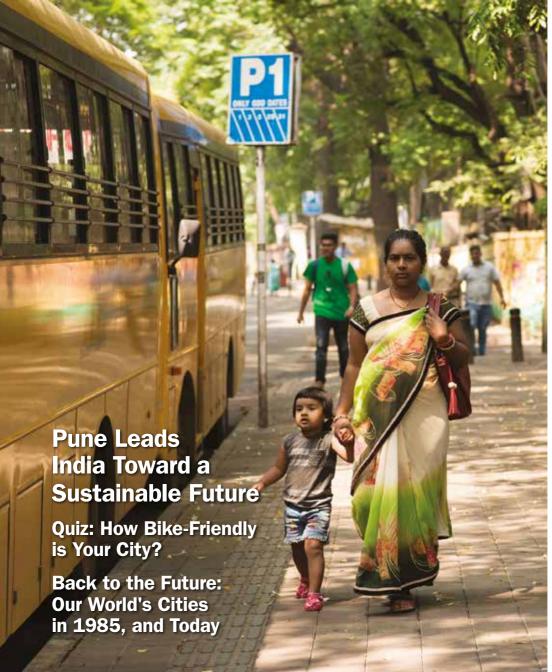
# sustainable transport

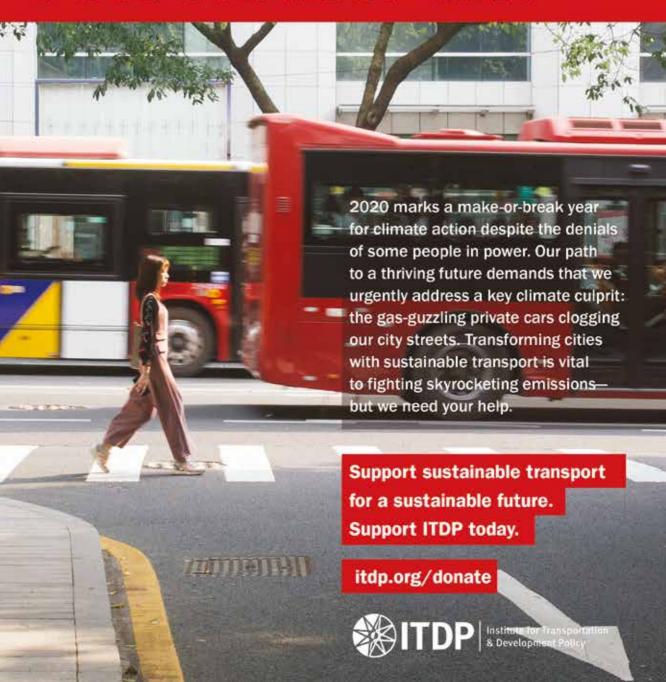




Nº 31

JANUARY 2020

# 2020: THE TIPPING POINT FOR TRANSPORT



### sustainable transport





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#### **Editorial**

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The Institute for Transportation and Development Policy works around the world to design and implement high-quality transport systems and policy solutions that make cities more livable, equitable, and sustainable.

ITDP is a global nonprofit at the forefront of innovation, providing technical expertise to accelerate the growth of sustainable transport and urban development around the world. Through our transport projects, policy advocacy, and research publications, we work to reduce carbon emissions, enhance social inclusion, and improve the quality of life for people in cities.

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Our World's Cities in 1985, and Today

**Answers: Bike-Friendly Quiz** 

**New Resources from ITDP** 



Man and grandson enjoy Pune's improved pedestrian infrastructure.
Photo: ITDP India

# As ITDP Turns 35, Climate Change Is Accelerating. Fortunately, So Is Political Will.

Welcome to 2020, a milestone year in so many ways for those of us working to mitigate climate change. This target year underpins the Paris Climate Agreement, marking the next decade as the most crucial period for action. This year. United Nations member states will take stock of actions made to limit climate change, with the aspiration of ratcheting up commitments in coming years. Here at ITDP, as we reflect on 35 years of work in a rapidly changing world, the importance of our mission for sustainable and equitable cities worldwide has never been clearer.



By Heather Thompson, ITDP CFO

The threat of climate change is nothing new. Scientists, politicians, and activists have been warning of the serious consequences of burning fossil fuels for decades. What is new is that the threat is now impossible to ignore. Catastrophic fires, floods, and ever more unpredictable and destructive storms are making the theoretical very real for hundreds of millions of people around the world. People are now demanding change. We have a seemingly broken system of international cooperation. The most powerful world leaders are reneging on commitments and even refusing international assistance in the name of protectionism.

Yet, in the absence of national leadership, cities and activists are stepping up. This past September, over six million protesters took to the streets for a week of direct action, a movement increasingly led by young people. As of this writing, over 10,000 cities and local governments have joined the Global Covenant of Mayors for Climate and Energy, under which they committed to continue their support for the Paris Agreement, no matter what their national policy says. In reality, this almost matters more. Cities account for over 70 percent of global CO<sup>2</sup> emissions and consume over 66 percent of the world's energy. Cities are where most of the world's population lives and where the impacts of climate change are experienced locally.

This newfound political will opens opportunities for organizations like ITDP to make a difference. For 35 years, we have been urging cities to recognize the limits of car-oriented planning, and the potential of prioritizing transit, cycling, and walking. Population growth, worsening traffic congestion and air pollution, combined with the reality of climate change, are creating an awareness and urgency that is opening doors that were previously closed.

The best part is, we already know the solutions, and they work. They are fast and affordable. We do not need to wait for new technologies to reduce the impacts of climate emissions from internal combustion engines in our cities. Three solutions rise above all others in terms of the speed of implementation, cost-effectiveness, and impact: **buses, bikes, and parking reform**.

**Get on the bus.** Buses are the most cost-effective way to move people in vehicles. Globally, over two billion people use the bus every day, yet it continues to be the most maligned and underfunded form of transport. Metro rail systems are great, but they take decades and untold billions to build, and billions



Heather Thompson, ITDP Indonesia and Governor Anies joined the Jakarta Transportation Agency to show off new signage as a part of a cycling pilot in Jakarta.

of people need transport now. A fleet of buses can be purchased and deployed within months, and streets can be redesigned to prioritize bus services with measures as simple as paint, barricades, and enforcement. Add to this the bonus of electrification that yields a smooth, noiseless ride free of fossil fuels, and buses become more attractive than ever.

Switch to the bike lane. While not everyone can or wants to travel by bike, a greater share of cyclists benefits everyone on the streets by taking people out of cars, thus lessening their harmful impacts. A majority of people around the world already walk or cycle, yet they are often doing so in unsafe and demeaning conditions. Cars kill more children each year than malaria, yet we continue to accept this state of affairs on the false assumption that everyone can and should travel by car. Like protected bus lanes, separated bike lanes can provide a major boost to cycling at a very minor cost. With the increasing popularity of electric bikes, more riders can cover greater distances, regardless of fitness level. From New York City to Jakarta, Indonesia, city leaders are dedicating more and more street space to cyclists, with positive impacts for people and the environment.

Limit and price parking. The huge amounts of prime space that cities give to empty car storage could be better used as public space, bus lanes, bike lanes, or greenways. While major initiatives such as congestion pricing are commendable, they are politically fraught, time-consuming, and expensive. Pricing street parking also provides a new source of city revenue to fund sustainable transport. Decisions can be made on a street-by-street basis, with the benefits realized quickly by the neighborhood. While this may seem obvious, free street parking is still the norm in much of the world, but this is changing. In 2018 Mexico City became the first major city in North America to eliminate parking minimums citywide. Other cities from Pune, India to San Francisco, California are adopting these policies.

Buses, bikes, and parking management are solutions that all cities can put into place now, which is critical in this next decade of urgent climate action. Beyond mitigating climate change, these solutions would massively improve air quality, a crisis plaguing cities worldwide. Prioritizing these modes and policies would also support greater equity, providing low-cost, safe access to the jobs, education, healthcare, community and culture of the city. If we fail to create solutions that work for everybody, we are not working at the scale required to address climate change. For real change to happen, equitable and environmental solutions must go hand in hand.

With 35 years of experience, ITDP is well poised to help. When we look back at this decade, I believe we will see 2020 as a tipping point to greater momentum behind tried-and-true solutions that we know work. I want to thank our generous donors and supporters who enable us to continue to do the important work that we do, and our phenomenal staff all over the world who make it happen. 2020 is going to be a pivotal year.

# Pune Leads India Toward a Sustainable Future

By Keshav Suryanarayanan, ITDP India

Photos: ITDP India

Every year, the Sustainable Transport Award is given to a city that has implemented innovative sustainable transportation projects to improve mobility, reduce air pollution and greenhouse emissions, and advance safety and access for pedestrians and cyclists. Pune has been awarded the Sustainable Transport Award 2020, making it the second Indian city to receive this award since Ahmedabad won in 2010.

Indian cities have not typically embraced radical approaches to urban mobility, which focuses on efficient and sustainable forms of transportation. Pune has distinguished itself from other Indian cities by prioritizing sustainable mobility putting people first.

Pune, home to four million people, has started a series of initiatives to shift people away from cars and toward sustainable modes of transportation. Since 2016, with ITDP's guidance, the city has allocated over half of its transport budget to sustainable transport. The United Nations Development Programme estimates that by 2030 India's urban population will reach 538 million, an increase of nearly 40 percent since 2015. To meet transportation needs and keep cities moving, India must promote the ways most Indians already travel: walking, cycling, and public transport.





Above: Rainbow BRT line 4, which runs from Pune to Pimpri-Chinchwad. Left: A new footpath in Pune, as part of the Complete Streets Program.





The Rainbow BRT in Pune moves about 120,000 people

According to the 2011 Census of India, less than 10 percent of all urban commuters use a private car for their daily commute, and less than 25 percent use personal motorized transport. Unfortunately, most people are traveling in sub-standard conditions. India, like so many other nations, has prioritized building roads, flyovers, and parking for cars, and has neglected other modes of transit and pedestrian infrastructure. Formal public transport is often of poor quality or even non-existent in several cities. Unorganized and unregulated informal public transport services, such as rickshaws, fill the gap for those who can afford to take them. Walking and cycling infrastructure is also absent, or unusable where it exists, making travel by those modes dangerous, and encouraging car travel. As a result, personal motor vehicle ownership is growing, doubling every decade, at nearly three times the rate of population growth. With less than ten percent of Indians owning cars, cities are already choking with traffic and pollution.

### **PUNE'S PATH TO BUS RAPID TRANSIT**

Pune first attempted the bus rapid transit (BRT) system in 2006 but failed to implement many standard BRT features and was unsuccessful. However, the lessons from these early trials and those of other Indian cities helped guide the 2015 inauguration of the Rainbow BRT of Pune, for which ITDP India provided technical support. The Rainbow BRT has successfully proven that a well-designed and managed system will induce people to shift from personal motor vehicles to public transport. Within three months of operation, the Rainbow BRT gained eight percent of private vehicle users. Overall, almost 12 percent of the Rainbow BRT users switched from using other modes including two-wheelers, paratransit, and cars.

"Some of the challenges during the implementation of the BRT were the lack of basic understanding about BRT and a lack of political will to implement [true] BRT," said Ranjit Gadgil. "[Today], the people who use buses and BRTs are very happy."

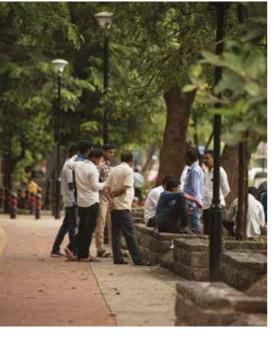
The Pune Municipal Corporation (PMC), the governing body of Pune, worked with many civil society groups to develop and improve sustainable transport. Ranjit Gadgil, an engineer with the civil society organization Parisar, explained the evolution of BRT in Pune. "Some of the challenges during the implementation of the BRT were the lack of basic understanding about BRT and a lack of political will to implement [true] BRT," said Gadgil. "[Today], the people who use buses and BRTs are very happy. Civil society needs to keep pushing the BRT for needed improvements and institutional changes. Someone has to become a champion for the system."

Today, the Rainbow BRT operates along a 50 km network and anticipates a 45 km expansion. It is a hybrid system featuring high-quality buses with doors on both sides, median-aligned stations within the dedicated BRT corridors, and left-aligned bus stops outside the dedicated corridor. The system uses a fleet of Euro-IV CNG buses and has 125 electric buses, a rarity in India. The success of the Rainbow BRT has earned acclaim and has inspired growth. There are ambitious plans to expand the network and its ridership.

#### STREETS FOR PEOPLE

One of Pune's most important initiatives is the improvement of the pedestrian and cycling environment. It is redesigning arterial roads as complete streets: with high-quality footpaths, segregated cycle tracks, safe pedestrian crossings, and regulated on-street parking. ITDP India worked with the city to develop guidelines for complete streets and Pune became the first Indian city to adopt its own Urban Street Design Guidelines which give clear priority to walking and cycling. By setting standards for street design and providing templates catering to the needs of all road users, this manual illustrates how good design can transform Pune's streets into safer and more livable public spaces. It disproves the harmful assumption that streets are only for vehicles.

In 2018, the PMC took a major step toward regulating cars by creating a public parking policy to manage on-street parking. The policy regulates on-street parking by clearly marking legal and restricted parking spaces per Pune's Urban Street Design



One of Pune's most important initiatives is the improvement to pedestrian environment. Pune is redesigning roads as complete streets with footpaths and safe pedestrian crossings.









Pune is determined to bring cycling back as a safe, preferred, and comfortable form of transport.



Guidelines. The PMC is also working on a demand-based parking system, which will be the first of its kind in India.

The first phase of these projects transformed two major streets into vibrant public spaces. These pilot projects have been lauded across the country and won many awards. Plans call for an additional 100 km of street networks that prioritize aesthetically pleasing streets to make walking a joy. To build support among the public, the city has conducted several trial runs in which it converted road space to pedestrian space. These trials successfully demonstrated the previously unimaginable power of complete streets: children playing, families strolling, shoppers browsing, and seniors engaging in animated conversations on benches.

#### A RESURGENCE OF CYCLING

Pune, once known as 'Bicycle City,' has seen a major drop in cycling in the past decade as more and more cars dominate the streets. However, the city is determined to bring cycling back and is engaging with several civil society organizations, including Parisar and Centre for Environment Education (CEE). "The Pune Cycle Plan was prepared through an extensive participatory process," said Sanskriti Menon of CEE. "It envisages the creation of a Bicycle Department, cycling infrastructure including around 825 km of a city-wide cycle network, cycle parking, integration with transit, enforcement planning, promotion of cycling, monitoring and evaluation."

In 2017, the PMC general body approved a comprehensive bicycle plan to build a 400 km cycling network. It will create a public bicycle sharing system, bicycle parking facilities, and design guidelines for cycle-friendly infrastructure, and a strategy for awareness campaigns. Pune has also passed a policy for Public Bicycle Sharing. The plan suggests 388 stations, 4,700 bicycles, and 13,100 docked bicycles in the first phase. In 2019, Pune piloted a dockless public bicycle sharing system with 4,000 cycles.

An integral aspect of Pune's success is visible in its budgets. Pune's 2016-17 budget called for more than half of transportation spending to go to footpaths, cycle tracks, and BRT, thus prioritizing sustainable transportation over caroriented infrastructure. Revenue generated from parking will begin to be used to build streets with better walking and cycling infrastructure as well as to expand public transport. There are also plans for vehicle-free zones, particularly on busy shopping streets.

The 2020 Sustainable Transport Award is a much-needed pat on the back for the many right steps that the city has taken. The Sustainable Transport Award will encourage the city to upgrade its existing initiatives, scale-up projects, and expand upon its success. It will also serve as an inspiration to other Indian cities to follow in Pune's lead and take a leap towards sustainable urban mobility. While Pune has not yet reclaimed its 'Bicycle City' title, it is paving its way to a strong cycling network.

# Quiz:

# **How Bike-Friendly Is Your City?**

By Jemilah Magnusson, ITDP

Everyone has a different idea of what makes a city bike-friendly. Some point to the most visible factors, such as weather and city terrain; others say it's about a city's commitment to creating infrastructure and regulating cars; and still others believe that cultural support of cycling is the kev.

This guiz is designed to highlight some of the ways that a city's policies, culture, and infrastructure encourage or discourage cycling. For a deeper look at these and other factors, keep an eye out for a new Cycling Growth web tool from ITDP, coming in 2020.

#### **DIRECTIONS:**

Choose the best answer for your city, tally the numbers associated with each answer. and continue to page 40 to see how your city adds up. **Share your answers** with us on Twitter @ITDP\_HQ

Photos: Wikimedia Commons

- 1. The speed limit in my city is 30 km/h or less, and it is wellenforced.
- ☐ Strongly Agree (6)
- ☐ Agree (4)
- ☐ Disagree (2)
- ☐ Strongly Disagree (0)
- 2. When I bike in my city, I have no problem finding secure bike parking.
- ☐ Strongly Agree (6)
- ☐ Agree (4)
- ☐ Disagree (2)
- ☐ Strongly Disagree (0)
- 3. The police in my city frequently harass or ticket cvclists and often ignore bike lane violations by cars.
- ☐ Strongly Agree (0)
- ☐ Agree (2)
- ☐ Disagree (4)
- ☐ Strongly Disagree (6)

- 4. Cheap and easy options for accessing a bike are plentiful in my city, whether its
- bike share or quality used bikes, with affordable options
  - ☐ Strongly Agree (6)
  - ☐ Agree (4)

for repair.

- ☐ Disagree (2)
- ☐ Strongly Disagree (0)
- 5. Thefts of bicycles are common, and there is no mechanism to report stolen bikes.
- ☐ Strongly Agree (0)
- ☐ Agree (2)
- ☐ Disagree (4)
- ☐ Strongly Disagree (6)
- 6. Most people in my community know how to bike.
- ☐ Strongly Agree (6)
- ☐ Agree (4)
- ☐ Disagree (2)
- ☐ Strongly Disagree (0)

- 7. In my community. owning a car is an important status symbol, something everyone wants.
- ☐ Strongly Agree (0)
- ☐ Agree (2)
- ☐ Disagree (4)
- ☐ Strongly Disagree (6)
- 8. In my community, cycling is seen as 'poor man's transport', and considered a last resort option for trips.
- ☐ Strongly Agree (0)
- ☐ Agree (2)
- ☐ Disagree (4)
- ☐ Strongly Disagree (6)
- 9. My city has a wellmaintained network of protected bike lanes that I feel safe riding in.
- ☐ Strongly Agree (6)
- ☐ Agree (4)
- ☐ Disagree (2)
- ☐ Strongly Disagree (0)



- 10. My city's streets are designed for all users, including cyclists and pedestrians.
- ☐ Strongly Agree (6)
- ☐ Agree (4)
- ☐ Disagree (2)
- ☐ Strongly Disagree (0)

Total Score: \_\_\_

Answers on p. 40

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# Mexican Cities Create Safer Streets for Children

By Clara Vadillo Quesada and Gonzalo Peón Carballo, ITDP Mexico

Photos: ITDP Mexico



ITDP's Vision Zero for Youth project focused on creating a safe journey to school for children, either by walking or cycling.

When we consider the effects of transport on children's health, we often think of the sedentary lifestyle enabled by cars, or the consequences of increasingly poor air quality, which contributes to rising rates of asthma. These are important issues but cars create another dangerous and grim reality. They threaten the lives of our children every day that they are on the streets. In 2016, traffic collisions were the most common cause of death for children in Mexico between the ages of five and fourteen¹– 44 percent of fatalities were pedestrians.² Nationally, more than half of children and adolescents walk to school and put their lives at risk for an education. The national government in Mexico has attempted to address this problem over the last decade, yet their commitment to cut traffic deaths in half by 2020 is not on track. Fortunately, Mexican cities are taking the lead.

Mexico City's Vision Zero policy has had many successes since joining the movement in 2015, including the creation of road safety regulations and an ambitious target to reduce fatalities by 35 percent with evidenced-based measures. Also, according to data from the city attorney, the policy contributed to a 21 percent decrease in road deaths from 2015 to 2017. Unfortunately, some citizen groups representing drivers have contested the actions that the city implemented, such as sidewalk extensions, reduction of speed limits, and automatic ticketing. However, ITDP examined the effect these policies have on children and created a plan to protect them.

ITDP's project, Vision Zero for Youth, focused on creating a safe journey to school for children. ITDP applied the concepts of Vision Zero to the school zone, an environment requiring the government's utmost attention, and directly involved local communities. The project began with a public middle school in the central borough of Cuauhtémoc, Secundaria 4 Moisés Sáenz, in Mexico City. ITDP engaged the school community early on to make sure it could continue the project autonomously. ITDP held informational sessions on road safety with parents and worked with teachers to integrate road safety principles into lessons for the students. With ITDP's guidance and select teachers, the students created a one-day street redesign in the school zone. The redesign focused on dangerous intersections and potential areas for a collision. It used posters with key messages about road safety and created traffic barriers with crates and buckets to simulate a safer street crossing.

<sup>&</sup>lt;sup>1</sup> Instituto Nacional de Estadística y Geografía. (2017) Estadísticas a propósito del día de muertos. Available from https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2017/muertos2017\_Nal.pdf. 
<sup>2</sup> Secretaría de Salud/Consejo Nacional para la Prevención de Accidentes. (2018) Informe sobre la situación de seguridad vial, México 2017.

<sup>&</sup>lt;sup>3</sup> Institute for Transportation and Development Policy. (2018) Informe Visión Cero CDMX. Available from http://mexico.itdp.org/noticias/informe-vision-cero-cdmx/.





Top: ITDP Mexico's Gonzalo Peón guided middle school students from the Secundaria 4 Moisés Sáenz school on their way to school in the Cuauhtémoc borough of Mexico City.

Bottom: Critical crossing points near the middle school were painted with vibrant colors to reduce vehicle speeds and create more space for students.

Critical crossing points near the school's entrance were painted with vibrant colors and traffic barriers were aligned to reduce vehicle speeds and create more space for the students.

Students were excited to see the impact of their work: more space to cross streets and get to school. Parents were happy that their children's safety was a serious priority. The activity was so successful that the principal of the school insisted that these temporary measures stay in place until the city committed to permanent ones, which it eventually did. Today, an executive project is in development to improve and enhance pedestrian safety by widening sidewalks, reducing pedestrian crossing lengths, adding traffic barriers, and installing speed bumps in the school zone.

Since 2018, ITDP Mexico has worked to replicate this success in more Mexico City schools. ITDP organized Mexico's first national Walk to School Day in partnership with FIA Foundation, the AXA Foundation, and Mexico City government. ITDP expanded this program to become a day to walk and cycle; focusing on fun, active, and healthy means of transportation. Before the Walk to School Day, ITDP went to five schools scattered in three boroughs to raise awareness of road safety with students and to provide parents with a tool to evaluate street conditions. Students, parents, and teachers contributed by identifying frequently traveled unsafe routes.

Based on the community discussions, ITDP created a pedestrian and cycling route for the Walk and Bike to School Day. Parents were enthusiastic about voicing their safety concerns and readily agreed to accompany children along the new route.

continued on p. 44

# After Decades of Booming Growth, Where is China Going Now?

by Xianyuan Zhu and Richard Liu, ITDP China

Photos: ITDP China







Top: China is positioned to move back to its place as Bicycle Kingdom. In the past ten years, China has become a pioneer in bike share by launching some of the world's largest sharing systems.

Middle and Bottom: Pedestrian spaces created in Guangzhou are an important step in supporting China's urbanization. China's population is increasingly urban with over half of the population living in cities. In the next two decades, World Bank figures estimate that roughly 1 billion people will live in Chinese cities. Car ownership is exploding and China is no longer a "Bicycle Kingdom." It has become the world's largest car market—the first nation to buy more cars than the United States.

According to the China Association of Automobile Manufacturers, the annual sales of Chinese cars increased from 2.37 million in 2001 to a whopping 28.88 million in 2017. Traffic jams, dangerous roads, carbon dioxide levels, and air pollution concern the people and government. These issues threaten the country's travel capacity, energy security, ecosystem, and economic sufficiency.

Today, facing these challenges is a priority for China. The government speaks favorably of people-oriented development and has committed to lowering greenhouse gas emissions by 65 percent by 2030. This means it must build for how people travel and encourage a major transition from cars to transit and non-motorized transport. The questions remain: Will China prioritize development over growth? And will that development be people-oriented and sustainable?

#### THE CHINA ADVANTAGE

Despite a focus on cars, China has built more mass transit and transit ridership than any other nation. As of September 2019, 36 mainland Chinese cities are moving 67 million passengers per day on 187 urban rail transit lines covering 5,608 kilometers. Another 2,000 kilometers are in planning or construction stages. Thanks to this investment in urban rail, about half of China's urban residents have access to rail systems; the nation is a global leader in bus rapid transit (BRT). Inspired by ITDP projects in the region, as of 2018, 32 cities in China opened BRT systems, and at least 10 more cities are planning or constructing them. This investment, perhaps more than any other, has enabled the growth of Chinese cities and puts the nation in an advantageous position for peoplecentered development.

People-oriented development is an important step in supporting China's urbanization while mitigating many of the negative outcomes of the massive car infrastructure. In 2016, the city of Shanghai published the Shanghai Street Design Guide, which signaled a shift in core urban design values. Rather than focusing on car access, the guide emphasizes walking and cycling, reducing space for vehicles, and prioritizing active transport with public spaces for pedestrians and



bicycles. In 2017, Guangzhou's municipal government implemented a street renaissance program in consultation with ITDP China. This project created an intense interest among municipal governments. Now there are over 100 street projects in process with people-centered designs that prioritize cycling and walking.

Top: Despite a focus on cars, China has built more mass transit than any other nation. Middle: E-bikes have risen in popularity as traffic has worsened.

Bottom: China leads the world in electric buses and Shenzhen alone has a fleet of 16,539.

#### A RETURN TO THE BICYCLE KINGDOM. WITH A BOOST

Over the past decade, Chinese cities became pioneers in bike share, launching the world's largest systems, and inspiring cities around the world. Today, China is well-positioned to take advantage of electrification of all vehicles, including bicycles, building on its long history of cycling, and early investments in cycling infrastructure. Millions of people now use shared e-bikes, contributing to the over one billion bike-share subscribers in the country.

E-bikes have risen in popularity as traffic congestion has worsened. They offer faster trips with less physical exertion than regular bikes and encourage transit use. Many bikesharing services are close to transit hubs, making them a better solution for last-mile service. China's adoption of electric bicycles is a return to the "bicycle kingdom" with a modern and efficient electric boost.

#### **BUS ELECTRIFICATION**

China's leadership in electric buses is well known. As the world's largest manufacturer, China has built and implemented e-bus fleets with remarkable speed. In 2017, Shenzhen became





continued on p. 44

# In Ethiopia, New Leadership Embraces Transport Solutions to Fight Climate Change

By Gashaw Aberra, ITDP Africa

Photos: ITDP Africa

In Addis Ababa, the capital of Ethiopia, over half of daily trips are taken on foot. This rapidly growing city, home to over three million people, is expected to exceed five million within the next decade, and has until recently followed a familiar transport growth trajectory: building more space for cars to the detriment of all other modes. Luckily, in the wake of this population boom, the government of Addis Ababa has enlisted another strategy, one that prioritizes pedestrian space and infrastructure to support the needs of their entire population.

The city has prioritized cars and designed most of its roads not for the walking population but for the comparatively wealthy minority, 15 percent, who travel by private vehicles. With ITDP's guidance and consultation, the Addis Ababa Transport Bureau (AATB) has developed a ten-year Non-Motorized Transport (NMT) Strategy to address and respond to this challenge. Fortunately, the government is up to the challenge. Much of Ethiopia's progress is due to the young. forward-thinking government elected to power in 2015, and the leadership of Prime Minister Abiy Ahmed since 2018. Ahmed has empowered young civil servants to advance progressive ideas and has himself become a global leader, winning the 2019 Nobel Peace Prize for his work toward reconciliation with neighboring Eritrea. "This government is open to transformational change in a way that is rare anywhere in the world, particularly East Africa," says Chris Kost, ITDP Africa Program Director. "They understand that new approaches to transport planning are necessary to provide access for everyone as the city grows, and they have been enthusiastic partners with ITDP in working to build a more equitable city."

government NMT strategy includes creating dedicated space on roads for pedestrians and cyclists. Right: Addis Ababa's forward thinking government has committed to a NMT strategy.

Left: The Addis Ababa

The ambitious NMT Strategy takes a holistic approach to road design, focusing on complete streets, which provide dedicated







space for cycling, walking, and other transit modes. The city has committed to creating 600 km of walkways, 200 km of cycling infrastructure, and a bikeshare system with 10,000 bikes, among other goals. To date, the city has built or rebuilt 26 km of well-designed pedestrian walkways and established initiatives like Car Free Days, of which there have been 12 in 2019. Kost says, "Car Free Days, which simply involve removing cars for a period of time from a major street, can really be powerful instigators for change. Suddenly, people can imagine all the ways they could use public spaces, such as playing, exercising, art, socializing, that would be available to them if we didn't give away so much of our city spaces to moving and storing private cars."

One of the major goals of Ethiopia's government is to move the country from an emerging to a fully competitive economy. It has implemented a green economic plan with an ambitious goal: to be carbon neutral by 2025. "Ethiopia's leaders understand that their country, which is quickly losing its vast forests, will be on the frontline of the impacts of extreme weather brought on by climate change," says Kost, "and that means that the route to economic security must include green policies." One of the more dramatic actions was the planting of 350 million trees in one day all over the country.



Top and above left: Addis Ababa has upgraded 26 kilometers of pedestrian walkways.

Above right: One of the major goals of Ethiopia's government is to move the country to a fully competitive economy, which includes an ambitious transport strategy.



This initiative set a world record for the largest number of trees planted in a day and sent a clear message to Ethiopia's citizens and the region that they are serious about their green agenda.

With climate change bringing about destructive effects at an unending pace, Addis Ababa and Ethiopia have taken the smart approach to focus on equitable, sustainable transportation. An empowered class of ambitious young people in the government are driving policy and moving their country and region forward. In a country that stands to lose so much due to climate change, this strategy offers a path that many governments around the world would do well to follow.

# From Skeptic to Advocate: One Boston Area Mayor's Transit Journey

By Julia Wallerce, ITDP US

Everett, Massachusetts, is a city directly bordering Boston. It has an ethnically diverse population of 40,000 people—one-third of whom were born outside of the United States. The population has a large age range - with almost equal amounts of people of each age. The per capita income for the city is just above \$20,000, which is less than half the US average. Everett's demographics and challenges are similar to those of many many US communities, making it an ideal case study for transit.



Carlo DeMaria sees BRT as a solution that will enable sustainable and equitable growth in his city. Photo: Office of the Mayor, City of Everett, MA

ITDP's Julia Wallerce spoke with the city's Mayor, Carlo DeMaria, about what makes his city special, and how he's come to embrace Bus Rapid Transit (BRT).

#### You grew up in Everett. What was the city like then?

Growing up in Everett was great. My family lived in a very densely populated neighborhood with tons of kids and people from all different backgrounds. We were always out playing on the streets because they were safe then—we didn't have to worry about cars. The streets were not just for cars; they were for us too.

#### Who are the people of Everett?

Everett is everybody! We're from all over the world really, and our neighborhoods reflect that. We're students, seniors, families, moms and dads, blue-collar workers and white-collar workers, and we're fortunate to not be spatially segregated like some communities.

# What has changed the most about Everett since you became Mayor?

In the twelve years since I've been mayor, I've definitely seen the need for affordable housing increase dramatically. Right now, there are far more cars on our streets than there were just a couple of decades ago, and many cars are simply driving through our streets to go elsewhere. There's a desire for more and better public transportation which is a major priority for my administration. For many years we were declining in population size, but our recent upswing has come with too many private vehicles. We need to find a way to continue to grow without choking on traffic and without pricing out existing residents.

# Has transportation always been a priority for you as Mayor, or has it evolved?

Transportation has evolved over time for me, mostly as I've come to understand more about our environment and the severity of our climate crisis. I look around and see how



Everett piloted and implemented the state's first dedicated bus lane in 2017 which was followed by a series of level boarding platforms and transit signal priority. The Mayor hopes to implement a full BRT within the next few years.

Photo: Ad Hoc Industries

pollution from cars is impacting our environment, not to mention making our streets unsafe. I've come to realize that in order to have a clean and healthy environment we need clean and healthy transportation, and cars are simply not the solution. We need to get people out of their cars and onto public transportation, but to do that we need to make our public transportation more reliable and attractive. We can't convince people to stop driving and take the bus when the bus is always late and gets stuck in traffic—who would do that if they didn't have to?

Everett is the only core Boston community without a subway station so we are entirely reliant on buses. If we had better transit, we could build more affordable housing without adding cars and parking spaces to the streets.

Now let's talk about BRT. Currently, there is no BRT in the Boston area or the state of Massachusetts. How did you learn about BRT and why do you want to see it implemented in Everett?

I had actually never heard about BRT until a couple of years ago when my transportation planner suggested we pilot a dedicated bus lane. My first reaction was that to take away some parking and give it to buses to travel during rush hour was a great idea. I knew that a parking lane wasn't critical and that half of the people traveling in the morning were on buses that were stuck in traffic. It was an easy decision.

The dedicated bus lane we have now is great, but it's not enough. We need to get more people out of their cars and on to the bus, and we're never going to do that with regular bus service. I thought for the longest time that the only way to do it was through rail, but when I learned it was possible to create the same or even better level of service on





Top: Without a metro stop, Everett is entirely reliant on buses with no direct service to Boston. A BRT would allow residents to travel into Boston in approximately half the time. Bottom: Mayor DeMaria

recognizes the importance of transit in serving and supporting Everett's low income community.

Photos: Above: Ad Hoc Industries Below: City of Everett our existing streets using buses, and for a fraction of the cost through BRT, it became an obvious solution.

In government, you have to be bold and try new things or nothing will get better. In my mind, it's a moral imperative to make real and lasting changes before another generation has to suffer from the inactions of their leaders.

#### Who will benefit from this BRT?

Everybody! Property owners, renters, people going to work, people with kids in tow, kids trying to get to school safely, seniors who want to get on transit comfortably, college students commuting in from Everett – everybody.

We want to make it easy for everyone to make that choice to ride the bus, and to make those who have no other choice to feel like they are getting around with dignity and efficiency.

#### What impact will this BRT have on these communities?

As a city with a high population of immigrants and minorities and overall transit-dependent populations, the BRT will take a load off their backs by making it easier and more affordable not just to get around but also to simply sustain and secure their lives here. When we have better transit, we can offer a higher quality of life because we are not making driving a car—the most expensive transportation option—the most reliable transportation option.

#### What will be the greatest challenge to get BRT up and running?

Our challenge will be in getting all the critical players on the same page to make this happen. As much as the City of Everett wants to see BRT happen, we need the state and City of Boston to help us. To unlock the benefits of a true BRT, we need it to be a one-seat ride, not a leg of a journey that includes a forced transfer to a train or another bus. ITDP has done some great analysis on this for us and that will continue to be helpful as we make our case for why the BRT needs to take people all the way into the city center.

We're thinking outside the car lane, and even outside the bus lane. Making that case to agencies like the MBTA (Massachusetts Bay Transportation Authority) and MassDOT (Massachusetts Department of Transportation) will be a challenge, but we're up for it.

# What is your overall vision for the city of Everett and how will BRT help make it happen?

My overall vision for Everett is one where people from the entire income spectrum can afford to live and call our city home; where streets are safe and clean. Transit will become central to the pulse of our community. I envision an Everett where people can leave their car at home or not own a car at all and still get where they need to go comfortably and reliably. We can't do any of those things without great public transit. And so really, BRT is a means to many ends for me and for Everett. BRT will be a driving force behind getting us there.

# In Brazil, ITDP Fights Fake News with **Hard Data**

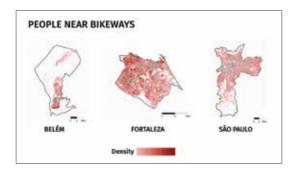
By Bernardo Serra and Clarisse Cunha Linke, ITDP Brazil

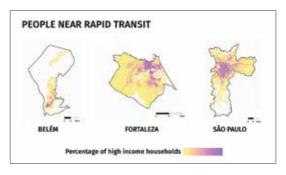
Brazil is experiencing a profound political transformation. Fatigue from years of ineffectual politics and corruption scandals has culminated in the dramatic resurgence of authoritarian conservatism. "Alternative facts," which lean heavily on climate change denial, flood Brazilian social and traditional media. Unfortunately, this problem is not unique to Brazil, but ITDP Brazil is working to change the narrative with the best tool available: data.

To guarantee access to transparent and relevant data, ITDP Brazil launched a data platform, MobiliDADOS (a portmanteau of mobility and data). This tool presents complex technical data with analysis, assistance, and formats to engage technical and non-technical audiences. MobiliDADOS is an online interactive map presenting raw urban mobility data for 27 state capitals and nine metropolitan regions. A shared methodology determines the indicators, making the findings fully transparent. By promoting greater access to mobility information, MobiliDADOS is an essential resource for the many advocacy strategies and movements in progress. It also serves policy-makers and civil society to drive evidence-based solutions for safer, well-connected, and more inclusive Brazilian cities.

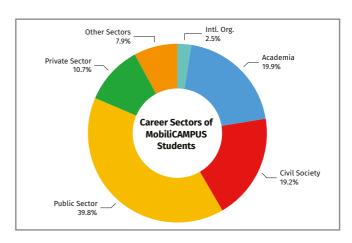
MobiliDADOS has become a useful tool for Brazilians in media, government, and civil society. It has an average of 1,000 users per month. Powered by ITDP, in partnership with eight Brazilian grassroots organizations, MobiliDADOS collects quality data and to create and disseminate evidence-based narratives about urban mobility challenges in the country. Metrics promoted by MobiliDADOS have been endorsed by Rio de Janeiro, Belo Horizonte, Fortaleza and the Brazilian Federal Ministry of Regional Development. Two new mobility and accessibility metrics created by ITDP, People Near Transit (PNT) and People Near Bikeways (PNB) have been adopted as measures of progress by governments at the federal and municipal levels, including Rio de Janeiro, Fortaleza, and Belo Horizonte

This year, ITDP Brazil launched MobiliCAMPUS, an e-learning platform offering an intensive, three-month course on urban mobility to educate and equip civil servants, academics,





MobiliDADOS provides information like People Near Bikeways and People Near Transit According to Household Income, with publicly available data. MobiliDADOS provides information on 27 state capitals and nine metropolitan regions. Above are selected cities from MobiliDADOS, with full data available on the site. Images: ITDP Brazil



Below: The MobiliDADOS and MobiliCAMPUS websites. MobiliCAMPUS provides coursework in transit-oriented development, bus rapid transit, walkability, cycling networks, and Avoid-Shift-Improve. In 2019, it had 450 students and anticipates more in 2020.





students, and current and future Brazilian advocates for government transparency and sustainable transport. The training is free, but space is limited and the demand has been overwhelming. ITDP Brazil received over 1,000 applications for 150 spots in the first week. For the next round, ITDP doubled the size of the class and is working to expand the reach of the program. There is a clear desire among Brazilians to have access to international expertise and quality, local data. In the first year, ITDP Brazil educated 450 MobiliCAMPUS students on concepts like transit-oriented development, bus rapid transit, walkability, cycling networks, and the Avoid-Shift-Improve strategy.

While MobiliCAMPUS is laying the groundwork for change by training a new generation of city leaders, ITDP continues to use the tools of MobiliDADOS to directly support city, regional, and even the federal government – in defiance of political actors promoting a fictional narrative about climate change – for target adoptions and training on how to use clear and meaningful metrics. Thanks to the support of local civil society organizations, ITDP Brazil has assisted over 50 organizations in six cities over the past two years, who have created specific advocacy initiatives that further these goals.

Focusing on immediate challenges and defining real solutions is an urgent matter. MobiliDADOS includes a set of indicators to track how Brazilian cities are implementing sustainable mobility principles detailed in MobiliCAMPUS classes. MobiliDADOS and MobiliCAMPUS provide different but equally meaningful opportunities for Brazilians. These platforms are strengthening ITDP's position within the national debate. They are elevating discussions about urban mobility and advancing the sustainable transport agenda. Despite being relatively new, both tools are positively impacting the struggle for better cities in Brazil.

MobiliDADOS: www.mobilidados.org.br MobiliCAMPUS: www.mobilicampus.org.br



by Karina Saraswati and Gandrie Ramadhan, ITDP Indonesia

Photos: ITDP Indonesia

Jakarta, a sprawling metropolis of 10 million, has been a center of trade and culture in Indonesia for centuries. Jakarta's greater metropolitan region is home to over 30 million people, a number projected to grow by 10 million within the next decade. This growth will push Jakarta's famous paralyzing gridlock to bring the city to a halt unless major changes happen. Jakarta ranks among the most congested cities worldwide. People spend hours every day in traffic as commutes from suburban areas often exceed two hours each way.

Photo: ITDP Indonesia

Fortunately, Transjakarta, the longest bus rapid transit (BRT) system in the world and one of the first in Asia, has been resurrected as the city's transit backbone. Thanks to a major integration effort, along with improved service and infrastructure, the city has more than doubled ridership in the last two years and serves around one million people a day. Transjakarta's success goes against the all-too-common narrative that change is impossible in the Global South's megacities. Thanks to the innovative approaches guided by ITDP, new transportation systems with high levels of public approval are possible because of the cultural shift that began with Transjakarta.

#### **FORMALIZING TRANSIT FOR A DIGNIFIED RIDE**

Before any public transit system existed, Jakartans traveled mostly with unregulated minibuses, known as angkots. Inefficient routes, delays, crashes, sexual harassment, and petty crimes were common occurrences, discouraging ridership and leading people to avoid public transit. International aid priorities, which only funded the building of roads, bridges for cars, and sometimes airports determined much of Jakarta's development. The lack of funding for public transport created an explosion

of car-centric infrastructure and its familiar challenges: congestion, pollution, and staggering traffic jams.

Things shifted in 2004, with the implementation of Transjakarta. The well-designed and expansive system began providing transit for hundreds of thousands of people every day but remained far from fulfilling its potential. There were maintenance issues, inconsistent operations, and suboptimal service. Neither drivers nor law enforcement honored the physically segregated bus lane, and it was a major challenge to keep cars out of it. Police officers would go so far as to wave personal vehicles into the dedicated bus lane. Another issue was that the initial system relied on closed corridors, meaning that for a passenger to change from one corridor to another, they had to get out of the bus, wait for another bus, and pay again to continue their journey. After years of



Important to Transjakarta's success has been creating and maintaining the proper BRT infrastructure, like off board ticketing and a dedicated lane.

advocacy by ITDP Indonesia for open service, Transjakarta became a formal part of the municipal transport structure, and a direct service provider in 2016. Over the next few years, Transjakarta also integrated and formalized angkots, sending ridership soaring.

Transjakarta went beyond route and fare integration and mandated changes in the angkot business model to improve reliability and customer service. Before this change, drivers were paid per passenger, which incentivized delays as they waited for buses to fill and dangerous speeds as they rushed from stop to stop. Now drivers receive salaries based on distance traveled, enabling them to keep to a set schedule and route, and follow traffic laws without risking a pay cut. They also have full access to the 13 corridors spanning over 200 kilometers of dedicated lanes. Significantly, city support



Transjakarta has been a popular mode, with ridership increasing every month, in a city riddled with traffic.







Top: Transjakarta daily ridership is about 950,000 people.

Middle and bottom: Transjakarta required people to adhere to dedicated stops and stations, a cultural shift from the former informal transit that was used by so many residents. and increased education of police officers have kept these lanes car-free.

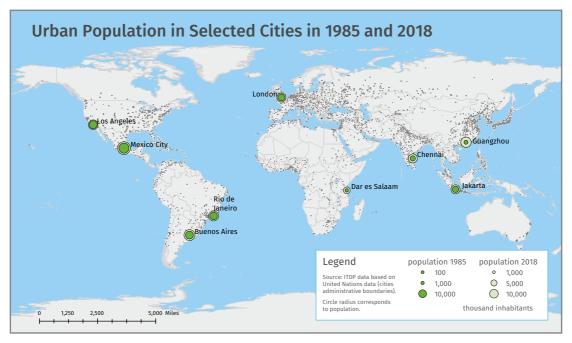
"For the first time, Jakarta's residents are seeing what it means to have reliable public transportation," says Faela Sufa, ITDP's South East Asia Director. "The saving in time and cost are now clear, and people are embracing it. Now that passengers are familiar with public transit, they are changing their behavior to do things like wait in line, give priority seats to vulnerable groups like the elderly, pregnant, and people with disabilities, and there is a much greater awareness of things like harassment of women. It's been an incredible change in a really short amount of time."

These are major achievements, but Jakarta still has a long way to go. Many of Transjakarta's 262 stations are not yet fully accessible. Around the transit stops, there are few elevators and poorly marked crosswalks, putting people with limited mobility at increased risk. Dedicated bus lanes have improved significantly, but are overdue for new barriers after years of neglect. The police must also continue to enforce the dedicated bus lanes consistently. This is particularly important for Transjakarta passengers to feel respected, raise morale and encourage more people to use the bus. There are plans to build a cycle network, integrate a citywide bike-share system with the BRT, and create the first lines of metro and light rail. The progress so far is encouraging, and the city's leaders have much to be proud of. Transjakarta has adapted to Jakarta's growing needs and will continue to thrive for the next 15 years as Jakarta's population grows along with it.

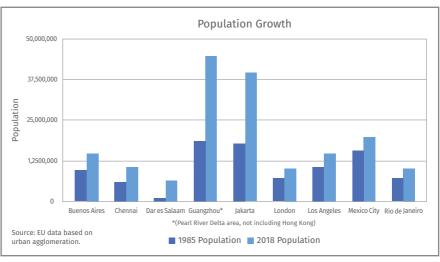
# Back to the Future: Our World's

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

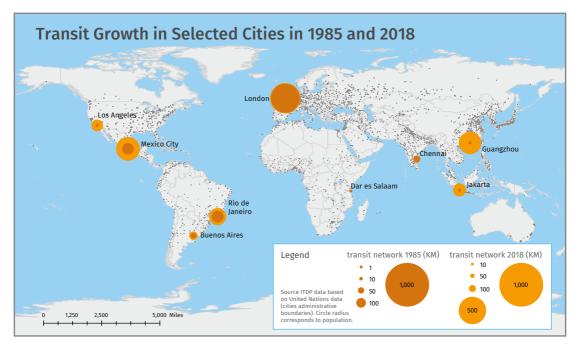


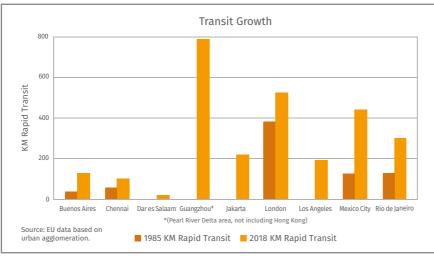
Urban population, here calculated as urban and surrounding territories, has grown worldwide since 1985. While Guangzhou and Jakarta started with large populations and grew significantly, other cities grew more incrementally. The population of Dar es Salaam increased by 500% but still remains much smaller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

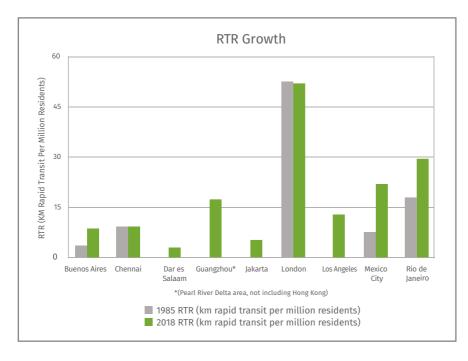
### **Our World's Cities in 1985, and Today**

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.











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









TE (name)



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 is 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 transitpeople 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



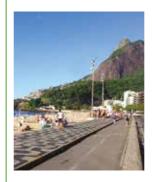






Rio de Janeiro's beaches have been a popular draw for tourists. In 1985, as today, the city was culturally and commercially significant for Brazil.

# 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.

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's exceptional commitment to cycling also deserves

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





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 twohour 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,

Then



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



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 Chennaties 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.



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**

lakarta 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 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















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.









# How Bike-Friendly is Your City? **Quiz Answers**





Rush hour cycle traffic is busy in Copenhagen, no matter the time of year.

Photos: Mikael Colville-Andersen

# If you scored from 48-60

# Your City is... A Best Practice

Congratulations! You're lucky to live in one of the most bike friendly cities in the world, and your city is likely considered best practice in your region, or worldwide. Bikes are easy to find, inexpensive to own, cheap to repair, and you probably also have the option of a bike share system. Cycling is commonly respected by the police and by drivers. Streets are designed for all users, and as a result, people of all ages and ability levels bike.

While bicycle theft happens everywhere, it is not common. Secure bike parking is available at high volume locations or citywide. A bike lane network takes you to most locations in protected lanes, and low speed limits for vehicles throughout the city make it safer when you do need to cross car traffic. As cycling is an accepted and promoted aspect of city life, harassment is rare, and the police take cyclist safety seriously.

# Your City is similar to...Copenhagen, Denmark

Copenhagen is often hailed as one of the greatest cities in the world for cycling. Although the Danish city did not have an official bicycle strategy until 2001, the city's modern history of biking as a dominant mode of transportation began as a response to the oil crisis of the 1970s, and has improved steadily since then. In 2016, the number of bicycles in Copenhagen officially outnumbered cars, with 265,700 bikes compared with 252,600 cars. Bicycles are a celebrated aspect of Danish culture. Sixty-two percent of people in Copenhagen commute regularly by bike.

# If you scored between 35 and 47

# Your City Is...Bike Friendly

Well done! Your city is comfortable and convenient for cycling, with a growing share of trips made my bike. A range of different types of bikes are available and affordable, and your city has a well-designed bike share program, although it may still be growing and not available city-wide. Theft is not frequent, but when it does happen, there is a process in place to report it stolen. Secure bike parking exists, but there may not be enough of it at high volume destinations.

A network of protected cycle lanes and off-street trails offers a safe and comfortable option that encourages all ages and abilities to bike. Low speed limits for cars are



Portland has set an example for cycling infrastructure and support for other US cities. Photos: Wikimedia

Commons



Photo: Ted Timmons



enforced, and your city shows that it takes cycling safety seriously by designing at least some streets in the city center for all users. Cars that encroach on the bike lanes are ticketed, and crashes between bikes and cars are uncommon. Some tension may exist between cyclists and drivers, but police take cyclist harassment seriously. There is strong political support for cycling, an active advocacy community, and public programs exist to teach and support cycling.

# Your City is similar to.... Portland, Oregon, USA

Portland is a regional best practice, frequently cited among the most bike-friendly cities in the US, and has made major efforts in the last few decades to increase cycling in the city. Bicycle use has tripled since 2001. With so many Portland residents using bicycles, theft is common in the city. However, Portland's Police Bureau established a Bike Theft Task Force specifically to tackle the issue of stolen or missing bicycles. In addition to efforts made by the Portland government, citizens have also organized to advocate for cycling and pedestrian improvements.

# If you scored between 23 and 34

# Your City Is...Using Training Wheels

Your city provides basic support and infrastructure for cyclists, with a small but growing share of commute trips made by bike. You can find common types of bikes, such as road bikes and mountain bikes, but it can be difficult to find affordable children's, adaptive bikes, or cargo bikes. You likely have some form of bike share, but it may be too small to be effective transport and have low ridership, especially outside the central business district.

Bicycle theft is a concern, but there are some processes in place to report the thefts. Bike parking exists but is not widely available, mostly concentrated around transit stops and major destinations in the city center. Some bike lanes exist, and some may be protected, but they may not be part of a planned, connected network. Low speed limits for cars are only enforced in certain areas, and while there may be policies in place to improve cyclist safety, they are not consistently enforced.

Private car ownership is considered an important status symbol, and bikes are often seen as an inferior transport option by the larger society. However, a growing number of cyclists and advocates are pushing back on this assumption. This may have led to increased tension with drivers, and harassment of cyclists, particularly minority and other vulnerable groups. However, the police are at least somewhat responsive to these incidents. While only some people know how to ride a bike, there are public programs available for adults to learn.

# Your City is Similar To...Quito, Ecuador

Quito is a big city with a great deal of low-density suburban sprawl, and heavy dependence on car travel. While cycling is



Above: Civil society is hoping to push Quito into a city where cycling is more common, but many obstacles remain. Photo: Wikimedia Commons

Below: In Beirut, even organized

bike tours traverse roads in hostile environments.

Top: The National Bottom: Mohamad Cheblak





not a common commute option, the mode share has been growing as people turn to inexpensive alternatives to the heavily-gridlocked streets of car traffic. Community groups in Quito have been highly active in promoting cycling, and calling for improvement policies from the government.

Cyclists in Ouito report that safety and security are issues of concern, both with theft and personal safety while riding. Harassment of cyclists can be an issue, and the police are often not responsive. However, there are some promising trends moving the city in the right direction, such as the Ciclopaseo, a weekly car-free morning on a 28km route that is open to cyclists and pedestrians. BiciQuito, the city's bike share program, is free to city residents, and became the first city in Latin America to include e-bikes in 2016. Quito has more than 70km of bike paths, but they are not part of a well-planned network and there are connectivity issues.

# If you scored between 11 and 22

# Your City Is...Bike Stagnant

Your city is doing the bare minimum to encourage cycling, with a small, and potentially shrinking share of commute trips made by bike. Biking, other than for recreation, is not a major part of the culture of your city, and as a result, access to affordable bikes is limited. Quality used bikes are not easy to find, the cost of a new bike and repairs can be prohibitive for low-income residents. Your city may be planning a bike share system, but you likely don't have one operating citywide.

The majority of streets in the city center are designed only for cars. Concerns about safety and security for both bikes and cyclists is a major deterrent to cycling. Limited infrastructure separates cyclists from cars, and high vehicle speeds are common, either because speed limits are too high, or they are not enforced. Cycle lanes may exist, but they are unprotected and often unsafe to use, and there is no planned cycle network in place. Harassment of cyclists is common and the police are dismissive of complaints. For this, and also for cultural reasons, most cyclists are young. able-bodied men. Cycling advocacy groups exist, and may offer support and services, but they are not part of any official government policy.

# Your City is similar to...Beirut, Lebanon

Beirut is a city of dense, chaotic streets, and poses serious safety concerns to cyclists and pedestrians. While cycling could present a more direct, faster option for shorter trips, very few people in the city commute via bicycle. As of 2016, an estimated 200 people, or roughly .01% of the population, commute by bike. Beirut has indicated support for cycling improvements, including a bike share system, but efforts like these have rarely included consultation with the cycling community (or the public more broadly) and have been limited in scope, often not considering critical details such as capital and operating costs or maintenance.

An overall lack of planning for bicycles and pedestrians has likely contributed to low bicycle ridership. Beirut's small, three-station bikeshare system is priced for tourists: \$17 to unlock for the day and \$3 to unlock for an hour—rates that are too high for regular use or local use. The city has few paved sidewalks and even fewer bicycle lanes. Low rates of ridership have limited the availability of bike parking. However, civil society organizations have emerged, and are working to expand awareness of cycling in the city through street art placed at congested intersections, social media campaigns, bicycle parking installations, crowd-sourced bike-friendly streets and businesses maps.

# If you scored between 0 and 10

# Your City Is...Cycle at Your Own Risk

So sorry, but your city is uncomfortable and unsafe for cyclists. There are very few trips made by bike. Access to affordable bikes is very limited, there is almost no used bike market, and most new bikes are unaffordable. It can be difficult to find repair options, and your city likely doesn't have a bike share system. Bike parking is rare anywhere, secure parking is nonexistent, and bicycle thefts are common. There is no process in place to report stolen bikes. There are very few, if any bike lanes, and no major actions have been taken by the city to improve safety for cyclists. Vehicle speeds are high in the city, and cyclists feel unwelcome on the road, which are designed only for cars. Roads may be unpaved, or poorly maintained, which adds even more difficulty to cycling.

Most everyone in your city who can afford a car has one, and cars are seen as aspirational status symbols. Strong stigmas that identify cycling as a symbol of poverty dissuade many potential riders. Threats of harassment or assault, or cultural norms around gender, may dissuade women and girls in particular, and other vulnerable groups such as immigrants or minorities, from cycling. A lack of political will to support or invest in cycling improvement projects, coupled with very few organized cycling advocacy groups, prevent acceptance of cycling as a viable transportation mode.

# Your City is similar to...Johannesburg, South Africa

Johannesburg is a car-oriented city, with very limited access to affordable bikes. Less than 10% of Jo'burg residents own a bike, and most residents do not know how to bike. Efforts made by the city to create a public bikeshare program have stalled for concerns about affordability, safety, security, and long commute distances. Bicycle theft is high in Johannesburg. In 2013, the city began implementing cycle lanes; however, many were deemed to be underutilized, and wealthy residents complained about lanes being a waste of the city's resources. As of 2016, all future cycle lane projects were halted. A lack of physical separation between cyclists and traffic is particularly challenging for cyclists interacting with Johannesburg's minibuses, which have no set routes and notoriously aggressive drivers. And while the majority of Johannesburg

In Johannesburg, cars are plenty and powerful, making cycling neither a safe nor comfortable mode of transport. Photos:
Top: Wikimedia Commons Bottom: Riding through Johannesburg





# Mexico

continued from p. 13

Children were encouraged to express, in their terms, their experiences walking to and from school. For that purpose, they used magnifying glasses in cardboard to observe street elements that they liked (dogs and ice cream vendors) and those they disliked (holes in sidewalks and cars parked on the sidewalks), and got adults or older students to take pictures of them. At the end of the day, all the children shared their experience of walking or biking, and parents took advantage of the presence of local authorities to demand safer street environments for children.

Today, these experiences are being implemented in three midsized cities in central and northern Mexico whose governments show a strong commitment to the road safety agenda: Puebla. Hermosillo, and San Pedro Garza García. With these tools and technical visits of the ITDP team to the sites, school communities in these cities have collaborated with authorities to organize their own Walk and Bike to School Day. The act of providing space for children to express their ideas about how to use street space and enlisting parents to advocate for road safety was key to the project's success. Vision Zero for Youth is about saving children's lives and creating a sustainable future for everyone.

# **Bike-Friendly Quiz Answers**

continued from p. 43

residents cannot afford a car, the roads in the city are built for cars, and many are unpaved.

However, community-driven critical mass rides have brought awareness to the growing number of cyclists in the city and their calls for safety and improved conditions. Advocacy groups like the Johannesburg Urban Cyclists Association, which developed a bicycle map for the city that identifies preferred commuting routes and continues to pressure the city government to implement its bicycle strategy, are working to change the perception of cycling in Johannesburg.

# China

continued from p. 15

the first city in the world with a fully electric bus fleet. The city has 16,359 electric buses that travel a daily average of 2.85 million kilometers.

It has built 510 bus charging stations and approximately 5,000 charging piles, a form of charging station.

Pure electric buses have replaced traditional diesel buses and have made progress in mitigating air pollution. Even with an imperfect grid, e-buses are huge energy savers, consuming roughly onethird of the energy of diesel buses, and helping to lower fuel consumption. Electric buses also reduce harmful carbon emissions and particulate matter by over 400 tons and are less expensive to operate. Electrification still has challenges as battery life can be difficult to maintain and capital costs are high, but China is positioned to take full advantage of new technology.

There are many unanswered questions about China's future, but all signs point to electrified transport that is peoplecentered and bicycle-forward. If China continues on its current trajectory, it will be a highly competitive economic force and an example of sustainability to other high-polluting nations. This shift will require cities to reorient away from growth and investment patterns and priorities from the past 30 years and focus on sustainable and low polluting practices. If successful. China's cities can become examples for previously high polluting cities all over the world.

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

9 Cities Photo Credits (clockwise from top left of each Then and Now section)

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# **New Resources from ITDP**

Check out these and more for free at itdp.org

# **Streets for Walking & Cycling**

### **ITDP Africa**

Streets for Walking & Cycling is a guide that emphasizes designing for safety, accessibility, and comfort in African cities, developed by ITDP Africa in partnership with UN-Habitat. This guide can assist cities in implementing Sustainable Development Goal 11.2 which calls for expanding access to public transport and safer streets.





# Vision Zero for Youth: Making Streets Safer One School Zone at a Time

### **ITDP Mexico**

A resource for communities to promote the implementation and expansion of Vision Zero in local school zones. This report documents the experience for Vision Zero for Youth in Mexico



City and provides recommendations for traffic regulations, education and communication strategies.

# Getting to BRT:

# An Implementation Guide for U.S. Cities

### **ITDP US**

This guide is the first resource specifically for planners and policymakers in US cities to advocate for and implement BRT systems. This guide offers proven strategies and insights for successfully implementing BRT within the political, regulatory, and social context that is unique to the United States.



### At-Grade Crossings Make Streets Accessible, Safe, and Comfortable

and Comfortable

Pedestrian bridges do not encourage walkable, livable communities, nor do they improve road safety for drivers or cyclists. Separating people from the street reinforces the prioritization of personal motor vehicles, while encouraging speeding, driver negligence, and traffic fatalities.



### E-Bikes & E-Scooters: Drivers of Climate Action

Electric bikes and electric scooters, often referred to as micromobility, present cities with opportunities to advance sustainable transport solutions by replacing passenger vehicles. E-bikes and e-scooters offer people more ways to connect to their destinations without having to rely on single-occupancy vehicles, thus reducing high emissions trips.



# Kampung Kota Bersama

### **ITDP** Indonesia

Kampung Kota Bersama is an ITDP Indonesia program that is helping Jakarta be more pedestrian and cyclist friendly, by engaging with local "urban village" communities. This publication documents the experience and can serve as a best practice in community engagement for cities around the world.











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Top: In the Mexican City of Puebla, students go on a cycling tour for Walk & Bike to School Day, supported by ITDP and the municipal government.

Middle & Below: MOBILIZE attendees participate in walking and cycling tours of Fortaleza, Brazil.

Photos: ITDP

