary school education. These institutions, such as universities, polytechnics, and colleges of education, help individuals develop specialized knowledge, practical skills, innovation, and values needed for national growth and personal development.

Despite the importance of green consumption, the situation in many tertiary institutions in Nigeria remains unsatisfactory. Many campuses are characterized by indiscriminate disposal of waste materials, poor recycling culture, excessive use of plastic products, energy wastage, poor sanitation practices, and weak environmental consciousness among students and staff. Most institutions still rely heavily on paper-based administrative systems, while awareness regarding sustainable consumption remains limited.

Another major challenge is the absence of strong institutional policies and environmental programmes capable of promoting green consumption. Many tertiary institutions in Nigeria lack

functional green campus policies, structured recycling programmes, environmental sustainability committees, and adequate climate change education initiatives. Environmental campaigns in most institutions are irregular and poorly funded. In some cases, environmental sustainability is treated as a secondary issue rather than a core institutional priority.

The inadequate implementation of government environmental policies has also contributed to weak green consumption practices in tertiary institutions. Although Nigeria has introduced several environmental protection policies through agencies such as the Federal Ministry of Environment and the National Environmental Standards and Regulations Enforcement Agency (NESREA), implementation at the institutional level remains weak. Funding constraints, poor environmental governance, inadequate infrastructure, and low institutional commitment further worsen the problem.

The poor state of green consumption in tertiary institutions has serious implications for environmental sustainability in Nigeria. The increasing generation of plastic waste, poor waste disposal practices, and excessive energy consumption contribute to environmental pollution and greenhouse gas emissions. Similarly, the failure of tertiary institutions to promote environmentally responsible behaviour undermines national and global efforts toward achieving sustainable development goals.

### 3.0 Method

This study adopted a review research design. The review method was considered appropriate because the paper relied on existing literature, empirical studies, policy documents, textbooks, conference proceedings, and institutional reports related to green consumption and environmental sustainability in tertiary institutions.

Relevant materials were sourced from academic databases such as Google Scholar, Scopus-indexed journals, ResearchGate, institutional repositories, and official publications from environmental and educational agencies. The review focused specifically on literature related to green consumption practices, sustainability education, environmental policies, waste management, energy conservation, and green campus initiatives in Nigerian tertiary institutions.

The collected materials were critically examined and analyzed thematically based on the objectives of the study. Emphasis was placed on identifying major challenges affecting green consumption, institutional policy gaps, existing sustainability programmes, and practical strategies for promoting environmentally responsible behaviour in tertiary institutions. The review approach enabled the researcher to synthesize findings from previous studies and provide comprehensive insight into the subject matter.

### 4.0 Result and Discussion on Strategies to Promote Green Consumption in Tertiary Institutions in Nigeria

Green consumption has become an important component of sustainable development across the world. In the context of tertiary institutions, green consumption refers to the responsible use of resources, environmentally friendly purchasing habits, waste reduction, energy conservation, and sustainable lifestyle practices among students, staff, and institutional management. Nigerian tertiary institutions generate large quantities of waste, consume enormous amounts of electricity and water, and depend heavily on disposable materials. Consequently, there is a growing need for universities, polytechnics, and colleges of education to adopt strategies that encourage environmentally responsible consumption patterns.

### **Environmental Sustainability Education and Awareness Campaigns**

One of the most effective strategies for promoting green consumption in tertiary institutions is environmental education and awareness creation. Many students consume resources wastefully because they lack adequate knowledge of the environmental consequences of their behaviour. Sustainability education helps students understand issues such as climate change, pollution, waste generation, and resource depletion. Research has shown that sustainability-oriented education significantly influences environmentally responsible behaviour among students. Agu, Etuk, and Madichie (2022) observed that sustainability education promotes consciousness toward sustainable consumption practices among learners. In practical terms, tertiary institutions in Nigeria can integrate environmental sustainability into General Studies (GST) courses and organize periodic sensitization programmes. For example, the National Universities Commission can encourage universities to include climate change education as part of undergraduate requirements. Institutions may also organize “Green Week” campaigns where students are educated on energy conservation, recycling, and responsible consumption. Practical examples include encouraging students to switch off lights and fans after lectures, discouraging unnecessary printing of lecture materials, and promoting the use of reusable water bottles instead of disposable plastic containers. Student unions and departmental associations can also organize debates, seminars, and tree-planting exercises to strengthen environmental consciousness on campuses.

### **Adoption of Sustainable Waste Management and Recycling Programmes**

Waste management is another major strategy for promoting green consumption in Nigerian tertiary institutions. Most campuses generate large volumes of paper waste, plastic bottles, food waste, and electronic waste. Improper disposal of these materials contributes to environmental pollution and poor sanitation. Ayoko (2025) emphasized that waste reduction, recycling, composting, and proper segregation of waste are essential practices for sustainable tertiary education development in Nigeria. Institutions can establish recycling centres and place colour-coded waste bins across campuses to separate plastics, paper, metal, and organic waste. Universities can collaborate with recycling companies to collect recyclable materials regularly. Such programmes not only reduce environmental pollution but also create economic opportunities for students and surrounding communities. A practical example can be observed when students are encouraged to submit assignments electronically instead of printing hard copies. This reduces

paper consumption considerably. Similarly, cafeteria operators on campuses can be instructed to reduce the use of single-use plastics by introducing reusable plates and cups. Some institutions in Nigeria have also started encouraging digital circulation of notices, examination results, and lecture notes. This minimizes excessive photocopying and printing, thereby reducing paper waste.

### **Promotion of Energy Conservation and Clean Energy Utilization**

Energy consumption in tertiary institutions is often excessive due to poor management practices, outdated facilities, and lack of awareness. Lecture halls, hostels, administrative buildings, and laboratories consume substantial amounts of electricity daily. Promoting energy-efficient practices is therefore essential for green consumption. Anifowose and Bamgbade (2024) found that many respondents in Nigerian tertiary institutions lacked awareness about energy consumption patterns, thereby limiting sustainable energy management practices. Tertiary institutions can promote green consumption by replacing incandescent bulbs with energy-saving LED lights, installing solar-powered streetlights, and encouraging students to switch off electrical appliances when not in use. The adoption of renewable energy sources such as solar systems can also reduce dependence on fossil-fuel-powered generators that contribute to greenhouse gas emissions. Practical examples include installing solar panels in lecture theatres and libraries, using motion-sensor lighting systems in corridors, and implementing energy audits to monitor electricity usage. Institutions such as University of Abuja and other federal universities can gradually transition toward solar-powered administrative buildings and classrooms. Furthermore, management can create policies that discourage leaving air conditioners and fans running unnecessarily. Awareness posters carrying messages such as “Save Energy” or “Switch Off When Not in Use” can also influence student behaviour positively.

### **Development and Implementation of Green Campus Policies**

Institutional policy frameworks play a significant role in promoting green consumption. Without clear sustainability policies, environmental initiatives often remain weak and inconsistent. Studies on sustainability practices in Nigerian higher education institutions identified the absence of formal sustainability policies as a major challenge to environmental sustainability implementation. A comprehensive green campus policy should define institutional goals regarding waste reduction, energy efficiency, water conservation, sustainable transportation, and environmentally responsible procurement practices. Such policies should also specify penalties for environmental violations and incentives for sustainable practices. For example, institutions can formulate policies banning indiscriminate dumping of refuse and restricting the use of non-biodegradable materials during campus events. Universities can also adopt policies that prioritize the procurement of environmentally friendly products such as recycled paper, energy-efficient equipment, and eco-friendly cleaning materials. In practical terms, management may require all campus vendors to comply with environmental sanitation regulations. Food vendors can be encouraged to use biodegradable packaging materials instead of nylon and plastic containers.

Similarly, institutions may establish environmental sustainability committees responsible for monitoring compliance with green policies.

### **Encouraging Sustainable Transportation Systems**

Transportation activities within campuses contribute significantly to carbon emissions and environmental degradation. Excessive use of motorcycles, private cars, and poorly maintained vehicles increases air pollution and fuel consumption. Adenle et al. (2021) and Ogunode (2026a) identified transportation as one of the most important sustainability indicators for smart campuses in Nigeria. To address this challenge, tertiary institutions can promote environmentally friendly transportation systems such as walking, cycling, shuttle buses, and carpooling. Campuses can also create pedestrian-friendly pathways and bicycle lanes to encourage non-motorized movement. For example, instead of allowing unrestricted vehicle movement across campuses, institutions can designate specific parking areas while encouraging students to walk to lecture halls. Universities may also introduce electric shuttle buses powered by clean energy. A practical illustration can be seen during large academic events where institutions provide centralized transportation systems to reduce the number of private vehicles entering the campus. This strategy minimizes traffic congestion, reduces fuel consumption, and lowers carbon emissions.

### **Student Participation through Green Clubs and Environmental Activities**

Students are central actors in the promotion of green consumption because they constitute the largest population within tertiary institutions. Environmental sustainability programmes become more effective when students actively participate in planning and implementation. Ogunode, Oweikpodor, and Olatunde-Aiyedun (2024) stressed the importance of student engagement and green campus clubs in sustaining environmental initiatives in tertiary institutions. Institutions can establish environmental clubs that coordinate recycling campaigns, tree planting exercises, sanitation drives, and climate change awareness programmes. These clubs can collaborate with local and international environmental organizations to organize sustainability projects on campuses. For instance, students can organize “No Plastic Day” campaigns where members of the campus community are encouraged to avoid disposable plastics. Green clubs may also establish campus gardens where students learn sustainable agricultural practices and environmental conservation techniques. Practical examples include organizing inter-departmental competitions on environmental cleanliness, planting trees around hostels and lecture theatres, and rewarding students who demonstrate outstanding environmental responsibility. Such activities help build a culture of sustainability among young people who will later influence society positively.

#### **4.1 Conclusion and Recommendations**

Green consumption is an important component of sustainable development and environmental protection in tertiary institutions. However, the level of green consumption in many tertiary institutions in Nigeria remains low due to weak environmental awareness, poor waste

management practices, inadequate sustainability education, and insufficient institutional policies and programmes. The absence of effective green campus initiatives has contributed to excessive resource wastage, environmental pollution, and unsustainable consumption practices within the higher education sector.

The paper established that tertiary institutions have a critical role to play in promoting environmental sustainability because they serve as centres for knowledge generation and behavioural transformation. Strengthening green consumption practices in these institutions will not only improve campus environmental conditions but will also contribute to national efforts toward climate change mitigation and sustainable development. Based on the findings, the paper recommends the following:

- 1) Management of tertiary institutions in Nigeria should formulate and implement comprehensive green campus policies to regulate waste disposal, energy use, recycling, and sustainable consumption practices.
- 2) Environmental sustainability and climate change education should be integrated into the curriculum of tertiary institutions to improve students' environmental consciousness and responsible consumption behaviour.
- 3) Government agencies such as the Federal Ministry of Environment and NESREA should provide financial and technical support for green campus initiatives in tertiary institutions.
- 4) Tertiary institutions should establish recycling centres and provide waste separation facilities across campuses to encourage proper waste management practices.
- 5) Institutional administrators should organize regular environmental awareness campaigns, seminars, workshops, and tree-planting exercises to promote green consumption among students and staff.
- 6) Universities, polytechnics, and colleges of education should adopt renewable energy technologies such as solar power systems to reduce excessive dependence on fossil fuels and improve environmental sustainability.
- 7) Student participation in environmental sustainability programmes should be encouraged through the establishment of environmental clubs and green campus associations.

## References

Adenle, Y. A., Chan, E. H. W., Sun, Y., & Chau, C. K. (2021). Assessing the relative importance of sustainability indicators for smart campuses: A case of higher education institutions in Nigeria. *Environmental and Sustainability Indicators*, 9, 100092.

- Agu, G. A., Etuk, S. G., & Madichie, N. O. (2022). Exploring the role of sustainability-oriented marketing education in promoting consciousness for sustainable consumption. *Sustainability*, 14(13), 8077.
- Anifowose, O. B., & Bamgbade, A. A. (2024). Sustainable energy management in tertiary educational buildings: A case study of Nigeria's Federal Capital Territory. *Nile Journal of Engineering and Applied Science*, 2(1), 1–14.
- Ayoko, V. O. (2025). Effective waste management for sustainable tertiary education development in Nigeria. *Multi-Disciplinary Research and Development Journals Int'l*, 8(1), 75–84.
- Federal Republic of Nigeria. (2013). *National policy on education* (6th ed.). NERDC Press.
- Goodland, R. (1995). The concept of environmental sustainability. *Annual Review of Ecology and Systematics*, 26, 1–24.
- International Union for Conservation of Nature (IUCN), United Nations Environment Programme (UNEP), & World Wide Fund for Nature (WWF). (1991). *Caring for the earth: A strategy for sustainable living*. IUCN.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1–2), 128–143.
- National Universities Commission. (2018). *Benchmark minimum academic standards for undergraduate programmes in Nigerian universities*. NUC Press.
- Ogunode, N. J., Oweikpodor, V. G., & Olatunde-Aiyedun, T. G. (2024). Implementing green campus initiatives in Nigerian higher education institutions. *Raqamli Iqtisodiyot, Biznes va Innovatsiyalar Jurnali*, 1(1), 45–54.
- Ogunode, N., J (2026). Strategies for Enhancing Sustainable Tertiary Education in Nigeria. *Journal of Educational Research and Innovation*, 2 (2) pp. 24-31
- Ogunode, N., J (2026a) Strategic Framework for Enhancing Green Finance, Green Procurement, and Green Investment in Tertiary Institutions in Nigeria, *Journal of Educational Research and Innovation*, 2 (2) pp. 40-44
- Oloveze, A. O., Okonkwo, R. V. O., & Onya, O. V. (2023). Strategies for sustainable consumption behaviour: The case for food and beverage industry products: Nigerian students' perspective. *FUOYE Journal of Accounting and Management*, 6(1), 45–59.
- Ottman, J. A. (2011). *The new rules of green marketing: Strategies, tools, and inspiration for sustainable branding*. Berrett-Koehler Publishers.

- Peattie, K. (1995). *Environmental marketing management: Meeting the green challenge*. Pitman Publishing.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations.
- United Nations Environment Programme. (2010). *ABC of SCP: Clarifying concepts on sustainable consumption and production*. UNEP.
- UNESCO. (2011). *International standard classification of education (ISCED 2011)*. UNESCO Institute for Statistics.
- World Bank. (2002). *Constructing knowledge societies: New challenges for tertiary education*. World Bank.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.