

How Much Public Space Does a City Need?

BY GREG SCRUGGS | JANUARY 7, 2015

How much of Manhattan is dedicated to public space? For starters, there's Central Park, but the island's oasis is only 1.3 square miles, 5.6 percent of the borough's land area. You might remember those swaths of green way uptown, like Highbridge Park and Inwood Hill Park (the only natural forest left in Manhattan), but together they're just another one-half square mile, accounting for a mere 2.1 percent. Add in all the well-worn parks from Marcus Garvey to Bryant, the slivers of open space along the rivers, privately-owned public spaces like Occupy's Zuccotti Park, newfangled innovations like the [High Line](#), and [Janette Sadik-Khan's](#) pedestrian plazas. Maybe 15 percent at best?

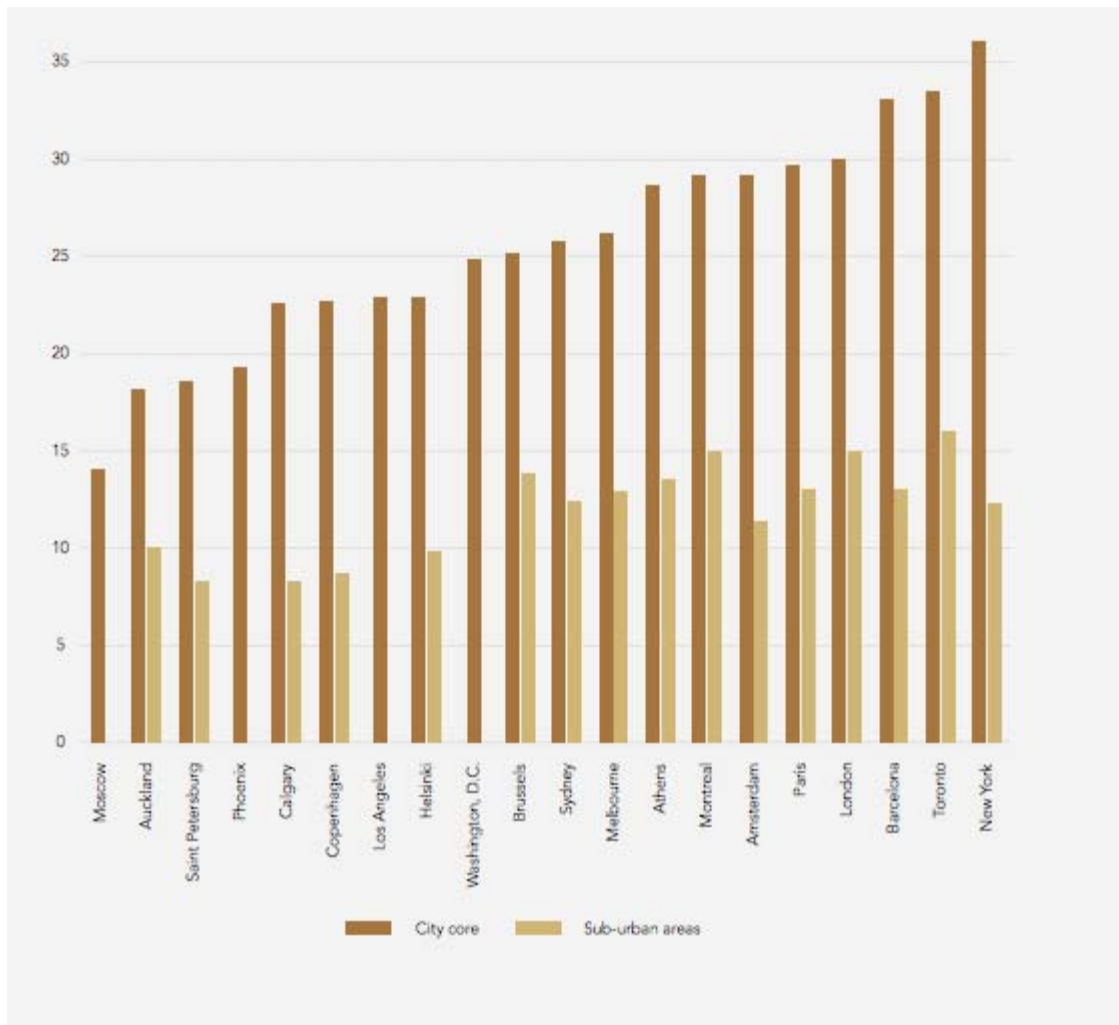
Guess again. When we think about public space, we picture parks and greenways, but overlook the largest single public space asset in any city's rolls: streets. Include the pavement New Yorkers traverse every day in your public space calculation and the city's most prosperous borough hits the magic proportion: 49 percent.

Magic, at least, according to the researchers at UN-Habitat's Global Urban Observatories Unit, who last year released the report [Streets as Public Spaces and Drivers of Urban Prosperity](#). They argue that asphalt, hardscaped streets should be counted as public space right alongside our leafy parks and landscaped plazas. Together, they should make up 45 to 50 percent of a city's land area, with 30 to 35 percent of the area occupied by streets and 15 to 20 percent open space. "If less than 30 percent of the land of the city is dedicated to the street pattern, it's a

huge error,” UN-Habitat Executive Director Dr. Joan Clos says. “If you have less, you will have big congestion problems.”

The problems go beyond traffic snarls, according to the UN researchers, who found a correlation between expansive street grids and prosperity. Manhattan, with 36 percent of its area is dedicated to streets and a booming economy, has the largest street grid in the world thanks to a 1811 plan that prioritized a reliable street pattern. Toronto, Barcelona — where Clos served as Mayor — and London, all economically vibrant cities, aren’t far behind, while younger and poorer U.S. cities like Phoenix and [Los Angeles](#) hit the sub-30 percent danger zone. It’s not incidental that Phoenix and L.A. — both [car-oriented](#) places that developed with a more suburban form than older cities — have a smaller percentage of their area dedicated to public streets. In these cities and in their suburban peers, large lots and open spaces collude to create a very small overall percentage allocated to streets.

“In general, the American city has a good pattern of street allocation,” says Clos. “This is not so in suburbia.”



Land area dedicated to streets in North America, Europe and Oceania cities.

Among cities in Africa, Asia, Latin America, and the Caribbean, the cities with the most area dedicated to streets leaders are Hong Kong, with 34 percent and Tokyo, with 29 percent. Both are economic powerhouses. At the bottom of the street-area rankings, all with under 10 percent: Bangui, Central African Republic; Yerevan, Armenia; and Dhaka, Bangladesh.

Clos argues that these cities look more like the Phoenixes of the world than the Mannhattans and Barcelonas.

“The pattern of sprawl and suburbanization which is very frequent in the expansion cities of Latin America, Asia, and Africa. The street pattern tends to be less than 10 to 15 percent. This kind of pattern cannot support the future evolution of urbanization,” says Clos. “These parts of the city tend to resist very badly when you want to increase the compactness or density because there is not enough street.”



Barcelona has more area dedicated to public streets than most cities.

In the fast-urbanizing global south where new cities are rising out of the ether, a functional street grid can easily fall casualty to a hot real estate market that offers a tidy profit on the centrally located parcels. Take street crossings, for instance, which can be threatened by the sale of land adjacent to busy roads. UN researchers advocate keeping enough land

public to ensure construction of at least 80 crossings per square kilometer in fast-growing cities. “Any less and you are certainly going to be in a collapsed city,” Clos says. “Those are not prescriptions, but the consequence of studying the street pattern of the world and correlating it with the congestion in many different matters.”

The report cites **Nairobi**, where four people were killed on Sunday when a six-story building on a densely populated block **collapsed**, as a specific example of a city without an adequate street grid. There, the number of intersections per square kilometer barely reaches 40 and many streets lack sidewalks.



Nairobi has a low proportion of its land area dedicated to public streets. (AP Photo/Ben Curtis)

But numbers don't tell the whole story. Cities still must be conscious of how they use the precious square feet, after all there is a big difference between St. Petersburg, Russia and Ouagadougou, Burkina Faso, even though they have the same scant 15 percent of area dedicated to streets.

Clos pointed to perennial pedestrian charmers like his native Barcelona, Vienna, Amsterdam, San Francisco, and Budapest as cities that have

their streets enough breathing room and also made sure to design them to support a thriving economy. Even if the Greek economy has fallen on hard times, when Athens was made the capital in 1832, a street plan laid out over the 7,000-year-old city helped transform it from a sleepy city of ancient ruins to a metropolis befitting modern Greece.

Laying out the streets, however, is only half the battle. Especially in the automobile era, it's vital to make sure they serve more than just car traffic and provide a dynamic streetscape for all users. "It is not just the amount of public space, but its quality of potential use, the process through which it is created and owned, and its governance," says Ethan Kent, Vice-President of Project for Public Spaces.

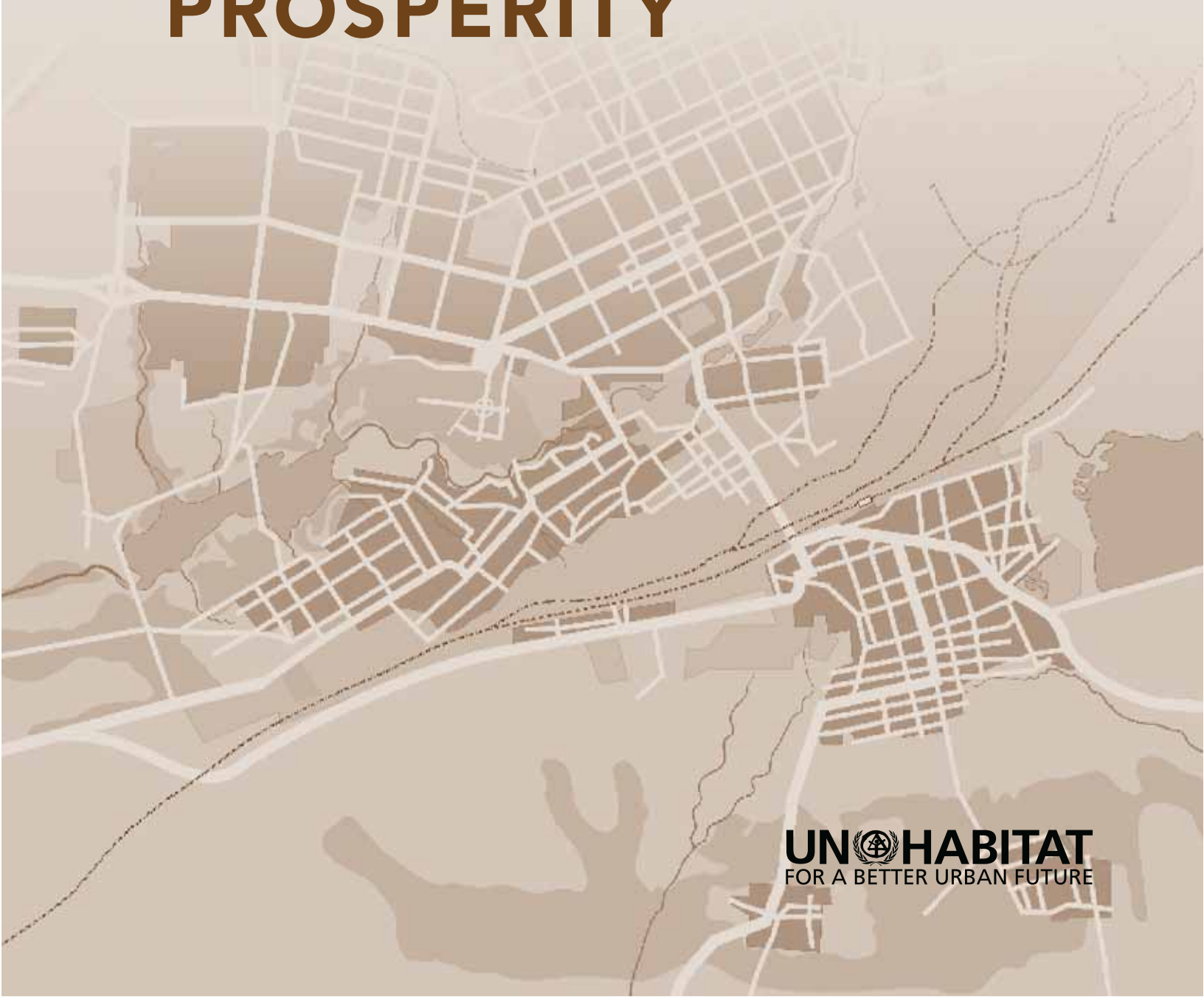
Ultimately, it's not only about how much a city has by way of streets, but also what a city – and its residents – do with them.

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STREETS

AS PUBLIC SPACES
AND DRIVERS OF

URBAN PROSPERITY





FOREWORD

In the history of cities, successful urban development has not been possible without an organized physical layout and a system of street interconnectivity within cities. Since ancient times, streets have played a critical role in cities, connecting spaces, people and goods, and thereby facilitating commerce, social interaction and mobility.

Streets, plazas and designed public spaces have contributed to define the cultural, social, economic and political functions of cities. They were – and continue to be – the first element to mark the status of a place, from a chaotic and unplanned settlement to a well-established town or city.

Nowadays, streets and the notion of public space are often overlooked. When planning the city, the multiple functions of streets are poorly integrated and, in the

worst cases, are neglected. Streets are usually regarded as mere links in a road network, enabling travel between two or more destinations. This conventional representation of the street as a link has tended to define and use streets only through its movement function, ignoring or subverting the other functions, which are seen as “collateral” uses of the street. Streets have thus progressively lost their multi-functionality as public spaces.

Today, people are reclaiming their streets as public spaces in many corners of the world. Streets are being planned to recover the full use by the communities and as means of social engagement. The planning and design of streets should also recover the needs of all users of this common space: age-groups, gender, economic status and modal means.

In 2012 UN-Habitat presented to the world the notion of city prosperity, which implies success, wealth, thriving conditions, and wellbeing, as well as opportunity for all. Cities that foster infrastructure development, environmental sustainability, high productivity, quality of life, and equity and social inclusion are considered prosperous cities. Building on the notion of prosperity, UN-Habitat emphasizes that for a city to be prosperous, it must have a generous and well-designed street pattern. In this report, UN-Habitat advocates for a holistic approach to streets as public spaces that embraces the concept of livability and completeness. A good street pattern boosts infrastructure development, enhances environmental sustainability, supports higher productivity, enriches quality of life, and promotes equity and social inclusion.

In this report, *Streets as Public Spaces and Drivers of Prosperity*, UN-Habitat is making a first attempt to integrate streets into the five dimensions of prosperity measured by the City Prosperity Index (CPI). These five dimensions – productivity, infrastructure development, environmental sustainability, quality of life, and equity/social inclusion – are all strongly linked to the quality of the street pattern. Elements such as urban form and connectivity become featured in the City Prosperity Index. UN-Habitat's "Composite Street Connectivity Index" (CSCI), introduced in this report, is now an integral part of the CPI and expresses the recognition that urban form, planning and structure are part of a city's prosperity. The findings and policy positions presented in this

report are based on data from more than 100 cities around the world, an important critical mass of information that ensures inclusive geographical representation and a good coverage of different types of cities.

The findings of this report show that prosperous cities are those that recognize the relevance of public spaces (with proper layouts) and those which have allocated sufficient land to street development, including sufficient crossings along an appropriate lengthy network. Those cities that have failed to integrate the multi-functionality of streets tend to have lesser infrastructure development, lower productivity and a poorer quality of life. The report also shows that the lack of street connectivity increases social exclusion and generates inequalities in various spheres of life, access to basic services, in particular. This report aims to be a useful tool for policymakers, urban planners, researchers, city changers, and all Habitat Partners in ensuring that cities are prosperous places for all.



Dr. Joan Clos
Under-Secretary-General and
Executive Director, UN-Habitat