

Integrated Planning for Sustainable Urban Form

Challenges

Fast growing cities face challenges of populations to shelter, huge infrastructure needs to finance, a changing climate to adapt to, and the imperative to thrive in an evolving global economy. Meeting these challenges will determine a city's success and quality of life.

Decisions and policies may lock a city into a long-term physical form that proves suboptimal over time. Undesirable physical forms can set back a city's development for decades.

Integrated planning approaches are needed to address these complex and interrelated urban sustainability issues, and create co-benefits for cities.

Strategies to Guide Integrated Planning for Sustainable Urban Form

1. **Compact and polycentric density.** Increasing density in urban areas and promoting compact urban development can facilitate agglomeration economies and improve access to services. The key to agglomeration economies, which foster knowledge spillovers and economic productivity, is job concentration, which

in turn depends on transit accessibility. Research suggests a 30-minute threshold for achieving an agglomeration effect: the higher the number of jobs, firms, and people that can be accessed in less than 30 minutes by transit from an urban area, the more people and jobs will tend to concentrate in the area. Sustainable urban forms are polycentric



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What is GPSC?

Led by the World Bank and supported by multilateral development banks, UN organizations, think tanks and various city networks, the GPSC is a knowledge sharing platform that will provide access to cutting-edge tools and promote an integrated approach to sustainable urban planning and financing.

as well as compact: multiple specialized subdistricts can drive localization economies and generate shorter commuting times because they give workers a wider range of housing choices near work.

2. Flexibility and alignment with market demand. Plans and zoning designations should reflect market realities while meeting long-term goals. An efficient and resilient spatial structure is able to gradually transform through land use change to respond to market needs. Plans and regulations that control development must periodically be amended to align with market demands and must be able to engage private sector developers.

3. Connectivity through scales and vibrant public realm. At the metropolitan level, integrated planning must coordinate transport plans with land use policies and related infrastructure plans. At the local level, dense and connected street patterns save on the cost of infrastructure, reduce congestion, increase walkability, and make streets people-friendly.

4. Small perimeter blocks with active edges. Small blocks are the essential element of an effective, human-scale, and pedestrian-friendly urban fabric. In addition to shifting people away from cars and helping to optimize the flow of traffic, they make neighborhoods more vibrant by creating diverse public spaces, employing diverse architectures, and attracting diverse activities.

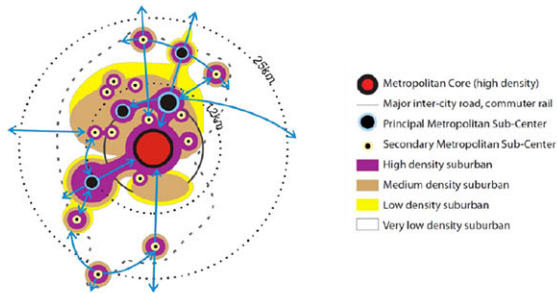
5. Mixed use. Mixing residential and commercial uses along with amenities at

neighborhood, block, and building levels guarantees access to amenities that are close to where people live. Local governments should make sure that zoning ordinances allow for mixed use and should rezone to create more mixed-use areas.

6. Public spaces, natural systems, and bioclimatic urban fabric. Cities need such open spaces at a variety of scales, including smaller, more intimate neighborhood parks as well as larger open spaces. Public spaces can give neighborhoods an identity and establish a sense of place for residents, which is vital for creating community and improving quality of life. Regenerating natural systems in cities is an integrated planning strategy that crosses traditional bureaucratic and jurisdictional boundaries and provides multiple, overlapping benefits. Natural systems perform essential functions. They moderate climate, manage water, and protect coasts. Fast growing cities should preserve or reconstruct native habitats and species. Nature should find a new place in the city: in parks or yards, in the trees along streets, in the vegetation capping roofs.



Johannesburg's Spatial Vision: A Compact Polycentric City



Johannesburg Future City Model: Compact Polycentric Urban Form. The future polycentric Johannesburg will bring jobs to residential areas and housing opportunities to job centers (rather than merely transporting people between the two). It will bridge spatial and social barriers and build a framework for a spatially just city.

Johannesburg's Spatial Development Framework (SDF) 2040 seeks to create a spatially just world-class African city. It envisions Johannesburg as a compact polycentric city with a dense urban core, one linked by efficient public transport networks to dense, mixed-use, complementary subcenters, with the whole situated within a protected and integrated natural environment.

To facilitate this spatial transformation, the SDF 2040 endorses the following intertwined concepts for the newly imaged Johannesburg:

- **Compact.** Combines density, diversity, proximity, and accessibility in order to reduce distances, travel times, and costs; bring jobs and social amenities to residential areas; and reduces energy consumption and infrastructure costs.
- **Inclusive.** Ensures that provision of services (hard and soft) is balanced,

and that opportunities are available for all, by diversifying land uses, promoting social mixing, and bridging social, spatial, and economic barriers.

- **Connected.** Enhances physical and virtual infrastructure at provincial and urban scales—ranging from the “Corridors of Freedom” transport arteries to street- and neighborhood-level connectivity—to reconnect the city.
- **Resilient.** Builds a metropolitan open-space system as a buffer to protect valuable green infrastructure and areas of high agricultural potential, promote sustainable energy use, reinforce the urban development boundary, and protect biodiversity resources.
- **Generative.** Focuses investment in priority transformation areas and nodes with the potential to grow economically and create jobs while enhancing public space and promoting sustainability (social, environmental, and economic).

Mixed-Use Neighborhood in Guangzhou



Amenities in Liuyun Xiaogu. Shopping, hotels, dining, and entertainment, as well as health, education, and other services, are among the neighborhood's amenities. Source: ITDP.

Liuyun Xiaogu is a walkable, mixed-use neighborhood in Guangzhou that provides a variety of amenities and services (see figure). Liuyun Xiaogu became mixed-use by simply allowing ground-floor residents to commercialize their homes.

Source: Salat, S. (2016). Integrated Sustainable Urban Planning: A preliminary approach. Global Platform for Sustainable Cities.

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