Inclusive TOD for Sustainable, Equitable Cities

By Clayton Lane, CEO

As I write this, it is 6 AM in Mexico City, an hour before sunrise. The daily commute, a snarl of traffic, pollution-tainted grey skies, and life-risking dashes across busy roads, has already begun for thousands living in the city's car-oriented periphery. For these working parents, a three-hour trek via dirt paths, unreliable microbuses, BRT, and metro, connects two distant economic necessities: job opportunities in the city center and affordable housing on the outskirts. The spatial mismatch also effects their children's lifelong social outcomes of sprawl-induced segregation –shorter life expectancy, less educational attainment, and higher risk of cyclical poverty. Children will also experience the long-term effects of climate change spurred by inefficient cities, which currently comprise over 70% of global CO2 emissions.

Image: Adam Wiseman

Similar commutes play out every day for hundreds of millions of people around the world, as cities offer hope for economic progress, yet fail to meet needs for healthy, clean, equitable neighborhoods and mobility. Transport comprises 90% of Mexico City's smog, which reached its highest levels in decades last April, requiring emergency measures to restrict cars with an odd/even scheme. Similar crises are playing out in cities like Delhi, Beijing, and Paris, all of which recently adopted similar car-restriction measures.

The urgency to empower cities to address these spatial challenges could not be greater. India alone will add 400 million additional urban residents by 2050; African cities a staggering 850 million. All told, cities will add 2.5 billion people worldwide by 2050, yielding the largest, fastest change in human lifestyles in history, and with urban growth comes opportunity. The associated transport infrastructure investment – ITDP and UC-Davis estimate over $80 trillion by 2050 – will shape urban form, and therefore environmental and social outcomes for centuries. Cities have an unprecedented opportunity to get it right. Compact, transit-friendly cities can dramatically improve social inclusion and job accessibility, while supporting healthy, sustainable lifestyles.

So far, automobile-centric spatial growth has failed to address mobility needs, by outpacing the ability of cities to expand rapid transit. The majority of urban trips in less developed countries occur via public transit, foot, or bicycle. Yet only 25% of Johannesburg residents have access to public transport within a kilometer of whey they live – a figure that drops to 9% for the sprawling metro region, according to ITDP research. The same metric drops from 44% to 16% in metro Jakarta; or from 25% to 19% in São Paulo. Poorer households, more often living in sprawling suburbs, tend to fare worse than the averages. In Curitiba, Brazil, for example, households in the lowest-income quartile have just one-quarter as much access to rapid transit as their high-income cohorts.

Urban grown is inevitable. The question is how. Cities can sprawl, with unplanned or automobile-oriented growth that segregates land uses and people. Or they can grow with inclusive, compact, transit-oriented development (TOD) – providing an opportunity to not only improve social equity, but also require less energy use, save infrastructure costs, and cut greenhouse gas emissions.

Inclusive TOD features pedestrian-friendly neighborhoods, a mix of land uses, and high-quality rapid transit connections to other parts of the city. It also features a mix of affordable housing, diverse jobs and services for a variety of people, and preservation of residential buildings and busi-

In many cities, commutes involve walking on dirt roads for the majority of lower-income citizens.

The Dar es Salaam BRT, which opened this year, is a best practice in East Africa for safer, more equitable mobility.

nesses to minimize displacement of existing communities. Many cities have already developed in this sustainable manner, oriented along rapid transit corridors, with high-quality pedestrian areas and a diverse mix of people, jobs, and services. No example is perfect, though some provide inspiration. Think Barcelona or Berlin over Phoenix and Houston.

Inclusive TOD is difficult. Plans for London's 2012 Summer Olympics and Delhi's 2010 Commonwealth Games, for example, both failed to deliver promised legacies of new jobs and affordable housing oriented around rail stations. Under time and financial constraints, both projects ultimately yielded to market pressures, and in Delhi even displaced current residents that the project aimed to serve. Here are three key reforms that can help cities spur inclusive TOD.

Massively expand rapid transit: Cities must dramatically expand metro and BRT systems to serve existing communities, many of them already featuring affordable housing and a mix of jobs and services.

Guangzhou, China extended its BRT to the Tangxia neighborhood, home to 300,000 mostly migrant workers. The city upgraded Tangxia, building community institutions, and improving public space, security, electricity, water and sanitation in place. Today Tangzia's residents enjoy superb access to Guangzhou's metro region, with over 70% of trips using the BRT.

Globally, the need is enormous. Cities need to build 20,000 kilometers of rapid transit by 2050 to meet their needs. Financing is critical. ITDP research reveals that the countries with the most progress in expanding rapid transit have (a) prioritized debt financing, (b) empowered cities with financial and institutional capacity, (c) prioritized high-quality, cost-effective bus rapid transit (BRT), and (d) established predictable, long-term revenue flows from dedicated sources.

Reform and coordinate land use planning: Coordinated land use, transport, and housing policies are critical, and cities all over the world are embracing this method. London's King Cross Station mixed-use redevelopment plan will use developers' cash and in-kind contributions to generate over 24,000 local jobs and build at least 40% affordable housing, while Shenzhen, China shares land value premiums with developers to incentivize compact development and finance metro expansion; and actively coordinates across the local planning institute, metro company, and private developers to coordinate master and local plans.

Jharkhand, India, will adopt a statewide inclusive TOD policy to ensure that 80% of all residents live within 400 meters of public transport, with 50% near rapid transit. Brazil's national housing policy will seek to collocate social housing with rapid transit, ensuring better accessibility for the program's next 6 million residents. Singapore, envisioning high-quality density, has used TOD as its main form of spatial development since the 1970s, in coordination with its housing program that has lifted over 70% of residents out of sub-standard dwellings.

Strengthen government institutions: Strong, well-coordinated, accountable institutions are key to making it work. Political leadership should explicitly adopt the objective of inclusiveness, and set up indicators and methods to monitor progress. Public institutions should have a mandate to coordinate across agencies, with civil society, and with developers, authority to amass land and negotiate development terms, accountability to diverse interests especially marginalized groups; and long-standing stay to maintain the coalition and see projects through completion.

With inclusive TOD, daily commutes in Mexico City could start with blue skies. Parents could walk their kids safely to school in a diverse community, and continue onto the BRT for a short trip to work. Health services, greenways, grocery stores, and friends all would be accessible nearby. Children could have a fair shot at social and economic mobility. The saved time, money, and emissions would benefit all of society – and provide a critical keystone to help mitigate climate change.

Inclusive TOD is cities' best shot at a sustainable future. Lessons from around the world show that cities have extraordinary opportunity, and ITDP is committed to helping them make it happen.