

## ROLES OF THE NATIONAL UNIVERSITIES COMMISSION IN PROMOTING CIRCULAR ECONOMY PRACTICES IN NIGERIAN UNIVERSITIES

By

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### Abstract

The study discussed the roles of the National Universities Commission in promoting circular economy practices in Nigerian universities. Depending on secondary data obtained from recognized online and print resources. The study concluded that the NUC roles in driving circular economy practices in the Universities in Nigeria include coming up with policies that support integration of circular economy principles into academic standards, accreditation and quality assurance for sustainable practices, policy formulation and regulatory guidance, monitoring and evaluation of institutional sustainability, capacity building and institutional support, promotion of research, innovation, and knowledge transfer, encouragement of digital transformation and fostering partnerships and stakeholder collaboration, the NUC can drive systemic change toward environmentally responsible and resource-efficient university systems. Strengthening these roles will enhance the contribution of Nigerian universities to sustainable development and global circular economy objectives. Based on these findings, the paper recommends mainstreaming circular economy into regulatory frameworks, incorporate sustainability indicators into accreditation criteria, develop national guidelines for green and circular campuses, strengthen capacity building and training programmes, promote digital transformation in university administration and learning, encourage research and innovation in circular economy practices, establish monitoring and reporting mechanisms, foster strategic partnerships and stakeholder engagement, introduce incentives and recognition for sustainable universities and align university sustainability practices with national development goals.

**-Keywords:** Circular economy practices, National Universities Commission, Universities.

### 1.0 Introduction

The increasing pressure on natural resources and the growing volume of waste generated by human activities have intensified global calls for sustainable development across all sectors, including higher education. The circular economy has emerged as a sustainable development model that emphasizes efficient resource utilization through reduction, reuse, recycling, and

recovery of materials, as opposed to the traditional linear “take–make–dispose” model. Universities, as centers of knowledge generation, innovation, and societal transformation, are strategically positioned to champion circular economy practices through their operations, teaching, research, and community engagement.

In Nigeria, universities contribute significantly to resource consumption and waste generation due to large student populations, extensive administrative activities, and infrastructural demands. Materials such as paper, plastics, energy, and water are heavily utilized, often with limited attention to sustainability and waste recovery. This situation underscores the need for strong institutional and regulatory frameworks to guide universities toward environmentally responsible practices. The National Universities Commission (NUC), as the regulatory body responsible for overseeing university education in Nigeria, plays a critical role in shaping policies, standards, and quality assurance mechanisms that can promote the adoption of circular economy practices within Nigerian universities.

The NUC influences university operations through accreditation requirements, minimum academic standards, policy guidelines, and capacity development initiatives. By integrating circular economy principles into regulatory frameworks, curriculum standards, institutional assessments, and sustainability policies, the Commission can drive systemic change toward sustainable resource management. Understanding the roles of the NUC in promoting circular economy practices is therefore essential for advancing environmental sustainability, reducing operational costs, and aligning Nigerian universities with national development objectives and global sustainability goals.

This study examines the roles of the National Universities Commission in promoting circular economy practices in Nigerian universities, with a focus on policy formulation, regulation, capacity building, and institutional monitoring. The study contributes to the growing discourse on sustainability governance in higher education and provides insights for strengthening regulatory interventions aimed at fostering environmentally sustainable university systems in Nigeria.

## 2.0 Conceptual Terms

### 2.1 Concept of Concept of the National Universities Commission (NUC)

The National Universities Commission (NUC) is the principal regulatory agency responsible for the coordination, regulation, and quality assurance of university education in Nigeria. It was formally established in 1962 and later strengthened by the National Universities Commission Act (Cap N81, Laws of the Federation of Nigeria, 2004). The Commission operates under the Federal Ministry of Education and serves as the intermediary between the Federal Government and Nigerian universities. Its primary mandate is to ensure the orderly development of university education in Nigeria in line with national goals and international best practices (NUC, 2014).

The NUC plays a central role in maintaining academic standards, promoting quality teaching and research, and ensuring that Nigerian universities contribute effectively to national development. Through policy formulation, accreditation, and monitoring mechanisms, the Commission influences academic programmes, institutional governance, and resource utilization across federal, state, and private universities in Nigeria (Saint, Hartnett, & Strassner, 2003).

## **Functions of the National Universities Commission**

### **1. Accreditation of Academic Programmes**

One of the core functions of the NUC is the accreditation of academic programmes in Nigerian universities. The Commission sets Minimum Academic Standards (MAS) and the Benchmark Minimum Academic Standards (BMAS), which guide curriculum design, staffing, facilities, and instructional delivery. Accreditation ensures that academic programmes meet acceptable quality standards and remain relevant to national and global development needs (NUC, 2018).

### **2. Quality Assurance and Academic Standards Regulation**

The NUC is responsible for maintaining quality assurance in university education. This involves periodic assessment of universities' teaching quality, research output, learning resources, and governance structures. By enforcing standards, the Commission ensures uniformity and comparability of degrees awarded by Nigerian universities (Otokunfer, 2015; Ogunode, Edinoh, & Rauf, 2023).

### **3. Approval and Establishment of Universities**

The Commission advises the Federal Government on the establishment of new universities and the expansion of existing ones. It evaluates proposals for new federal, state, and private universities to ensure compliance with national education policies and capacity requirements. This function helps prevent uncontrolled proliferation of universities and safeguards educational quality (Ogunode, & Okwudinma, 2024).

### **4. Allocation and Monitoring of Government Grants**

The NUC serves as a channel for the allocation of government grants to federal universities. It monitors the utilization of funds to ensure accountability, transparency, and alignment with approved academic and infrastructural priorities. This oversight function enhances financial discipline within the university system (Pandey & Subedi, 2023; Ogunode, Olaoye, & Yakubu, 2023).

### **5. Data Collection and System Planning**

The Commission collects, analyzes, and disseminates data on Nigerian universities, including enrolment statistics, staffing, facilities, and research activities. This data supports educational

planning, policy formulation, and informed decision-making at national and institutional levels (Ogunode & Samuel, 2022).

## 6. Policy Formulation and Advisory Role

The NUC advises the Federal Government on university education policies, reforms, and strategic development. It contributes to national education planning by providing expert recommendations on curriculum innovation, manpower development, and institutional sustainability (Ogunode, Nwisagbo, & Soetan-Ayanfe, 2024).

## 7. Capacity Building and Staff Development

The Commission promotes staff development through training, workshops, and collaboration with international agencies. Capacity-building initiatives enhance the quality of teaching, research, and university administration across the Nigerian university system.

## 8. Promotion of Innovation, Research, and Development

The NUC supports research development and innovation by encouraging universities to align academic programmes with national development priorities. It facilitates collaboration between universities, industries, and research institutions to foster knowledge-driven economic growth (National Universities Commission (NUC, 2014).

## 3.0 Method

Roles of the National Universities Commission in promoting circular economy practices in Nigerian universities is a position paper that adopted a systematic literature review-based method. The method allows to collect and review the related previous literature from various online sources. With the aid of digital platform, the researcher collected secondary information to generate knowledge on this topic from 2015-2025. The position paper followed qualitative narrative design method. The researcher has visited different online sites to collect the previous literature and analyze the roles of the National Universities Commission in promoting circular economy practices in Nigerian universities. The previous findings are critically analyzed and presented in different themes as on roles of the National Universities Commission in promoting circular economy practices in Nigerian universities (Adapted from Ogunode, 2025).

### *Inclusion and exclusion criteria*

#### **Inclusion**

This output of the literatures on the roles of the National Universities Commission in promoting circular economy practices in Nigerian universities presents an in-depth study and result that can infer conclusion on the topic. The study includes: online publication; conference paper, journals

sorted from reputable international journals such as CEON, Elsevier, Hindawi, JSTOR, IEEE, Learn Techlib, SAGE, Nebraska and Springer (Adapted from Ogunode, 2025v).

### **Exclusion**

Also, the literature review excludes information from edited books, preprints, monographs, information below 2015 and book chapters (Adapted from Ogunode, 2025).

## **4.0 Result and Discussion on Roles of the National Universities Commission (NUC) in Promoting Circular Economy Practices in Nigerian Universities**

The transition to a circular economy has become a global priority due to increasing environmental degradation, resource depletion, and waste generation. Universities are critical actors in this transition because of their roles in education, research, innovation, and societal leadership. In Nigeria, the National Universities Commission (NUC), as the statutory regulatory body for university education, occupies a strategic position in driving the adoption of circular economy practices within the university system. Through policy formulation, regulation, accreditation, and capacity development, the NUC can significantly influence sustainability outcomes in Nigerian universities.

### **1. Integration of Circular Economy Principles into Academic Standards**

One of the major roles of the NUC is the development and enforcement of Benchmark Minimum Academic Standards (BMAS). By incorporating circular economy concepts into curricula across disciplines such as environmental sciences, engineering, management, education, and social sciences, the NUC can ensure that sustainability and resource efficiency become core learning outcomes. This curricular integration equips graduates with the knowledge and skills required to promote circular economy practices within and beyond the university system (NUC, 2018). The integration of circular economy principles into academic standards is an important step towards promoting sustainable practices in Nigerian universities. The National Universities Commission (NUC) plays a crucial role in this process, as it oversees the development and implementation of academic standards in the country's universities. By incorporating circular economy principles into these standards, the NUC can ensure that students are educated on the importance of sustainable practices and equipped with the knowledge and skills to implement them in their future careers. The NUC can work with universities to develop curriculum and courses specifically focused on circular economy principles and practices. This will allow students to learn about and engage with these concepts in a more in-depth and practical manner. Furthermore, the NUC can collaborate with industry partners to provide students with real-world examples and opportunities to apply circular economy principles in their academic projects and research. The NUC can play a key role in promoting awareness and advocacy for circular economy practices across the higher education sector in Nigeria. By organizing conferences, workshops, and seminars, the NUC can bring together stakeholders from academia, industry, and government to discuss and share best practices for promoting circular economy principles. This will not only

enhance the understanding and adoption of circular economy practices within Nigerian universities but also contribute to a wider culture of sustainability in the country (Ogunode, Ukozor, & Ayoko, 2025)..

## **2. Accreditation and Quality Assurance for Sustainable Practices**

The NUC uses accreditation as a powerful tool to promote institutional compliance with national standards. Sustainability indicators, including waste reduction, recycling systems, energy efficiency, and sustainable resource management, can be embedded into accreditation criteria. Universities would therefore be encouraged to adopt circular economy practices—such as paper recycling, digital documentation, and waste segregation—to meet accreditation requirements and maintain academic credibility. The National Universities Commission (NUC) plays a crucial role in promoting circular economy practices in Nigerian universities through accreditation and quality assurance. Accreditation ensures that university programs are in line with the standards set by the NUC, which includes promoting sustainable practices. This ensures that the programs are equipping students with the necessary skills and knowledge to implement circular economy practices in their respective fields (Ogunode, et al 2025). Quality assurance, on the other hand, ensures that the programs and their implementation are continuously monitored and improved upon to maintain high standards of sustainability. As a result, the NUC plays a pivotal role in promoting and embedding circular economy practices in Nigerian universities for a more sustainable future.

## **3. Policy Formulation and Regulatory Guidance**

The Commission plays an advisory role to the Federal Government on university education policies. Through sustainability-focused policy frameworks and guidelines, the NUC can provide strategic direction for the adoption of circular economy principles in university governance and operations. Such policies can mandate the development of institutional sustainability plans, green campus initiatives, and environmental management systems in Nigerian universities. The National Universities Commission (NUC) plays a critical role in promoting circular economy practices in Nigerian universities by formulating policies and providing regulatory guidance. The Commission ensures that all universities in the country adhere to established policies and regulations related to circular economy practices (Ogunode, et al 2025). This includes setting standards for waste management, energy efficiency, and resource conservation. Additionally, the NUC provides regulatory guidance to universities, guiding them on how to implement circular economy practices effectively and efficiently. Through these actions, the NUC helps to promote and advance the adoption of circular economy principles within Nigerian universities, ultimately contributing to a more sustainable and environmentally conscious academic community.

## **4. Monitoring and Evaluation of Institutional Sustainability**

The NUC monitors university performance through periodic assessments and data collection. Incorporating circular economy metrics—such as resource consumption levels, waste recycling



rates, and digitalization progress—into monitoring mechanisms enables the Commission to evaluate sustainability performance. This data-driven oversight supports evidence-based decision-making and continuous improvement in circular economy implementation. The National Universities Commission (NUC) plays a crucial role in promoting circular economy practices in Nigerian universities through its monitoring and evaluation of institutional sustainability. This involves regularly assessing the sustainability efforts of universities and providing recommendations for improvement. Through this process, the NUC ensures that universities are implementing sustainable practices that contribute to the circular economy, such as reducing waste, promoting reuse and recycling, and incorporating renewable energy sources. By monitoring and evaluating institutional sustainability, the NUC ultimately aims to create a more sustainable and environmentally-friendly higher education system in Nigeria. Additionally, the NUC also plays a role in educating universities on the importance of the circular economy and providing resources and support for implementing sustainable practices ((Ogunode, et al 2025).

## 5. Capacity Building and Institutional Support

Capacity building is another important role of the NUC in promoting circular economy practices. The Commission organizes workshops, seminars, and training programmes for university administrators, academic staff, and quality assurance officers. These initiatives enhance institutional understanding of circular economy concepts and improve the capacity of universities to design and implement sustainable resource management strategies. The National Universities Commission (NUC) plays a crucial role in promoting circular economy practices in Nigerian universities through capacity building and institutional support. This includes providing financial and technical assistance to universities in implementing sustainable practices, as well as developing training programs for faculty and students on circular economy principles. The NUC helps to establish partnerships between universities and relevant industries, encouraging collaboration on research and implementation of circular economy initiatives. Through these efforts, the NUC aims to foster a culture of sustainability and encourage universities to play an active role in promoting circular economy practices in Nigeria

## 6. Promotion of Research, Innovation, and Knowledge Transfer

The NUC encourages universities to engage in research and innovation that address national development challenges. By prioritizing research funding and collaboration in areas related to circular economy, waste management, recycling technologies, and sustainable materials, the Commission can stimulate innovation. Research outputs can inform policy, support industrial partnerships, and provide locally relevant solutions to Nigeria's sustainability challenges.

The National Universities Commission (NUC) plays a crucial role in promoting circular economy practices in Nigerian universities through the promotion of research, innovation, and knowledge transfer. Through its policies and initiatives, the NUC encourages universities to prioritize research activities that focus on circular economy principles. This includes funding grants and programs that support research projects related to circular economy practices, as well as providing

resources and support for universities to develop innovative solutions. Additionally, the NUC promotes knowledge transfer by facilitating collaborations between universities and other stakeholders in the circular economy, such as businesses, government agencies, and non-governmental organizations. This knowledge transfer allows for the exchange of ideas, expertise, and resources, which can lead to the development and implementation of sustainable circular economy practices in universities. By playing these important roles, the NUC is helping to drive the adoption of circular economy practices in Nigerian universities, which will ultimately contribute to the overall goal of achieving a more sustainable and resource-efficient society.

## 7. Encouragement of Digital Transformation

Digitalization is a key enabler of circular economy practices, particularly in reducing paper usage and administrative waste. The NUC promotes ICT integration in teaching, learning, and administration through policy directives and quality assurance mechanisms. Expanded adoption of e-learning platforms, electronic records, and online communication reduces material consumption and supports resource efficiency in Nigerian universities. The National Universities Commission (NUC) plays a crucial role in promoting circular economy practices in Nigerian universities through its encouragement of digital transformation. This includes implementing strategies and programs that promote sustainable development and resource efficiency in universities, as well as encouraging the use of digital technologies and platforms to foster a circular economy approach. By embracing digital transformation, universities can reduce their environmental impact, increase efficiency and productivity, and promote sustainable practices. This can also lead to collaboration and knowledge sharing among universities, further promoting circular economy practices and research in Nigeria. As the governing body for universities in Nigeria, the NUC's role in advocating for and supporting digital transformation is vital in promoting circular economy practices and ensuring a sustainable future for Nigerian universities and the wider community.

## 8. Fostering Partnerships and Stakeholder Collaboration

The NUC facilitates collaboration between universities, government agencies, the private sector, and international organizations. Such partnerships support the exchange of best practices, mobilization of resources, and implementation of campus-based circular economy initiatives. Collaboration with waste management firms and environmental agencies further strengthens recycling and recovery systems within universities. Fostering partnerships and stakeholder collaboration are critical roles for the National Universities Commission (NUC) in promoting circular economy practices in Nigerian universities. Through these partnerships, the NUC can bring together academic institutions, government agencies, and industry players to work towards the common goal of promoting sustainable and circular practices. As the regulatory body for universities in Nigeria, the NUC plays a pivotal role in facilitating and encouraging partnerships between universities and other stakeholders. By leveraging its authority and influence, the NUC can create a platform for collaboration and knowledge sharing among different parties. This can



help universities adopt circular economy practices and integrate sustainability into their curriculum and research. The NUC can also act as a mediator between different stakeholders, facilitating communication and coordination to achieve common objectives. By fostering a collaborative environment, the NUC can ensure that all stakeholders are working together towards the same vision, avoiding conflicts or duplications of efforts (Ogunode, 2025).

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

The National Universities Commission plays a pivotal role in promoting circular economy practices in Nigerian universities through regulatory frameworks, accreditation mechanisms, policy guidance, and capacity development. The NUC has specifically the following roles to drive sustainability principles into academic standards and institutional governance by coming up with policies that support integration of circular economy principles into academic standards, accreditation and quality assurance for sustainable practices, policy formulation and regulatory guidance, monitoring and evaluation of institutional sustainability, capacity building and institutional support, promotion of research, innovation, and knowledge transfer, encouragement of digital transformation and fostering partnerships and stakeholder collaboration, the NUC can drive systemic change toward environmentally responsible and resource-efficient university systems. Strengthening these roles will enhance the contribution of Nigerian universities to sustainable development and global circular economy objectives.

Based on these findings, the paper recommends the followings:

##### **A) Mainstream Circular Economy into Regulatory Frameworks**

The National Universities Commission should explicitly integrate circular economy principles into its regulatory and policy frameworks. This can be achieved by revising the Benchmark Minimum Academic Standards (BMAS) to include sustainability and circular economy competencies across relevant disciplines, ensuring uniform adoption by Nigerian universities.

##### **B) Incorporate Sustainability Indicators into Accreditation Criteria**

The NUC should embed circular economy and sustainability indicators—such as waste reduction, recycling systems, digitalization of processes, and sustainable procurement—into accreditation and re-accreditation exercises. This will compel universities to prioritize environmentally responsible practices as part of quality assurance requirements

##### **C) Develop National Guidelines for Green and Circular Campuses**

The Commission should formulate and disseminate national guidelines for green and circular campuses tailored to the Nigerian context. These guidelines should address paper usage reduction, waste segregation, recycling infrastructure, energy efficiency, and water conservation within universities.

**D) Strengthen Capacity Building and Training Programmes**

Regular capacity-building programmes should be organized by the NUC for university administrators, quality assurance officers, and academic staff on circular economy implementation. Training should focus on sustainable resource management, digital transformation, and monitoring of environmental performance

**E) Promote Digital Transformation in University Administration and Learning**

The NUC should intensify efforts to promote digitalization of academic and administrative processes, including e-learning platforms, electronic record-keeping, and online assessments. This will significantly reduce paper consumption and support circular economy practices in Nigerian universities.

**F) Encourage Research and Innovation in Circular Economy Practices**

The Commission should prioritize and support research in circular economy, waste management, and sustainability by facilitating funding opportunities and inter-university collaborations. Research outcomes should be translated into practical solutions for campus sustainability and national development.

**G) Establish Monitoring and Reporting Mechanisms**

The NUC should develop a sustainability monitoring and reporting framework that requires universities to submit periodic reports on resource usage, waste management, and circular economy initiatives. Such data will enhance accountability and evidence-based policy adjustments.

**H) Foster Strategic Partnerships and Stakeholder Engagement**

The Commission should encourage partnerships between universities, recycling companies, environmental agencies, NGOs, and international organizations. These collaborations can provide technical expertise, funding support, and practical platforms for implementing circular economy initiatives.

**I) Introduce Incentives and Recognition for Sustainable Universities**

To motivate compliance, the NUC should introduce incentives such as sustainability awards, recognition rankings, or preferential access to grants for universities demonstrating outstanding circular economy practices. Positive reinforcement will promote competition and innovation among institutions.

## J) Align University Sustainability Practices with National Development Goals

The NUC should ensure that circular economy initiatives in universities align with Nigeria's national environmental policies and the United Nations Sustainable Development Goals (SDGs). This alignment will enhance the contribution of higher education institutions to sustainable national development.

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