

Urban Patterns for Sustainable Development: Towards a Green Economy

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EXECUTIVE SUMMARY

Cities have a vital role to play in the realisation of sustainable development and poverty eradication in the context of a Green Economy. As more and more land is converted to urban uses, the patterns that this development assumes within the region around cities will have far-reaching effects both upon the world's economies, energy use and climate change. Combining the perspectives of economic competitiveness, strategic spatial planning and landscape ecology leads to seven strategies for achieving urban patterns for sustainable development. Local officials should:

Embrace land mosaic patterns that provide for large green patches and more sustainable urban development. Two urban patterns, the 'compact concentric zone' and 'satellite cities' models, can best provide for both human and ecological systems. These patterns preserve a greater number of large patches of land within which nature can thrive, whereby flooding and landslides can be prevented, while at the same time allowing for population and economic growth. On the other hand the patterns of urban sprawl and uncontrolled development along corridors yield inferior results.

Promote compact cities and planned extension of urban areas. Urban densification allows people and businesses to take advantage of agglomeration economics while protecting the environment. Planners can promote dense growth by redeveloping inner city brownfields. Urban upgrading can maintain the density of informal settle-

ments while improving the quality of life for residents. This would contribute to enhancing the role of the street as the prime locus of public intervention. Compact development around public transport stations can support planned extension of urban areas. The coordination of land use development and infrastructure investment is critical in this regard.

Balance strategic facilities with diversified local economic opportunities. As an urban centre grows, the range and number of the functions that it supports generally increases. Facilities such as good harbours, an international airport, universities and a financial centre strengthen the competitiveness of a city-region and support value chains throughout the area. At the same time, diversifying local economic opportunities diminishes the demand for mobility, hence reducing energy use. Meanwhile, individual cities may play to some extent specialised roles within a polycentric urban region.

Expand network infrastructure while getting the most out of existing networks. Multi-modal transportation systems help to reduce dependence on the automobile. Commuter rail lines can support compact patterns of urban growth. Energy and fibre-optic cable facilities are crucial for economic competitiveness, while basic services help to protect the environment. At the same time new technology and policies can help operators to squeeze more use out of existing capacity.

Construct 'greener' built environments that use water and energy efficiently. Both regulatory approaches (e.g. strengthened building codes) and incentive-based strategies (e.g. green building rating tools, green mortgages) can promote green building.

Protect valuable ecosystems services and biodiversity hotspots while increasing resilience to some natural disasters. Safeguarding ecosystems involves understanding how those systems work, and conserving blue-green patches and corridors accordingly. Some ecosystems provide valuable services for humans, including protection from natural disasters; making those benefits explicit helps decision-makers understand why they should be preserved. At the same time biodiversity hotspots should be protected for more purely ecological reasons.

Promote clusters of green industries and jobs. Officials also can support the growth of clusters of green industries and green jobs, e.g. through three-way links between universities, business and local authorities.

These strategies can contribute to developing the city-region, within the context of the Green Economy. Challenges remain, however, including those related to governance models, benchmarking for competitiveness and comparing urban energy efficiency profiles. UN-Habitat stands ready to help city-regions to pursue these strategies within the context of sustainable urban development and urban poverty eradication.