

The world's cities are gobbling up land faster than they're gaining people

• BY [EMILY BADGER](#)

•

• April 14 at 2:36 pm

- <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/04/14/the-worlds-cities-are-gobbling-up-land-faster-than-theyre-gaining-people/>

Throughout the last two centuries, cities across the globe – as you might view them from space – have expanded in a relatively uniform way: first incrementally, then at a breakneck speed.

In older cities, this pattern has paralleled innovations in transportation. Early 19th century London, Boston or Warsaw could only expand so fast when the main modes of getting around were by foot or horse and buggy. Eventually, streetcars, railways and automobiles changed the geography of urbanization. A commute of 20 blocks in 1800 becomes a commute of 20 miles in 2000. A small town the size of Chicago in 1850 becomes this over time:

Meanwhile, an urban area like Sydney, Australia, grows like this from another animation created by the [New York University Stern Urbanization Project](#):

These videos, from a set of [30 global cities](#) recently animated by NYU, are based on historic maps [dating back to 1800](#) originally compiled and digitized in [The Atlas of Urban Expansion](#), a project of the [Lincoln Institute of Land Policy](#) (they're planning an updated version next year). The maps reflect both the rapid growth of new development and, in some cases, the swallowing up of existing rural communities as urban centers have expanded.

The animations repeatedly show this process gaining speed (and land mass) in the second half of the 20th century. Writes [NYU research scholar Patrick Lamson-Hall](#) in introducing the project:

This is in keeping with the theory of falling density, which holds that as cities have grown bigger and the world has urbanized, densities have been steadily falling. As a result, cities require more urban land per person, meaning total growth in the city area is much greater than population growth.

This trend is closely related to another phenomenon: Globally, **household growth is expanding much faster than population growth**. That means the literal number of homes on the planet -- each requiring land, energy and infrastructure -- is expanding faster than the number of people. The average household in developed countries had five residents in the late 1800s. Now it has 2.5, suggesting that we need twice as many homes now to house the same number of people.

All of these trends -- growing urbanization, falling density, rising household growth -- together present some big challenges for how we consume resources and land. And this is particularly apparent in the developing world, where urbanization in the age of the automobile is now well under way.

Here is Lagos, Nigeria:

And Nairobi, Kenya, which explodes after 1980:

And Shanghai:

By 2050, the world's urban population is expected to rise from **about 3.5 billion people today to 6.2 billion**, and nearly all of this growth is likely to come outside of already-developed countries. That means that booming places like Lagos, Nairobi, Mumbai and Manila still have a ton of growth ahead of them. And if we don't think now about how to manage that future urbanization more sustainably, those cities could triple their developed land area by 2050. Those cities could consume resources inefficiently, destroy habitat in the process, and spawn more practical problems like endless gridlock.

It's inevitable that consumption will rise in developing cities as the people who live there grow wealthier (and that's hardly something that developed nations can begrudge them). But it's not necessarily inevitable that urban areas should gobble up land so much faster than they gain population. That's the kind of thing we can try to plan for.



Emily Badger is a reporter for Wonkblog covering urban policy. She was previously a staff writer at The Atlantic Cities. She's from Chicago, which is the best city. You can find her on Twitter at [@emilymbadger](https://twitter.com/emilymbadger)