



**Jakarta, Indonesia
Is What Resiliency Looks Like**





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Cover: A wayfinding sign at the integrated BRT station in Jakarta, Indonesia. Transjakarta's BRT integrations with the angkots, and the connection with the commuter rail, provide travelers an opportunity to transfer modes easily.

Opposite page:
A Car-Free streets event in Addis Ababa, Ethiopia.
Photos: ITDP



Editorial

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A Moment for Change

It is hard to imagine that a year ago most of us had never used the word coronavirus; now it has upended almost every aspect of our lives. The impacts are deeply devastating and even a year later, still uncertain, but there are great reasons for hope, too.



By Heather Thompson,
ITDP CEO

Where I live in San Francisco, we are still scarred by the raging forest fires that once again filled our skies with apocalyptic ash, and have now become an annual event that we fear all year. As we reflect on a year of dramatic global change and challenges, we have to ask ourselves—how many more catastrophes do we need before we see real change and action? The pandemic has laid bare the deep fragility and inequities of our systems.

It is a rare occasion when big shifts in culture and policy are possible, and the time is now.

The pandemic has created openings for solutions. We know just how essential public transportation is to so many, yet how completely under-supported it is in most countries. Some countries are moving in the right direction with scaled financing, like China's commitment to commuter rail. Our team is helping key cities, like Guangzhou and Tianjin, leverage these investments for smarter transit-oriented design, with transit stations that can serve as neighborhood hubs. Other countries, like Brazil and Uganda, are revisiting the structure of their public transportation concessions to find more sustainable funding opportunities and smarter cashless fare collection systems.

We saw streets go quiet during lockdown. With fewer cars on the roads, skies cleared, and many more people opted for cycling and walking as safer modes of transport. The slowdown gave us a glimpse of how much space is wasted on cars and should be repurposed for public use. It is exciting to see cities adopt temporary and permanent measures to lock-in these benefits. Our teams have been working around the world to realize these visions.

In Jakarta, we have helped put in place 200 kilometers of bike lanes by year-end, then an additional 300 kilometers, and 2,000 bike-share bikes by 2022. In Mexico City, we have envisioned how the “emergency bike lane” along Insurgentes, one of the city's main BRT corridors, could become one of the longest bike lanes in the world. In India, we have worked together with the government of India's Smart Cities Mission to roll out the Cycles4Change Challenge to inspire nearly 100 cities to implement quick, cycling-friendly interventions in response to COVID-19.

The pandemic has also underscored the importance of having neighborhoods with walkable services and opportunities. With this, cities are looking to the Paris model of “15-minute neighborhoods” for greater resilience in the future. This goal is to make everything necessary accessible within a 15-minute walk. ITDP's new *Pedestrians First* tool uses open data from over 1,000 cities to help people understand how walkable cities are and offers specific policy suggestions for each city to improve walkability.

The conditions are ripe for this to become a pivotal moment. Seizing this moment depends on social mobilization and leadership to realize a new vision.

Fewer people in polluting cars and more people walking and cycling helps to stave off climate change. Yet, despite all the openings, we still see cities discouraging transit and pointing to private vehicles as the “safer” option, ignoring the obvious air quality detriment and soaring road deaths that have resulted from driving at higher speeds. The worst-case scenario is that we learn nothing from this pandemic, and we continue the pre-COVID-19 status quo of making cities hostile to pedestrians and catering to expensive, polluting cars—by building more roads and parking, and taking more space away from people.

Around the world, nearly 230,000 people walking will be killed this year by cars, and millions more will die from air pollution. Streets are already bursting with congestion. To add more cars will just make them grind to a halt as even more people choke on pollution. (Literally choke: studies show that air pollution from cars makes the coronavirus up to 15 times more deadly.) We urgently need car control measures - like paid parking, congestion charging, and zero emission areas - to help limit driving. The timing is especially attractive for these win-win solutions that can also generate revenue, which now, more than before, cities desperately need.

The conditions are ripe for this to become a pivotal moment. Seizing this moment depends on social mobilization and leadership to realize a new vision. ITDP is full of visionary leaders, who advocate that people of all races, ages, genders, and incomes have access to healthy, sustainable transportation that allows them mobility in life. This pandemic will end, and when it does, if we are focused and strategic, we can shift to a new normal; this moment of crisis can lead to radical change for a sustainable future. ITDP will continue to help cities move in new, healthy directions, and we look forward to a year of building back better.



ITDP CEO Heather Thompson addresses the World Urban Forum in Abu Dhabi in February 2020.

Photo: ITDP

Jakarta Is What Resiliency Looks Like

By Jemilah Magnusson
and Fani Rachmita

Photos: ITDP Indonesia

For the past several years, the city of Jakarta, Indonesia, has been on track for a major transport transformation. Like most other big cities, Jakarta has seen soaring growth in the past few decades, with migrants from all over the region drawn to the rapidly growing economy and modern life of the city. Unfortunately, Jakarta also followed the lead of most other cities in their infrastructure priorities: roads and bridges for cars only, despite the fact that the majority of Jakartans don't own cars. According to *Greater Jakarta Commuter Statistics*, less than 10 percent of Jakartans commuted by private car in 2019, with the much larger numbers traveling by motorcycle and transit. Nevertheless, the streets of Jakarta were soon packed with motorcycles and private cars, and paralyzing traffic all but ground the city to a halt.



Fortunately, the city of Jakarta has shown that it is willing and able to meet the moment. In the face of major COVID outbreaks and riots against a new labor policy, the city, led by Governor Anies Baswedan, is seeing the benefits of years of work with ITDP Indonesia.

SHIFTING STREETS TO CYCLING

Much has been made of cities' major growth in cycling during the pandemic, and for good reason. Cycling is a fast, cheap, easily accessible option for city trips that enables the rider to avoid crowds, and adds zero pollution. As cities around the world rushed to add more bikes and more safe routes for cyclists, Jakarta had a head start, having already planned a 500 kilometer network of cycle lanes throughout the city. "Seeing the need to restrict the spread of COVID-19, we knew that Jakarta supports its citizens even further because we had the foundation laid out already," says Faela Sufa, Southeast Asia Regional Director, "When the social restrictions were eased in June, we surveyed a major thoroughfare in the city center and saw that cycling had jumped by 1,000 percent from a year earlier. In other areas, it was still up by 500 percent or more. This has really shown to the city, and the people, the



Top: Transjakarta, and its passengers, has benefited from having a dedicated bus lane and pedestrian centered infrastructure design.

Bottom: Jakarta's emergency bicycle lane was enforced and supported by grassroots cycling advocates.

importance of cycling to keep the city moving, and that if we make it possible and easier, people will choose to cycle.”

ITDP Indonesia’s work over the last several years to raise the profile of cycling in Jakarta has paid off during COVID. This included hosting forum discussions with the public, cycling communities, and city officials that resulted in a trial of 63 kilometers of bicycle routes in 2019. The program convinced the city to start planning a 500 kilometer protected bicycle lane, currently projected to begin within the year. ITDP Indonesia is also conducting events to raise awareness about cycling with a public discussion, a cycling tour, and cycling-friendly school activities. ITDP Indonesia released two guides about cycling and a series of infographics, which are popular on social media.

The increasing need for cycling and walking during the pandemic prompted the Jakarta Provincial Government to push forward some much needed measures. Jakarta provided pop-up bike lanes in Jenderal Sudirman and M.H. Thamrin Street using temporary measures such as traffic cones. Due to increasing demand, an additional 12 kilometers of a pop-up bike lane were implemented, taking over about half of the car traffic lane. This lane is used only during morning and evening rush hours, but is also in place for longer periods on weekends. While this was an emergency response, the city backed it up with new policy. During the spring social restrictions, the city of Jakarta issued Governor Regulation No. 51 of 2020 Article 21 which states: “all road segments are prioritized for pedestrians and bicycle transport users as a means of daily mobility for accessible distances.” With the regulation, pop-up bike lane programs and providing bike parking became the main elements to accelerate the city’s vision for a bike-friendly city.

A MOVEMENT FOR CHANGE

The changes on the streets would not have been possible without ITDP Indonesia’s on-the-ground partnerships and support from the local community. Together with Bike 2 Work Indonesia, ITDP launched the Sepeda Berbagi initiative, a program to collect and make available bicycles for anyone to use for free, which has been heavily used by essential workers during COVID. The model is similar to a bike share, with the idea of encouraging people to try cycling for the first time.

In fact, the movement is now serving as support for Jakarta’s small, but growing bike-share system. Initially, only 115 bikes, from sharing operators, were available at 9 stations. The program has expanded quickly to 72 stations, most of which are located along 2 major streets and at transit hubs.

While significant obstacles related to COVID-19 remain, like police opposition and pending municipal budget cuts, public support and political will continue to rise. In response, the Jakarta provincial government is now planning to make the pop-up bike lane permanent. The bike lane would be two meters wide with a single direction lane and a buffer zone of planter boxes. The design is already in the final phase and will start the construction phase in early 2021. This protected bike lane would be the first of many protected bike lanes in the new bike-friendly Jakarta.

A MAJOR MILESTONE ACHIEVED

In 2019, with ITDP's support, the city of Jakarta achieved a major goal: one million riders per day on Transjakarta. This was a hard-fought win, achieved through a combination of service improvements, integration, and enforcement. The city started with a raft of expansions and improvements before hosting the Asian Games in 2018, and saw its ridership numbers climb as a result. Next, they focused on integration, by formalizing the major fleets of angkots, privately owned minibuses that are the major provider of transit service in the villages and neighborhoods throughout the city. Before integration, inefficient routes, delays, crashes, sexual harassment, and petty crimes were common occurrences, discouraging ridership, and leading people to avoid public transit. Jakarta also opened the first corridor of its new Metro and light rail systems, which are integrated with Transjakarta. This significantly expands the reach of the system and sets the stage for the type of extensive, multi-modal transit system befitting a city of Jakarta's size.

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 and increased education of police officers have kept these lanes car-free.

As the world's cities adjust to a new, temporary normal, Jakarta has particular incentives for wanting to build back better. With sea levels rising due to climate change, the island of Java, where Jakarta is located, is under siege. Before the pandemic, Jakarta was losing over \$4 billion every year in productivity as a result of traffic, and air pollution became a major public health problem in this tropical city. Fortunately, the city has now shown that, even in the toughest of circumstances, it is committed to improving access and quality of life for its citizens. If Jakarta keeps moving forward, it has the potential to become a global best practice in transit and cycling, inspiring replication in cities throughout the region, and around the world.



Top: Integration with Transjakarta encouraged angkot operators to make improvements, like formalized routes, no smoking on board, and anti-sexual harassment policies.

Bottom: An angkot navigates Jakarta's daily traffic.

Insights from Mexico City: The Right to Mobility and Work in Public Space

By Clara Vadillo Quesada and
Sonia Noemi Medina Cardona

Photos: ITDP Mexico

"I have been working here for six years. I use the bicycle to save money. With the current situation, it is difficult, and we are only allowed to work in this area, so traveling is forbidden, making it difficult to find customers." Jorge, street vendor.

STREET VENDING IN MEXICO CITY

Street vending has been an inherent part of Mexican culture since pre-Hispanic times. In Mexico City, 1.2 million people are part of this informal sector and rely on their ability to work in public space. These vendors make the streets lively and dynamic, and provide people with affordable food and services that they cannot easily get elsewhere.

Whether selling goods from temporary or fixed stalls, and even on bikes, street vendors offer diverse services and products like fresh fruit juice, tacos, and key repair. In Mexico City, they are virtually everywhere: alongside sidewalks, outside metro stations, and in parks. Their omnipresence at convenient locations is part of their value. For many people who spend several hours on public transport, the street vendors outside office buildings provide the only chance to get an affordable and healthy breakfast.

During the COVID-19 pandemic, street vendors ensure low-income essential workers can find inexpensive meals. Given that the stalls are outside, with fresh air circulation, and often comply with sanitary measures, they are even less prone to propagating the virus than indoor restaurants. With coronavirus restrictions, many office workers are working from home, drastically cutting their commutes. This has caused the number of regular customers for street vendors to drop. Additionally, local authorities have used sanitary regulations as an impetus to displace vendors from their regular locations since the pandemic began.



Above: Antojitos, or small snacks, encompass a diverse selection of sweet and savory food that can be found on the streets of Mexican cities.



Right: Taquerias, like this one shown, serve street tacos and other food. Street food is considered some of the best food available and is an important part of Mexican culture.



Street vendors use carts to move their goods around. Here, a purveyor of *agua fresca*, or traditional fruit juice.

STREET VENDING AND MOBILITY

Despite their importance to Mexican cities, some people and decision-makers disapprove of street vendors. To them, street vending does not fit their sense of urban aesthetics and presents a problem to cities. In Mexico City, street vending is not part of the conversation about street design, leaving vendors without an official right to the city. Opposing legislation argues that street vendors constitute a barrier to access and mobility. And because street vendors are often in areas with a high-pedestrian flow, municipal decision-makers perceive them as a physical obstacle. In contrast, for many in Mexico, street vendors offer a convenient way to access goods throughout the day. In some cases, vendors even add eyes on the street, contributing to the perception of safety.

While the right to mobility and work in public space is part of local legislation, mobility is prioritized over work. This means that space for pedestrians and cars is prioritized over space for people to work. Unclear local regulations about working conditions in public spaces also make street vendors highly vulnerable, both in judicial and in material terms. Rather than legislate against them, Mexico needs to improve the planning and design of public spaces to include street vendors. Now, the pandemic places even greater emphasis on the need to safely accommodate street vendors, their clients, and passers-by in public spaces.

STREET DESIGN: THE RIGHT TO MOBILITY AND WORK IN PUBLIC SPACE

With the support of Women in Informal Employment: Globalizing and Organizing (WIEGO), ITDP is proposing a new solution for these rights to coexist in public space:

1. Provide safety to all street users. Safety is one of the most important factors in street design, both road safety and social security. Streets must be safe for all: those moving and those working.

2. Equitably reallocate public space. Public space is the most important resource for street vendors.

While space is limited for all road users, a considerable amount of road space is dedicated to cars. As a result, pedestrians and street vendors are pushed onto compact sidewalks. It is important to increase sidewalks and reduce road space dedicated to cars.

3. Include all street users in the design process. In many cases, street design manuals are used to reorganize public space. However, these manuals do not consider how to include street vending in street planning or the final design. To understand the needs of street vendors and pedestrians, both users should be included in the street design process. Cities can do this through various strategies like workshops, participation platforms, and tactical urbanism.

4. Consider street vending viability in street redesign and public space reorganization. When considering the reorganization of public space for the street user, street vending viability and flexibility need to be considered. It is important to analyze the pedestrian flow and the street space, so users can coexist without hampering each other.

Street vending has been part of urban life for many years, and this current crisis has merely underlined its vast contributions to street life and the well-being of millions of people in Mexico City. Without recognizing street vendors as part of the natural fabric of the city, legislators do a disservice not only to the many vendors but all the pedestrians; in rethinking urban spaces, street vending must not only be considered, but included in planning. Mexican cities can create space that is not only more equitable, but will ultimately be beneficial to the many patrons of the vendors, as well as all street users; inclusivity will improve the streets for everyone.

*Special thanks to
Tania Espinosa Sánchez and
Adriana Berenice Pérez Campos*

Leapfrogging Past the Urban Highway

By Mackenzie Allan and
D. Taylor Reich

Photos: ITDP



Urban highways are obsolete technology. By investing in walking, cycling, and public transit, rapidly developing cities can leapfrog past the outdated urban highway, and skip straight to the future.

Shown here is the 405 freeway cutting through densely populated Southern California.

TOXIC TRANSPORT DESIGN

Urban highways are limited-access, multi-lane divided roads in populated areas. They are designed to move motorized traffic over long distances at high speeds. Some urban highways run through city centers while others encircle the urban core. Urban highways were the peak of transportation design in the 1950s, but today they are as obsolete as floppy discs. Walking, cycling, and public transit are more sustainable, safe, healthy, efficient, and productive than urban highways. Sustainable mobility is the future of transportation.

Urban highways are not just obsolete: they're toxic. They are bad for both people and the planet. They

displace people, dividing communities and deepening segregation by cutting off walkable networks that people use to get around. In this way, urban highways sacrifice livable neighborhoods to facilitate car traffic. Urban highways lead to growth that is ecologically and financially unsustainable. They subsidize sprawling development that destroys agricultural land and natural habitat. Highways encourage people to drive, making air pollution and climate change worse.

Proponents of urban highways argue that they relieve congestion, reduce travel times, and even decrease emissions. But urban highways cause the induced demand phenomenon, which encourages more people to drive. A few years after a highway opens, congestion, pollution, and the other harmful



Massive highways, like these shown in Los Angeles, create pollution and destroy the natural habitat. Space dedicated to only cars ultimately moves cars slower and damages surrounding areas.

impacts of driving become worse and the anticipated benefits do not materialize.

The harmful impacts of urban highways are so clear that most cities in high-income countries have stopped building them. Cities like Seoul, Paris, New York City, San Francisco, Utrecht, and Milwaukee have begun demolishing urban highways. While costly, this results in healthier, more livable communities.

Not all high-income cities made the mistake of building urban highways in the 20th century. Vancouver—the only major North American city with no urban highways in the city center—invested its resources in walking, bicycling, transit, and transit-oriented development. Not coincidentally, Vancouver routinely tops quality of life rankings for the continent.

REPEATING PAST MISTAKES

Even as high-income countries tear out urban highways, many lower- and middle-income countries continue to build them. These projects are usually funded by local and national governments, but sometimes by bilateral and multilateral development banks. Ironically, these multilateral banks are often funded by high-income countries that have stopped building urban highways in their own cities. The argument for building these highways is the same as it was 50 years ago: to reduce congestion. But with the data we have now, we know that this never happens.

LEAVING HIGHWAYS BEHIND

Countries around the world are facing an economic recession in the wake of COVID-19. Many governments will pursue stimulus programs that fund infrastructure to jump-start growth. But countries that spend stimulus funding on highways will only saddle themselves with toxic, obsolete infrastructure. COVID-19-related stimulus funding should be spent on innovative sustainable technologies like citywide cycling networks instead of inefficient highways. At the time of writing, hundreds of cities have rapidly expanded their bicycle networks while other cities are expediting plans to expand protected cycle-lane networks. To provide a sustainable and

São Paulo, Brazil | Mário Covas Rodoanel Project, Northern Section

Financing:
Multilateral Development Bank loan and state government funding

Started in 2013, the northern section of the Mario Covas Rodoanel highway is the final 47.4-kilometer stretch of the 176.5-kilometer beltway. The project will cost an estimated \$3 billion, with a \$1.1 billion loan from a major development bank and the state government of São Paulo responsible for the rest. It passes through densely populated areas and a section of the Mata Atlântica rainforest, which has already faced significant degradation for human development.

High-income cities are paying exorbitant costs to remove the urban highways they built only decades prior, and replace them with walking, cycling, and transit.

Seoul, South Korea

The elevated Cheonggye Freeway inundated its surroundings with noise, congestion, and pollution for four decades. Its removal in 2005 created a 9-kilometer green space through central Seoul. The transformation reduced summer temperatures along the corridor by 3.3 degrees Celsius, creating a healthier, pedestrian-friendly axis in the city. Apartment property values along the corridor averaged a 25% increase after the conversion. The project was so successful that Seoul has removed 15 more urban highways.

Below: Cheonggyecheon, now a public park in Seoul, is enjoyed by residents during a summer evening.

efficient recovery from COVID-19, cities should make these improvements permanent.

Multilateral and bilateral development banks and other financing corporations have a role to play by funding sustainable mobility instead of toxic highway projects. Education and awareness about leapfrogging will be key to enabling financial institutions and governments to pursue sustainable transportation.

Leapfrogging to sustainable urban mobility is possible. In the mid-1990s, the city of Bogotá was growing fast and had to decide how to expand its transportation system. The Japanese International Cooperation Agency offered financing for a system of urban highways, but the city opted instead for a mobility strategy that included a now internationally renowned bus rapid transit (BRT) system. This BRT now carries over 1.8 million people a day, more people than the proposed highways would have, at a fraction of the construction cost. The city also invested in a bike share system and a 45-kilometer greenway connecting low-income neighborhoods to the city center.

High-income cities are paying exorbitant costs to remove urban highways they built only decades ago and replace them with the cutting-edge transportation technologies of walking, cycling, and transit. We can learn from their mistakes. Low- and middle-income cities have an opportunity to leapfrog past toxic urban highways to the sustainable transport of the future.



Measure What Matters

By D. Taylor Reich,
Santiago Fernandez Reyes,
and Bernado Serra

THE FOUNDATION OF PLANNING

Access to opportunity is a fundamental principle of city planning. When we measure access, we assess the number of destinations that somebody can reach within a given travel time, from a given location, by a given set of modes. We may want to know how many jobs someone can reach within an hour-long drive of their home; what percentage of city residents can get to healthcare within a 15-minute walk; or how many low-income residents can get to the city center within half an hour by transit, walking, and cycling. These are all questions of access.

GETTING NOWHERE FAST

For decades, measurements of speed have dominated transport planning. The obsession with speed has created cities for cars to move uninhibitedly, instead of cities that link people to their destinations through walking, cycling, and transit. More space for cars doesn't allow cars to move faster, it just creates more traffic, which leads to cars moving slower. To increase access for the car-owning minority often means reducing access for those who need it most: people walking, cycling, or riding transit.

Access and speed are different. Imagine a woman living at the intersection of rural highways in the middle of nowhere. No matter how fast she drives down these roads, she'll never be able to access as many destinations in a half-hour as someone walking in a busy downtown neighborhood. A city's transportation system should not just be measured by how fast it moves people, but by where it gets them.

ACCESS FOR WHOM?

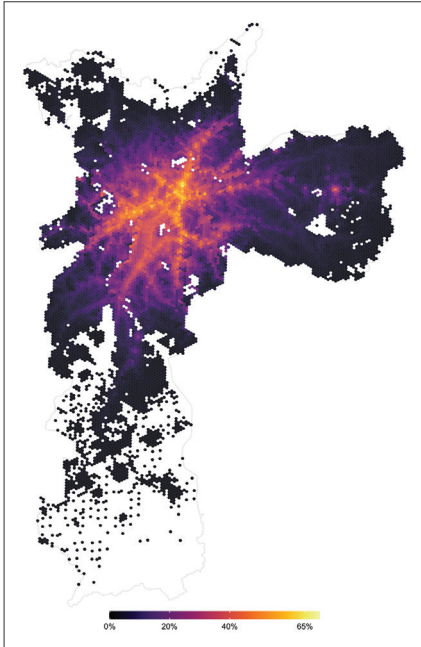
While a proposed policy to increase access for the average resident is relevant, it is more important to ensure that the policy would not decrease access for marginalized groups. For instance, measuring access to employment opportunities is crucial, especially for people in low-income neighborhoods.

Planners in Miami are updating the city's bus network by using measurements of access to maximize people's ability to reach job opportunities. The new network will use the existing bus fleet, but the average resident will reach 39 percent more job opportunities in a 45-minute bus ride. People of color and low-income people in Miami will see the greatest benefits. Using access, it's easy to quantify differences for people in different demographic groups, and remedy inequities.

Women often visit more destinations on a single trip, and at different, often off-peak, times, than men do. So, a



Access is at the nexus of equitable and sustainable policies. Source: Adapted from Rode, Heeckt, da Cruz. 2019. Coalition for Urban Transitions.

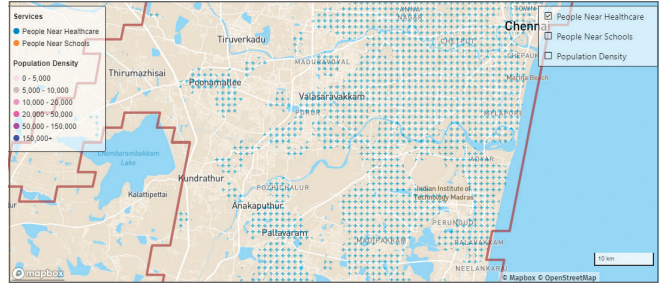


Top left: Percent of employment opportunities accessible by public transport in São Paulo, Brazil, within 60 minutes of origin.

Top right: Walkable access to healthcare in Chennai, India, measured in *Pedestrians First*. Areas within a 1-km walk of healthcare are marked in a blue pattern.

This interactive map, along with others, is available at: pedestriansfirst.itdp.org.

Bottom: This map by ITDP Mexico shows car vs. bicycle accessibility reachable within 40 minutes from the center of Mexico City during evening rush hour. While both modes provide accessibility, bicycles provide more accessibility in certain areas.



transportation system that makes it easy to take one long trip but difficult to take many small trips is a transportation system that perpetuates structural sexism.

MEASURING ACCESS IN THE GLOBAL SOUTH

ITDP's offices around the world have developed tools to visualize access under various modes and conditions. ITDP Mexico's interactive tool can compare access to jobs and key services by walking, biking, transit, and car, including during congested or free-flow conditions. The tool offers a new way to see challenges and opportunities in the Mexico City metropolitan area, with a population of 21 million people.

ITDP Brazil, in partnership with Brazil's Institute of Applied Economic Research (IPEA), has been working on developing access measurements in Brazil's major cities. These measurements consider access to key destinations via several transport modes: walking, biking, and public transport. This valuable information is explorable through an interactive web tool.

The COVID-19 pandemic makes walkable access to healthcare more important than ever. As part of the new set of *Pedestrians First* tools for walkability, ITDP has created maps of walkable access to healthcare in nearly 1,000 urban areas around the world. With strategic city planning, transit-oriented development, and streets designed for people, these places can save lives by making it possible for people to walk to the healthcare they need.

ACCESS GUIDING POLICY

Around the world, urban planners recognize the potential of access measurements to coordinate land use, social policy, and transportation planning. Miami is one of several US cities using the principles of access to redesign public transit. Singapore, Paris, and other cities worldwide have embraced 20- and 15-minute neighborhoods. This ensures that everyone in the city can satisfy all their daily needs within a short walk of their home. The beauty of this approach is that any city can use it. Access measurements take only a little data and technical knowledge, both of which are openly available on the Internet. Although few cities in the Global South have embraced access-based planning, the tools are there—and so is the opportunity.

Iwona Alfred contributed to this article.

Africa in Transition: Improving Urban Mobility Amid the COVID-19 Pandemic

By Carolynne Mimano

Photos: ITDP Africa

Before COVID-19, African cities were grappling with rising urban populations and inadequate transport infrastructure. While the pandemic has exposed these vulnerabilities, regional governments are seizing the opportunity to build smarter and more resilient cities.

GREATER CAIRO, EGYPT

In February 2020, Egypt became the first African country to report a coronavirus case. By May, the government's control measures included a complete halt to public transport operations during the Eid al-Fitr week and an extended nighttime curfew. These measures resulted in a drop in ridership. Mwasalat Misr, one of Cairo's private bus operators, reported a 55 percent decrease in ridership compared to the same period in 2019.

High operational costs are threatening the sustainability of Mwasalat Misr and other Cairo-based bus companies. To reduce operational expenses, Mwasalat Misr has deployed smaller capacity buses at higher frequencies. The company is also offering discounts on digital payments to minimize cash exchanges. The government is facilitating the restructuring of loan agreements, taxes, and service fees to ensure that all public transport services remain in operation.



In Cairo, the government is facilitating the restructuring of loan agreements, taxes, and service fees to ensure that all public transport services remain in operation.

NAIROBI, KENYA

In Kenya, several cashless payment systems were previously abandoned due to strong opposition by matatu (minibus taxi) operators. In response to the COVID-19 pandemic, the National Transport and Safety Authority (NTSA) initiated mandatory cashless payment platform for all public service vehicles. The platform will be linked to mobile money and is expected to be a catalyst towards the modernization of the public transport sector in Kenya.

Today, the NTSA is encouraging informal operators to implement employment contracts that are compliant with labor laws, which mandate the inclusion of pensions, health insurance, and workplace safety. The reforms are expected to improve road safety and adherence to COVID-19 restrictions,



Top: Kampala, the capital of Uganda, whose central bus station is shown here, reorganized its transport during the strict lockdown in the spring of 2020.

Bottom: In Nairobi, Kenya transport reforms have been initiated and are expected to modernize the matatu system.

like vehicle capacity, since drivers will no longer need to rush to hit unrealistic revenue targets set by vehicle owners.

ADDIS ABABA, ETHIOPIA

In neighboring Ethiopia, the Addis Ababa City Administration is upgrading its bus fleet and improving its public transport in anticipation of the first-phase of its bus rapid transit (BRT) system. During the pandemic, the city has faced inadequate bus services and longer wait times due to lower bus occupancies because of social distancing requirements, especially during peak hours. The city hopes the additional fleet of BRT will improve its capacity and resilience.

Ethiopia's recent reforms include the launch of an ITDP supported, national Non-Motorized Transport Strategy implemented through monthly car-free days and investments in walking and cycling infrastructure. Addis Ababa also hopes to spearhead a vibrant cycling culture by implementing a bike-share system. As the pandemic highlights the importance of walking and cycling as safe modes of transportation, the city is developing plans for protected bike lanes and footpaths along several corridors.

KAMPALA, UGANDA

The Ugandan government enforced one of the region's most stringent COVID-19 control measures, with a lockdown that halted public transport for nearly three months. This left walking and cycling as the only mobility options for those who did not own private cars. The Kampala Capital City Authority (KCCA) took advantage of this opportunity to reorganize the public transport sector and improve the city's infrastructure,



The pandemic has highlighted the need for improved non-motorized transport infrastructure, better structuring and management of the public transport industry, and adoption of digital platforms.

including an upgrade of the massive Old Taxi Park in the city center. When the lockdown was lifted, KCCA imposed regulations on boda bodas and public transport minibuses (known locally as taxis). Each minibus taxi was required to re-register and assigned a specific route. This helped curb the virus and reduce the chaos and haphazard public transport staging in Kampala.

The restrictions on public transport during the lockdown demonstrated the need for better walking and cycling infrastructure in Kampala. Government agencies are now incorporating walking and cycling facilities into road projects. The 2019 conversion of the 2-kilometer Namirembe Road and Luwum Street into a non-motorized transport corridor received positive feedback, and the city plans to embark on similar projects.



KIGALI, RWANDA

The Kigali bus system represents one of the best public transport transformations in Africa. The city's formal public transport system is operated by three bus companies under contract with the Rwanda Utilities Regulatory Authority. The companies have salaried employees and operate high-capacity buses. Passengers pay fares through smart card technology, which has improved revenue and ticketing efficiency, and has minimized the physical contact and cash exchange during the pandemic. In addition, the largest bus operator, the Rwanda Federation of Transport Cooperatives, is an association of former private minibus owners. The efficiency of this formal system is a model for other cities.

Despite its strong system, pandemic-related social distancing measures have led to operational challenges. Incidents of scrambling for buses were initially reported, due to the fifty-percent occupancy limit for passengers. Recently, the government allowed operators to return to full occupancy of seats and fifty percent occupancy for standees, to meet passenger demand.



PLANNING FOR A MORE RESILIENT FUTURE

Although COVID-19 infections have spread more slowly than expected in Africa, prevention measures have compounded the complex challenges faced by urban mobility systems across the region. The pandemic has highlighted the need for improved non-motorized transport infrastructure, better structure and management of the public transport industry, and the adoption of digital platforms. Ongoing reforms, some of which were initiated prior to the pandemic, have taken on new importance. The region is poised to emerge from COVID-19 with the infrastructure and public-private partnerships that will support a more resilient mobility system.

Top: Ethiopia has committed to an ambitious non-motorized transportation strategy that supports cycling and walking. Car Free Days, shown here, are an important part of public outreach and awareness.

Middle: A bus stop in Kigali, Rwanda, home to one of the best public transportation improvements in Africa.

Bottom: A bus terminal in Kigali, Rwanda. The city has improved its public transport infrastructure and quality of service in the past.

Walking and Cycling in COVID Times

No single event in modern times has had a larger global impact than the COVID-19 pandemic. It has disrupted our lives, exposed our inequalities, and altered our use of space within our cities. However, 2020 has been the greatest year for cycling in decades.

In many places, both cycling and walking have increased significantly. Without cars clogging the streets, people have been able to reclaim space. In some parts of Jakarta, cycling ridership went up to 1,000 percent. From Buenos Aires to Guangzhou, people opted to hop on

bicycles rather than into cars. The best news is that cities followed suit. From creating pop-up cycle lanes, to closing down streets to vehicular traffic, to using coveted street parking for outdoor dining, cities responded quickly to make traveling safer. The common backlash or red tape dissipated in the face of an urgent pandemic demanding immediate responses. What we have seen are creative and far-reaching solutions that support sustainable mobility and make cities safer for walking and cycling. As we move into the new year, with some aspects of daily life returning to normal, many of these solutions should become permanent fixtures in cities: a transition into a new, better normal.

We have gathered examples of sustainable transportation solutions from the cities where ITDP works and has offices.



The number of people using the emergency cycling lane in Jakarta rose between 80 and 1,000 percent during peak hours.

Africa

ITDP has active projects in six countries in Africa: Egypt, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. Many cities across the region have readily embraced sustainable transportation solutions and have worked to raise awareness through cycling and pedestrian campaigns. COVID-19 has accelerated the demand for improved walking and cycling conditions.



Top: Cycling event organized by Critical Mass Mombasa in Mombasa, Kenya.

Photo: Critical Mass Mombasa

Middle: A newly constructed footpath in Kisumu, Kenya.

Photo: ITDP Africa

Bottom left and right: Critical Mass Mombasa cycling event.

Photo: Critical Mass Mombasa

Bottom middle: Car Free Day in Addis Ababa, Ethiopia.

Photo: ITDP Africa

Brazil

Traffic plagues many cities in Brazil, but most have not responded by adding cycling networks. One exception is Belo Horizonte, Brazil's third-largest city, which installed emergency cycle lanes throughout the city, connecting existing lanes. Cities in Brazil are not as aggressive about opening cycle lanes as other South American cities, but the pandemic has sparked a conversation about the importance of sustainability and resiliency, and how non-motorized transport, like cycling, is essential for cities to thrive.



Top and Bottom: In Belo Horizonte, emergency cycle lanes were constructed to support more cyclists.

Photos: City of Belo Horizonte

Middle: In Recife, roadways are opened up for cycling and pedestrian usage every Sunday.

Photo: ITDP

Walking and Cycling in COVID Times

US

Across the United States, in an effort to keep dining available and safe, restaurants took over streets and parking spaces to serve patrons outside. This has led to more awareness of how much better the streets are without cars. While car sales have increased as people have chosen private vehicles as the 'safe' transport, the pandemic has sparked major shifts in street usage. Cities from coast to coast are on the precipice of shifting their priorities away from cars.



Outdoor dining was a welcome return to "normal" for many in the US, where the virus has been spreading quickly and without abatement for months. It also showed people that streets and parking spaces could be used for more than cars.

Top right: A restaurant in Los Angeles that opened up to outdoor dining.

Above left and left: New York City restaurants creatively repurposed outdoor space to serve diners during the summer.

Photos: ITDP US

Above right: Boston restaurants overtook parking spaces to provide diners with outdoor seating.

Photo: Jonathan Berk

China

China, the first country hit with the novel coronavirus, quickly imposed severe restrictions on movement. As cities came out of lockdown, residents embraced the already robust cycling pathways and bikeshare systems. While private car usage has increased during the pandemic, so has cycling. Beijing's bicycle highway opened to the public last spring, and will continue to expand to create more opportunities for people to travel sustainably. With strong municipal governments, cities kept public transportation running during, while moving ahead on pedestrian-centered projects.



Top: Pedestrian plazas, like this one in Guangzhou, give people safe, car-free areas.

Middle: In Guangzhou, a long pathway opened in May of 2020, providing residents with a welcome outdoor recreational area.

Bottom: Guangzhou continues to expand pedestrian and cycling areas.

Photos: ITDP China



Indonesia

Jakarta, a city historically plagued with congestion, saw a massive increase in cycling during the lockdown. In some locations, cycling increased by up to 1,000 percent. To support cyclists, the city built a temporary bicycle lane on one of the main roads for use during rush hours. ITDP has been advocating for increased sustainable transport in Jakarta for years, and the pandemic has provided an impetus to push existing projects further.



Top, middle right, middle left: Grassroots groups supported the emergency cycle lane, which was opened during rush hour traffic in the mornings and evenings.
Bottom and top left: Car Free Days, where streets were closed off to vehicular traffic, continue to be popular especially among families.
Photos: ITDP Indonesia

India

With the onset of the pandemic, the urgent need for cycling awareness and infrastructure improvements has come to the forefront in India. Cycling campaigns have popped up in cities throughout India. While Indian cities have worked on expanding pedestrian spaces and footpaths before COVID-19, they now have even more reasons to continue to push for safe, open spaces for residents.



Top and Bottom left: Open streets programs, like this shown in Kolkata, are part of community awareness campaigns to show how streets can be transformed away from cars and towards people.

Middle: The city of Ahmedabad in Gujarat conducted a cycling rally with diverse groups of people, including women, children, and the disabled.

Bottom right: Aizawl, Mizoram, in northeastern India, conducted a survey among women and children to better identify issues faced by cyclists.

Photos: ITDP India

Mexico

Mexico City already has one of the world’s best bike-share systems. This year, Avenida de los Insurgentes, one of the longest avenues, got an emergency bike lane to support the growing number of cyclists during the pandemic. Cyclists throughout Mexico City have responded to the better cycling conditions with enthusiasm and hope that the cycle lane will become permanent. Cities with large pedestrian populations have recognized the value of open public spaces, especially in the pandemic.



In Mexico City, Avenida de los Insurgentes, shown in photos, got an emergency lane that was eagerly used by the many cyclists and micromobility users seeking safe passage on the busy and long road.
Photos: ITDP Mexico



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Clockwise top to bottom: The cycling boom as experienced in Ethiopia, India, China. Worldwide, cycling has had a great year.



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ITDP



For strong,
resilient cities,
two wheels
are better
than four.

To avoid going straight from lockdown to gridlock, cities need more sustainable transport, like walking, cycling, and safe public transit, instead of more cars. Join ITDP to help revive our cities without reviving traffic and pollution.

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