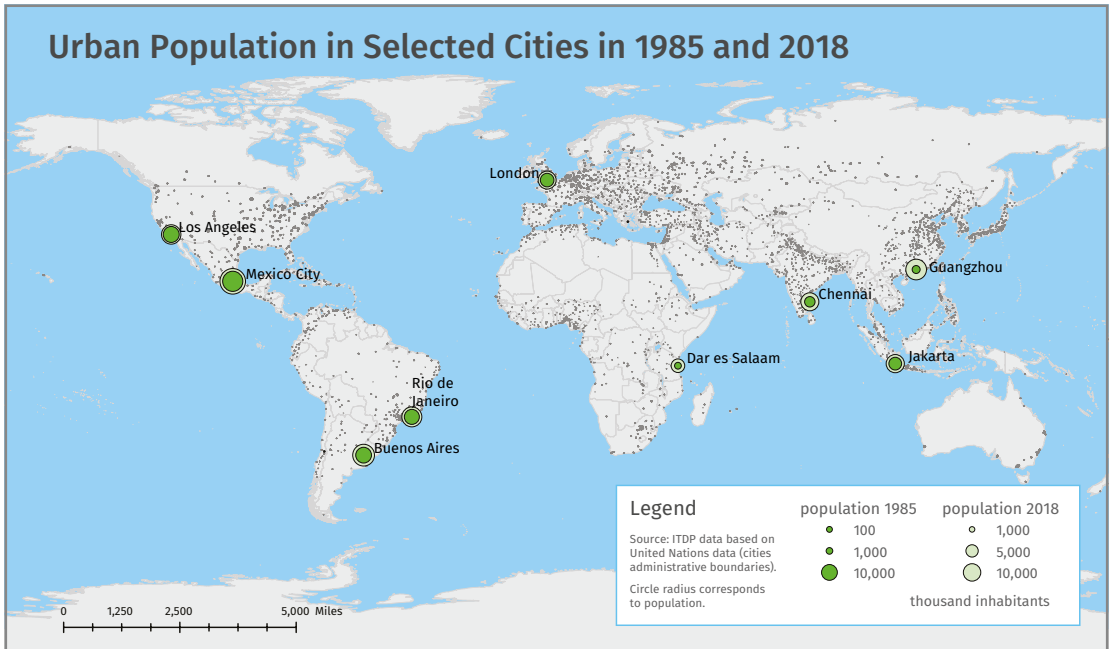


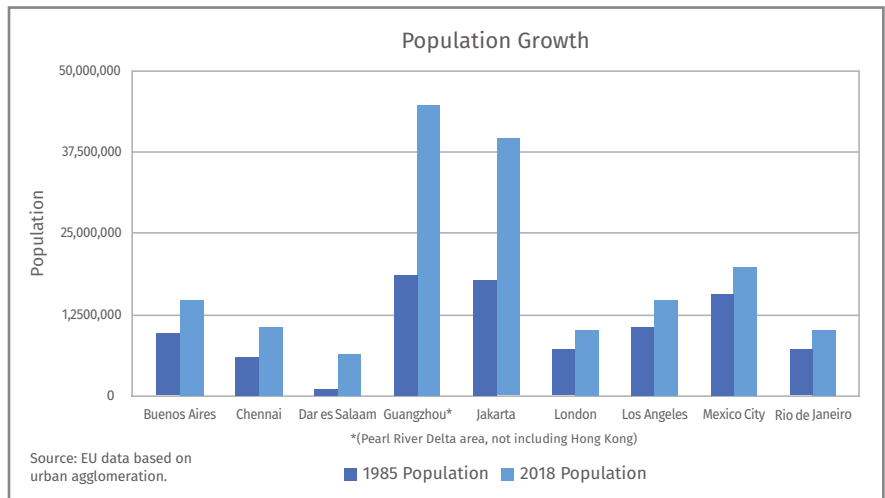
# Back to the Future: Our World's

By Margaret Van Cleve, ITDP

In 1985, ITDP was founded as an umbrella organization for world peace and development. Its first campaign, Bikes Not Bombs, sent used bicycles to healthcare and aid workers in Nicaragua as a rebuke to the Reagan

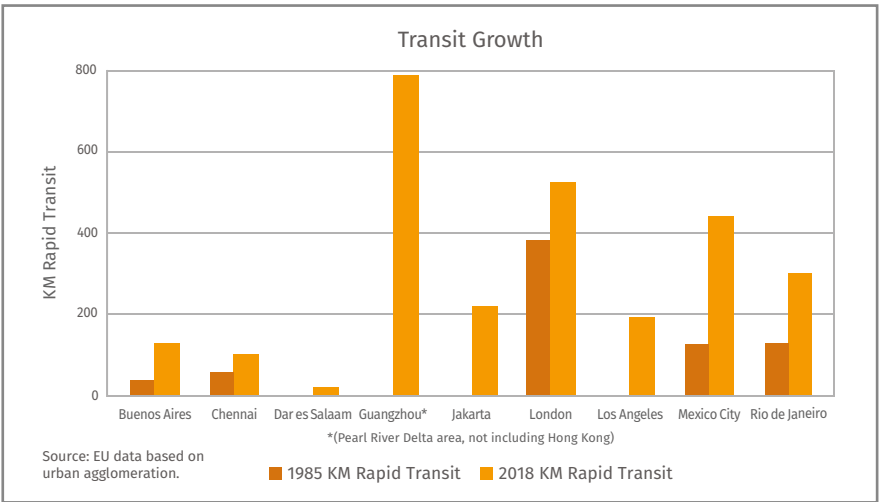
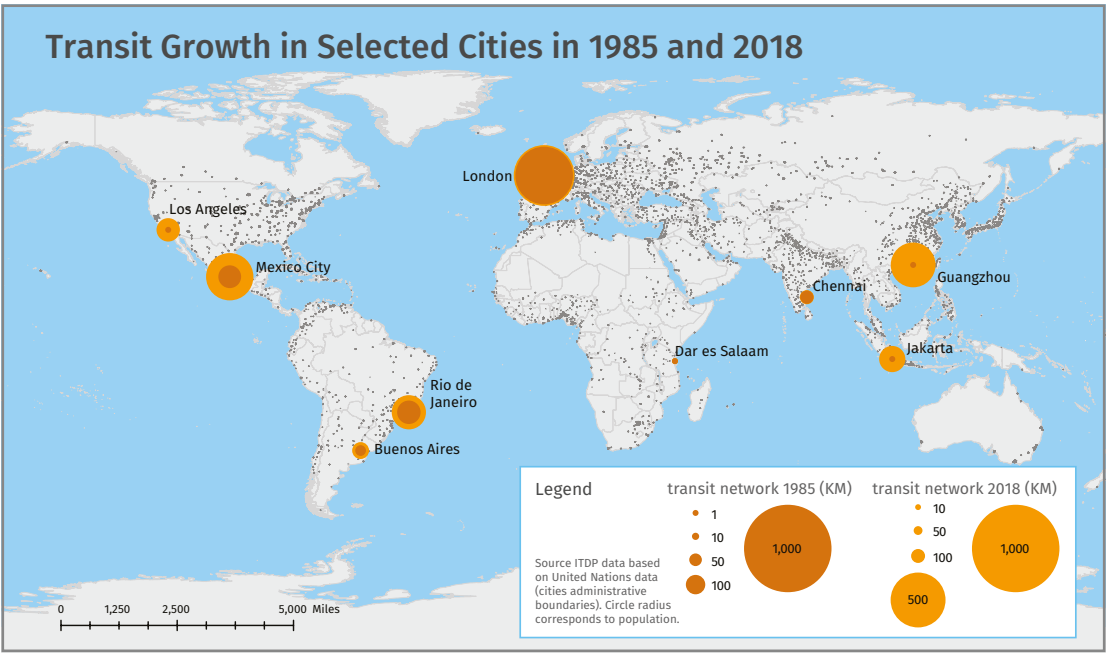


Urban population, here calculated as urban and surrounding territories, has grown worldwide since 1985. While Guangzhou and Jakarta started with large populations and grew significantly, other cities grew more incrementally. The population of Dar es Salaam increased by 500% but still remains much smaller than the other cities listed.



# Cities in 1985, and Today

administration's bombing campaign. In the 35 years since, both ITDP and the cities where we work have undergone profound growth and change. ITDP has become an expansive organization, with seven offices around the globe, working on everything from parking reform to international transport policy.



Kilometers in transit is defined as rapid transit that meets the definition of BRT basics in the BRT Standard. These criteria include, but are not limited to, grade separation, off-board fare purchase, less than 20 minute arrivals in both directions. Other systems like buses may have existed but did not meet the definition of rapid transit, and thus were not included. Four cities, Dar es Salaam, Guangzhou, Jakarta, and Los Angeles had zero kilometers of rapid transit in 1985, making their growth even more astounding.

All Graphs: Taylor Reich  
Maps: Chloe Decazes

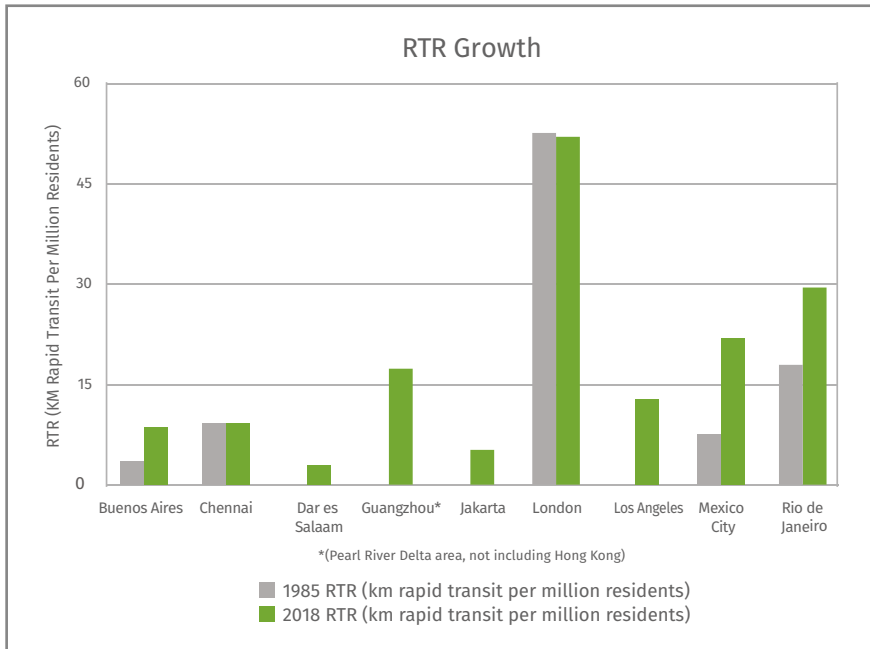
## Back to the Future: Our World's Cities in 1985, and Today

In 1985, the world population was less than five billion people. Mikhail Gorbachev was the leader of the Soviet Union; Margaret Thatcher and Ronald Reagan shared notes on free market capitalism; P. W. Botha's South African government was a frequent target of anti-apartheid protests; Hong Kong was a British territory; and European nations signed treaties for agreements that eventually became the European Union.

Today our world and its cities have changed dramatically. We took a snapshot of nine key cities, 35 years ago and today, to look at how their populations and transport systems have evolved. For better or worse, the change is striking. ITDP has partnered with each of these cities, some with ITDP offices and technical assistance, and others as best practice study tours and winners of the Sustainable Transport Award. We used the ITDP-created metric, rapid transit to



resident ratio (RTR), to evaluate how well each city serves its population with quality public transit options. We also included important features such as pedestrian improvements, increases in cycling, and major policy progress.



Rapid Transit to Resident Ratio (RTR) is a metric that compares a city's urban population with the length of its rapid transit lines. This includes bus rapid transit (BRT), buses in dedicated lanes, light rail transit (LRT), and metro that operate frequently, less than every 20 minutes between 6 am and 10 pm.

Top photo: ITDP;  
Graph: Taylor Reich

All 9 cities photos credits:  
see p. 44

# Buenos Aires

35 years ago, Buenos Aires, along with the surrounding country, was reeling in the aftermath of the military junta's "dirty war" until Raúl Alfonsín was democratically elected in 1983. Since then, Argentina has become a proud and stable nation, with nonviolent changes of power. Buenos Aires, the country's capital and largest city, is a beautiful, multicultural metropolis of 3 million people. It has not only kept up with transport but is a best practice in the region.

In 2010, Buenos Aires became one of the first cities to invest in a bike share program, EcoBici. The service is free to both city residents and tourists and is available 24 hours a day. This program and a large network of protected bike lanes have spurred a resurgence of cycling throughout the city. In 2013, the city redesigned Avenida 9 de Julio, one of the world's widest avenues, with 20 lanes for cars, as a complete street. This transformation included a major BRT corridor, as well as bike and pedestrian spaces. As a result, bus travel times have been cut in half and pedestrian safety has improved.

Today in Buenos Aires, public transportation, cycling, and walking are the dominant modes of travel in the city center. Thanks to a major push in 2013, which included the transformation of Avenida 9 de Julio, many of the streets in the historic "microcentro" are accessible by walking, cycling, or bus. Today, 80 percent of this area is car free and contains "macromanzanas," super-blocks with pedestrian priority and limited car traffic. Buenos Aires has kept its public transportation relative to population growth. However, while the Buenos Aires population is better served than it was 35 years ago, there is still a lot of room for improvement, particularly in suburban areas where long car commutes are common.

Then



Buenos Aires has had some public transportation, but like many other cities, has been built to include and make space for cars.

Below left and right: Avenida 9 de Julio was car centric infrastructure in 1985, before its transformation in 2013.



Now



Top: The transformation of the Avenida 9 de Julio included a major BRT corridor along with bike and pedestrian spaces.

## Mexico City

35 years ago, an 8.0 magnitude earthquake devastated Mexico City. The quake killed as many as 30,000 people, damaged 31 percent of the city's buildings, and razed the homes of nearly 700,000 people. Today, Mexico City is one of the most important economic hubs in the region. It has grown from a population of 15 million to 20 million since 1985. This growth, expected to be even faster in the next decade, has drawn attention to the difficult topography of the city, built in a valley that was once an ancient lakebed. Combine this with a car-oriented sprawl and traffic congestion and the unpleasant outcome of pollution and low air quality results.

Mexico City has implemented a variety of measures to create a more sustainable, equitable, and healthy city. It is the backbone of the largest transport system in Latin America, with over 200 kilometers of metro rail transporting 4.4 million people per day, and seven Metrobus BRT corridors that carry an additional 2 million people. Since the city implemented BRT in 2005, travel times along the corridor have improved by almost 50 percent. However, peseros, informal passenger buses, still serve many Chilangos by filling the gaps in transit coverage.

Transit gaps are narrowing as EcoBici, the city's top mobility achievement, continues to thrive. The city launched the popular, low-cost bike share system in 2010, and it has expanded by 400 percent. The system averages 25,000 daily users on 6,000 bikes over 452 stations, making it a world leader. The system also stands out for equity—nearly half of EcoBici's riders are women. This is in contrast to the global standard

cyclist ratio, which is two-thirds male. Together with protected bike lanes, the system is a safer experience for many. The city has supported its extensive and popular protected bike network through parking and zoning reforms and improved pedestrian and public spaces in the central areas.

Then



Top left: The 8.0 Earthquake of 1985 damaged 31 percent of Mexico City's buildings.

Third row: Paseo de la Reforma used to be a car haven.



# Now



Left: Paseo de la Reforma received a makeover with pedestrian space and larger sidewalks.



Middle row: EcoBici, Mexico City's bikesharing program launched in 2010 averages 25,000 riders everyday and is considered to be one of the leading bike share systems worldwide.



## Los Angeles

**In 1985, Los Angeles (LA) created the 911 emergency system, now an international model for emergency response. It was also the year of the city's first no-smoking ordinance, which would grow to a bar and restaurant ban a decade later. Despite leading the way on these public health initiatives, LA had zero kilometers of dedicated mass rapid transit.**

There is, perhaps, no city more associated with the car-oriented lifestyle than LA. It is the most populous city in California, the most populous US state. LA's famous gridlock costs the average Angeleno 92 hours a year. Most of LA's driving happens on multi-lane highways and freeways, like the famous and recently expanded Interstate 405,

that spans nearly every part of this sprawling city. Cars remain the primary mode of transport.

Today, public transport is a priority for the city and the state, as they deal with the fallout of climate change, poor air quality, and a housing crisis. Los Angeles has about 200 kilometers of light rail, a metro, and an extensive bus system, which includes Los Angeles County's NextGen bus network redesign program to increase bus frequency. Buses comprise most of the nearly 40 million transit trips per month, a transit mode share of nine percent. However, bus ridership has decreased in recent years as more people are buying cars, service quality is declining, and on-demand taxi services proliferate throughout the region.

LA's list of challenges includes everything from parking reform to new laws that increase density and encouraging transit-oriented development. Still, progress is happening. In 2008, voters supported a ballot measure for a sales tax to fund public transportation. In 2019, the city passed an increase to this tax and made it permanent. This public support, along with the strong political will of both the city and state, gives LA a real chance for a serious transformation.

### Then



Car culture was, and remains, very strong in Los Angeles, a city with no rapid transit in 1985.



### Now



Top: LA bus ridership has fallen, but with political and public support, could improve.

Middle left: Los Angeles is on the forefront of climate crisis with smog, wild fires, and extreme weather effecting the populous city.

Bottom right: Car culture remains prevalent in Los Angeles.

# Rio de Janeiro

In 1985, Brazil was coming out of two decades of military rule and Rio de Janeiro was experiencing a surge of growth as the city was taking shape. Rio had the beginnings of a formal transit system, with the oldest commuter train in Brazil, and the first line of the metro which opened in 1979. Since then, the metro has grown to include three lines and 60 kilometers, with a daily ridership of 830,000. Rio has expanded its BRT system in an impressively short time. It has four BRT corridors covering 168 kilometers and major infrastructure projects that have greatly increased Cariocas' access to the city.

Two major events started these projects: the 2014 FIFA World Cup and the 2016 Summer Olympics. With ITDP's support, the city tore down an elevated highway to restore the historic Porto Maravilha for pedestrians, launched a light rail, and opened a pedestrian mall on Rio Branco Avenue in the city center, among other projects. The first of these, TransOeste, opened in 2012 and immediately demonstrated the need for mass transit options in far-flung areas of the city.

As the cost of living in the city soars, people are forced to live further away, but still must access the city for work. Along with a car-centric approach to suburban planning, and lack of sustainable transport options, this has resulted in hours of commuting at a disproportionate cost, severely limiting the transport options for many people. TransOeste's direct route saves as much as three hours for some commuters but overcrowding and operations issues persist as the demand continues to overwhelm supply. Rio's commuters spend a long amount of time in transit—people spend on average 19 minutes waiting for buses and ride for about one hour each way. The existence of wide urban highways encourages driving. Rio's progress is inconsistent, but if harnessed effectively can move in the right direction.

## Then



Rio de Janeiro's beaches have been a popular draw for tourists. In 1985, as today, the city was culturally and commercially significant for Brazil.

## Now



Rio de Janeiro has made progress in transport and its built environment, but many residents, particularly those who live in the outskirts, are underserved.



# London

35 years ago, London was struggling with growing traffic congestion and pollution. Margaret Thatcher's government fought against a greater commitment to transit by passing the Transport Act of 1985, a sweeping national deregulation and privatization policy. Today, London is a very different city. According to Transport for London, over half of trips are made by bus, walking, or cycling. The city expects that cars will continue to make fewer and fewer trips, a shift attributed to the city's many efforts to decrease cars and improve sustainable transit modes. Much of London's success in enacting pedestrian- and cyclist-forward initiatives is because it has a strong public transportation network. London can serve more of its community, continue to lower emissions, and focus on building from its many successes in the past 35 years.

London is known in the transport world for its famed London Underground, the oldest metro in the world, and at 402 kilometers, one of the longest. It also has one of the largest bus networks in the world, featuring 24-hour service with 8,500 buses, 700 routes, and 19,500 stops.

London's exceptional commitment to cycling also deserves praise. Its cycle sharing service had a record of 10.5 million trips made in 2019 with an average of almost 30,000 trips per day. Annual membership to the bike share, Santander Cycles, is growing every year and was hit a record in 2019, with 360,000 members. Cycling has become more popular and remains on the rise with increased routes. London's Cycle Network includes 900 kilometers of bike lanes, greenways, the recently established cycle superhighways, and 15 kilometers of Quietway cycle routes. Improved management has also made London's transit successes possible. For example, the creation of Transport for London (TfL), enables integrated fares with the Oyster Card, improving the ability to connect Londoners throughout the city.

London won the Sustainable Transportation Award in 2008 for expanding its successful congestion pricing scheme by increasing motor vehicle fees, the size of the congestion zone, and expanding tolls citywide. Because of congestion pricing, the number of cars entering the charging zone has decreased by 35 percent. The accompanying Low-Emission Zone has improved air quality so much that in 2019 London enacted an Ultra-Low Emission Zone (ULEZ) which further restricts vehicles and charges a higher fee. The ULEZ has resulted in a 20 percent reduction in emissions and decreased highly polluting vehicles by 40,000 cars over six months.

## Now

## Then



Congestion pricing, low and ultra low emission zones have given London space for pedestrians and cyclists.



Above right: London's Santander Cycles bikeshare boasts roughly 30,000 rides a day throughout the city.



Then (far left): London had an RTR of 52.82 in 1985, making it a city with a population well served by transit. Strong transit served as a foundation for London to expand more sustainable transit infrastructure in the last 35 years.

# Dar es Salaam

35 years ago, Tanzania's largest city, Dar es Salaam, experienced a surge of informal public transit operators. The transport authority acknowledged it could not meet demand with its limited bus system and legalized the now ubiquitous daladala minibuses. Today, this is still how most Dar residents travel—packed into the shared minibus taxis that jostle for space on the city's car-dominated streets, or on the back of the boda boda motorbike taxis that weave through traffic and narrow side alleys. In the past 20 years, the population has boomed from less than 1 million to over 6 million. Today, Dar es Salaam is becoming a major African city; the third fastest-growing city on the continent.

Dar es Salaam is a major transport hub for the East Africa region. The city's port handles much of the region's international trade, and serves as a freight link to the Far East, Europe, Australia, and North America. In 2018, Dar es Salaam won the Sustainable Transport Award for launching the first line of its long-planned BRT system, Dar es Salaam Rapid Transit (DART). DART, the first BRT in the region, is one of the most ambitious urban transport projects in East Africa, and the only one to receive a BRT Gold Standard rating. On the main road leading into the city, the BRT cut travel time for some commuters by over half, reducing two-hour commutes to 45 minutes in one direction. Today, there is one operational line, two lines under construction, and four additional lines planned. With 21 kilometers completed, DART is providing a massively improved transit experience to approximately 172,000 passengers a day. DART has won international acclaim for Dar es Salaam. It is showing other cities what is possible and has already inspired Nairobi and Addis Ababa to begin work on their own BRT systems.

## Then



Top: Markets, here in Zanzibar, were traveled to on foot while Dar es Salaam was a small city in 1985.



## Now



Right: Dar es Salaam's booming population is supported by DART, the Gold Standard BRT that has cut commutes in half for many commuting residents.

# Chennai

**Chennai, the birthplace of the Indian railway system, was also home to the nation's first electric trams built in 1895. Unfortunately, politicians ended the tram service in the early 1950s to build modern roads and bridges for cars. By 1985, Chennai, then known as Madras, saw its car and motorcycle populations rise to over 200,000. This number grew to 600,000 by 1992, 3.6 million in 2012, and nearly 6 million today. This surge in traffic and the city's emphasis on building roads and elevated highways has created increasingly poor air quality, growing travel times, and a lack of sufficient public transport options.**

The capital of the state of Tamil Nadu, Chennai is a city of 10 million on the Bay of Bengal in South India. Chennai is a tech hub, and home to Tamil Cinema Studios, as well as much of India's automotive industry. Chennai is also a city at the forefront of climate change,

with increased floods that cost lives and damage to the city. Fortunately, Chennai is moving in the right direction, by emphasizing better transport management. It has also created a budget that reflects a commitment to redesign streets to prioritize cycling and walking.

In 2015, Chennai began a redesign of pedestrian paths. It has completed 100 kilometers and also started Car Free Sundays. In the same year, Chennai opened a metro line, with a daily ridership of around 120,000 people. In 2019, Chennai opened a pedestrian plaza on a busy shopping street and launched a bike share system with facilities close to other transit stations. These actions are important steps in creating a safer, more welcoming pedestrian and cycling environment, but are still not enough to shift the city away from cars. The vast majority of Chennaities travel by walking, two-wheeled vehicles, or buses. The question is if Chennai can continue to create space on its streets for these users, rather than creating more and more space for cars.

## Then



In 1985, Chennai was still referred to as Madras. Poor or non-existent infrastructure was a common feature found in informal housing.



## Now



Above: Chennai's train is one of the oldest in India, but does not provide sufficient rapid service throughout the city.

Left: Roughly 40% of people in Chennai live below the poverty line, and walking is their primary form of transportation. Expanding pedestrian infrastructure has helped those people but has not pulled people out of cars entirely.



# Jakarta

Jakarta is the capital and largest city of Indonesia, the world's fourth most populous nation. It sits on the largest island in an archipelago of almost 17,000 islands. 35 years ago, Jakarta was building at a rapid pace. 1985 saw the opening of the city's international airport, the culmination of a major infrastructure push that included roads and bridges for cars, but very little thought to building public transport. Jakarta's public transport largely consisted of a few colonial-era commuter trains. Most people traveled by informal buses, cycling, and walking in a city increasingly dominated by cars. Today, motorcycles and private cars pack Jakarta's streets; traffic has all but ground the city to a halt. Fortunately, the city has made progress toward a more equitable system in the last decades.

In 2004, Transjakarta opened and, despite a host of operations problems

after launch, became the city's transit backbone, moving hundreds of thousands of Jakartans per day. As host of the 2018 Asian Games, the city had a major incentive to improve and expand its services quickly. In the last few years, Transjakarta has revolutionized the city's public transit by integrating and formalizing the private buses that transport Jakartans every day. Transjakarta has grown its daily ridership to 950,000 and continues to add riders as its routes expand. Jakarta just opened the first corridor of its metro and is set to expand its light rail. Jakarta has taken efforts towards expanding sustainable transit by enacting weekly car free days. Cycling has gained new popularity, as the municipal government has encouraged it through advocacy and education. It is planning 63 kilometers of cycling paths, expected to reach 200 kilometers in the next phase.

Today, Jakarta is on the frontline of climate change. With sea levels rising, the island of Java, where Jakarta is located, is under siege. Jakarta already loses 3 billion USD every year in productivity because of traffic; air pollution is a major public health problem in this tropical city. Fortunately, the city is committed to improving Transjakarta with a greater focus on sustainable mobility. Jakarta has the potential to become an international best practice and massively improve the lives of the 30 million people living there.

## Then



In 1985 Jakarta was focused on supporting its growing population by building car centric infrastructure.

## Now



Jakarta is famous for some of the worst gridlock and home to millions of motorcycles.



## Guangzhou

The explosive, transformative growth of Chinese cities over the past 35 years is difficult to overstate. Take the city of Guangzhou, on the Pearl River Delta, just north of Hong Kong and Shenzhen. In 1985, the population was 2.36 million. Ten years later, it doubled to 5.04 million and doubled again ten years later to reach 11.7 million people in 2015. Today, Guangzhou is one of China's biggest cities, with an urban population of 13 million.

The history of Guangzhou, formerly known by foreigners as Canton, had a 2000-year history before it became a major port on the maritime Silk Road. Today, it remains a major port and transportation hub for the Pearl River Delta, which is the most populous region of mainland China. Guangzhou has long benefitted from this location, as its municipal borders expanded to include new municipalities. In 1985, bicycles dominated urban transportation in Guangzhou, as in much of China. The past few decades have seen a steady stream of car-oriented development, with new roads, elevated highways, and bridges built only for cars. As a result, Guangzhou and other Chinese cities are confronting a public health crisis of both air quality and road safety. It regularly sees epic traffic jams on its 20 lane highways that stretch for days.

Fortunately, Guangzhou's public transit system has grown along with its population. ITDP and its partners designed the Guangzhou Bus Rapid Transit, which opened in 2010. By 2011 it was serving close to 1 million people per day on one corridor, becoming one of the highest capacity BRTs in the world. Guangzhou also has an extensive metro system, serving 8 million per day on 14 lines. It is this rapid expansion that has allowed Guangzhou to continue growing and remain economically competitive as traffic congestion worsens.

In 2011, Guangzhou won the Sustainable Transport Award and the United

### Then



China's reputation as the Bicycle Kingdom was demonstrated through the popularity of the transport mode in 1985.



Nations Framework Convention on Climate Change's Beacon Award, among other accolades for its work on its BRT and other related initiatives. Since launching the bike share program along the BRT Corridor in 2011, cycling has returned in a big way. Today, Guangzhou has multiple bike share options, from

city-run to docked and dockless systems. Since 2017, thanks to a commitment to street redesign under the guidelines of ITDP's co-authored Guangzhou Complete Street Design Manual, more streets have improved walkability and bikeability. In 2020, Guangzhou continues to improve its streetscapes, embrace bus electrification, and turn away from decades of car-oriented policies and turn towards sustainable transport.

## Now



Guangzhou's rapid development has been accompanied by transit growth as well as a commercial and population explosion.

