Context-Specific Integrated and All-Inclusive Approaches to Urban Sustainability in Sub-Saharan Africa

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Introduction

Urbanization is the change in population status from rural to urban, the corresponding influence on the proportion of rural dwellers, and how societies acclimatize to this change¹. The accelerated population growth, materials, and services in the cities require management to meet the basic needs of the current and future generations. About half of the African population lives in urban areas today and by 2050, this proportion is expected to rise to 57%². In sub-Saharan Africa (SSA) the current proportion of the urban population is 43.6% and in countries like Nigeria, Kenya, South Africa, and the Democratic Republic of Congo, the proportion is 55.0%, 30.0%, 69.3%, and 48.1%, respectively (Figure 1)². Rapid urban population growth in SSA can probably surpass the pace at which environment, social, and health infrastructures can offer by 2050². The question of how to ensure urban sustainability has been on the global agenda since the 1972 United Nations Conference on the Human Environment in Stockholm, Sweden³. Recently, the urban agenda which sets out a 20-year action plan was adopted at the UN Conference on Housing and Sustainable Development in 2015⁴. The African Agenda 2063 emphasized the need for urban sustainability⁵. Therefore, an integrated and multisectoral partnership that recognizes the crucial links between social, environmental, health, and technological issues in urban areas is key to a better future. Addressing this concern was the basis for urbanization sustainability. Urban sustainability stresses the consciousness that growth in urban areas will require long-term planning to make life habitable for future populations⁶. Implementation of urban sustainability is essential to achieving the Sustainable Development Goals (SDGs) 3, 11,13, and 17 to ensure good health and well-being, sustainable cities and communities, climate action, and partnership for the goals, respectively⁴.

An urban sustainability agenda has been implemented in Canada, the United States of America, and many European countries in the last two decades. The national smart city mission was launched by India in 2015, and several socioeconomic and environmental sustainability indicators have been included in the government policy in China⁷. Sustainable city programs have been successfully initiated in Senegal, Cote d'Ivoire, South Africa, Malaysia, India, and China through an integrated approach⁸. Urban sustainability is necessary for SSA because cities are growing, yet the required infrastructures to manage them are inadequate. In addition, urban expansion and the increase in cities' human population worsen the effect of greenhouse gas emissions and strain on resources. These actions can compromise the ability of future generations to thrive in SSA. The shift in demographic parameters, current urban development and climate change, and energy and mobility transitions in SSA countries make urban sustainability discourse relevant. In high-income countries, urban sustainability is driven by concerted governance and socioeconomic conditions, while class and elite dictate the need for urban sustainability in most SSA countries.

The socioecological and technological systems, the interaction of amenities with socioecological dimensions, and the growing interest in addressing issues related to justice, diversity, and equity highlight the necessity for urban sustainability in SSA. The convergence of these challenges with evolving climate change impacts increases the vulnerability of cities and explains the increasing importance of an integrated and multisectoral approach in response to the needs of cities in SSA. Urban sustainability requires integrated interventions in sustainable planning, sustainable investment, and sustainable technologies. Therefore, this study examined the context-specific integrated and all-inclusive approaches to urban sustainability in sub-Saharan Africa. The findings from this study will

aid government and urban planners in restructuring their cities in ways that do not deplete resources for future generations and limit the anticipated consequences of urbanization in SSA. The study is relevant to the urban context of countries in SSA where many cities face similar social, environmental, and technological challenges in planning for the sustainability of their urban cities.

Methods

This study's discussions concerning urban sustainability will be restricted to sub-Saharan African countries. SSA with a population figure of about 1.168 billion and an annual population growth rate of $2.6\%^2$ has four regional blocks encompassing East Africa, West Africa, Central Africa, and Southern Africa.



Country

Figure 1: Percentage of urban in selected countries in sub-Saharan Africa: 1950-2050 Data Source: UN, World Urbanization Prospects, 2018. Department of Economic and Social Affairs



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The themes of discussion in this study are best practices for urban sustainability in SSA; contextspecific multisector and all-inclusive approaches to urban sustainability in SSA; urban mechanisms to be addressed using an integrated and multisectoral approach; planning for and implementation of urban sustainability; community engagement; finance; policies and regulations that can impact the implementation of urban sustainability; and monitoring and performance evaluation plan for urban sustainability in SSA.

Context-specific multisectoral and all-inclusive approaches to urban sustainability in SSA: Here the focus of discussions was the integrated and multisectoral approaches to urban sustainability in SSA.

Urban mechanisms to be addressed using an integrated and multisectoral approach: The discussion in this area included renewable energy technology; industrialization; housing structures;

transportation, traffic congestion, and air pollution; water, electricity supply, and health services; education; digitalization and smart cities; and internal migration. Others are agriculture; market structures; waste management, green environment, climate change; drainage system; tax reforms; crime control; political will; and partnership.

Planning for and implementation of urban sustainability domain: Under this theme, discussions were based on the planning strategies for urban sustainability. Further discussions were focused on how to build the institutionalization processes that value multisectoral problem-solving and provision of the leadership directive, budgetary commitment, and sustainable mechanisms that support collaborative efforts directed to urban sustainability. The sectors, professionals, and budgetary requirements for the planning and implementation of urban sustainability were identified. The strategies that can be used to drag the government into action and commitment were also discussed. Conflict of interest usually exists among the different parties in a multisectoral setting with each having a different vested interest. We also discussed the conflict resolution between the partners and sectors.

Community engagement: Meaningful community engagement, cross fertilization of ideas, and equitable resource allocation are essential while working to balance different domains of urban sustainability in SSA. In this section, discussion was channeled to how the community can be recruited as partners and actors in both the planning and implementation of urban sustainability projects. Their roles in terms of social, environmental, and technological responsibilities were discussed. Further discussions were on how they can supply beneficial Indigenous ideas and identify local resources that can be accessed and addressed for the implementation of urban sustainability.

Urban sustainability funding sources and management: Issues related to how the finance and funds channeled to the urban sustainability project can be managed through innovative financing by drawing private sector, national government, and other possible funding sources were discussed.

Policies, laws, and regulations that can impact the implementation of urban sustainability: The provision of sustainable cities requires policy-makers and planners to understand and incorporate the needs of different societal stakeholders into policy frameworks. Discussions in this area focused on how policies, laws, and regulations can be used to impact the implementation of urban sustainability. Discrepancies in the legal framework and how the urban sustainability laws and policy can be integrated into the government acts, laws, and policies were exclusively assessed.

Monitoring and performance evaluation plan for urban sustainability: It is expedient that a plan be made available for the monitoring and evaluation of urban sustainability performance. In this section, we formulated the important indicators and milestones to be achieved at a specific time according to the dimensions of urban sustainability. The interrelationship between the indicators, their review mechanisms, and the assessment of the success or failure of sustainability implementation by all stakeholders using the indicators were exclusively discussed.

Best practices for urban sustainability in SSA: Through an extensive literature search, we identified best practices from other countries that have successfully implemented urban sustainability projects to improve the potential for learning and replication in SSA

Relevant statistics and charts will be provided to support the discussions on each theme.

Expected findings.

- Identification of the context-specific multisector and all-inclusive approaches to urban sustainability in SSA;
- Urban mechanisms to be addressed using an integrated and multisectoral approach;
- Identification of urban sustainability funding sources and management;

- Documentation of urban sustainability plan for monitoring and performance;
- Planning, timing, and policy drive for urban sustainability in SSA;
- Urban sustainability best practices elsewhere for adaptation or adoption by SSA countries.

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