Sub-Saharan Africa is at the centre of global urban growth, with 34.7 per cent of the world’s urban population growth from 2020 to 2050 expected to be in the region. Secondary cities are responsible for more than 50 per cent of this growth, which is taking place through both natural increase (57 per cent) and rural-urban migration (43 per cent).

The Cities Alliance
Cities and Migration Programme

This summary highlights the key findings of a research report prepared for the Cities Alliance Cities and Migration Programme by Patrick Lamson-Hall, Urban Planner and Research Scholar at the New York University (NYU) Marron Institute of Urban Management; Shlomo (Solly) Angel, Professor of City Planning at the Marron Institute and Director of NYU’s Urban Expansion Programme; and Tsigereda Tafesse, Urban Expansion Planning Expert for Cities Alliance, with funding from the Swiss Agency for Development and Cooperation.
This shift in the population is leading to urban expansion that is fast and disorderly. Satellite evidence shows that 78 per cent of new urban residents from 1990 to 2015 were accommodated in new peripheral areas of expansion, of which 66 per cent were found to be unplanned or informal.

Urban planning can help cities in sub-Saharan Africa promote socio-economic inclusion of rural-urban migrants and new urban natives and also meet international commitments around migration. Unplanned and disorderly growth disadvantages migrants by cutting them off from urban services and many of the opportunities in the metropolitan labour market. Planned and orderly growth can do the opposite, physically linking new residents to the labour markets and services that will help them thrive.

Migrants settle on the edges of cities in part because peripheral areas are more affordable, and land is more abundant. The pragmatic decisions of migrants are rooted in their unique circumstances, and cities must plan for growth in order to avoid the emergence of permanent informal settlements.

Addressing this challenge takes planning techniques that focus on the urban periphery, where most new growth is occurring.
URBAN EXPANSION PLANNING HAS A CRITICAL ROLE TO PLAY IN HELPING SECONDARY CITIES IN SUB-SAHARAN AFRICA ACCOMMODATE NEW MIGRANTS AND MANAGE SPATIAL EXPANSION. SMALL INVESTMENTS ALLOW CITIES TO TAKE CONTROL OF PERIPHERAL GROWTH FOR 30 YEARS, ORGANISING IT INTO A FRAMEWORK THAT IS ECONOMICALLY AND SOcialLY INCLUSIVE AND MORE ENVIRONMENTALLY SUSTAINABLE.
Urban expansion planning is a tested approach for cities to prepare basic arterial infrastructure in peripheral areas, connecting expansion areas with the rest of the city and guiding development away from areas of high environmental risk. Acknowledging the reality of urban spatial expansion, urban expansion planning helps cities prepare land for 30 years of forecasted growth for settlement of new urban residents, including urban natives and rural-urban migrants.

Simple demographic forecasting and historical growth analysis can produce useful estimates of how much land a city will consume over the next 30 years. Implementation requires cities to secure corridors of land in the first five years to service this area. The corridors produce a grid of arterial roads spaced 1 km apart that places all residents of the periphery within a 15-minute walk from a road that can carry trunk infrastructure and public transportation.

Environmentally sensitive areas are also secured. Corridors of land are surveyed, marked, and protected from development by various means, ranging from easements to payments.
The benefits of investing in urban expansion planning

Urbanisation, planned well, is associated with higher incomes, longer life expectancy, and better health outcomes due to the tremendous productivity that results from the complex web of socio-economic relationships in cities. Actions to plan peripheral areas of cities can bring broad benefits to urban natives and rural-urban migrants by encouraging economic growth.

Urban economies in sub-Saharan Africa are primarily based on services and small and medium-sized enterprises, which benefit from strong intra-urban connections that expand the available customer base, permitting specialisation and adaptation. Urban expansion planning creates intra-urban linkages through the establishment of the arterial grid, which makes all parts of the urban periphery equally accessible.

Urban expansion planning is sensitive to the lifestyles of rural-urban migrants, who maintain linkages with rural areas and may return there many times for economic and social reasons. Successfully transitioning back and forth requires flexible housing options and easy access to urban labour and goods markets. Settled migrants and urban natives also benefit from opportunities to build wealth by establishing businesses and owning homes. Urban expansion planning makes land available for housing and businesses.

Local leaders and national policymakers appreciate urban expansion planning because it is pragmatic, evidence based, and locally led. Once city officials have been trained in the technique, the activities are within the capacity of most urban governments, including those with relatively few resources. Local leaders have shown that it is possible to embrace urban expansion planning, create buy-in from stakeholders, and demonstrate considerable creativity in solving implementation problems.

Financing for urban expansion planning

There are several different ways for cities to improve the fiscal picture with regard to urban expansion planning and implementation, including:

- Revenue enhancement, such as charging higher down payments to wealthier citizens and commercial entities, incentivising early payments, and property taxation systems.
- Cost reduction options in design (using existing road rights of way, minimising crossing waterways, avoiding structures requiring compensation), negotiation (such as titling and basic services in exchange for easements), and building in phases.
- Municipal and regional financing facilities, such as establishing City Expansion Revolving Funds (CERFs) to guarantee the reinvestment of lease revenues and down payments into land development and using capacity and infrastructure development financing facilities for urban expansion.
- Municipal bonds may allow some cities to raise money to fund public projects.
- Legislative changes, including public-private partnerships (PPPs), changes in revenue assignments for cities, and the introduction of municipal borrowing.
Results on the ground in Ethiopia and Uganda

Much of the data on the results of urban expansion planning comes from cities in Ethiopia, where the Ministry of Urban Development and Construction (MUDC) launched the Ethiopia Urban Expansion Initiative to implement urban expansion planning in 2013. It partnered with city governments to provide technical training in the methodology to four rapidly growing secondary cities– Mekele, Hawassa, Bahir Dar, and Adama – and expanded the programme to 14 additional cities.

In Ethiopia, urban expansion planning from 2013 to 2016 led to the construction of over 570 km of arterial roads, creating space for at least 140,000 new residents and 26,000 jobs. It also reportedly reduced informality and squatting. Technical support in Ethiopia cost $700,000 to support 18 cities for three years, with participating cities investing $35 million from capital budgets over five years.

Uganda has been exploring urban expansion planning since 2020, when the Ministry of Lands and the Ministry of Local Government assigned a dedicated joint team to study the urban expansion planning methodology. Four cities are currently working to implement urban expansion planning: Arua, Gulu, Jinja, and Mbale.
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Seven case studies in Uganda and Ethiopia

The following case studies highlight cities’ experiences with the five steps of urban expansion planning – predict, control, preserve, plan, and protect – as well as two additional activities.
Urban Expansion Planning Activity

Predict
Determine how much land the city is likely to need for urban expansion in the next 30 years.

Example City
Gulu, Uganda

- A dedicated city urban expansion team was trained to produce three sets of data – estimated population, area, and population density for every year to 2050 – that formed the basis of Gulu’s urban expansion plan and will inform the investment programme for implementation.
- The data empowered the Gulu local government, which is now better able to enact change on the urban periphery of the city.
- The city team made the calculations themselves, so they have a clear understanding of the procedure and enough faith in the results to bring it to their political leadership.

Control
Determine where new urban areas will be located, and how the city can gain planning authority over this new expansion area.

Example City
Dire Dawa, Ethiopia

- Dire Dawa’s planning forecasts showed that future growth would quickly outstrip the land available within its urban administrative boundary. A federal charter city surrounded by rural kebeles, Dire Dawa faced a jurisdictional boundary problem that hindered expansion.
- The city team was able to clarify the jurisdiction issue with the Ministry of Urban Development and Construction at a workshop.
- The team is consulting with rural kebele leaders about the projections, the anticipated growth, and the expansion plan.
- Dire Dawa’s approach shows that planning jurisdiction is a political matter that will have to be resolved creatively by political leaders.

Preserve
Identify the environmentally sensitive and high-risk places within the expansion area and determine how to protect them from development.

Example City
Bahir Dar, Ethiopia

- Bahir Dar has been very successful in implementing urban expansion, constructing over 100 km of arterial roads, attracting $121 million in investment to a locally built light industrial zone in the expansion planning area, and settling 25,000 to 40,000 people in new residential areas.
- Its plan includes environmental reserves, but some areas were already occupied.
- The plan allowed the city to offer a viable alternative location to the squatters that is well-connected by arterial roads to the city centre and near the local industrial area, where jobs are abundant.
### Urban Expansion Planning Activity

#### Plan
Design a network of 30-metre-wide arterial roads, spaced 1 km apart, to make the lands in the expansion area accessible for development.

**Example City**
Jinja, Uganda

#### Protect
Determine what tools and resources are available to guard the arterial road rights of way against squatting and development, so that they are available in the future.

**Example City**
Hawassa, Ethiopia

### Highlights

- Jinja was upgraded to municipality status and its administrative area increased from 6,400 to 21,560 ha. The annexation of adjacent rural areas also increased the city population from 99,044 to 307,413. These areas are unplanned and lack services.

- City leaders in 2020 formed an urban expansion team that received training in the steps of urban expansion planning.

- The team selected an expansion area within the administrative boundary and mapped environmentally sensitive lands, forming macroblocks in the expansion area.

- The team decided that all residents of the expansion area should be within a 15-minute walk of a road that offers direct access to the rest of the city and is capable of carrying public transportation, major drainage, water, and other vital infrastructure.

- Hawassa had extensive informal settlements on the urban periphery that lay between the expansion area and the existing city, making it very costly to connect the new arterial grid to the city’s existing road network.

- The municipal government identified arterial road corridors that could pass through the informal settlements with minimum disruption and offered residents the chance to regularise their land title in exchange for rearranging their fence lines and structures along the lines of the future grid.

- Land for several of the arterial roads was secured at no cost to the municipality, creating extensive new land for settlement on the periphery.

- Hawassa’s plan allowed it to easily site land for a new industrial park along the arterial road, creating 40,000 to 50,000 jobs.
Urban Expansion Planning Activity

Urban expansion by other means: the structure plan of Adama

Example City
Adama, Ethiopia

Adama prepared a draft urban expansion plan, approved it, and expressed initial enthusiasm for the methodology.

The local planning staff incorporated elements of the urban expansion plan into their structure plan, a ten-year plan governing the development of the urban periphery.

Adama’s experience shows that urban expansion planning can have positive effects on efforts to prepare land for growth and heavily influence future planning decisions, even without a fully successful urban expansion initiative.

A survey of household-level impacts of urban expansion planning

Example City
Hawassa, Ethiopia

Hawassa successfully created an expansion plan and acquired the rights-of-way for 60+ km of arterial roads. It then leveraged infrastructure funds to construct roads in the first phase of implementation.

A 2021 survey found that households in areas where urban expansion plans were implemented:

- Have more working people in the household, higher household income, and are more likely to host people who have migrated from other urban centres compared to rural areas.
- Are more likely to have formal title or land tenure.
- Are roughly four times as likely to have piped drinking water and seven times as likely to have formal, metered electricity.
- Have shorter travel times to the city centre and lower travel costs.