



## NIGERIAN LAND RESOURCES AND CONSERVATION STRATEGIES: A CRITICAL ANALYSIS OF ECONOMIC AND NON-ECONOMIC ISSUES

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**ABSTRACT:** *Land is an indispensable resource for all of man's activities, and being an asset with zero elasticity in its physical supply requires adequate sustainability and conservation. Over the years, various strategies have been generated and adopted to ensure conservative management of land resources. This paper examines Nigerian land resources and conservation strategies, critically analyzing the economic and non-economic issues. Land resources conservation in Nigeria indulges economic issues from agriculture, urbanization and industrialization which affect the availability and accessibility of land for various uses, while the non-economic issues from cultural, social and environmental factors and policies are basically concerned with the determination and control of the use of land resources. These have to be considered with emanating challenges and surmounted to ensure land resources conservation for sustainability considering future generations. Policymakers, researchers and stakeholders in the environmental field have to work and operate in synergy, evaluating workable and favourable conservation strategies: balancing economic and non-economic land related issues to achieve overcoming emanating issues, thereby sustaining the goal of Land resources conservation in Nigeria.*

**KEYWORDS:** Nigeria, Land resources, Conservation, Economic, Non-economic, Issues.



## INTRODUCTION

Land, an irreplaceable and finite asset, stands as a cornerstone of a nation's development, culture, and ecological vitality. Within the borders of Nigeria, a nation graced with diverse ecosystems, vibrant traditions, and rapid urbanization, the judicious management of land resources assumes paramount significance (Amusa, 2018). This article embarks on a comprehensive exploration of the intertwined economic and non-economic aspects that define the landscape of land utilization in Nigeria to ensure sustainability and conservation of land resources. By delving into the complexities of competing priorities and investigating avenues for harmonizing conservation and progress, we strive to illuminate strategies that foster sustainable land resources management.

Nigeria possesses a rich topographical tapestry which encompasses coastal plains, savannah grasslands, lush rainforests, and mineral-rich terrain, all of which contribute to its unique and intricate land resources (Onyekuru, 2016). Against the backdrop of this ecological diversity, the challenge emerges to balance economic growth with environmental preservation, as well as to ensure the continuity of cultural heritage. The endeavor to harmonize these diverse forces is not just a theoretical pursuit but a practical necessity for a nation poised on the brink of transformative change.

At its core, this discourse underscores the understanding that land is an intricate and vulnerable asset, subject to the pressures of population growth, economic expansion, and evolving societal values. The narrative of progress cannot be separated from the imperative of land conservation, lest we bequeath a legacy marred by soil degradation, loss of biodiversity, and erosion of cultural heritage (UNDP, 2019). Through the lens of ecological wisdom, economic prudence, and cultural reverence, we embark on a journey to dissect the multifaceted layers of Nigerian land resources. The intention is not only to illuminate the issues emanating from land resources management in Nigeria in both economic and non-economic dimensions, but also to chart a course that embraces both development and preservation for the sake of sustainability and conservation. As we unravel the economic and non-economic dimensions of Nigeria's land resources, our aspiration is to paint a holistic portrait that resonates with the vision of a harmonious and sustainable future.

### Overview of Issues in the Use and Conservation of Land Resources

The use and conservation of land resources can be discussed under economic and non-economic issues as follows:

**Economic Issues:** Economic imperatives, often driven by the pursuit of growth and prosperity, exert significant pressure on Nigerian land resources. The expansion of agriculture, urbanization, and natural resource extraction stands as both a testament to progress and a challenge to conservation efforts. Agricultural expansion, driven by the need to feed a growing population, frequently results in deforestation, soil degradation, and loss of biodiversity (Arowolo & Salami 2020). Urbanization, while indicative of economic vibrancy, engenders challenges of land scarcity, encroachment on ecologically sensitive areas, and alteration of hydrological patterns (World Bank, 2020). Furthermore, the extractive industries, including oil and mineral extraction, introduce environmental risks such as land degradation, pollution, and habitat disruption (Oladipo, 2016).



**Non-Economic Issues:** Beyond economic concerns, a panorama of cultural, social, and environmental factors contributes to the intricate mosaic of land use and conservation in Nigeria. Traditional land tenure systems, deeply rooted in cultural heritage, often intersect with modern development aspirations, leading to conflicts over land ownership and use. Population growth, coupled with cultural shifts, strains land resources and alters historical land use patterns, further complicating conservation efforts. The delicate balance between preserving cultural identities, ensuring equitable access to land, and safeguarding ecosystems poses a considerable challenge (Udoaka & Ikpe, 2019).

Navigating the confluence of economic and non-economic issues requires an approach that honors the intrinsic value of land beyond its economic utility. It demands a harmonization of development aspirations with cultural preservation and environmental stewardship. As we delve deeper into the heart of Nigerian land resources, our analysis strives to unearth strategies that navigate the intricate dance of economic growth and conservation imperatives.

### **Focus of the Study**

This study is aimed at Critically Analyzing the Economic and Non-Economic Issues of Nigerian Land Resources and Conservation Strategies. As we navigate through the intricacies of economic and non-economic issues surrounding Nigerian land resources, this research would generate insights that inform policies and practices, guiding the nation toward a future where development and conservation coexist synergistically. The question about how Nigeria can strike a harmonious balance between economic development and the conservation of its diverse land resources, considering both economic and non-economic factors would be x-rayed. It is tentatively asserted that by adopting integrated strategies that acknowledge the interplay of economic, cultural, and environmental dimensions, Nigeria can achieve sustainable land management, wherein economic progress complements, rather than compromises, conservation efforts. The exploration of effective conservation strategies and the examination of case studies will shed light on the feasibility and potential outcomes of this harmonized approach.



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## LITERATURE REVIEW

### Key Economic Factors Influencing Land Use

The utilization of land resources in Nigeria is profoundly shaped by a dynamic interplay of economic forces, prominently manifested through the sectors of agriculture, urbanization, and industrialization. These forces, while pivotal for economic growth, wield significant influence over land use patterns and conservation dynamics.

#### **Agriculture:**

Agriculture stands as a cornerstone of Nigeria's economy, employing a substantial portion of its workforce and contributing significantly to its Gross Domestic Product (GDP). The pursuit of food security and economic growth has driven the expansion of agricultural activities, resulting in the conversion of natural habitats into farmland. While this expansion addresses immediate economic needs, it often entails adverse consequences, including deforestation, soil degradation, and loss of biodiversity (Federal Ministry of Agriculture and Rural Development (Nigeria), 2016). Subsistence farming, commercial agriculture, and agribusiness ventures all vie for land, necessitating a delicate balance between food production and ecological preservation.

#### **Urbanization:**

Rapid urbanization is emblematic of Nigeria's evolving economic landscape. As urban centers burgeon with economic opportunities and cultural dynamism, the demand for land intensifies. The migration of rural populations to urban areas amplifies the strain on available land, leading to sprawling development and encroachment on ecologically sensitive zones (World Bank, 2020). The phenomenon presents a paradoxical scenario: while urbanization propels economic growth, it simultaneously contributes to the depletion of natural resources and the degradation of essential ecosystem services.

#### **Industrialization:**

The industrial sector, encompassing manufacturing, mining, and energy production, plays a vital role in Nigeria's economic diversification efforts. Industrial activities often necessitate substantial land allocation for factories, infrastructure, and resource extraction. However, industrialization can induce land degradation, pollution, and habitat disruption, posing challenges to both economic prosperity and ecological integrity (Aliya & Odoh, 2016). Balancing the imperatives of industrial growth with conservation demands judicious land use planning and environmentally responsible practices.



## **Impact of Economic Activities on Land Degradation, Deforestation, and Soil Erosion**

The economic activities of agriculture, urbanization, and industrialization wield a profound influence on Nigerian land resources, with far-reaching implications for land degradation, deforestation, and soil erosion. A critical analysis reveals the intricate interplay between economic progress and environmental challenges, prompting the imperative for informed and holistic land resources management strategies.

### **A. Agriculture:**

The expansion of agricultural activities is a primary driver of land degradation in Nigeria. Clearing land for cultivation often involves deforestation, resulting in the loss of vital forest cover that serves as a natural buffer against erosion. Intensive cultivation, inadequate soil conservation measures, and improper irrigation practices further exacerbate soil erosion, depleting valuable topsoil and reducing land productivity (Olasubi, Adefisan & Osinowo, 2016). In the quest to enhance agricultural output, unsustainable practices can lead to soil compaction, reduced water retention, and decreased soil fertility, undermining the long-term viability of land resources.

### **B. Urbanization:**

According to Ajayi and Adejoba (2017), despite the fact that urbanization is an indication of economic growth, it engenders deforestation and soil erosion as well. Urban expansion often involves the clearance of land for infrastructure development, leading to the removal of vegetation cover that stabilizes soil and prevents erosion. The replacement of natural landscapes with impervious surfaces disrupts natural water absorption, amplifying the risk of soil erosion and flash floods. Additionally, the alteration of hydrological patterns can lead to soil degradation and the degradation of water bodies (World Bank, 2020). The consequences of urbanization extend beyond immediate land use, influencing adjacent rural areas and ecosystem dynamics.

### **C. Industrialization:**

Industrial activities, including mining and resource extraction, are notable contributors to land degradation. Open-pit mining and the extraction of minerals or fossil fuels can lead to vast land disturbances, resulting in habitat destruction and soil erosion. Moreover, industrial pollution and waste disposal can contaminate soil, rendering it unsuitable for agricultural or ecological purposes. The energy demands of industrialization can drive deforestation to meet fuel requirements, further exacerbating land degradation and compromising ecosystem integrity (Oladipo, 2016).

The nexus between economic activities and land degradation, deforestation, and soil erosion necessitates a multifaceted response. To mitigate these impacts, proactive measures are imperative, including the adoption of sustainable agricultural practices, reforestation efforts, and the implementation of effective erosion control strategies. Integrated planning that considers ecological, economic, and social dimensions is essential to achieve a harmonious coexistence between economic growth and environmental preservation.



## **Non-Economic Issues, Policies, Regulations, and Practices: Balancing Sustainable Land Management and Economic Considerations**

The landscape of Nigerian land resources is shaped not only by economic activities but also by a spectrum of policies, regulations, and practices that either advance sustainable land management or exacerbate land-related economic challenges. The interplay of these factors underscores the complex tapestry of land utilization and conservation in Nigeria. According to the Federal Ministry of Environment (Nigeria) (2016), the following contribute to sustainable and conservatory land resource management:

- 1. Afforestation and Reforestation Initiatives:** Programs that promote afforestation and reforestation contribute to sustainable land management by enhancing forest cover, mitigating erosion, and supporting biodiversity conservation. The Nigerian Conservation Foundation (NCF) has initiated reforestation projects to restore degraded land and protect critical watersheds.
- 2. Protected Area Designations:** The establishment of protected areas, such as national parks and wildlife reserves, safeguards ecologically sensitive regions from harmful land use practices. The National Park Service Act of 1999 provides a legal framework for the protection, conservation, and sustainable management of Nigeria's national parks.
- 3. Community-Based Natural Resource Management:** Engaging local communities in land management decisions fosters stewardship and aligns conservation efforts with local needs. The Forest Reserve Community-Based Natural Resource Management Project exemplifies this approach by involving local communities in sustainable resource use.

### **Situations that Generate Land-Related Economic Issues**

- I. Unregulated Mining Activities:** Informal and unregulated mining practices can lead to environmental degradation, habitat destruction, and soil erosion. Artisanal mining, prevalent in Nigeria, often lacks proper environmental safeguards and contributes to land degradation (Oladipo, 2016).
- II. Inadequate Land Tenure Systems:** Complex and unclear land tenure systems can lead to conflicts over land ownership and use, hindering effective land management. Customary land tenure systems, while rooted in tradition, can create ambiguities that exacerbate land-related economic challenges (Udoaka & Ikpe, 2019).
- III. Conversion of Natural Habitats for Agriculture:** The expansion of agricultural activities into ecologically sensitive areas contributes to deforestation and habitat loss. The lack of comprehensive land use planning and zoning regulations can lead to unsustainable land conversion (Olasubi, Adefisan, & Osinowo, 2016).

### **Situations that Generate Non-Economic Land-Related Issues**

The interplay of population growth, land tenure systems, and traditional practices significantly shapes land conservation efforts in Nigeria. This complex relationship highlights the need for comprehensive strategies that consider the dynamics of these factors (Amusan, 2015; Akinnusi & Aiyelokun, 2019; Mbah, 2019; Udoaka, & Ikpe, 2019).





**a. Population Growth and Land Use:** Nigeria's rapid population growth exerts considerable pressure on available land resources. As the population expands, the demand for housing, agriculture, and infrastructure increases, often leading to unsustainable land use practices. The need to accommodate growing communities drives urbanization, which can encroach upon ecologically sensitive areas and disrupt local ecosystems.

**b. Land Tenure Systems and Stewardship:** Traditional land tenure systems play a pivotal role in determining land use and conservation practices. Communal land ownership, prevalent in many Nigerian communities, can foster a sense of stewardship and communal responsibility for natural resources. However, evolving land tenure dynamics, driven by urbanization and external interests, can lead to conflicts over land rights and undermine conservation efforts.

**c. Traditional Practices and Ecological Wisdom:** Indigenous and traditional practices often reflect centuries of harmonious coexistence with the land. Practices such as agroforestry, rotational farming, and sacred groves demonstrate a profound understanding of sustainable land use. These practices have the potential to inform modern conservation strategies, aligning economic goals with ecological integrity.

**d. Cultural Evolution and Challenges:** The intergenerational transmission of traditional practices can face challenges due to cultural shifts, globalization, and modernization. Younger generations may increasingly adopt practices that prioritize economic gains over environmental stewardship. This cultural evolution underscores the need for culturally sensitive conservation strategies that engage and empower local communities.

In navigating this intricate web, effective land conservation strategies must recognize the role of population growth, land tenure systems, and traditional practices. By integrating these factors into policy frameworks, fostering community engagement, and balancing economic aspirations with ecological imperatives, Nigeria can pave the way for a sustainable and harmonious coexistence between people and the land resources they depend upon.

### **Navigating the Challenges of Balancing Traditional Land Uses with Modern Conservation Goals**

The quest to harmonize traditional land uses with contemporary conservation goals in Nigeria is an intricate endeavor fraught with challenges and complexities. This delicate balance, where cultural heritage and ecological preservation intersect, demands a comprehensive understanding of the hurdles that arise from the interplay of tradition and modernity (Udoaka, & Ikpe, 2019).

#### **Conflict of Land Priorities**

✓ **Shifting Cultural Values:** Traditional land uses, deeply intertwined with cultural identities, may clash with modern conservation objectives. Rapid societal changes can alter cultural practices, leading to competing land priorities. Reconciling the preservation of cultural heritage with ecological sustainability requires delicate negotiation

✓ **Resource Competition:** As traditional practices coexist with burgeoning economic aspirations, resource competition intensifies. Agriculture, grazing, and extractive activities



may disrupt ecosystems and diminish biodiversity, impeding conservation efforts and compromising ecosystem resilience.

### **Socioeconomic Pressures**

❖ **Economic Development Paradigm:** Modernization often emphasizes economic growth, potentially at odds with conservation. The imperative for infrastructure, industry, and urban expansion may disregard traditional practices, resulting in habitat destruction and further marginalization of indigenous communities.

### **Cultural Erosion and Identity Loss:**

➤ **Changing Traditions:** Rapid modernization can erode cultural practices and diminish respect for customary land use norms. The erosion of cultural identity can weaken the social fabric that historically sustained sustainable resource management.

➤ **Loss of Traditional Ecological Balance:** Traditional practices often exhibit inherent ecological balance. The abandonment of such practices in favor of modern land use methods may disrupt delicate ecological relationships, contributing to degradation and loss of biodiversity.

## **Evaluation of Conservation Strategies: Balancing Economic and Non-Economic Land-Related Issues in Nigeria**

The pursuit of effective conservation strategies in Nigeria necessitates a holistic approach that balances economic development with non-economic imperatives. The multifaceted nature of land-related challenges, encompassing both economic and non-economic dimensions, underscores the need for innovative solutions that harmonize development aspirations with cultural preservation and environmental stewardship. In this comprehensive evaluation, we delve into the effectiveness of various conservation strategies in addressing the intricate interplay between economic and non-economic land-related issues.

### **1. Reforestation and Afforestation Programs**

Reforestation and afforestation initiatives emerge as potent tools to tackle both economic and non-economic land-related concerns. Ecologically, these strategies contribute to carbon sequestration, soil conservation, and habitat restoration, thus mitigating deforestation-driven degradation. Economically, reforestation projects generate employment opportunities and foster sustainable ecotourism ventures, diversifying revenue streams for local communities. While demonstrating promise, the long-term effectiveness hinges on continued community engagement and maintenance efforts.

### **2. Community-Based Natural Resource Management**

Community-based approaches represent a nexus of economic empowerment and cultural preservation. By involving local communities in sustainable resource management, these initiatives promote both economic well-being and the safeguarding of cultural norms. Socially, this approach engenders a sense of ownership and responsibility, fostering a shared





commitment to land conservation. However, challenges arise from balancing traditional practices with modern conservation requirements, necessitating adaptive strategies that respect heritage while embracing innovation.

### **3 Protected Areas and National Parks**

The establishment of protected areas and national parks offers a multifaceted solution to land-related challenges. Ecologically, these zones preserve biodiversity, mitigate habitat loss, and support ecosystem services critical for non-economic well-being. Economically, protected areas can drive eco-tourism, generating income for local communities and promoting sustainable livelihoods. Balancing these objectives, however, requires addressing potential conflicts between conservation goals and traditional land uses.

### **4. Sustainable Agricultural Practices**

Sustainable agricultural practices serve as a bridge between economic and non-economic priorities by simultaneously boosting productivity and preserving valuable land resources. From an ecological perspective, approaches like agroforestry and organic farming play a pivotal role in curbing soil erosion, enriching soil health, and nurturing biodiversity. On the economic front, these methods yield greater crop outputs, curtail input expenditures, and bolster food security. However, the obstacle resides in the expansion of adoption on a broader scale and the equitable distribution of information and resources, especially for marginalized communities.

### **5. Biodiversity Conservation and Research**

Conservation efforts centered on biodiversity preservation serve both economic and non-economic objectives. Ecologically, protecting species and ecosystems maintains ecological balance and sustains vital services. Economically, the pharmaceutical, biotechnology, and eco-tourism industries benefit from biodiversity-based research and discoveries. The challenge involves mobilizing resources for sustained research and fostering international collaborations to address cross-border conservation concerns.

### **6. Payment for Ecosystem Services (PES)**

PES schemes bridge the gap between economic interests and conservation by assigning tangible value to ecosystem services. By compensating landowners for preserving ecological functions, PES aligns incentives with conservation goals, addressing both economic and non-economic imperatives. However, successful implementation hinges on equitable benefit-sharing, transparent monitoring, and robust governance frameworks.

### **7. Integrated Land Use Planning**

Integrated land use planning strives to harmonize economic and non-economic priorities by optimizing land utilization. Ecologically, this approach safeguards critical ecosystems and minimizes land degradation. Economically, it promotes efficient resource allocation and reduces conflicts over land use. However, institutional challenges and conflicts of interest may hinder the implementation of comprehensive planning strategies).



## 8. Environmental Education and Awareness

Environmental education serves as a linchpin in addressing both economic and non-economic challenges. By fostering awareness and knowledge, it cultivates a conservation ethos, driving behavioral change and policy advocacy. Economically, informed citizens can drive demand for sustainable products and influence policy decisions. The challenge lies in ensuring widespread access to quality education and fostering a culture of environmental stewardship.

Effectively addressing the intricate web of economic and non-economic land-related issues in Nigeria demands a nuanced, interdisciplinary, and collaborative approach. The diverse conservation strategies explored herein exemplify the evolving tapestry of responses to these challenges. While each strategy contributes unique benefits, their effectiveness hinges on contextual considerations, adaptive management, and the integration of cultural, social, and ecological dimensions. Achieving a sustainable balance requires ongoing commitment, innovative thinking, and partnerships that honor both the tangible and intangible values of Nigeria's precious land resources.

## FINDINGS

### Navigating Economic and Non-Economic Dimensions in Land Resource Management and Conservation in Nigeria

The comprehensive analysis of economic and non-economic issues pertaining to land resource management and conservation in Nigeria reveals a complex interplay of factors that shape the present and future of the nation's land use practices. From reforestation initiatives to community engagement and international collaborations, these findings highlight both challenges and successes in achieving a sustainable balance between economic development, cultural preservation, and environmental stewardship.

a) **Balancing Economic Prosperity and Ecological Resilience:** The examination of economic factors influencing land use, such as agriculture, urbanization, and industrialization, underscores the need for harmonizing economic prosperity with ecological resilience. Agriculture, a cornerstone of Nigeria's economy, presents challenges of unsustainable practices leading to soil degradation and deforestation. While modern agricultural techniques enhance productivity, they can exacerbate environmental degradation if not managed sustainably. Similarly, rapid urbanization and industrialization drive economic growth but often result in habitat loss and pollution, underscoring the importance of integrated land use planning to mitigate adverse impacts.

b) **Impact on Land Degradation and Biodiversity Loss:** The extensive analysis of economic activities on land degradation, deforestation, and soil erosion provides a sobering insight into the toll of unsustainable practices on Nigeria's ecosystems. Deforestation, driven by agricultural expansion and logging, threatens biodiversity, disrupts ecosystems, and exacerbates climate change. Unsustainable mining practices contribute to soil erosion and water pollution, undermining the land's productive capacity. These findings underscore the urgency of adopting sustainable agricultural practices, promoting reforestation, and enforcing regulations to curb destructive activities.



c) **Community Engagement and Cultural Significance:** The exploration of cultural, social, and environmental factors reveals the significance of community involvement in land resource management. Customary land tenure systems and traditional practices are deeply intertwined with cultural heritage and social cohesion. Community-based approaches empower local stakeholders to become stewards of their land, integrating their traditional knowledge with modern conservation practices. This engagement fosters a sense of ownership and responsibility, aligning cultural preservation with ecological sustainability.

d) **Challenges of Traditional Land Uses and Conservation Goals:** The critical examination of balancing traditional land uses with modern conservation goals reveals intricate challenges that demand nuanced solutions. While traditional practices contribute to cultural identity and subsistence livelihoods, they may conflict with conservation objectives. Striking a balance requires adaptive strategies that acknowledge cultural significance while promoting sustainable land use. Challenges arise from socioeconomic disparities, lack of access to resources, and tensions between tradition and innovation.

e) **Innovative Strategies for Sustainable Land Management:** The synthesis of various conservation strategies showcases innovative approaches that address both economic and non-economic imperatives. Reforestation and afforestation programs demonstrate the potential to combat deforestation, mitigate climate change, and provide economic opportunities through eco-tourism. Community-based natural resource management emphasizes the value of local participation and cultural preservation. Protected areas and national parks offer havens for biodiversity while stimulating eco-tourism. Payment for ecosystem services aligns economic incentives with conservation objectives, exemplifying market-based solutions.

f) **Policy Frameworks, International Collaborations, and Environmental Education:** The comprehensive analysis underscores the pivotal role of government policies, international collaborations, and environmental education in driving sustainable land management and conservation. Policies provide regulatory frameworks, incentives, and guidance for land use decisions. International collaborations bring global expertise, funding, and shared experiences to enhance local efforts. Environmental education fosters a culture of environmental stewardship and empowers citizens to demand sustainable practices.

### **A Path Forward: Integrating Economic and Non-Economic Dimensions:**

Synthesizing these findings, it becomes evident that achieving sustainable land resource management and conservation in Nigeria requires a holistic approach that transcends the dichotomy of economic and non-economic considerations. Recognizing the interconnectedness of these dimensions is paramount. Effective strategies must align economic growth with environmental protection, incorporate local knowledge and aspirations, and leverage local, regional, national and international cooperation. Without a doubt, the synthesis of economic and non-economic issues in land resource management and conservation in Nigeria paints a complex picture that demands integrated, context-specific solutions. By fostering collaboration between governments, communities, and international partners, Nigeria can chart a course toward a future where economic progress, cultural heritage, and ecological sustainability coexist harmoniously, securing a legacy of vitality for both present and future generations.



## Challenges and Considerations for Land Resources Management

While the potential synergies between economic growth and sustainable land use are promising, they are not immune to challenges. Short-term economic interests, policy misalignment, and inadequate evaluation of ecosystem services can hinder the realization of these synergies. The inertia of existing economic models and the need for transition financing pose formidable obstacles. Striking the right balance necessitates a paradigm shift, where economic indicators integrate environmental and social dimensions, fostering a holistic understanding of progress in the management of Land resources..

## Key Implications for Policy Makers, Researchers, and Stakeholders in Land Resource Management

The comprehensive analysis of synergizing economic growth and sustainable land use practices holds profound implications for policy makers, researchers, and stakeholders engaged in the critical task of managing and preserving land resources. This synthesis of potential synergies underscores the need for strategic actions, innovative approaches, and collaborative efforts to navigate the complexities of sustainable development. The following summary encapsulates the key implications that emerge from this analysis:

### 1. Policymakers:

**Integrated Approaches:** Policymakers must adopt integrated approaches that harmonize economic development goals with sustainable land use objectives. This entails aligning economic policies with environmental safeguards to ensure that growth does not come at the expense of natural resources.

**Incentive Mechanisms:** Implementing incentive mechanisms that promote sustainable practices is crucial. Policies that reward businesses and individuals for adopting green technologies, engaging in circular economies, and valuing ecosystem services can drive transformative change.

**Long-Term Vision:** Policymaking should transcend short-term gains and prioritize long-term benefits. Embracing a vision that considers intergenerational equity and ecological resilience is essential for sustainable land resource management.

### 2. Researchers:

**Interdisciplinary Research:** Researchers play a pivotal role in advancing knowledge and informing policy decisions. Collaborative, interdisciplinary research is essential to understanding the complex interactions between economic activities, land use, and environmental outcomes.

**Economic Valuation:** Researchers should continue to refine methodologies for valuing ecosystem services. Robust economic valuation can provide decision-makers with tangible evidence of the benefits of sustainable land use, facilitating informed choices.

**Innovation and Solutions:** Researchers can drive innovation by identifying and developing sustainable land use solutions. From green technologies to nature-based approaches, their insights can shape practices that bolster both economic growth and conservation.



### 3. Stakeholders:

**Engagement and Collaboration:** Stakeholders, including communities, businesses, and civil society, must actively engage in land resource management decisions. Collaborative platforms that involve diverse voices foster ownership and ensure that policies align with local needs.

**Education and Awareness:** Raising awareness about the interplay between economic growth and land conservation is vital. Stakeholders should be equipped with knowledge that empowers them to make informed choices and advocate for sustainable practices.

**Investment in Sustainable Practices:** Businesses and investors can drive change by channeling resources into sustainable land use practices. Embracing green technologies, adopting circular economy models, and supporting conservation efforts can lead to profitable and environmentally responsible outcomes.

The implications derived from the analysis underscore a collective call to action. For policymakers, researchers, and stakeholders alike, the challenge lies not only in recognizing the potential synergies between economic growth and sustainable land use, but in translating this awareness into tangible strategies and initiatives. A future where economic prosperity and ecological preservation are intertwined is within reach, contingent upon the commitment of these pivotal actors to collaborate, innovate, and uphold the delicate equilibrium that sustains our planet's land resources.

In a world grappling with environmental degradation, climate change, and resource depletion, the insights gleaned from this analysis serve as a compass guiding policymakers, researchers, and stakeholders toward a shared vision: a future where thriving economies coexist harmoniously with thriving ecosystems. The journey towards realizing this vision demands perseverance, collective action, and a steadfast dedication to nurturing a world that balances economic vibrancy with the enduring stewardship of our invaluable land resources.

### **Integrated Strategies for Balancing Economic and Non-Economic Considerations in Land Conservation**

Achieving a harmonious balance between economic development and land conservation requires integrated strategies that holistically address both economic and non-economic factors. These recommendations outline actionable steps for policymakers, stakeholders, and communities to foster sustainable land use practices that propel economic growth while safeguarding vital ecosystems and cultural heritage.

#### **1. Ecosystem-Based Land Use Planning**

Integrate ecosystem-based land use planning that considers ecological, social, and economic dimensions. Collaborate with scientists, local communities, and experts to map and prioritize areas of ecological significance for conservation. Designate protected areas and green corridors to preserve biodiversity, maintain ecosystem services, and promote ecotourism.



## **2. Payments for Ecosystem Services (PES):**

Implement PES programs that financially reward landowners and communities for practicing sustainable land management. Recognize the value of ecosystem services—such as carbon sequestration, water purification, and habitat provision—and incentivize conservation efforts that contribute to these services.

## **3. Sustainable Agriculture and Agroforestry:**

Promote sustainable agricultural practices and agroforestry systems that enhance soil fertility, reduce erosion, and preserve biodiversity. Support farmers in adopting techniques such as crop rotation, organic farming, and intercropping. Agroforestry models that integrate trees with crops provide additional income streams and environmental benefits.

## **4. Green Infrastructure Development:**

Incorporate green infrastructure into urban and rural development planning. Develop parks, green roofs, and urban gardens to improve air quality, mitigate urban heat, and enhance community well-being. These features also provide spaces for recreation, cultural events, and tourism, contributing to both economic and non-economic goals.

## **5. Community-Based Conservation:**

Empower local communities as stewards of their land. Engage them in decision-making processes, involve traditional knowledge, and promote community-managed conservation areas. Collaborative management models build a sense of ownership, strengthen social ties, and promote sustainable resource use.

## **6. Circular Economy and Resource Efficiency:**

Foster circular economy practices that minimize waste, promote recycling, and extend product life cycles. Encourage businesses to adopt sustainable production processes and engage in waste reduction initiatives. Circular economy models can generate economic value while reducing pressure on land resources.

## **7. Education and Awareness Programs:**

Launch education and awareness campaigns to highlight the importance of sustainable land use. Equip citizens, especially youth, with knowledge about ecosystem services, biodiversity, and cultural heritage. Promote environmental literacy and active engagement to drive behavior change and cultivate a culture of conservation.

## **8. Adaptive Governance and Policy Integration:**

Develop adaptive governance structures that integrate economic and non-economic considerations. Create cross-sectoral platforms that bring together government agencies, businesses, communities, and NGOs to collaboratively design and implement policies. Regularly review and update policies to reflect changing socio-economic and environmental contexts.





## **9. Innovative Funding Mechanisms:**

Explore innovative funding mechanisms to support land conservation efforts. Establish conservation funds, public-private partnerships, and impact investment models that attract financial resources for sustainable land management projects. Leverage international funding and philanthropic support to scale up initiatives.

## **10. Research and Data-Driven Decision Making:**

Invest in research that quantifies the economic and non-economic benefits of land conservation. Collect data on ecosystem services, cultural heritage, and socio-economic impacts. Use this information to inform policy decisions, prioritize conservation efforts, and demonstrate the value of integrated strategies.

Integrated strategies that consider both economic and non-economic factors are paramount for effective and sustainable land conservation. By aligning economic incentives with environmental stewardship, these recommendations offer a roadmap for navigating the intricate landscape of land resource management. Embracing these strategies empowers societies to forge a future where economic growth flourishes alongside intact ecosystems, cultural heritage is preserved, and generations to come inherit a world that is ecologically resilient and socially vibrant.

## **CONCLUSION**

In the ever-evolving narrative of land resource management and conservation in Nigeria, the journey embarked upon has been one of profound exploration and discovery. As we draw the threads of this discourse together, a resounding truth emerges: the complex interplay between economic growth, environmental vitality, and cultural heritage demands our unwavering commitment to a holistic approach. This conclusion serves not as an end, but as a catalyst for a new beginning—a call to action, a plea for collaboration, and an invitation to further the frontiers of knowledge through rigorous and innovative research.

The significance of the exploration becomes evident as we contemplate the delicate equilibrium between economic aspirations and ecological sustainability. It is a reminder that the pursuit of growth need not come at the cost of our precious land resources. Rather, it can be an opportunity to foster a future where prosperity thrives in tandem with thriving ecosystems. This discourse has unraveled a spectrum of strategies, ranging from sustainable agriculture and green economies to community-based conservation, each representing a stepping stone towards a balanced coexistence of economic vibrancy and environmental resilience.

Yet, as we stand at the crossroads, we recognize that our journey has just begun. The complexities that underpin sustainable land resource management require continual investigation, refinement, and adaptation. We acknowledge that the solutions we propose are not static, but evolving in the face of shifting paradigms and emergent challenges. Therefore, the significance of further research in this domain cannot be overstated.



Further research in this arena holds the promise of unlocking new insights, refining existing strategies, and uncovering uncharted pathways. It can shed light on the nuances of policy implementation, the dynamics of stakeholder engagement, and the intricate interplay of economic, cultural, and environmental factors. Research can illuminate the most effective mechanisms for bridging the gap between theory and practice, translating lofty ideals into tangible on-the-ground actions.

Moreover, as we gaze into the horizon of possibilities, research holds the potential to catalyze transformative change. It can inspire policymakers to craft forward-looking regulations that transcend short-term gains and embrace a vision of sustainable prosperity. It can empower communities to be active participants in their own futures, armed with knowledge that informs resilient decision-making. And it can ignite a spark in the hearts of researchers, practitioners, and stakeholders, driving them to collaborate in forging a legacy of responsible stewardship for generations to come.

In conclusion, the journey of land resource management and conservation in Nigeria is a tapestry woven with threads of economic promise, cultural significance, and ecological vitality. The threads, however, are not disparate; they are intertwined and indivisible. It is worthy of note to acknowledge the strides taken, the insights gained, and the path ahead. The road to sustainable land resource management is paved with challenges, but it is illuminated by the beacon of further research, an ever-burning torch that guides us towards a future where economic growth flourishes in harmony with the precious tapestry of our land.

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