# The Role of Government in Promoting Green Building Rating System in Nigeria

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#### Abstract

In this essay, the government's role in Nigeria's promotion of rating systems for environmentally friendly buildings is examined. The paper examines the current status of green building rating systems in Nigeria, the difficulties and constraints to adoption, and the function of governmental policies and activities in promoting their use using a mixed-methods approach that incorporates stakeholder interviews and policy analysis. The findings indicate that while there is increasing interest and awareness of green building grading systems in Nigeria, implementation of these systems is still limited because of a number of factors, such as a lack of knowledge and comprehension, budgetary limitations, as well as a lack of enforcement mechanisms. It is discovered, however, that government actions and regulations have contributed substantially to encouraging the use of these systems and that there is room for additional government action to encourage their wider usage. We offer a number of recommendations for government policies and initiatives based on the analysis to encourage the implementation of rating systems for environmentally friendly buildings in Nigeria. These recommendations include heightened education and awareness initiatives, financial incentives, and the creation of more powerful enforcement mechanisms. Researchers also suggest areas for further study, such as assessing the success of current regulations and programs and conducting a more thorough investigation of the socioeconomic and cultural aspects that affect the widespread use of sustainable construction evaluation methods. In general, this research advances our knowledge of how governments support environmentally friendly construction methods in poor nations and offers important perspectives and counsel to researchers, practitioners, and policymakers involved in this field. Keywords: Government, Nigeria, Green Buildings, Sustainability, Rating System

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## I. INTRODUCTION

As Nigeria grapples with environmental problems like deforestation, climate change, as well as water and air pollution, there has been an increase over time in consciousness regarding the need for environmentally friendly growth in the nation (Airenakho, 2022). Environmentally friendly grading systems have come to light as a viable remedy to encourage green building techniques and lessen the adverse effects of buildings on the environment. Despite the obvious advantages, Nigeria continues to be hesitant to implement green building grading systems (Gbonegun, 2020).

The research being conducted intends to investigate how the Nigerian government has promoted sustainable construction grading systems. The study will specifically look at Federal Government programs and policies meant to encourage the implementation of sustainable construction rating systems, the situation of those systems in Nigeria right now, and the difficulties and impediments to adoption. Future policy decisions will be influenced by the study's findings, which will offer insights into the efficacy of initiatives launched by governments to encourage environmentally friendly building methods.

The importance of the present research rests in its capacity to advance our understanding of environmental sustainability in Nigeria, particularly as it relates to the building industry. This study would be helpful for policymakers, professionals in the building sector, and researchers pursuing sustainable development in Nigeria by highlighting the role of the government in supporting green building grading systems. In the end, the research's conclusions may help shape the creation of initiatives and regulations that will promote sustainable building practices in Nigeria more successfully.

#### 1.1 Background of the Study

Nigeria, like many other developing countries, is facing significant environmental challenges such as deforestation, soil degradation, and pollution (Pona, Xiaoli, Ayantobo, & Tetteh, 2021). These challenges have been exacerbated by rapid urbanisation, which has led to increased demand for buildings and infrastructure. The construction industry contributes significantly to environmental deterioration since it accounts for 30% of the

global emissions of greenhouse gases and 40% of the world's energy usage (Santamouris & Vasilakopoulou, 2021).

Sustainable building evaluation mechanisms have come to light as an option for responding to these issues in order to promote green construction methods and lessen the negative ecological effect of construction projects. Sustainable building assessment methods offer an established system for evaluating a building's environmental performance while taking into account its ability to conserve energy, water management efforts, and construction materials.

Despite the obvious advantages, Nigeria continues to be hesitant to implement green building grading systems (Alohan & Oyetunji, 2021). This is partially because construction industry experts and policymakers do not fully understand the advantages of using environmentally friendly building techniques and because they believe doing so will cost more money. Government-led activities are required in order to encourage the implementation of green building grading systems in Nigeria.

The research being conducted intends to investigate how the Nigerian government has promoted green building grading systems. This study will offer an understanding of the efficacy of government-led initiatives to promote sustainable building practices in Nigeria by examining government policies and initiatives aimed at encouraging the adoption of green building rating systems, as well as the current state of green building rating systems in Nigeria.

#### **1.2 Research Problem**

The implementation of these systems in Nigeria has been gradual, despite the apparent advantages of green building grading systems that promote environmentally friendly construction techniques. This is partly because building industry experts and policymakers are unaware of the advantages of using sustainable building techniques and because they believe doing so will be more expensive.

In order to encourage the use of green building grading systems, the government must support relevant policies and foster a supportive regulatory environment. Nevertheless, it is unclear how successfully authorities-led programs to support environmentally friendly construction methods in Nigeria are working.

Consequently, the study's primary challenge is to consider how the Nigerian government is pushing green building grading systems. The study will concentrate on looking at the government's initiatives and policies meant to encourage the widespread implementation of green building rating systems, the situation of such ratings in Nigeria right now, and the difficulties and impediments to implementation. This initiative will help to improve knowledge regarding the efficacy of government-funded attempts aimed at encouraging environmentally friendly building methods in Nigeria by solving this research problem, which will help guide future governmental decisions regarding them.

#### **1.3 Research Objectives**

This study's objective is to look into how the Nigerian government is encouraging green building grading systems. The project will focus on a number of investigations in order to fulfill this goal:

1 To investigate governmental plans and programs intended to encourage Nigeria's embrace of green building grading systems.

2 To evaluate the current status of green building grading systems throughout Nigeria, including the degree of knowledge and uptake among those working in the building sector.

3 To identify the difficulties and obstacles to the implementation of rating systems for green buildings in Nigeria, including the erroneous belief that putting sustainable building techniques into practice will be more expensive.

4 To shed light on how well government programs in Nigeria that encourage environmentally friendly construction methods are working.

5. To offer suggestions for upcoming policies that will encourage Nigeria's implementation of green building grading systems.

The study seeks to advance knowledge of the role of the government in encouraging sustainable construction practices in Nigeria by following these research objectives. The study will shed important light on the situation of green building rating systems in Nigeria today and point out the difficulties and impediments to their adoption. The study will also make recommendations for future policy choices and evaluate the success of government-led initiatives to encourage sustainable building techniques. The study's overall goal is to support environmentally friendly building methods in the country and to support efforts around the world to fight global warming and save the environment.

#### 1.4 Significance of Study

The importance of this research rests in its capacity to support current initiatives in Nigeria aimed at environmentally friendly growth, notably in the construction sector. Sustainable construction assessment methods have come to light as a viable way to encourage ecologically sound building techniques and lessen the adverse

effects of construction on their surroundings. Government-led measures are required to encourage its adoption because it has been a long process in Nigeria.

By examining the function of the government in promoting green building rating systems in Nigeria, the study will provide valuable information for policymakers, building industry professionals, and researchers working towards sustainable development in Nigeria. The results of this research will help assess the success of government-sponsored efforts aimed at fostering environmentally friendly construction methods in Nigeria and help pinpoint the difficulties and obstacles that prevent their adoption.

This research additionally sheds light on the present situation of Nigeria's green building grading mechanisms, including the degree of knowledge and acceptance among those working in the building sector. In order to establish strategies to encourage environmentally friendly construction in Nigeria, the aforementioned data would be helpful to authorities and practitioners in the construction sector.

In general, the results of this research will be helpful for researchers, construction industry experts, and legislators who are pursuing sustainable development in Nigeria. In order to promote sustainable building practices in Nigeria, more effective policies and programs will be developed in light of the study's suggestions, which would ultimately help Nigeria move toward a more environmentally friendly and sustainable future.

#### **II. LITERATURE REVIEW**

A synopsis of the body of knowledge on the government's role in advancing rating systems for environmentally friendly buildings in Nigeria is given in the scholarly study. The assessment starts out by examining the idea of "green building" and how crucial it is for advancing equitable growth. The advantages of green building rating systems are then discussed, as well as their role in encouraging environmentally conscious building methods.

The review of research outlines the present state of Nigeria's sustainable construction grading systems and analyses the difficulties and obstacles that stand in the way of their adoption. These issues include a lack of knowledge among experts in the building sector, the perception that using sustainable building techniques will be more expensive, and a dearth of government regulations and campaigns to support using green building methods.

This assessment also looks at how the Nigerian government is supporting green building methods. National Building Code, the National Renewable Energy Action Plan, and the National Housing Policy are just a few of the several programs and policies that the government has put in place to support sustainable building practices.

The effectiveness of government-led programs aimed at encouraging environmentally friendly building methods in Nigeria is also examined in the scholarly study. It highlights the positive and negative aspects of these programs and points out the areas that require additional effort.

Ultimately, the examination of the available research offers insightful information about the condition of Nigeria's environmentally conscious building grading systems and the role played by the government in supporting sustainable construction practices. The assessment identifies the difficulties and impediments to the adoption of green building grading systems in Nigeria and offers suggestions for upcoming policy choices intended to support sustainable building practices in the nation. The review's conclusions will guide the study's approach and serve as a foundation for the interpretation of the information that was gathered for the purpose of the research.

#### 2.1 Overview of Green Building Rating Systems

Rating systems for green buildings are evolving more and more common in many nations, especially Nigeria. These grading systems offer a structure for evaluating how sustainable a structure is while encouraging green building techniques (Assefa, Lee, & Shiue, 2022). The idea of "green building" is founded on the idea that structures should have less of a negative effect on the environment, be more energy-efficient, and encourage the application of environmentally friendly resources (Pacific NorthWest, 2021).

Systems for assessing green buildings differ in the goals they set, scope, and evaluation standards (Vierra, 2023). The adoption of environmentally friendly materials, the condition of the indoor environment, and the lowering of greenhouse gas emissions are some of the sustainability concerns that they often concentrate on.

The Leadership in Energy and Environmental Design (LEED) accreditation, created by the United States Green Building Council, is among the most well-known green building grading systems (United States Green Building Council (USGBC), 2023). The Green Building Rating System (GBRS) was created in Nigeria by the Green Building Council of Nigeria (GBCN) to encourage green construction methods throughout the nation (Green Building Council of Nigeria [GBCN], 2021).

Green building evaluation processes provide many advantages, such as lowering energy costs and operating expenses, enhancing the overall well-being of building inhabitants and lessening the effect of buildings on the natural world (Bungau, Bungau, Prada, & Prada, 2022). But because Nigeria has been hesitant to implement green building rating systems, there is an imperative for government-led programs to encourage uptake.

The research investigation addresses the difficulties and obstacles to the acceptance of environmentally friendly building methods in Nigeria and emphasises the value of green building grading systems in advancing such practices. The evaluation serves as a foundation for further investigation into how the government promotes rating systems for green buildings in Nigeria as well as the efficacy of activities spearheaded by the government regarding this area.

#### 2.2 The Importance of Green Building Rating Systems

Environmentally friendly building rating systems are essential to advancing sustainable construction methods and minimising the negative environmental effects of structures (Vierra, 2023). These grading systems offer a structure for evaluating the sustainability of a building and encouraging the usage of resources that are renewable.

The enhancement of efficiency in energy use is one of the main advantages of environmentally friendly construction rating systems. Implementing energy use makes a sizable contribution to greenhouse gas emissions and environmental damage (Hafez, et al., 2023). Energy-efficient techniques and procedures, such as solar panels, energy-efficient lighting, and building insulation, are encouraged by green building grading systems, lowering both the adverse ecological effect on buildings and their expenses for operation (Ismaeil & Sabaih, 2023).

Sustainable construction evaluation methods also encourage the utilisation of eco-friendly materials like bamboo, cork, and recycled content (Patel & Patel, 2021). Durable, easy to maintain, and resource-efficient environmentally friendly components lessen the building's negative impact on the natural world and enhance the interior quality of air.

Conservation of water is a key component of sustainable construction grading systems, which encourage the use of close-to-zero-flow equipment, rainwater harvesting, and wastewater treatment (Er. Shamanth, 2020). As a result, there is a decrease in the need for water-related services, water conservation, and the environmental impact of buildings.

Green building rating systems have economic advantages as well as environmental advantages, such as decreased operating costs and raised property prices (Rosenkranz, 2022). Buildings with green building certification often have better rates of occupancy and therefore more desirable to renters, which raises property prices.

The research investigation emphasizes the value of green building grading systems in encouraging environmentally friendly construction practices and minimizing the negative environmental effects of buildings. The evaluation serves as a foundation for additional study into how the government promotes green building rating systems in Nigeria as well as the efficacy of activities spearheaded by the government in this area.

#### 2.3 Federal Government's Role In Promoting Sustainable Construction Rating Systems

In order to promote green building evaluation methods and methods for building sustainably, the government is essential (Maket, 2023). Government programs and laws can promote the use of green building rating systems, provide incentives for the use of sustainable building methods, and raise consciousness among owners of buildings and entrepreneurs.

The establishment of legal structures that encourage the use of green building grading systems constitutes one of the main responsibilities of the government (Saka PhD, Olanipekun PhD, & Omotayo PhD, 2021). Green building rating systems may be used by property owners and developers as a result of regulations that mandate that buildings adhere to certain sustainability requirements. Authorities may also offer tax breaks and financial aid to entrepreneurs and property owners that use green building grading systems.

By launching education and awareness initiatives, the government can also encourage the use of green building grading systems (Vierra, 2023). Public education campaigns on the advantages of green building rating systems and sustainable building techniques can persuade building developers and their owners to use these techniques.

Giving property entrepreneurs and developers technical help and advice is another crucial government duty (WORLD ECONOMIC FORUM, 2023). Authorities can support the adoption of green building rating systems by offering technical support in the form of instructional courses and seminars on green construction techniques.

The government might encourage the research into and creation of green building grading systems, to sum up (Gbonegun, Government Must Encourage Green Designs for Healthy Environment, 2020). Green building rating systems can be developed by incorporating optimal procedures and creative ideas for encouraging sustainable building practices that have been identified via research.

In summary, establishing green building grading systems by the government is essential for encouraging environmentally friendly building techniques and minimizing the negative environmental effects of structures. The summary of the literature serves as a foundation for additional research in this field and emphasizes the significance of government-led actions for encouraging the use of green building grading systems in Nigeria.

## 2.4 Case Studies of Government-Led Initiatives on Green Building Rating Systems

Throughout the world, a number of state-led programs have been put into place to encourage green building rating systems and environmentally friendly construction methods (Vierra, 2023). Example investigations into these efforts shed light on both the difficulties in putting these initiatives into action as well as the success of government-led initiatives to encourage environmentally friendly building techniques.

The Green Star rating system used by the Australian government is one example of an instance of study. A wideranging framework for evaluating the environmental performance of buildings, the Green Star rating system awards a variety of certifications based on the number of points attained. The Australian government has made the Green Star rating system mandatory for government-owned buildings, giving building developers as well as owners an excellent reason to use the rating system for their projects. Due to the Green Star rating system's successful outcome, other nations like New Zealand, South Africa, and the United Arab Emirates have adopted it.

Another illustration is the Leadership in Energy and Environmental Design (LEED) rating system established by the United States Green Building Council (USGBC). A well-known framework for assessing the environmentally friendly credentials of buildings is the LEED rating system, which awards several approval levels based on the number of points attained. The USGBC has teamed up with government organizations to offer tax credits and accelerated building permits as incentives for building owners and developers to adopt the LEED rating system.

The government of Singapore has put in place the Green Mark rating framework, which evaluates the environmental performance of a structure using factors like conservation of energy, water consumption, and the quality of the indoor environment. Every freshly built structure must utilize the Green Mark rating system, as well as the federal government rewards buildings with higher ratings with tax benefits and larger floor-to-area ratios.

These case studies highlight the effectiveness of government-led initiatives in promoting green building rating systems and sustainable building practices. However, they also demonstrate the challenges encountered in implementing these initiatives, including resistance from building owners and developers and the need for ongoing education and awareness campaigns.

In the end, investigations of government-led efforts offer insightful information about how well such attempts work to promote environmentally friendly construction techniques and environmentally friendly rating systems (Saka PhD, Olanipekun PhD, & Omotayo PhD, 2021). The literature review highlights the need for further research into the effectiveness of government-led initiatives in Nigeria and the potential challenges that may be encountered in implementing these initiatives.

## **III. METHODOLOGY**

The following part outlines the research methods used to examine how the Nigerian government is pushing environmentally friendly building grading systems.

#### **3.1 Research Approach**

In order to characterize the state of the art of environmentally friendly construction grading systems in Nigeria and the role of the government in supporting these systems, the study used a descriptive research design.

## 3.2 Data Collection

To collect data for the study, both qualitative and quantitative methods were used. Interviews that were semistructured with government representatives, building owners, developers, and business experts were used to gather the information that was qualitative. A survey questionnaire that was distributed to building developers and their owners was used to gather the numerical information.

#### 3.3 Sample

The participants for the semi-structured interviews were chosen for the study using a purposive sampling strategy. The participants were chosen based on their familiarity with rating systems for environmentally friendly buildings and sustainable construction techniques. For the survey questionnaire, a convenience sampling technique was used to select building owners and developers who have implemented green building rating systems in Nigeria.

## 3.4 Data Analysis

A content analysis method was used to analyze the semi-structured interviews' qualitative data thematically. Descriptive statistical techniques, such as frequency and percentage distributions, were used to analyse the quantitative data that was gathered through the survey questionnaire.

## **3.5 Considerations for Ethics**

As a component of the study's principles of ethics, informed consent from participants was obtained, the information provided by participants was kept secret and anonymous, and ethical standards for using human beings in the research were followed.

A comprehensive comprehension of the government's role in encouraging rating systems for environmentally friendly buildings in Nigeria is provided by the approach adopted in this study, which integrated both quantitative

and qualitative methods for gathering data. The study's results will be presented in the following portion of the paper's contents.

#### **IV. RESULTS**

#### 4.1 Nigeria's Green Building Rating Systems

The Leadership in Energy and Environmental Design (LEED) and the Building Research Establishment Environmental Assessment Method (BREEAM) are now the two main green building grading systems in Nigeria, according to the report. There is a need for further awareness and education about the advantages of these types of structures because implementation and acceptance are currently at a low level.

#### 4.2 Role of Government in Promoting Green Building Rating Systems

According to the study, the government of Nigeria must play a significant role in advancing green building assessment methods. Through policy and regulatory frameworks, the government can incentivize and mandate the adoption of these systems, as well as provide financial and technical support to building owners and developers. However, there are currently limited government-led initiatives in this regard.

#### 4.3 Government Initiatives and Policies To Promote Green Building Rating Systems

This section analyses the government initiatives and policies that aim to encourage the adoption of green building rating systems in Nigeria.

According to the report, the government has taken various measures to promote the use and acceptance of green building grading systems. The National Building Code, as well as the National Policy on Environment and Climate Change are two examples of them. The National Building Code includes provisions for the use of green building rating systems and establishes a minimum norm for sustainable building techniques. The National Policy on Climate Change also promotes the use of green building grading systems and other sustainable building methods.

The government has also started a few other programs, such the Green Bond program, which offers money for environmentally friendly infrastructure efforts, such as those that use green building rating systems. The Nigerian Energy Support Programme (NESP), which offers technical assistance in order to enhance energy conservation in buildings and the use of energy from renewable sources, was also formed by the government.

The acceptance and execution of green building grading systems in Nigeria, nevertheless, is still comparatively low notwithstanding these rules and attempts. According to the report, a significant hurdle is the absence of knowledge and instruction regarding the advantages of these types of structures. The efficacy of the current policies and regulations is further limited by a lack of regulatory enforcement.

Consequently, there is an urgent need for more education and understanding regarding the advantages of green building grading systems in order to enhance their acceptance and deployment in Nigeria. The government should also provide financial and technical support to building owners and developers to incentivize the adoption of these systems. Furthermore, there is a need for better enforcement of the existing policies and regulations to ensure compliance and promote accountability.

In conclusion, the analysis shows that while the government has introduced some policies and initiatives to promote green building rating systems, there is still room for improvement. The next section will provide recommendations for future research and policy to address the challenges and barriers to the adoption and implementation of green building rating systems in Nigeria.

#### 4.4 Case Studies of Government-Led Initiatives to Promote Green Building Rating Systems

The study identified a few government-led initiatives aimed at promoting green building rating systems in Nigeria. These include the Green Bond program, which provides funding for sustainable infrastructure projects, and the Green Building Code, This establishes minimal standards for environmentally friendly construction methods. However, there are still limits to the use and efficacy of such activities.

#### 4.5 Obstacles and Challenges to the Adoption of Green Building Rating System in Nigeria

The difficulties and impediments to the widespread implementation of green building grading systems in Nigeria are identified and covered in this section.

The lack of knowledge and instruction about the advantages of green building assessment methods constitutes some of the major obstacles. Many building owners and developers in Nigeria are not familiar with these systems or do not understand their importance. As a result, they may not see the value in investing in them.

The substantial cost of installing green building rating systems is an additional hurdle. In many cases, building owners and developers may not have the financial resources to invest in these systems, particularly in a country where economic resources are limited. Furthermore, it is difficult for the developers to defend the expense of implementing such schemes due to the lack of monetary rewards or government subsidies.

Besides, legislation and rules relating to sustainable building practices, such as the usage of green building grading systems, are not being enforced. Due to the absence of law enforcement, it is challenging to

compel building developers and property owners responsible for implementing these processes, which reduces their efficacy.

The absence of professional capacity and knowledge to adopt and uphold green building grading systems is another issue. This is particularly true for smaller building projects that may not have the necessary resources or expertise to manage the implementation of these systems effectively.

Another key issue is the dearth of information and analysis regarding the effectiveness of green building rating systems in Nigeria. As a result, stakeholders are less able to assess these systems and determine whether to adopt and execute them.

In summary, there are substantial difficulties and impediments to the adoption and use of green building grading systems in Nigeria. Government, business, and civil society partners must work together to raise awareness of these issues in order to address them. They must provide financial and technical support, enforce existing policies and regulations, and generate more data and research on the performance of these systems.

#### 4.6 Importance of Green Building Rating Systems

The study discovered that there are significant environmental, social, and economic advantages to adopting and using green building grading systems. These include economic savings for building owners and occupants, energy efficiency, a decrease in greenhouse gas emissions, and enhanced indoor air quality.

The study's conclusion emphasizes the significance of the government's participation in advancing green building rating systems in Nigeria as well as the necessity of spreading knowledge and education about their advantages. The consequences of these discoveries are covered in the following section, along with suggestions for further study and governmental action.

#### **V. DISCUSSION**

#### **5.1 Implications of The Findings**

The results of this study have important ramifications for Nigeria's government and commercial sector.

First and foremost, the research has demonstrated how important government activities and regulations can be in encouraging the use of environmentally friendly building grading systems throughout Nigeria. This highlights the need for the government to continue to support and incentivise the private sector to invest in these systems. Additionally, government organizations can be key players in promoting public understanding of the advantages of green building grading systems, especially by organizing outreach initiatives.

Secondly, the study has also highlighted the need for increased technical capacity and expertise to implement and maintain green building rating systems. Private sector participants now have a chance to offer fresh products and services to aid with the setup and upkeep of these systems, opening up new markets for their products and services.

Additionally, the research has found a number of obstacles and difficulties to the implementation of green building rating systems in Nigeria, including a lack of knowledge, excessive costs, a lack of monetary incentives, and a lack of expertise and competence. Government, business, and civil society sectors will need to work together to address these issues.

The results of this study also have significance for Nigeria's larger sustainability strategy. Nigeria may increase the environmental consciousness of its building portfolio, lower carbon emissions, and support international efforts to lessen the effects of climate change by advocating the implementation of green building grading systems.

Overall, the implications of the findings suggest that in order to encourage the implementation of green building grading systems in Nigeria, there is a need for more engagement and collaboration between government and private sector partners. Concerned parties can overcome implementation challenges and obstacles through cooperation, paving the way for an environmentally friendly future for the nation.

#### 5.2 Recommendations and Initiatives to Promote Green Building Rating Systems

These suggestions for government strategies and initiatives to support green building grading systems in Nigeria are based on the study's findings:

1. Offer financial incentives: To persuade private sector participants to participate in green building grading systems, the government might offer financial incentives including grants, subsidies, and tax breaks.

2. Establish technical capacity: To help interested parties in the private sector establish the technical expertise required to implement and maintain green building rating systems, the government can offer training and technical support.

3. Raising awareness: The government can launch public education programs to inform the general population about the advantages of green building rating mechanisms and encourage building developers and property owners to use them.

4. Include green building requirements throughout building codes to make them required for construction projects and improvements. The authorities can do this by including green advancing standards in building codes and regulations.

5. Encourage public-private partnerships: By combining the financial and technical resources of the private sector with the regulatory and supervision responsibilities of the government, government agencies can encourage public-private partnerships to create and carry out green building grading systems.

6. Enhance track and assessment: To track the adoption of green building rating systems and make sure that they are successfully implemented and maintained over time, the government might enhance the monitoring and assessment mechanisms.

The government can significantly influence the adoption of green building grading systems in Nigeria by putting these suggestions into practice, which will advance the nation's sustainability goal and open up exciting new possibilities for businesses of all kinds.

#### **5.3 Future Directions for Research**

The government's involvement in supporting green building grading systems in Nigeria has been clarified by this study, however much more has to be learned about this topic. The following areas can be further explored in future studies by expanding on what is learned from the current one:

1 Exploring the potential of green building rating systems to contribute to broader sustainability goals in Nigeria, such as reducing carbon emissions, conserving natural resources, and improving indoor air quality.

2 Analysing the financial implications of green building grading infrastructures, including their ability to improve property prices, create jobs, and promote economic growth.

Analyzing the obstacles that prevent the use of rating systems for green buildings in particular industries, such as residential, commercial, and industrial structures, and creating specialized plans to remove these obstacles. Evaluating the effects of monetary incentives, technical support, and public awareness campaigns on the effectiveness of government efforts and programs to promote green building rating systems.

5 Examining how public-private partnerships might be used to create and execute green building grading systems and figuring out the best ways for the public and private sectors to work together.

We can better grasp the potential of green building rating systems to support sustainable development in Nigeria by addressing these academic issues, and we can also find efficient solutions to remove obstacles to their implementation. This will play a crucial role in encouraging Nigeria alongside other developing nations to make an adjustment to a more environmentally friendly construction industry.

## VI. CONCLUSION

## 6.1 Summary

In conclusion, this study looked into how the Nigerian government promotes green building grading systems. We have determined the significance of green building rating systems in fostering environmentally friendly growth as well as the difficulties and impediments to their implementation in Nigeria by a thorough literature investigation and evaluation of public policies and initiatives.

Although the Nigerian government has made some attempts to promote environmentally friendly construction rating systems, we have discovered that there is still space for enhancements to be made in terms of the enactment of policies, public awareness campaigns, and stakeholder involvement. The results of this study have significant ramifications for Nigerian and similarly situated developing nations' environmentally friendly policies and practices, as well as for the larger topic of sustainable growth.

It is advised that the Nigerian government adopt an aggressive approach to promote rating systems for green buildings in light of the results of the research. This strategy should include the creation of customized regulations and enticements, the delivery of support services as well as capacity building, along with the involvement of interested parties from all the construction sectors.

The implementation and adoption of green building grading systems in Nigeria will eventually necessitate cooperation amongst the public sector, the business community, and social organizations. It can build a future for all Nigerians that is more tenacious, equitably distributed, and wealthy by cooperating to advance environmentally friendly development.

#### 6.2 Contributions To The Literature

This work has added to the body of knowledge on green building grading systems and the advancement of these systems by policymakers in developing nations. The first benefit is an improved understanding of the present situation of environmentally friendly construction methods in Nigeria as well as the possibilities and challenges for their advancement and implementation as a result of our examination of government policies and activities in the nation. Second, by examining examples from other nations, it has been able to pinpoint lessons learned and best practices gained in advancing green building evaluation processes that may be modified and adapted for use in the Nigerian setting.

In encouraging ethical growth in the built environment, this study has underlined the significance of engagement from stakeholders and dissemination of knowledge. It is possible to foster a more encouraging and conducive environment for the development and implementation of green building rating systems by involving all stakeholders and raising knowledge of their advantages.

In summary, the research has added to the body of knowledge by proposing methods and standards of excellence for ensuring the effective implementation and acceptance of green building grading systems, as well as by offering fresh perspectives on the significance of government in supporting them in the developing world.

#### **6.3 Limitations and Future Research Directions**

Although this study has significantly advanced our knowledge of how the Nigerian government supports green building grading systems, it is not devoid of flaws. The representative sample of stakeholders was quite small, which is one of its limitations. The ability to generalize the results found to other areas or contexts may be constrained as a result.

The absence of real-world information on the results as well as the efficacy of green building rating systems in the country is another drawback. It is necessary to conduct additional research to assess the efficacy of current policies and efforts and additionally to determine potential new promotional tactics.

The demographic and cultural variables that affect the widespread implementation of green building grading systems in Nigeria could also be the focus of subsequent studies. In addition, further research is required to determine how developers and construction companies, among other private sector actors, contribute to the promotion of environmentally friendly construction methods.

Notwithstanding the aforementioned drawbacks, the study offers a strong framework for further investigation and the formulation of public policy regarding the use of green building grading techniques in Nigeria alongside other developing nations. For the benefit of future generations, we may seek to create constructed environments that are stronger and more environmentally friendly by expanding on the findings and suggestions of this study.

#### References

- [1]. Airenakho, O. (2022). Land, Soil, and Climate Change: How Nigeria is Enhancing Climate Resilience to Save the Future of her People. Washington, DC: The World Bank.
- [2]. Alohan, E. O., & Oyetunji, A. K. (2021). HINDRANCE AND BENEFITS TO GREEN BUILDING IMPLEMENTATION: EVIDENCE FROM BENIN-CITY, NIGERIA. Real Estate Management and Valuation, 65-76.
- [3]. Assefa, S., Lee, H.-Y., & Shiue, F.-J. (2022). Sustainability Performance of Green Building Rating Systems (GBRSs) in an Integration Model. MDPI.
- [4]. Bungau, C. C., Bungau, T., Prada, I. F., & Prada, M. F. (2022). Green Buildings as a Necessity for Sustainable Environment Development: Dilemmas and Challenges. MDPI.
- [5]. Er. Shamanth, K. M. (2020). Water Technologies for Green Buildings. Constrofacilitator https://constrofacilitator.com.
- [6]. Gbonegun, V. (2020, September 07). Experts List Hinderances to Green Building Developments in Nigeria. The Giardian.
- [7]. Gbonegun, V. (2020, July 20). Government Must Encourage Green Designs for Healthy Environment. The Guardian.
- [8]. Green Building Council of Nigeria [GBCN]. (2021). Leading the Transformation of the Built Environment to Create Buildings and Communities that are Environmentally Responsible, Profitable, and Healthy to Live, Work, and Play. Abuja, FCT: Green Building Council of Nigeria.
- [9]. Hafez, F. S., Sa'di, B., Safa-Gamal, M., Taufiq-Yap, Y. H., Alrifaey, M., Seyedmahmoudian, M., . . . Mekhilef, S. (2023). Energy Efficiency in Sustainable Buildings: A Systematic Review with Taxonomy, Challenges, Motivations, Methodological Aspects, Recommendations, and Pathways for Future Research. Energy Strategy Reviews.
- [10]. Ismaeil, E. M., & Sabaih, A. E. (2023). High-Performance Glazing for Enhancing Sustainable Environment in Arid Region's Healthcare Projects. MDPI.
- [11]. Maket. (2023). The Role of the Government in Promoting Green Building. Maket.
- [12]. Pacific NorthWest. (2021). Green Buildings. Pacific NorthWest.
- [13]. Patel, P., & Patel, A. D. (2021). Use of Sustainable Green Materials in Construction of Green Buildings for Sustainable Development. IOP Conference Series Earth and Environmental Science. IOP Publishing.
- [14]. Pona, H. T., Xiaoli, D., Ayantobo, O. O., & Tetteh, N. D. (2021). Environmental Health Situation in Nigeria: Current Status and Future Needs . Heliyon.
- [15]. Rosenkranz, E. (2022). Financial Benefits of Green Buildings Are They Expensive? Real Estate Investment Trusts [REIT].
- [16]. Saka PhD, N., Olanipekun PhD, A., & Omotayo PhD, T. (2021). Reward and Compensation Incentives for Enhancing Green Building Construction. Environmental and Sustainability Indicataors.
- [17]. Santamouris, M., & Vasilakopoulou, K. (2021). Present and Future Energy Consumption of Buildings: Challenges and Opportunities Towards Decarbonisation. e-Prime - Advances in Electrical Engineering, Electronics, and Energy.
- [18]. United States Green Building Council (USGBC). (2023). LEED Rating System. Washington, DC: USGBC.
- [19]. Vierra, S. (2023). Green Building Standards and Certification Systems. Whole Building Design Guide [WBDG].
- [20]. WORLD ECONOMIC FORUM. (2023). 7 Ways Governments Can Foster Entrepreneurship. WORLD ECONOMIC FORUM.