



FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Presented at the FIG Working Week 2024,
19-24 May 2024 in Accra, Ghana

Spatial Planning Tools for Halting and Reversing Land Degradation in Peri-Urban Towns in Nigeria.

Presented by

Ogechi Addline Wechie
Kpobari Visigah
Iyenemi Ibimina Kakulu

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Introduction

Spatial planning tools such as land use zoning, green infrastructure and innovative land tenure system can halt and reverse land degradation in peri-urban areas.

Peri-urban areas in Nigeria are faced with urban expansion and population increase which leads to soil erosion, deforestation and diminishing agricultural productivity.

There is the need for sustainable development strategies to address these challenges.

The study builds on an existing body of knowledge on how spatial planning tools can be used to halt and reverse land degradation. It provides an actionable insight for policymakers, urban planners and communities.

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What is Spatial Planning?

- Spatial planning is considered a key instrument for establishing long-term, sustainable frameworks for social, territorial and economic development both within and between countries (United Nations, 2008).
- Spatial Planning policies can be used as tools to protect nature and environment by creating a balance between human needs and ecosystem health which can lead to the prevention of land degradation.
- It is a broad umbrella concept associated with land use planning (LUP), urban planning (UP), regional planning (RP), Town planning (TP) and more recently environmental planning (EP) which involves minimizing threats to the environment and human life.
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Methods

- Case studies of three cities in Nigeria - Ibadan, Abuja and Enugu
- Mixed-methods approach: document and content analysis, interviews, and spatial analysis.
- Evaluation of spatial planning interventions and their effectiveness.
- Data collection was through literature and document reviews and informal interviews with professionals.

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Findings

- Ibadan – The menace of gully erosion were largely due to anthropogenic such as the poor management of drainage systems and natural causes and rapid urbanization resulting in extensive land degradation.
- Enugu – Rapid expansion has led to severe gully erosion and soil degradation caused by human interference, heavy rainfall, poor geology, undulating topography and the soil texture. This has resulted in reduced agricultural productivity, reduced land availability it has also destroyed vegetation.
- Abuja – rapid urbanization and extensive road and infrastructure development resulting in deforestation and loss of agricultural lands.

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Application of Spatial Planning Tools 1/2

- Ibadan - Land-use zoning reduced incidences of haphazard construction, controlled urban sprawl and preserved critical agricultural lands. Green infrastructure development including creation of parks and tree-lined avenues contributed to mitigating soil erosion.
- Abuja - Innovative land tenure systems aided sustainable land practices, foster community engagement and promote responsible land use.
- Enugu implemented land-use zoning to separate residential, commercial, and agricultural areas. This prevented conflicts and preserved farmland.

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Application of Spatial Planning Tools 2/2

- Innovative land tenure systems incentivize sustainable land practices, fosters community engagement and promotes responsible land use. In Abuja, these systems led to active participation in sustainable practices, development of green spaces, parks, and tree-lined avenues mitigates soil erosion. It also enhances biodiversity and improves water quality.
- In both Ibadan and Abuja, green infrastructure development had positive environmental impacts.
- In Enugu, mapping and Control through GIS in the Nigeria Erosion and Watershed Management Project.

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Recommendations and SDGs

Spatial planning tools offer a holistic approach to managing land resources in peri-urban areas. Effective implementation relies on comprehensive policies and multi-stakeholder collaboration. The study provides actionable insights for sustainable peri-urban development in Nigeria.

- **Policy Integration:** Integrate spatial planning tools into overarching policies.
- **Community Involvement:** Encourage community participation in planning processes.
- **Capacity Building:** Invest in training for local authorities and stakeholders.
- Relevant SDGs: 11 (Sustainable Cities and Communities), 13 (Climate Action), 15 (Life on Land)

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SUSTAINABLE DEVELOPMENT GOALS

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Commission 8

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