PLANNING FOR RAPID URBANIZATION
NYU Marron Institute of Urban Management

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We conduct innovative applied research, working with cities to take on critical challenges of urban living. Faculty members develop research and conduct projects in five major research programs:

Urban Expansion, Environmental Health, Criminal Justice, Civic Analytics and Public Sector Performance and Innovation.
WHY CITIES?
WHY SHOULD WE FOCUS ON CITIES?

People are choosing cities. Cities are at the center of growing the economy and housing burgeoning populations. This is an incredible challenge that governments, communities and stakeholders need to address with knowledge and data specific to their urban settlements.

WE LIVE IN AN URBANIZING WORLD
THE STATE OF WORLD URBANIZATION
There were 4,231 cities in the world with populations of at least 100,000 in the year 2010.
To study this universe, we rely on the Global Sample of Cities, a stratified sample of 200 cities from the universe of all 4,231 cities that had 1,000,000 people or more in 2010.
LANDSAT imagery is used to measure the extent of a city in three periods, circa 1990, circa 2000, and circa 2015. A city’s expansion area was determined by subtracting its 1990 extent from its 2015 extent.
Cities are expanding at faster rates than their populations.
EVIDENCE

Between 1990 and 2015 the population of cities increased by an average multiple of 1.9. Their urban extents increased by a significantly higher average multiple, 2.5.
In Less Developed Countries, city populations increased 2.3 times while urban extents increased 3.2 times. In More Developed Countries, city populations increased 1.2 times while urban extents increased 1.7 times.
FACT

The average population densities of cities are in decline.
Between 1990 and 2000, the average built-up area density of cities worldwide declined significantly, from 173 to 129 persons per hectare. Between 2000 and 2014 it declined significantly as well, from 129 to 88 persons per hectare.
**EVIDENCE**

Average built-up area densities in Less Developed Countries were much higher compared to More Developed Countries. Within these two regions, the declines in average density were significant in both time periods.
FACT

The share of residential areas that were not laid out before they were settled has been increasing significantly over time in cities worldwide.
EVIDENCE

The share of residential areas that were not laid out increased significantly, from 21% in areas developed before 1990 to 31% in areas developed between 1990 – 2015.
FACT

Cities are now reserving less land for the rights of ways of arterial roads, and people are now living further from arterial roads.
EVIDENCE

On average, the share of the built-up area within walking distance of wide (18m+) arterial roads fell significantly, from 83% in the area built before 1990 to 69% in the area built between 1990-2015.
EVIDENCE

Cities in both Less Developed countries and More Developed countries experienced significant increases in the average distance to arterial roads.
FACT

Urban layouts on the peripheries of cities are becoming less walkable over time; block sizes have significantly increased, and the share of 4-way intersections has significantly declined.
EVIDENCE

Average block size increased significantly in cities in both Less Developed and More Developed countries in areas developed after 1990 compared to areas developed before 1990.
THE CHALLENGE
Population growth in Less Developed Countries will greatly exceed the growth in More Developed Countries in the 21st century.
In the next 30 years urbanization is going to take place in Africa and Asia. Sub-Saharan Africa will contribute 35% of new urban dwellers, and Southern Asia 25%.
Of the added population between 1990 and 2015:

77% Urban Expansion  23% Densification
HOW CAN WE STEP UP TO THE CHALLENGE?

By recognizing this issue and preparing cities to grasp their growth by making room. In such way, accommodate proper growth whether its through the existing city or in new developments, or even both, these actions to make room become the foundation of a new, better future.

Densification and expansion go hand-in-hand and are substitutes of each other.
5 PRINCIPLES THAT GUIDE THE MAKING ROOM APPROACH

Rather than complicated and over elaborate plans, we are firm believers that basic principles can go a long way in helping cities, governments and locals reach for a real, achievable outcome.

In order to achieve such results, there are certain principles that need to be addressed as the bases for the understanding of past, present and future conditions.

1. HAVE REALISTIC PROJECTIONS
Understand your context of growth and land consumption with realistic scenarios.

2. MAKE ROOM FOR GROWTH
Asses densification potential and secure enough land for new areas now and avoid higher cost development later.

3. ENSURE CONNECTIVITY
Plan for roads and public infrastructure, transportation and connectivity.

4. PROTECT PUBLIC OPEN SPACES
Integrate Green and Blue infrastructures as the bases of development and secure a system of public open spaces.

5. ENCOURAGE PROPER SUBDIVISION
Clear subdivisions guidelines to help capture property value in the present and the future.
Thank you!

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