The Dawn of India’s Walking and Cycling Revolution
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Editorial

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The Institute for Transportation & Development Policy (ITDP) 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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Global events of the last year have been an urgent wake-up call.

From the ongoing pandemic to record-setting heat waves and natural disasters, it is clear that our environment is telling us that we are heading in the wrong direction. Now, on top of this, we are in the midst of yet another fuel and energy crisis. We clearly need to take stock of the flawed policies and practices that have brought us to this point. We need to recognize that we cannot continue with a business-as-usual approach to expanding infrastructure and transport systems that rely on harmful and unsustainable fossil fuels.

We need only look back to the oil shocks of the 1970s to see parallels to what many have experienced this year — lines at gas stations, threats of fuel rations, and ripple effects across economies. As it was then, today’s global crisis was brought on by a fraught social and political landscape that continues to expose the dangers of our dependence on finite and costly gas and oil. To break this cycle of volatility, we need to recognize this moment as both a wake-up call and an opportunity for transformation. We in the transportation sector — as the largest consumer of fossil fuels and producer of energy-related emissions — have the power to make the most impact. We must start by taking a more holistic, avoid-and-shift approach to our relationship with our cars, our transit systems, and our cities.

For decades, governments and institutions — particularly in the United States — have chosen to plan and build cities that emphasize car use, road construction, and urban and suburban sprawl. As a result, energy use from the urban transport sector continues to steadily grow and is poised to double by 2050. We also know that these outdated urban planning policies continue to do harm to our most vulnerable communities, our public health, and all aspects of the environment. But it does not have to be this way — we can make the collective choice to reshape our cities for the better.

At ITDP, we know that a core strategy for making cities less fuel and car-dependent is to prioritize policy approaches that combine compact development with full-scale transport electrification. Last year, we released The Compact City Scenario — Electrified in collaboration with the University of California, Davis to make the case that only these two approaches implemented in unison can keep emissions from urban transportation in check, and help keep global warming under the critical 1.5°C threshold. These dual strategies have the potential to reduce cumulative emissions from the transport sector by a substantial 59 gigatonnes by 2050.
Beyond that, our research shows that compact, mixed-use cities that promote public transit, walking, cycling, and traffic control would save the world nearly $5 trillion in direct public and private costs each year.

Models for such urban transformations already exist around the world. The crises of the 1970s drove many regional governments to transition to policies that prioritized people over cars and fossil fuels. In Europe, forward-thinking investments in cycling and walking in cities like Amsterdam and Copenhagen have made them synonymous with livability and efficiency, and their economies less susceptible to oil shocks. Today, we see these transitions continuing in many of the places where ITDP operates: from a national program to redesign streets for people in India, to a low-emission zone plan for Rio de Janeiro, to the electrification of the world’s longest BRT system in Jakarta. While cities may continue to bear the biggest burden for resource consumption, they also hold the key to testing and implementing solutions that can set us on a different course for the future.

It is imperative that we recognize the many warning signs that the environment has given us over recent years. We cannot continue down the same path when it comes to how we manage our natural resources and how we operate our cities. To truly recognize the recent crises as an opportunity for progress, we need more global cities to rethink their relationship with fossil fuels and follow in the footsteps of those that committed to change following the 1970s.

As you will read in the following pages, the work that ITDP and our partners are doing around the world offers glimpses of the kind of future that is possible. From managing urban sprawl in Mexico, to rethinking parking in Beijing, to scaling BRT in Nairobi, we know that compact city planning and electrification policies are the foundation for a more livable, inclusive, and sustainable world. We only need to look at the progress already underway in these cities, and the examples set by those that took action after the 1970s, to see that necessary transformations are possible.

There is certainly no easy, encompassing solution to the many environmental and climate challenges we continue to face. One thing that is obvious, however, is that if we only take short-sighted steps to address the current energy crisis, we risk emerging from it even more locked into a cycle of dependency on fossil fuels and dangerous emissions. As the saying goes, those that do not learn from their history are only doomed to repeat it.
The Dawn of India's Walking and Cycling Revolution

By Aishwarya Soni and Kashmira Dubash, ITDP India

The global pandemic redefined our relationship with our city streets and urban mobility. As COVID-19 brought many cities to a halt, people all over India took to walking and cycling as a way to access essential goods and services, and even just as a form of recreation and exercise. Turning this crisis into an opportunity to reimagine people’s relationships with their streets, the Government of India launched two visionary Challenges to embrace walking and cycling and promote a more sustainable, inclusive future for its citizens.

Over 100 Indian cities engaged with the two Challenges. Facilitated by ITDP India and the Smart Cities Mission, they were implemented as innovative capacity-building programs to provide technical guidance to decision-makers through monthly workshops, peer-learning platforms, design discussions, guidelines, templates, and more. The goal of the Challenges is to empower participating cities to lead India’s most extensive walking and cycling revolution.

Through a number of engagement and outreach initiatives, participating cities put citizens at the heart of proposed solutions. In the first stage of the Challenges, cities piloted several low-cost and direct interventions, working closely with residents to test solutions, learn from the experiments, and scale them. During the second stage, cities explored means for

The India Cycles4Change Challenge and Streets4People Challenge are both initiatives of India’s Smart Cities Mission and the Ministry of Housing and Urban Affairs to support cities in piloting and implementing more pedestrian and cycling initiatives. These multi-stage Challenges encourage cities to work with residents, planners, and experts to implement permanent walking and cycling-friendly infrastructure, create institutional reforms, and build momentum for more accessible cities.

Above: Pilot interventions, like this protected cycle lane in the city of Udaipur, allowed cities to test and iterate designs based on public engagement.
Photo: ITDP India
Through a number of engagement and outreach initiatives, participating cities put citizens at the heart of proposed solutions.

converting these temporary interventions into permanent pieces of replicable, scalable infrastructure alongside supporting policies that will sustain these efforts.

Thus far, participating cities have identified over 400 kilometers of main roads and over 3,500 kilometers of neighborhood streets that are candidates for cycling-friendly interventions, while also hosting more than 150 public Open Streets events since 2020. More people are walking and cycling in every city, with thousands showing up for rallies and Open Streets. City officials and public representatives are also leading by example — such as making a point to cycle to work — and have inspired private companies to launch their own ‘Cycle2Work’ campaigns for employees.

THE APPROACH

Cities started out by listening to their citizens to understand needs and concerns through nationwide perception surveys. Along with residents, city leaders walked and cycled through streets to assess specific issues and discuss potential solutions. Through both on-the-ground and digital campaigns, cities tested quick and inexpensive interventions to make cycling and walking safer and more engaging, and to build widespread civic support.

Pilot interventions are subsequently being evaluated for their scalability across participating cities. This Test-Learn-Scale method is not a new approach to enacting urban interventions: applying it in the context of so many Indian cities is new. The Challenges introduced this method to help cities create solutions that meet the needs of their people, while also garnering public support and participation.

TESTING

Piloting and testing interventions, especially during a pandemic, was a quick and inexpensive way to make streets and junctions safer for walking and cycling, while allowing room for iteration. It also reduced public resistance by allowing people to engage with and explore alternatives before making permanent changes to streetscapes. Participating cities launched design competitions to crowdsource concepts from architects, planners, and designers to develop creative and unique public spaces and model neighborhoods.
Over 1,800 designers participated in these city-led competitions. One lesson cities learned from these activities was the art of using low-cost materials like paints, cones, and planters to create protected cycling lanes and pedestrian zones along main roads, which helped to calm traffic within many neighborhoods.

**LEARNING**

Once implemented, pilot interventions were evaluated and updated through community feedback, allowing residents and users to be an integral part of the process. This learning stage also helped address key concerns and build public interest and engagement. Cities documented their observations from all the test interventions — which included surveys, on-the-ground pilots, and community engagement campaigns — and shared what they learned with other cities. Cities also sought external feedback from diverse groups of stakeholders by: initiating discussions with traffic police, government officials, and civil society; surveying and interviewing local communities involved in pilots; using feedback boards at events; and promoting initiatives on social media.

**SCALING**

Of the more than 100 participating cities, 39 have led the walking and cycling revolution by creating on-the-ground transformations through their leadership and effective collaboration with citizens. These cities qualified for the second stage of the Challenges, with ₹10 million INR (over $120,000 USD) of funding awarded to each of the top eleven.
The 39 cities are now scaling their pilots by expanding walking and cycling initiatives, adopting supportive policies, setting up oversight departments, and addressing on-street parking issues. One clear need is more financing — cities need their leaders to secure more funding for these efforts and to commit more investments into related infrastructure.

THE FUTURE

As India navigates a future following the pandemic, the focus is now turning towards reviving public transit systems. ITDP India and the Government of India have launched a third national Challenge program — the Transport4All Digital Innovation Challenge — in which cities are working with citizens and technology startups to develop solutions for making formal and informal transit safer, more convenient, and more affordable for all. The vision is for all of India to become a beacon of walking, cycling, and public transit innovation.

The more than 100 cities that joined in on the Challenges are expected to continue expanding their mobility plans and become pioneers for the rest of the country. Following the success of the first ‘season’ of the two Challenges, the second season has more than 50 additional cities participating. Though sparked by the disruptions of the pandemic, these Challenges have demonstrated the possibilities for Indian cities — and others around the world — to continue taking action on walking and cycling policies that are inclusive, iterative, and inspirational.
Conectar Queimados:
Transit-Oriented Revitalization in Rio de Janeiro

By Iuri Moura, ITDP Brazil

In Rio de Janeiro, Brazil, one neighborhood urban revitalization plan is seeking to leverage the principles of TOD to implement more compact, integrated, and inclusive development efforts. Conectar Queimados is a project led by the Rio de Janeiro State Government and local transport agencies, with support from the Queimados Municipal Government, SuperVia, and the World Bank. The plan envisions a revitalization of the area around the Queimados train station that builds on principles of accessible, sustainable, and compact design — a model that can ultimately influence neighborhoods across the city.

Queimados is located in the Rio de Janeiro metropolitan area and has a population of nearly 150,000 people. It is an important urban center in a region that has significant retail trade, higher education institutions, and an industrial district with the potential to drive economic growth. However, Queimados also faces systemic socioeconomic challenges, including a low human development index and crime. The station — built in the 19th century — has played an essential role in the development of the neighborhood and continues to be a key symbol of local identity. Nevertheless, the station’s relevance has dwindled and the area’s dynamics have changed in recent years — population growth and sprawl have led to more road construction, increased car use, and diminished public services.

The geographic scope of the Conectar Queimados plan is the pedestrian walkshed — the immediate vicinity around the station relative to the average time and distance it takes people to reach it on foot. This specific scope means that all major nearby streets and roads would benefit from interventions that improve local conditions, equity, and access for people using public transport. The proposals developed as

Transit-oriented development (TOD) promotes more integrated urban spaces designed to bring people, activities, buildings, and public spaces together, complemented by walking and cycling connections and accessible transit service to the rest of the city. TOD also means ensuring equitable access to citywide opportunities and resources via an efficient combination of transport modes at the lowest financial and environmental costs, and with the highest resilience to potential disasters. Inclusive TOD is the foundation for safer and more sustainable and accessible cities everywhere.
part of the plan are based on the multiple stages of diagnostic and feasibility analyses, in addition to the feedback gathered from public engagement activities that sought to highlight local needs.

Considering the conceptual framework used by the World Bank to promote TOD, Conectar Queimados’ proposals emphasize three main values for the revitalization of the area: node value, place value, and market value. Exploring these values is key to understanding the impact that TOD-focused policies can have on the social and economic revitalization of the neighborhood.

**NODE VALUE: IMPROVING PUBLIC TRANSPORTATION**

There is decent availability of public transportation in the area covered by the plan, with the presence of a high-capacity train system and numerous municipal and intercity bus lines. Queimados station serves around 30,000 passengers every day under typical conditions. However, accessibility around the station is often precarious, as are the circulation routes and points for boarding and alighting from buses.

This situation directly affects the quality of services offered to area residents and discourages people from using trains. To address these challenges, the plan proposes measures that include remodeling the train station; improving the physical integration and emphasis on public transit; and updating guidelines for more accessible fare and operational strategies. Improving the station’s transport connectivity, appeal, and services is fundamental to reshaping peoples’ daily activities in Queimados.
PLACE VALUE: ENHANCING CYCLING, WALKING, AND PUBLIC SPACE

Safe, attractive, and comfortable public spaces are a key component of promoting mobility patterns that are more sustainable, healthier, and less dependent on vehicles. In addition, the quality and livelihood of public spaces are important factors in strengthening local commerce and businesses while encouraging more civic engagement. Strategies that enhance and promote public and open spaces are therefore essential to the area’s revitalization efforts.

To address this, the plan includes proposals such as: renovating roads and sidewalks to improve pedestrian access; installing cycling infrastructure with dedicated bicycle parking; renovating high-traffic spaces and plazas; and improving railway crossings for pedestrians and cyclists. As in every city, public spaces that encourage more activity and engagement contribute to better quality-of-life for all residents.

MARKET VALUE: STIMULATING LOCAL ECONOMY AND DEVELOPMENT

The area around the station currently has many undeveloped or underutilized plots of land (estimated at over 18% of the total). Real estate development is timid, despite city regulations that allow for greater building density. The potential for meaningful and inclusive new development is significant. While market value can be a key to stimulating investment and economic growth, it is also important to ensure that new development strategies do not displace existing low-income and minority groups. To address this issue — particularly for populations living in favelas — the Conectar Queimados plan incorporates special proposals for regulation improvements and inclusive zoning measures aimed at protecting the vulnerable populations living in the area.

To pave the way for economic development, the plan offers several recommendations. This includes: inducing building density to intensify local business activity; encouraging more mixed-use development; regulating building parking requirements; encouraging sustainable construction practices; and promoting land value capture policies. If strategies for economic and real estate growth take a considered approach, the potential to improve small businesses and increase access to opportunities and services is significant.

Ultimately, the Conectar Queimados plan presents a first step towards a broader, more integrated citywide planning effort that can better distribute investments and opportunities throughout diverse neighborhoods. The long-term vision is for the plan to be used as a model for shaping similar initiatives across other municipalities, which could help revitalize neighborhoods and communities across the Rio metro area. If Conectar Queimados can be implemented with a strategic focus on inclusion and accessibility for all, the plan can very well serve as a much-needed catalyst for more transit-oriented development across Brazil.
Compact Electric Cities: The Only Way to 1.5°

By D. Taylor Reich and Jacob Mason, ITDP Global

Transportation is responsible for about a quarter of the world’s energy-related greenhouse gas (GHG) emissions, so transportation policy is integral to combating climate change. Electric cars are increasingly practical and affordable for consumers, and they do not contribute to air pollution or directly emit GHGs, but electric vehicles alone will not stop climate change. In a recent study, researchers from ITDP and the University of California, Davis have found that the only way to prevent the worst effects of climate change is to engage in a comprehensive strategy of compact, mixed-use cities built around walking, cycling, and public transit, combined with investments in electric vehicles.

To reduce emissions to a level consistent with the Paris Climate Agreement, and for a possibility of limiting global warming to less than 1.5°C by the end of the century, annual GHG emissions...
Embracing walking, cycling, and public transit over the next decade can quickly reduce the demand for car travel, buying time for electric vehicle technology to improve.

from urban passenger transport must remain below a threshold curve from now until 2050.

Delegates to COP26, the 2021 United Nations Climate Change Conference, included 24 countries and leading car manufacturers that agreed on a goal to make all new cars electric worldwide by 2040. While this goal is extremely ambitious, it is also technically feasible, and could lead to a significant drop in emissions by 2050. But without compact city measures, emissions will stay high through 2030 as the demand for cars surges in rapidly-growing low- and middle-income cities. After 2030, electric vehicles will become more mainstream, but emissions will remain higher than the threshold required for limiting global warming to less than 2°C.

Embracing walking, cycling, and public transit over the next decade can quickly reduce the demand for car travel, buying time for electric vehicle technology to improve. Only electrification and mode shift combined can keep emissions below the threshold curve. To reduce emissions enough to prevent the worst effects of climate change, cities must be built and designed differently. Urban planning policies that make it easier to travel without a car are paramount. These policies include:

• Dense, mixed-use, transit-oriented development;
• Reallocation of space from cars to sidewalks, protected bicycle lanes, and public transit;
• Shifting funding from highways and roads to mass public transit.

If cities around the world employ those policies while also switching to electric vehicles, emissions from urban passenger transport would fall to a level consistent with limiting global warming to less than 2°C — and possibly less than 1.5°C.
As an added benefit, mode shift can save economies money. Car-based transport is expensive because cars need roads, parking spaces, batteries, and tires, and they move fewer people per vehicle. On a per-person basis, walking, cycling, and public transit are much less expensive. By focusing on human-centered urban planning with accessible public transportation, the direct public and private costs of urban passenger transport could be reduced by $5 trillion per year, compared to a business-as-usual or an electrification-only approach.

Combining electrification with compact city development and mode shift is critical for our planet’s future. It will require a vast global effort, comparable in each country to the construction of the United States’ interstate highway system in the 1950s, or of the development of China’s high-speed rail network in recent years. But if those tremendous feats of infrastructure were possible, then so is the decarbonization of our existing urban passenger transport systems.

Learn more in the recent report by ITDP and UC Davis, The Compact City Scenario — Electrified, available at ITDP.org.

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The Eight Elements of a Cycling City

By Dana Yanocha and Verónica Ortiz Cisneros, ITDP Global

The United Nations Intergovernmental Panel on Climate Change has linked global temperature increases above 2°C to extreme climate disasters, and has recognized cycling growth as a critical pathway to avoiding this outcome. More people taking more trips by bicycle means fewer trips by car, which is critical to decarbonizing the transportation sector. Transport has the highest reliance on fossil fuels of any sector and accounts for 37% of carbon emissions from end-use sectors, according to the International Energy Agency. Beyond reduced emissions and pollution, people in cities that prioritize cycling see other significant benefits as well, ranging from expanded access and faster commutes, to better connections to public transit and improved health outcomes.

The COVID-19 pandemic underscored long-standing inequity and unsustainability in how we move around our cities. As more and more urban dwellers chose cycling as an essential mode of transportation, ITDP launched the Cycling Cities campaign to align advocates, governments, and NGOs around the opportunity to make cycling safer, more accessible, and more affordable in our cities.

Cycling Cities brings together a cohort of cities and partners working to permanently redesign streets and adopt key policies to support cycling, so that 25 million more people live near safe cycle lanes by 2025. Based on this work, we have identified eight core elements for what makes a city a true ‘cycling city’, with examples of how these elements are being implemented in our Cycling Cities.
1. SAFE, DIRECT CYCLE LANES

Protected and connected cycle lanes are the foundation of a Cycling City, providing safe, direct routes for all types of cyclists.

Bogotá, Colombia, in its 2020 plan, committed to adding 280 kilometers of cycle lanes to its existing 550-kilometer network, in addition to the 84 kilometers of temporary lanes created in response to the COVID-19 pandemic. These lanes supported a doubling of bicycle mode share from 4% to 8% in four years.

2. SAFE ROADS

Low vehicle volumes and speed limits make cycling on streets, especially without dedicated cycle lanes, safer and more comfortable.

Kampala, Uganda’s Road Safety Strategy 2021-2030 aims to reduce traffic crashes and fatalities by creating separate facilities for different road users and reducing vehicle speeds with traffic calming interventions and lower speed limits.

3. GENDER BALANCE IN CYCLING

In most cities, women are underrepresented as cyclists. Cycling Cities recognize that women and men travel differently and work to minimize the physical and psychological barriers preventing women from everyday cycling.

Mexico City, Mexico’s Gender and Mobility Plan 2019-2024 addresses women’s transport needs separately from those of men, and tackles issues such as harassment and gender inequality. Bicipiescuela offers a training course to teach adult women to ride bicycles, helping to address a gendered tradition of girls and women never learning to ride.

4. CHILD-FRIENDLY CYCLING

Cycling Cities promote family cycling by designing infrastructure that is safe enough for young children, and ensuring access to bicycles and learn-to-ride opportunities at a young age.

Fortaleza, Brazil launched a bikeshare system for children called Mini Bicicletar in 2017. The eight-station system operates similarly to a typical bikeshare system, allowing adults to rent bicycles for children.

5. INTEGRATION WITH PUBLIC TRANSPORT

Cycling offers first-last mile connections with public transport, and expands the number of people within a reasonable distance of transit stations.

Jakarta, Indonesia introduced a plan in 2019 to build 500 kilometers of cycle lanes that link to the public transit network. Currently, the city is working to make it easier for people to use bikeshare as a first-last mile solution, piloting new directional signage at transit stations, and improving connections between public transport and bikeshare stations.
6. DEDICATED FUNDING FOR CYCLING

Dedicating funding in municipal budgets ensures that infrastructure and supportive cycling programs are built and maintained over time.

Pimpri-Chinchwad, India’s Non-Motorised Transport policy mandates that a minimum of 60% of transportation funding go to creating and maintaining walking and cycling infrastructure in the city. A portion of the funding for cycling comes from an Integrated Transport Fund and parking fees collected from motorized vehicles.

7. CAR-FREE DEMONSTRATIONS

Car Free Days, which restrict cars on certain roads or throughout the entire city for a day, enable people to experience streets with few or no cars, promoting the benefits of spaces that support safe cycling and walking.

Guadalajara, Mexico began hosting weekly Car Free Sundays, spanning over 65 kilometers of city streets, in 2004. These public events attract hundreds of thousands of people walking and cycling.

8. BICYCLE RETAIL AND REPAIR SHOPS

Widespread bicycle retail and repair shops help people access different bicycles, accessories, and parts, as well as maintenance. They can also serve as hubs for the cycling community.

In Los Angeles, California, USA, Community Bike Shops provide bicycles, classes, services, and social support to community residents. Many shops are in neighborhoods that cannot support for-profit bicycle retail shops and are frequently the only place for limited-income people to get repairs, maintenance, or learn to ride a bicycle.

As many people worldwide witnessed during the COVID-19 pandemic, cycling is one of the most resilient forms of transport during crises — it is nimble, flexible, and there for people when they need it. As cities work to achieve the Eight Elements of Cycling Cities, cycling will become a more convenient, affordable, and reliable transportation mode for more people. It is critical for cities to continue investing in programs and policies that support cycling, with the goal of becoming cycling cities.
A FLAWED STRATEGY

Beginning in the early 2000s, Mexico’s Federal Government implemented a housing policy that focused on supply as the main target of expansion. Through INFONAVIT, the government directed public subsidies and credits to help maximize housing construction — unfortunately, this goal failed to prioritize other critical issues like housing quality, accessibility, or location. While this policy approach succeeded in notably increasing the housing supply, a lack of consideration for meaningful urban planning, inclusive transport options, and access to basic services created a number of negative outcomes. By placing millions of people far from economic and social opportunities in city centers, this housing approach also locked many Mexican cities and regions into environmentally unsustainable practices that promoted ongoing car-dependency and increasing sprawl.

According to Mexico’s public officials, at least 650,000 houses built in recent decades have been abandoned or were never even inhabited — a stark reality that exposes the failure of an urban development model that did not center around the needs, behaviors, and livelihoods of everyday people. Previous policy experiments have also failed to tackle the problem — notably, efforts to reduce the environmental impacts of

A common sight on the outskirts of many of Mexico’s cities is thousands of small, single-family houses sitting isolated inside gated communities. Often disjointed and disconnected, these housing developments stretch for kilometers and, until recently, extended into rural and undeveloped lands as well. For the last few decades, these types of developments have been a leading cause of unchecked urban sprawl in Mexico. This growth is also the reason behind a substantial increase in carbon emissions from the transport and construction sectors nationally. The vast majority of these housing developments have been financed by the Institute of the National Housing Fund for Workers (INFONAVIT), the Government of Mexico’s main housing lender and the third largest mortgage institution in the world.

Above: Sprawling development in the city of Mérida, Mexico. Photo: Mikhail Nilov, Unsplash
Leaders from civil society, academia, and policy have long advocated for the need to change Mexico’s current development patterns and reform INFONAVIT’s lending rules to promote more accessible, affordable, and transit-friendly housing growth.

A number of stakeholders have sought in recent years to tackle this growing housing development challenge. Leaders from civil society, academia, and policy have long advocated for the need to change Mexico’s current development patterns and reform INFONAVIT’s lending rules to promote more accessible, affordable, and transit-friendly housing growth. Several important changes are needed to achieve this. The first being the crucial issue of accessibility — measured by people’s ability to reach essential activities, employment, and destinations — into the agency’s lending rules. While accessibility-based planning models have been implemented in a number of global cities, few comprehensive examples currently exist in developing-world countries.
AN OPPORTUNITY FOR CHANGE

Recognizing the systemic issues of the past few decades, INFONAVIT took a step in the right direction by introducing accessibility and mobility considerations for the funding of new housing developments, changes which ITDP Mexico supported. These updated guidelines, set to take effect in 2022, created more strategic criteria for credit lending for residential construction. It requires that homes are set within acceptable “standards of accessibility” in relation to key social and economic destinations, such as schools, healthcare, grocery stores, recreation, and employment.

To be eligible for credits, a house needs to be at most 30 minutes by walking, 20 minutes by cycling, or 45 minutes by public transport from key social and economic destinations. ITDP Mexico, working together with Fundación Idea, provided technical support for the development of this important new policy, which also created a framework for regular evaluation of these thresholds in the future.

The potential of placing new housing developments within reasonable walking and cycling distances from essential hubs of employment, retail, education, and recreation — or at least closer to more sustainable transit options — is a game changer for the country. In the long-term, it will help propel planning and development strategies in Mexico’s urban areas that place equity, accessibility, and resiliency at the forefront.

In an interview with Carlos Martínez, Director of INFONAVIT, about the potential of these policy changes to improve the quality-of-life in the country’s urban areas, he explained, “We cannot separate housing policy from mobility, because a successful city needs the two to work together.”

In Mexico, like many other countries, access to financing and credit is also a key factor for increasing access to housing. In Mexico’s underdeveloped housing credit market, INFONAVIT is the only financing option for millions of formal workers. From a financial perspective, Martínez added, “This is also about preserving family assets, since the long-term viability of housing ultimately preserves people’s savings and allows them to properly fulfill their right for acceptable housing.”

For Martínez, creating the right institutional and regulatory framework has been crucial. By setting up these new forward-thinking lending rules, housing will no longer be tied to sprawling, inaccessible, and unsustainable strategies. This is an important first step towards creating denser and more accessible urban development projects. INFONAVIT’s changes align Mexico with some international best practices by emphasizing “access to opportunity” as a core principle in its city planning — for now though, the effectiveness of these new guidelines still warrants evaluation. To Martínez, “Housing policy needs to put people back in the center.”
Bogotá’s Approach to Safe, Sustainable, and Accessible Transport

By María Fernanda Ramírez and Patricia Calderón, Despacio.org

Colombia’s capital of Bogotá has grown tremendously over the last century. With over 7.5 million residents, such rapid growth has led to unequal urban development and sprawl that has impacted the way many communities experience daily life. As the city continues to boom, it has become necessary to rethink its streets and mobility systems to ensure that all populations have equal access to the city. Since the debut of the city’s landmark TransMilenio BRT system in 2000, it has continued to invest in transport infrastructure that looks towards the future.

As with many global cities, the disruptions of the COVID-19 pandemic has led Bogotá to rethink its approach to sustainable mobility, improve access and safety on its streets, and expand critical cycling and pedestrian networks. In a city where nearly a fifth of residents own private vehicles and congestion is persistent, the pandemic allowed Bogotá to renew its focus on transit, cycling, and street infrastructure that benefits all residents.

As the winner of the 2022 Sustainable Transport Award (STA), Bogotá has committed to several notable efforts to reshape its transport systems as the city recovers from the pandemic. This includes: improving mobility for children, students, and families; addressing road safety and vehicle traffic concerns; and prioritizing cycling and electric buses. The STA is awarded annually to cities that have implemented innovative sustainable transportation projects in the preceding year — learn more at STAward.org.

IMPROVING ACCESS WITH NIÑOS PRIMERO (KIDS FIRST)

In the last few years, Bogotá has placed a focus on educating students and children about road safety and improving streetscapes so that everyone can walk and cycle more freely. Research has shown that children in Bogotá take 1.2 million trips for study-related purposes (58% of which are on foot) making them much more vulnerable to road accidents. In addition, on average, a person in Bogotá who earns minimum wage spends nearly 25% of their income on transportation, making walking and cycling the most affordable option for many families.
To address issues of safety and access, Bogotá began implementing a collection of family-friendly initiatives, such as Niños Primero, to make streets more pedestrian and cyclist-friendly. Managed by Bogotá’s Secretariat of Mobility and Secretariat of Education, Niños Primero instituted school safety zones and employed traffic calming measures to make roads around schools more accessible. A citywide road safety education campaign for students along with preferential lanes for school bus travel also helped to ensure students and families feel protected on their commutes. Niños Primero enrolled nearly 7,000 students in 2019, with another 3,000 enrolled in 2020, despite pandemic restrictions. By reducing unsafe trips to school overall, the program is providing healthier and more structured alternatives for students to travel independently, thus allowing more time for caregivers (typically women) to dedicate to other essential trips. With growing annual enrollment goals, Niños Primero will continue to help families across Bogotá save time and money while promoting safer mobility for all.

REDUCING SPEEDS FOR ROAD SAFETY

Children are particularly susceptible to speeding cars and have a higher mortality rate than adults when involved in accidents. The speed management of cars has been a key component of Niños Primero as well as Bogotá’s overall Vision Zero policies to mitigate traffic accidents and injuries. To address the broad challenge of road safety, the city brought together multiple municipal offices to enact more public safety measures and campaigns, road surveillance systems, and community engagement initiatives.
With the increase in pedestrian and cycling traffic during the pandemic, the city set out to implement policies targeting cars exceeding speed limits. Cars traveling at high speeds have exponentially higher chances of injuring or killing pedestrians and cyclists. Bogotá reduced the maximum speed limit to 50 kilometers-per-hour on most city streets and placed speed cameras throughout to regulate speeding vehicles.

These new limits have helped reduce road-related deaths by 21% across 10 corridors in 2019 and 28% the following year. Other speed management policies include the implementation of traffic calming measures citywide, particularly around schools, with lower 30 kilometer-per-hour limits set in over 2,200 school zones. In recognition of its effective speed management policies, Bogotá received a "Prince Michael International Road Safety Award" in 2020.

PROMOTING SUSTAINABILITY WITH CYCLING AND E-BUSES

The pandemic also prompted Bogotá to revisit designs for its sidewalks, extend cycling networks, and explore interventions to promote sustainable alternatives to car use. For example, to comply with social distancing measures in 2020, the city developed a plan to redistribute street space in commercial areas by closing certain streets off and opening them exclusively for pedestrians. These types of open street interventions were relatively simple and low-cost, and continue to prove successful with residents.

In addition, given that public transit capacity was significantly reduced during the pandemic, many residents turned to cycling as their primary means of transport. The city responded by adding over 80 kilometers of temporary cycle
lanes in 2020, on top of the city’s existing Ciclovía network of over 550 kilometers. According to a 2020 survey, 23% of public transit users in the city shifted to cycling as their primary means of transport — a transition that was eased by the city’s efforts to make cycling routes more accessible and safer for everyone. As a result, Bogotá saw cycling ridership increase from 7% to 13% at the height of the pandemic, and has turned 28 kilometers of temporary lanes into permanent ones.

As more commuters return to public transit, however, the city has now turned towards addressing air quality and rising emissions with a transition to electric buses. Given that much of the city’s current BRT fleet is in need of modernization, Bogotá has committed to acquiring over 1,485 pure electric buses which, upon full implementation, will make it the largest regional e-bus fleet of its kind. With this transition, the new e-buses will benefit an estimated 570,000 daily users while reducing carbon emissions by an estimated 155,000 tonnes a year. This is especially critical for the city’s low-income communities most reliant on public transit and most susceptible to the impacts of air pollution.

**MOVING FORWARD**

The city continues to work on a number of forward-thinking initiatives to prioritize safer, more sustainable, and more connected mobility for all residents. For example, the city opened a bidding process for a public bikeshare system in 2021 that will include special training and inclusion programs. It is also exploring initiatives related to freight micro-mobility for first and last mile delivery, license plate-based driving restrictions, and a “District Care System” to improve access to services for caregivers, families, and children.

Like in many global cities, the pandemic presented a number of challenges to Bogotá’s infrastructure, while also uncovering new opportunities to reimagine street and city life, prioritize social inclusion, and pilot creative interventions. With more innovative policies in the works, Bogotá continues to demonstrate that it can serve as a model for sustainable, resilient transport and mobility across the region.
Due to rapid motorization and a lack of parking management policy, Beijing’s sidewalks, setbacks, bicycle lanes, and streets have been gradually taken over by illegal, unsafe parking in recent years. As a result, people have often been seen dodging cars on sidewalks or being forced to walk in traffic. Cyclists have had their lanes blocked by parked cars, causing them to swerve dangerously into mixed traffic. Some private entities have been running illegal parking operations — utilizing public street space and pocketing the profits — while, at the same time, off-street parking lots that charge higher fees have been beset by low occupancy rates.

Due to this stark imbalance in the supply and demand for parking space across the city, pedestrians and cyclists have often been the ones paying the heftiest price in safety, accessibility, and health. Beginning in 2014, ITDP China and its partners, with the support of the Beijing Municipal Commission of Transport, have collaborated to propose parking reforms for Beijing which will help the city shape new, forward-thinking strategies. Over the last few years, to combat the volatile, informal parking systems that have arisen, the department eliminated free on-street parking, implemented on-street parking management systems, and incentivized drivers to use vacant off-street parking spaces. While many of these steady shifts in parking policies are still underway, they present a key window of opportunity to reshape mobility and accessibility for over 21 million residents.

RECLAIMING STREETS FROM PARKING

In 2019, the city started the operation of 84,000 paid on-street parking spaces on over 900 roads across central Beijing. On streets that were not managed previously, parking occurred haphazardly and blocked thoroughfares for pedestrians and cyclists. Now, parking spaces are demarcated on the streets and illegal parking on sidewalks is made impossible through the use of bollards and other physical measures.
To increase acceptance of these interventions amongst Beijing’s drivers, and to ease operation of the system, drivers pay for parking on their phones using a Beijing Transportation app, which now has over 6 million registered users. Electronic payments have also allowed the city government to receive data on who parks where and for how long, which is crucial in helping the city optimize the system and help with oversight.

**COMBATING ILLEGAL PARKING**

Beginning in 2015, Beijing also ramped up its enforcement of illegal parking, with over 2 million tickets issued in the first half of 2016. The sidewalks of 150 streets, intersections, and driveways were also lined with bollards to prevent and discourage drivers from parking illegally. Pedestrians and cyclists in the central districts of Beijing are now able to enjoy sidewalks and bicycle lanes free from the haphazard parking of the past.

Since 2019, with the implementation of a new tech-forward on-street parking system, parking management has been automated. On-street parking spaces are managed through intelligent parking cameras that document parked vehicles and dispatches parking wardens in case of non-payment. Besides static parking cameras, parking wardens on 48 streets also use bicycles equipped with cameras that document license plates of vehicles for payment verification. This is critical to ensuring that cars do not continue to park illegally or idle while obstructing pedestrian and cycling traffic.

**REFORMING OFF-STREET PARKING**

Like many cities around the world, Beijing used to require real estate developers to build large amounts of parking for residential and commercial developments, regardless of factors like car ownership, proximity to transit, and market demand. These minimum parking standards incentivized more driving, more congestion, and reduced the amount of public space available for housing, recreation, and transit.
of Beijing’s existing parking supply sitting empty and the expansion of a 25-line metro network, the city recognized the need to act on this issue by publishing updated standards in 2021 for all new real estate developments.

This included the overturning of “parking minimums” and the implementation of “parking maximums” for all non-residential off-street parking lot developments within central Beijing, where most commercial and office zones are located. A parking minimum is still in place for the remaining parts of Beijing, but is now also paired with a maximum, requiring real estate developers to not add an excessive amount of new parking supply. The new parking standards will greatly reduce parking availability for many commuters, and is expected to result in a significant shift to more sustainable modes of transit in the long term. Beijing is the first Chinese city to implement reductions on parking supply on such a large scale, and could prove to be a model for the rest of the country.

To improve the efficiency of existing parking spaces and reduce the need for additional off-street parking facilities, Beijing has also been active in promoting the use of “shared parking” approaches. As of 2020, nearly 28,000 parking spaces across 330 off-street parking lots in Beijing are shared, where residents can park in commercial lots at night and reduce the need for new off-street parking construction in residential areas.

**LOOKING AHEAD**

Beijing has the highest motorization rate of all Chinese cities, with over 6.8 million registered vehicles in 2021. Beginning as far back as 2011, in order to alleviate traffic congestion and air pollution, Beijing implemented car ownership restrictions with limited issuance of new plates and invested heavily in mass transit by increasing the number of metro lines. In the same period, the number of bus routes increased by 48%, and the city almost tripled its bus-only lanes. Cycling and walking trips have also increased over the past decade, spurred by investments in cycling networks and the arrival of dockless bikeshare systems.

While there is still much progress to be made for this major city, Beijing has taken important steps in managing its parking challenges and in reclaiming public space from disruptive, illegal parking. Sidewalks and cycle lanes in the central areas have been made safer and more accessible for walking and cycling. Leveraging technology to restrict on-street parking can encourage people to choose alternative modes of transport altogether. Parking maximums and sharing policies have also helped reduce the growth of excessive off-street parking developments.

The city now faces the challenge of expanding its new parking policies and interventions across all areas of the city, and further tightening off-street parking maximums and the overall management of new systems. The impact of these parking strategies still warrant evaluation, but Beijing’s steady progress over the past decade demonstrates that transformation is possible for cities all across China.
In Indonesia, Buses and Two-Wheelers Are Key to Scaling Electrification

By Fani Rachmita, Mizandaru Wicaksono, and Rifqi Khoirul Anam, ITDP Indonesia

The Government of Indonesia has set a significant target to reduce greenhouse gas (GHG) emissions by 540 million tonnes of carbon equivalent by 2050. As part of this goal, the government adopted a plan to accelerate the transition to Battery Electric Vehicles (BEVs) across the country, reinforcing a commitment to addressing high emissions from its transportation sector. The plan includes targets for deploying 13 million electric two-wheelers and 2 million electric four-wheelers nationally by 2030, with the electrification of 100% of the country’s urban bus fleets in the same timeframe. Several major provinces — such as Jakarta and Bali — have adopted policies and taken steps to commit more resources to meeting these ambitious electrification goals.
Nevertheless, as of September 2022, the BEV uptake nationwide — for both two-wheelers and four-wheelers — only accounts for 0.17% of the 2030 target. Bus electrification has a similarly low transition rate — in the Transjakarta system, where the city aims to have more than 50% (or 3,000 vehicles) of its bus fleet electrified by 2025, there are only 30 e-buses fully deployed as of summer 2022. For the country to reach its targets, a comprehensive plan is needed to keep electrification on track; otherwise, Indonesia risks being locked into a cycle of growing emissions and pollution from its transport sector.

PRIORITIZING TWO-WHEELERS AND BUSES

To make progress on electrification in Indonesia, a significant focus must be placed on Jakarta, the country’s capital and most populous city. In particular, Jakarta’s roads are overwhelmed with people making use of two-wheelers, primarily due to their affordability and flexibility. Two-wheelers are the most dominant type of vehicle currently operating in the country, and ride-hailing accounts for a significant percentage of usage in major cities. Greater Jakarta’s Commuter Statistics shows that two-thirds of commuters in Jakarta used private and ride-hailing motorcycles in 2019 for daily commuting, the highest among all transport modes. Traffic counting by ITDP Indonesia concluded that on average, a quarter of two-wheelers on the road in Jakarta are ride-hailing motorcycles. This high number of two-wheelers also means a significant amount of related emissions; data from 2018 found that 15.5% of Jakarta’s GHG emissions come from motorcycle use alone.

Traditional diesel buses have had a similar impact on the country’s growing emissions. Even though regular bus fleets account for less than 2% of all transport modes in Jakarta, they are responsible for over 45% of the city’s emissions and 21% of its air pollutants, due in part to the long distances they travel. The ubiquity and popularity of both urban buses and two-wheelers means that prioritizing the electrification of these two modes is critical if Indonesia is to meet its 2050 goals. Several studies have found that buses and ride-hailing
Two-wheelers have the potential to jump start large-scale electrification progress across the country, considering both modes’ operational characteristics and socio-economic benefits. According to research from ITDP Indonesia, the large-scale electrification of 1.4 million ride-hailing two-wheelers and 5,000 urban buses by 2030 would mean a respective 58% and 30% reduction in the city’s emissions, compared to a business-as-usual scenario.

To accelerate electrification in Jakarta and nationally, policymakers and local governments need to incentivize and expand infrastructure that facilitates an easier transition to BEVs. One priority is ensuring that utility and infrastructure companies establish more accessible battery charging and swapping facilities for two-wheelers. The expansion of public charging stations would address issues of ‘range anxiety’, or the fear that a BEV would not have sufficient energy to cover long distances — a concern which poses big barriers to BEV adoption in a sprawling metro like Jakarta. Making charging infrastructure a priority for e-buses is also crucial to easing the transition for public transport agencies. The operational predictability of bus fleets like Transjakarta — which tend to have fixed daily patterns, schedules, routes, and distances — would mitigate potential risks and guarantee demand for charging facilities citywide.

In addition to building out reliable infrastructure, transport agencies and ride-hailing companies should also focus on the provision of more standardized BEV models in their fleets, rather than customized ones. Standardized models streamline and ease evaluation, maintenance, and other technical issues that arise with the upkeep of vehicles. Scaling the use of more standardized BEV models could help bring other economic benefits to Indonesians — from decreasing operational costs for ride-hailing drivers, to reducing fuel subsidies, to creating jobs in adjacent industries.

**BEYOND ELECTRIFICATION**

Keeping global warming below the 1.5°C threshold cannot solely depend on electrification efforts, however. In 2021, ITDP and the University of California, Davis collaborated on *The Compact City Scenario — Electrified* report that looked at four different scenarios for urban transportation in the coming decades: business-as-usual; electrification only; compact cities development; and electrification and compact cities combined.

The only scenario that would effectively mitigate the worst effects of climate change is one in which a dual policy approach is taken that focuses on the electrification of urban passenger transport alongside compact cities that highlight walking, cycling, and transit. In Indonesia specifically, the need for this dual policy approach is no less critical, although the slow rates of BEV adoption demonstrates that electrification is an urgent priority. To reach its emissions targets, Indonesia now needs to place a major emphasis on transitioning its two-wheelers and urban buses, beginning in Jakarta.
In Nairobi, BRT is Making Steady Progress

By Carolyne Mimano and Chris Kost, ITDP Africa

The absence of government-led route planning has led to poor service coverage on some routes and an oversupply on high-demand routes. Vehicles often wait to fill before departing, leading to delays for passengers. On low-demand routes, service is irregular and the vehicles are often older and poorly maintained. In a bid to improve the efficiency of the transport system, the Nairobi Metropolitan Area Transport Authority (NaMATA) was launched in 2017 to oversee the establishment of a more integrated, efficient, sustainable, and reliable transport system. The agency has a mandate of implementing BRT on five corridors identified in the city’s 2014 Mass Rapid Transit Harmonisation Plan.

These corridors have high existing public transport ridership and have the potential to benefit the greatest number of residents. NaMATA is currently working on implementing BRT along four out of the five corridors. As these corridors are being developed, opportunities are also present for streamlining existing matatu services by introducing cross-town public transport networks that connect directly to popular destinations. Cross-town routes are expected to reduce the need for transfers, thereby eliminating some traffic in the CBD and benefitting approximately 156,000 daily passengers.

Collaboration with the matatu sector, whose workers depend on the service for their livelihoods, is also important. To that end, NaMATA initiated dialogue with the city’s public transport owners and representative organizations to address various aspects of the future business model, including operational and compensation-related considerations. Next steps include...
A successful BRT system will line up with existing and future passenger demand patterns while providing a core piece of infrastructure that is safe, affordable, and appealing to all types of commuters.

A progress update for BRT implementation across the five corridors is detailed as follows:

- **BRT line 1** runs on Mombasa Road and Waiyaki Way parallel to the Nairobi Expressway, from Uthiru through Kangemi, CBD, Imara Daima, and Athi River to Kitengela. The Kenya National Highways Authority has plans to implement BRT infrastructure alongside the expressway. KeNHA shared preliminary designs with stakeholders, but a concrete timeline is yet to be determined.

- **BRT line 2**, identified as the pilot BRT corridor, runs along Thika Superhighway from Ruiru to Ngara, with a planned service extension through the CBD to Kenyatta National Hospital. The project, currently under implementation by NaMATA, includes: construction of dedicated BRT lanes; 13 BRT stations, including the conversion of existing footbridges along the highway; terminals at the central railway station and several landmarks; and depots at Ruiru and Kasarani. Demand along the corridor is substantial, reaching 27,000 passengers per direction during peak hours.
IN NAIROBI, BRT IS MAKING STEADY PROGRESS

To handle this volume, the designs should include passing lanes and high-capacity stations with dedicated infrastructure in the CBD.

- **BRT line 3** runs along Juja Road from Dandora to Kenyatta National Hospital via Haile Selassie Avenue in the CBD. A global engineering firm recently reviewed the designs, construction costs, and the environmental and social impact assessments of the corridor, with support from the European Union and the French Development Agency. Implementation of the corridor is expected to be funded by European partners.

- **BRT line 4** runs from Mama Lucy Hospital in Donholm through Jogoo Road and the CBD to T Mall, Bomas, and Karen.

- **BRT line 5** runs from Ridgeways via Balozi (Allsops) to Imara Daima along Outer Ring Road. The section between Allsops and Imara Daima will be implemented under a KES 6.4 billion financing agreement with South Korea. Aside from the median BRT lanes, the corridor will require retrofits to accommodate stations, bus turning, and pedestrian access.

When fully implemented, the BRT corridors, combined with more convenient bus routes, will be critical tools for encouraging more residents to choose public transport over private vehicles. Well-managed and quality public transport networks are essential to moving masses across a major city like Nairobi and can ultimately lead to increased efficiency, less pollution, and a reduction in transport costs for everyone. Nairobi has the potential to be an urban model for the region and the world if it continues to focus on modernizing transport infrastructure, mitigating traffic congestion, and increasing accessibility with connected rapid transit systems.
At a tremendous $1.2 trillion USD, the 2021 Infrastructure Investment and Jobs Act (IIJA) — also known as the Bipartisan Infrastructure Law — constitutes the largest commitment to the United States’ physical framework thus far in its history. Since it was passed, its size and proposed agenda have been the subject of lengthy discussion within public discourse. Amidst the flurry of analysis, what has become clear is how many challenges — and opportunities — lay ahead with this complex piece of legislation.

The IIJA offers an opportunity to make major new investments with $550 billion in new spending above baseline levels — over half of which ($284 billion) is allocated to transportation. Significant amounts are being committed to public transit ($39 billion), electric buses ($7.5 billion), and programs to reconnect communities affected by inequitable policies ($1 billion). To harness the potential of this funding, however, we need to make sure that measured steps are taken to focus it on efforts that promote sustainability, equity, and access. Otherwise, we run the risk of repeating patterns of unsustainable, top-down policies that are detrimental to our environment, our communities, and our health. Among other considerations, two major areas of concern need to be addressed if the IIJA is to make true progress for our transport systems.

First, we must curtail the US’ disproportionate emphasis on the capital construction and expansion of car-centric roads and highways at the expense of other transport modes, like public transit. A 2021 American Society for Civil Engineers report found that there exists a nearly $176 billion deficit in the maintenance and capital needs of public transit systems nationally, a number that grows every year. At the same time, the largest portion of the IIJA’s above-baseline spending — $110 billion — is earmarked primarily for roads, bridges, and highways. While the upkeep of existing road networks is
certainly crucial, it is also possible that much of this funding will go towards harmful and counterproductive new road construction and expansion projects.

For the IIJA to be a force for sustainable development, it is important that steps are taken to ensure new allocations to roads and highways are not used just for expansions that drive more greenhouse gas emissions. Funding could instead be allocated to transforming surface roads into complete streets with protected cycling lanes; or it could turn large roadways into multi-modal boulevards with pedestrian access; or it could fund the dismantling of highways altogether in favor of reconnecting urban neighborhoods.

For decades, private car use has been prioritized over public transit. This car-first culture has proven to be harmful to our environment and health by facilitating sprawling development, fuel consumption, emissions, and ecological decline. The result: transportation now accounts for the largest portion (27%) of the country’s total emissions, with new cars and trucks contributing to a majority of that number, according to data from the US EPA. We cannot continue the US’ history of ever-expanding roads and highways that put polluting cars over people. We have an opportunity with the IIJA to focus road spending on projects that prioritize safety, complete streets, and environmental conservation, rather than more new construction.

Second, it is imperative that IIJA’s implementation acknowledges and addresses the systemic impacts that transport policies have had on low-income and minority communities, particularly in cities. It has been well documented that the construction of highways since the 1950s have had long-term detrimental effects on urban communities — razing whole neighborhoods, cutting off access to services and employment, and disproportionately exposing residents to pollution. Beyond physical sustainability, the IIJA includes funding commitments that have the potential to build — and repair — the social infrastructure of communities that have borne the brunt of discriminatory transport planning.

This process begins by rethinking the frameworks by which IIJA-funded grants are distributed by the US Department of Transportation (USDOT) and State-level DOTs. Previously, funding applications and evaluation methods perpetuated inequity by emphasizing ‘shovel-worthy’ projects that were most ‘prepared’ to receive competitive federal dollars, an approach that tended to benefit more well-resourced applicants.

To address this, new criteria have been developed to better guide discretionary funds directly distributed by the USDOT, with additional guidance and flexibility on funding rules provided to applicants. At the same time, formula funding distributed to and used by State-level DOTs — which is typically allocated based on predetermined Congressional formulas — requires more oversight and accountability on how it is dispersed at local levels.
It is also crucial that the rollout of new investments include a bottom-up approach that engages a spectrum of community-based organizations, advocates, and institutions in top-down funding decisions. On this front, some promising moves are being made, including the current Administration’s partnership with the Communities First Infrastructure Alliance (CFIA), a dynamic group of organizations — including ITDP — tasked with working with technical assistance providers, communities, and public officials to center the needs of low-income communities of color in IIJA implementation.

The CFIA complements the USDOT’s Transportation Equity Action Plan, which spotlights new infrastructure policies — including the removal of limited access highways and the reduction of overall transportation costs — aimed at addressing racial and wealth disparities in health, housing, and more. In addition, the Administration debuted the Justice40 Initiative in 2021, which sets a goal of ensuring that at least 40% of federal climate investments across multiple agencies go directly to communities most affected by poverty, pollution, and environmental injustice.

The federal government has also set up a line of communication with communities through the creation of a Technical Assistance Guide, which is geared towards helping local agencies access and navigate IIJA resources through a number of technical assistance programs. Given that over 90% of IIJA funding is expected to be deployed by non-federal partners, this is an opportunity for the government to make application processes more transparent while building the capacity of organizations and agencies that may not have access to traditional resources.

In the year since the passage of the IIJA, it is clear that this legislation has the potential to fundamentally change the state of US transport infrastructure — socially, physically, and economically. This can only occur, however, if officials take the opportunity to address the systemic issues that have plagued inequitable policies of the past. We finally have a major commitment of resources that can help us mitigate skyrocketing emissions, improve transit access, and reconnect communities nationwide. And public opinion is in favor — polling data from 2020 indicated that a majority of American voters desire alternatives to driving, support better public transit, and want existing roads to be improved before building new ones.

With the passage of the Inflation Reduction Act in the summer of 2022, the US now has another momentous legislative opportunity to address climate change on a national level — particularly when it comes to vehicle electrification and clean energy transitions — as every state focuses on building out charging infrastructure and updating grid capacity. Many of the implications of the IRA, however, still warrant further analysis. For either of these bills to truly have a positive impact on future generations and the planet, they need to shift existing paradigms around car culture and fuel dependency while placing community needs front and center. Then, and only then, can we build a new kind of infrastructure legacy — one that reckons with the past in order to move us all forward.
New Resources from ITDP

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The Compact City Scenario — Electrified
December 2021 (Global)
This report details why compact city planning and electrification policies implemented in tandem are the key to mitigating emissions from the urban transport sector.

International Casebook on Accessible Mobility Policy
August 2021 (China)
This guide and ‘playbook’ highlights best practices for making urban mobility and transport accessible and inclusive for all types of populations.

Jakarta Wayfinding Guidelines
January 2022 (Indonesia)
This guide provides direction for aligning content and design in information systems and wayfinding across Jakarta’s public transport.

Access for All: Babies, Toddlers, and Their Caregivers
January 2022 (Global)
This report outlines how cities can function better for babies, toddlers, and caregivers by addressing their specific mobility needs.

Making The Economic Case for Cycling
June 2022 (Global)
This brief makes the economic case for cycling and demonstrates how investments in cycling infrastructure can unlock a number of economic and social benefits.

Achieving a Zero Emission Area in Los Angeles
April 2022 (US)
This planning guide explores opportunities for addressing urgent climate and equity issues through the creation of a zero-emission area in Los Angeles.

2021 Ciclociudades Ranking
August 2022 (Mexico)
This annual ranking recommends actions to inspire more cycling-friendly cities and includes two cities outside of Mexico for the first time.

A Cor da Mobilidade (The Color of Mobility)
April 2022 (Brazil)
This report covers findings from the A Cor da Mobilidade project and examines ways in which race and wealth affect Brazil’s transport systems.
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Top: ITDP, UN-Habitat, and high-profile partners hosted the RideNUA bike ride event in April 2022 in New York City to advocate for cycling as a priority in the New Urban Agenda. Middle: ITDP Board President Paul Steely White provides opening remarks for the ride event. Bottom: Bicycles for the ride were provided by Lyft’s Citi Bike, New York City’s bikeshare operator. Photos: ITDP
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