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Cover image: Belo Horizonte, Brazil. Photo by Mariana Gil/WRI Brasil; pg. 2: Beijing, China. Photo by Benoit Colin/WRI; pg. 5: São Paulo, Brazil. Photo by Mariana Gil/WRI Brasil; pg. 7: Wanjira Mathai and Joy Mboya discuss urban innovation in Nairobi, Kenya. Photo by Talia Rubnitz/WRI; pg. 10: Mexico City, Mexico. Photo by Kasper Christensen/Flickr; pg. 11: Istanbul, Turkey. Photo by Benoit Colin/WRI; pg. 12: Guangzhou, China. Photo by GuoZhonghua/Shutterstock; pg. 16: Mexico City, Mexico. Photo by Thania/Flickr; pg. 17: Bangalore, India. Photo by WRI Ross Center for Sustainable Cities; pg. 18: Belo Horizonte, Brazil. Photo by Mariana Gil/WRI Brasil; pg. 19: Guadalajara, Mexico. Photo by Macrobús S.A./SIBRT/WRI; pg. 20: Mexico City, Mexico. Photo by Mariana Gil/WRI Brasil; pg. 21 rio: Rio de Janeiro, Brazil. Photo by Mariana Gil/WRI Brasil; pg. 23: India. Photo by Peter Rivera; pg. 27: Dar es Salaam, Tanzania. Photo by World Bank; pg. 29: WRI Ross Center’s Advisory Group. Photo by WRI.
Cities continued to move to the center of the global dialogue this year. Following the momentum of the Sustainable Development Goals and Paris climate agreement, which for the first time cited cities as essential to tackling development and climate goals, global leaders from all sectors gathered in Ecuador for Habitat III, the world’s largest summit on housing and urban sustainability. One-hundred and sixty-seven countries agreed that they will work together to ensure cities are not only good for the climate but for business, livelihoods and the well-being of all. The resulting New Urban Agenda will guide development priorities for years and echoes ideas outlined in our World Resources Report, “Towards a More Equal City.”

The broad global agenda is in place; now the focus is on local implementation. WRI Ross Center is well positioned to contribute robustly to this work. From transnational coalitions to better building codes, city leaders and policymakers come to WRI Ross Center for our experience with solutions. With our support, cities and national governments are improving quality of life for tens of millions of people, building thriving cities and avoiding thousands of tons of emissions.

This report highlights some of our many successes over the last year through deep, targeted and catalytic engagement with cities. Our impact is also greater than the sum of its parts. From the New Urban Agenda to making streets safer for everyone, the report illustrates how we are helping shape four global stories.

The cities agenda is enormous, but thanks to the support of our generous donors and keen collaborators, we are making a difference. WRI Ross Center’s on-the-ground presence, diverse partnerships and close relationships with cities on six continents put us in a unique position to make cities better for everyone. We are deeply grateful for the network at our back.

I invite you to learn more about our work and let us know how we can do better.

ANI DASGUPTA
Global Director
FOUR STORIES TO WATCH

Cities and their residents can only thrive when core services are better for everyone.

There are four areas where our work is not only having immediate effects but helping to shift global narratives, affecting change on a much larger scale. These are the big stories where our work is making a difference now and where we will continue to focus in the years ahead.

WE ARE PUSHING THE GLOBAL AGENDA TOWARDS EQUITY.

The momentum for urban leadership around the world is undeniable. The global development agenda, in the form of the Sustainable Development Goals (SDGs), now includes explicit targets for cities. A new coalition of subnational groups is demanding a greater voice in the UN Framework Convention on Climate Change. And the New Urban Agenda, agreed to at Habitat III, is galvanizing a renewed push for better cities.

WRI Ross Center’s research has played a key role in influencing these agendas. The core principle behind our World Resources Report (WRR), “Towards a More Equal City,” is reflected in the New Urban Agenda. This ongoing series of research papers is supported by the UK Department for International Development, Denmark Ministry of Foreign Affairs, Ireland Department of Foreign Affairs and Trade, Netherlands Ministry of Foreign Affairs, Swedish International Development Cooperation Agency, and United Nations Development Programme. Starting with papers on housing and energy, we examine whether cities that provide more equitable access to core services are more economically productive and environmentally sustainable. Future papers will explore how this notion applies to water, sanitation, transportation, urban expansion, and the informal economy, and will include case studies of cities that have initiated transformative change across these areas.

As countries and cities turn from goal setting to action, we are also bringing our on-the-ground experience to bear on implementation. The Coalition for Urban Transitions, launched in
May 2016 with support from the UK Department for International Development, seeks to build the global and national political commitment necessary to shift rapidly urbanizing countries towards a more compact, connected, coordinated model of urban development.

The partnership fills a critical gap in the global urban agenda by demonstrating to national economic decision-makers—such as finance, transport, energy and urban development ministers—how important the success of cities is to achieving overall economic, social and environmental goals. The core goal is to support governments in developing coordinated national policies to foster sustainable urban growth. WRI Ross Center hosts and serves as the secretariat for the Coalition, co-leading with C40, but the partnership includes more than 20 leading urban-focused institutions from major think tanks, research institutions, city networks, international organizations, investors, infrastructure providers and strategic advisory companies.

During year one of a three-year plan, the Coalition’s global and country programs began to deliver initial outputs, including research on financing the urban transition and country work in India, Uganda and Tanzania. At the country level, the focus is on deep engagement and policy change to create “lighthouses” demonstrating the value of economic, social and environmental reforms in rapidly growing cities. At the global level, we are assembling ground-breaking evidence and providing tools that promote investment in more sustainable cities.

By 2019, the aim is for the Coalition to be the most impactful and coordinated global partnership of thinkers, institutions and senior public-private leaders driving action on sustainable urban transitions.

WE ARE LEADING THE LARGEST PLATFORM FOR BUILDING EFFICIENCY PRACTICES.

The Building Efficiency Accelerator (BEA) is a public-private collaboration managed by WRI Ross Center with private sector leadership from Johnson Controls and support from the Global Environment Facility. To date, the partnership includes 28 local governments and more than 35 partner organizations. Each city that joins commits to implementing a building efficiency policy and project, and tracking their progress over time. The BEA works in concert with the
Sustainable Energy for All partnership, initially launched by the United Nations and World Bank, which aims to ensure universal access to modern energy services by 2030 while doubling the share of renewable energy in the global energy mix and the rate of improvement in energy efficiency.

Building energy efficiency represents an incredible untapped opportunity for cities. Residential and commercial buildings are the largest consumers of energy in urban areas globally. More efficient buildings can generate economic benefits, reduce environmental impacts and improve people's quality of life on a massive scale.

The BEA guides cities through a stakeholder engagement process to increase transparency, participation and commitment. The global platform highlights accomplishments and connects peers through regional and global events with an aim toward increasing cities' ambitions.

Recommendations from WRI Ross Center’s flagship building efficiency report, “Accelerating Building Efficiency: 8 Actions for Urban Leaders,” are feeding into the decision-making process in the BEA partner cities. The report offers eight clear and specific ways to unlock building efficiency, from building codes to working with utilities. It presents a politically smart, common-sense approach that will help usher in a new era of better buildings suited for the 21st century.

One BEA partner, Mexico City, introduced its first energy conservation code last year. Changes to new and remodeled buildings will curb energy use, helping residents save on electricity, and boosting health and quality of life. Other partner cities include Belgrade, Bogotá, Eskişehir, Porto Alegre, Rajkot, Da Nang and Tshwane.

Our convening power and technical capacity is leading to new policies and meaningful change by inspiring innovation through peer learning and global accountability. In the next year, BEA
will facilitate the development and financing of new projects and build nationwide partnerships in key countries to replicate lessons from successful cities.

**OUR ON-THE-GROUND OUTCOMES ARE INSPIRING THE GLOBAL ROAD SAFETY MOVEMENT.**

It’s impossible to build sustainable cities if residents don’t feel safe walking or bicycling. Every year, more than 1.2 million people are killed in road accidents, most of them pedestrians, and as many as 50 million are injured. We know that velocity is the main factor in traffic fatalities and when cities are built primarily for cars, drivers speed.

The importance of road safety is now globally recognized. The Sustainable Development Goals include the near-term target of halving global deaths and injuries from road traffic accidents by 2020, and the New Urban Agenda makes clear that road safety, especially for children, is a priority. Each year, more cities are committing to ending preventable road-related deaths through “Vision Zero” principles or safe systems approaches to road safety.

WRI Ross Center is providing critical support to these efforts through policy recommendations, research and technical support. Through support from the Bloomberg Initiative for Global Road Safety, WRI Ross Center experts regularly consult with city officials in 10 partner cities and are producing results.

After speed limits were reduced on two major arterial roads in São Paulo, where WRI Ross Center staff have been working since 2015, the number of fatal crashes fell by 57 percent year over year. In Bogotá, where we have done advanced data analysis to map collisions and fatalities and combined with demographic data to identify the highest risk groups, the city is launching a new comprehensive road safety action plan. Shanghai is building 2,000 kilometers of new bike lanes and pedestrian corridors. São Paulo has increased its cycling network to 400 kilometers of bike lanes, resulting in a 66 percent increase in bicyclists and a 34 percent reduction in related deaths.

Bangkok and the whole state of Haryana in India have committed to adopting road safety action plans. On the national scale, after consultation with WRI Ross Center experts, the Indian government is considering an amendment to its motor vehicles act for the first time in three decades that would elevate non-motorized transport users as equals among

**MORE CITIES ARE COMMITTING TO ENDING PREVENTABLE ROAD-RELATED DEATHS THROUGH “VISION ZERO” PRINCIPLES OR SAFE SYSTEMS APPROACHES TO ROAD SAFETY.**
motorized users and aim to reduce traffic fatalities by 50 percent by 2020.

Support from Bloomberg Philanthropies, through the Bloomberg Initiative for Global Road Safety, and FIA Foundation, as part of the Global Initiative for Child Health and Mobility, has also enabled WRI to lead ground-breaking research on road safety for children. To date, more than 3,500 people have received training on how to apply safer design concepts to local streets and schools through workshops or site visits.

A much-needed shift is taking place to seriously address urban road safety problems, and WRI Ross Center is in the vanguard.

WE ARE HELPING CITIES PREPARE FOR A SUSTAINABLE TRANSITION TO NEW MOBILITY SERVICES.

New mobility services, made possible by new technologies and new companies harnessing those technologies, are disrupting how people traditionally move in cities. On-demand and shared models of transport are improving access to transit and transitioning people from “just in case” vehicle ownership to “just in time” vehicle sharing.

But these new models are also raising concerns about shifting commuter attitudes about walking, cycling and mass transit, and the possibility of increased vehicle use, emissions and congestion. Cities with historically low levels of personal vehicle usage, like Mumbai, Beijing and Mexico City, face growing demand for motorized transport services.

Backed by billions of dollars in investments, the industry is now pushing towards the next wave of disruption with the convergence of shared, autonomous and electric vehicles. Existing transport ecosystems are thus being fundamentally redefined; the opportunity for better access for all stands against the risk of transport systems that deepen inequality and increase emissions.
New mobility models have the potential to positively redefine urban mobility—if they can better meet the diverse needs of all residents. Such an outcome requires holistic governing frameworks, covering policies, financing and business development support. To meet this challenge, WRI Ross Center has joined forces with the New Climate Economy, Shell Foundation, William and Flora Hewlett Foundation, Asian Development Bank, Interamerican Development Bank, Toyota Mobility Foundation, and Open Transport Partnership to shift the lens from “new mobility” to “new sustainable mobility.”

We are working to enhance the positive potential of new mobility shifts in three ways.

First, we are tracking new mobility market trends and their impact on cities. We have identified key research areas and are working collaboratively to produce high-quality guides that expand knowledge on, and understanding of, the quickly evolving sector and its socio-economic and environmental impacts.

Second, we are working closely with private companies and investors to create an enabling ecosystem for business models that have sustainable outcomes. Our team has developed focused programming to bring support to start-ups, including accelerator initiatives, to ensure early-stage entrepreneurs have the tools they need to be successful.

Finally, WRI Ross Center is bridging the gap between government and the private sector by helping to transform existing regulatory frameworks to meet new market needs. Through convening, roundtables and working directly with decision-makers, we are working to demystify new mobility trends.
WRI Ross Center seeks to transform how cities are built, managed and used, to make them more compact, connected and resilient. This requires systemic change and long-term efforts. Our global experience and research shows that on-the-ground engagement in cities is a key trigger to unleash transformative change. Our work falls into three tracks. We work deeply for long periods of time in iconic and challenging cities to demonstrate possibilities, and expand impact to other cities through targeted and catalytic partnerships and networks.

In 2014, WRI Ross Center set a goal of improving sustainability in more than 200 cities by 2019, across three sectors that form the backbone of the city: mobility, energy systems, and land use and economic development. As of 2017, we have surpassed this goal, engaging with 344 cities on three levels.

**2019 GOAL TARGETS:** improve sustainability in 200+ cities via three tiers of engagement

**Deep** city engagement is characterized by the Center working closely with key stakeholders in a city over several years, from project inception to implementation, in multiple sectors.

**Targeted** engagement includes technical assistance on a key solution in one or more sectors. The objective is to establish or replicate a good practice via precedent-setting projects.

**Catalytic** influence involves broader efforts that can impact several cities. Approaches include short-term technical assistance, disseminating tools, and transferring knowledge and expertise through research, capacity building or conferences.
WRI Ross Center is the largest group of researchers and practitioners of its kind. Our growth is strategic and reflects our core strengths: working side-by-side with local communities and helping them put ideas into action. We leverage our global and local knowledge and presence to maximize impact.

By 2030, we see a network of cities and partners leading the way to more productive, sustainable and equal cities, transforming their communities into vibrant economies where everyone breathes cleaner air, lives in healthier and safer environments, and is connected to all the opportunities of urban life.

IN 2016-2017, WE GREW TO A TOTAL OF 220 STAFF WITH OFFICES IN 8 COUNTRIES AND PROJECTS IN 60 CITIES
Across 6 continents, we work in 60 cities and influence hundreds more

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WRI ROSS CENTER HAS LONG-TERM ONGOING ENGAGEMENTS WITH FIVE “DEEP-DIVE” CITIES:

- Bangalore, India
- Belo Horizonte, Brazil
- Guadalajara, Mexico
- Mexico City, Mexico
- Rio de Janeiro, Brazil

These cities share the Center’s objective of using a long-term integrated approach, focused on projects with the greatest potential for urban transformation. Each city has its own complex challenges and relies on WRI Ross Center to collect best practices from around the world and help them make informed decisions that will improve quality of life for all.
BANGALORE, THE EPICENTER OF INDIA’S HIGH-TECH INDUSTRY, TOPPED 10 MILLION PEOPLE IN 2016, UP FROM 8.5 MILLION IN 2011. TO HELP OFFICIALS COPE WITH RAPID GROWTH, WRI ROSS CENTER PROVIDED INPUT ON THE CITY’S MASTER PLAN, INCLUDING ON SPATIAL PLANNING, LAND PROCUREMENT, AND HOW TO HARNESS ENTREPRENEURSHIP AND PRIVATE INNOVATION.

- The Karnataka state government budgeted $15 million to replicate accessibility plans from a WRI pilot project to 12 more metro stations by 2020. Ultimately, the city plans to improve accessibility for all 40 of its metro stations.

- Communities developed their own improvement plans through WRI Ross Center’s Neighborhood Improvement Partnership Challenge. Eleven winning plans will receive a total of $153,000 from United Technologies Corporations to bring their ideas to fruition with technical support from the Center.

- A satellite city, Chikkaballapur, adopted our recommendations in their 2031 master plan to improve connections to Bangalore. This followed from technical assistance we provided to four urban development projects in the city’s outskirts to help connect them to the rest of Bangalore, extend basic services and compensate displaced residents.

- Areas around metro stations will be more walkable and safe thanks to crowd-sourced innovations. WRI Ross Center organized a challenge, called STAMP (the Station Access and Mobility Program), co-created with the Toyota Mobility Foundation, to encourage entrepreneurs and private citizens to design solutions to access problems. Winning ideas include a keyless electric bike rental system that allows drop-off anywhere, and an auto-rickshaw service that allows people to book their whole route from first to last mile.
OUR WELL-ESTABLISHED RELATIONSHIPS WITH THE URBAN PLANNING AND MOBILITY SECRETARIES IN BELO HORIZONTE ARE MOVING THE CITY TOWARDS A MORE SUSTAINABLE AND BETTER CONNECTED FUTURE.

- Belo Horizonte developed the first city-wide corporate mobility policy in Latin America. This policy encourages large companies to plan for staff commutes and to offset their transportation impact by providing benefits to the city, such as carpooling and additional bicycle parking. The city relied on our diagnosis of travel patterns by company employees and policy guidelines.

- The city set an ambitious goal to swap 20 percent of its fossil-fueled buses for clean buses by 2025 and 40 percent by 2030. Officials used our Bus Selection Tool to provide emissions and cost-reduction analyses.

- The state government of Minas Gerais created two new dedicated bus rapid transit (BRT) lines to reduce car dependency and provide reliable transport for the 17,000 employees at its main administrative building, located 20 kilometers (12.4 miles) from downtown. We conducted an audit of transportation needs which led to this decision.

- Belo Horizonte developed an action plan to increase BRT accessibility, prompted by results from our accessibility inspection of 35 BRT stations in the city.
OUR STRENGTHENED RELATIONSHIP WITH THE MAYOR OF GUADALAJARA HAS ALLOWED US TO DEEPEN OUR WORK IN URBAN DEVELOPMENT, AND OUR LONG-TERM PARTNERSHIP WITH THE GOVERNMENT OF JALISCO STATE HAS BEEN CRUCIAL FOR WORK ON CLIMATE CHANGE AND SUSTAINABLE MOBILITY.

GUADALAJARA

- Guadalajara budgeted $2 million to develop pedestrian- and bike-friendly infrastructure upgrades in accident-prone areas. This decision was thanks to consultation by WRI Ross Center experts with the government based on safe infrastructure design criteria.

- Guadalajara is developing a climate action plan with the support of WRI Ross Center, including implementation of a greenhouse gas inventory using the WRI-supported Global Protocol for Community-Scale Greenhouse Gas Emission Inventories. WRI Ross Center experts trained city officials on the country’s energy conservation code for buildings and its guide for adaptation, leading to changes in the municipal construction code.

- Guadalajara is crafting an integrated urban development policy incorporating the latest concepts of land use, mobility and accessibility. Updated urban codes and development plans will include transit-oriented development (TOD) principles. WRI Ross Center promoted coordination among the city’s agencies and provided technical recommendations.
WRI ROSS CENTER’S Efforts with Mexico City, Boosted by Our Trusted Relationships with the Mayor and Multiple Municipal Officials, Are Focused on Mobility and Urban Development.

- Road fatalities in Mexico City have dropped 18 percent over the last year due to traffic regulations implemented in 2016. WRI Ross Center provided input to lower speed limits, encourage infrastructure that protects vulnerable road users and require road safety audits for all transport projects.

- WRI Ross Center has been a technical advisor for a key urban regeneration project in Tacubaya, a central but degraded area of Mexico City. WRI Ross Center experts have contributed to a comprehensive strategy that includes TOD elements and improved water services, a key demonstration of the potential to improve a neighborhood through public and private investment.

- Mexico City retrofitted four government buildings to improve energy efficiency standards—reducing 796,540 kWh of electricity consumption and 365 tons of carbon dioxide equivalent annually—and announced plans for 15 more. This outcome was thanks to the work of WRI Ross Center and other organizations to support and guide the implementation of the national energy efficiency code and the city’s own construction code.

- The national congress approved a new urban development law in 2016 that supports the creation of more compact, coordinated and connected communities. Promoted and technically assisted by WRI Ross Center and partners, this law replaces a decades-old policy that fostered urban sprawl and will have important effects on Mexico City and other urban areas.
RIO DE JANEIRO

• Rio de Janeiro developed contingency procedures to avoid and quickly resolve BRT incidents during the 2016 Olympic Games, with support from WRI Ross Center experts. The city’s operational plan, built on the experience of Belo Horizonte, will be a lasting legacy of the games.

• The Rio de Janeiro Metropolitan Region developed an Integrated Urban Development Strategic Plan that establishes guidelines for sustainable growth. Some strategies and projects included in the plan were results from workshops with more than 100 representatives from 21 local municipalities held with WRI Ross Center’s assistance.

• After implementation of new BRT procedures, average daily bus commute times dropped 32 minutes and user satisfaction increased three-fold. WRI Ross Center user satisfaction surveys have supported service improvements, and the same survey is being implemented in other cities in Brazil, Mexico, India and China.

• Transit-oriented development is gaining prominence in the city’s priorities. TOD was the focal point of a 2017 convening by the World Bank, WRI Ross Center and the Transportation Secretariat of Rio de Janeiro State. WRI Ross Center has been working to elevate the importance of TOD as part of a comprehensive integrated strategy for sustainable urban development in Rio.
**Targeted engagement** with city, state and national governments includes technical assistance in one to two sectors. This level of engagement enables us to work effectively in new areas. **Catalytic engagement** involves broader efforts to scale our impact to multiple cities with short-term technical assistance, tools, research and training to increase self-reliance by local officials and residents.

- The city of Jingmen will cut waste-related greenhouse gas emissions by nearly 90 percent, impacting 3 million people, thanks to a $200 million investment in a sludge-to-energy facility.

- Porto Alegre and Rio de Janeiro are the first Latin American cities to measure resident and community resilience to the impacts of climate change, the first step in developing solutions to mitigate climate risks.

- The Beijing Municipal Commission of Transport increased its public consultation on how to deal with traffic congestion, including through radio and television programs guided by WRI Ross Center expertise.

- The Bangalore International Airport is procuring 40 percent of its electricity from solar sources and generating 16 megawatts of power, offsetting approximately 17,000 tons of carbon dioxide emissions.

- Accra, Ghana; Addis Ababa, Ethiopia; Ahmedabad, India; and Ho Chi Minh City, Vietnam, are improving BRT implementation, operations and road safety.

- Turkey’s Ministry of Environment and Urbanization launched new national cycling regulations to protect users, citing our Safe Cycling Design Manual.
• The Mexican cities of Morelia, Puebla, Tijuana, Tuxtla and Guadalajara updated their urban codes in line with transit-oriented development principles.

• The Chilean Congress revised national policy to increase the public transport subsidy for Santiago’s integrated transport system.

• Dar es Salaam, Tanzania, leveraged $5 million to implement the city’s first BRT corridor, which will benefit 160,000 daily passengers. We provided short-term support through road safety inspection, communications strategy and defensive-driver training.

• Santiago, Chile, set requirements for low- and zero-emission buses in upcoming fleet procurement based on our customized business model for the city.

• India’s Ministry of Urban Development chose WRI Ross Center to join its national capacity building program, through which we will train 250 officers and elected representatives from more than 70 Indian cities on urban development, mobility and smart cities.
We produce knowledge products and tools to help assess and measure challenges and recommend solutions that are timely, fit for the audience and rooted in a strategic plan to make positive change in the world. Here are this year’s top offerings:

**World Resources Report: Towards a More Equal City** examines whether making equitable access to core urban services a priority will create cities that are prosperous and sustainable for all people. Released at the UN Habitat III conference, this research aims to help move the New Urban Agenda from concept to implementation. The report’s key principles are already seeing traction among thought leaders in urban development and have been well-received by city leaders. In 2017 we published two additional papers, “Confronting the Urban Housing Crisis in the Global South,” and “Powering Cities in the Global South: How Energy Access for All Benefits the Economy and the Environment.”

The **World Transit-Oriented Development (TOD) Resource** is the first web-based platform offering tools to implement TOD. It’s designed for policymakers, planners and developers in the global south, including information about financing and institutional structures along with a strategy for creating walkable, mixed-use, compact areas served by high-quality mass transit.

**Achieving Mexico’s Climate Goals: An Eight-Point Action Plan** identifies and evaluates key climate and energy policy options available to Mexico to support implementation of its commitments under the Paris Agreement, while improving economic competitiveness, energy security, and the health
and well-being of its people. Our analysis finds reducing emissions by 22 percent would save the country $26 billion between 2017 and 2030.

**Transport Emissions & Social Cost Assessment: Methodology Guide** and an accompanying online tool provide a simple, Excel-based way to estimate transportation emissions and evaluate the costs of associated social impacts. The guide and tool cover six air pollutants and three greenhouse gases for 18 types of transport at either national or city levels, specifically for places with limited data accessibility and poor data quality.

**Accessibility Tool for Land Use and Transportation** is a global web-based, open-source tool developed in partnership with the World Bank to help guide the decision-making process and perform rapid assessment of transport investments and urban development projects. It allows city planners to capture the impact of changes in the city and numerically compare them. Common applications include measuring access to jobs or key locations as an indicator of the effectiveness of the transport system.

**OpenTraffic** processes anonymous GPS-derived positions of vehicles and smartphones, provided by private companies, and turns this data into real-time and historical traffic statistics available through the web. This first-of-its-kind product is the main platform of the Open Transport Partnership, of which WRI Ross Center is a founding partner. Five partner companies, which together serve millions of people in 30 countries, have so far agreed to provide data: Grab, Easy Taxi, Le Taxi, Miovision and NDrive.

**Encouraging Design Practices for Sustainability in India: A Guidebook** provides strategies to promote mixed land use, encourage easy access to daily necessities and set targets to reduce carbon emissions from motorized vehicles. The guidebook’s recommendations stress that effective site design is a way to enhance the appeal of walking, cycling and public transit.

**Study on International Practices for Low Emission Zone and Congestion Charging** examines how low-emission zones and congestion charging have worked in London, Singapore and Stockholm, with a view to practices that can be applied in China as it grapples with traffic congestion and its high socioeconomic costs.
EXTENDING OUR STRATEGY

The rise in importance of cities means more demand and requests for support from partners.

We are selectively increasing our areas of expertise to further our impact at scale. In the year ahead, we will be particularly focused on three priority areas:

EXPANDING TO AFRICA

Our collective urban future depends on how Africa’s cities grow. Urbanization is faster than ever before, but generally unplanned and under-serviced in many places. This creates both enormous opportunities and challenges to reorient development towards a more sustainable path. Our research shows that if rapidly growing cities do not address equity in urban services, economic growth will likely occur in ways that are not “pro-poor” or supportive of the persistent informal economies growing in many African cities. WRI Ross Center currently has project footprints in Ethiopia, Ghana and Tanzania, and we are beginning to explore work in more countries. Our 10-year goal is to have a significant presence in at least five countries with a growing network of influence across the region.

UNLOCKING DATA

We are exploring the possibilities of big data and how it can empower urban decision-makers and citizens alike. WRI Ross Center’s Data-Driven Cities Initiative aims to establish a suite of tools to make data relevant to urban leaders. We are working with the private and public sector to responsibly unlock valuable location-based data and unleash the potential of geospatial data. Through partnerships with NASA, OpenAQ, and Development Seed, for example, we are helping to make air quality data more accessible. WRI Ross Center also helped launched OpenTraffic this year, an initiative that combines and anonymizes data from more than half a dozen private taxi services and presents speed, congestion and other results in an easy-to-use interface for city planners. Initially, we are focusing on data related to four key urban challenges and opportunities to address them: air, water, land-use and transport. We look forward to building on these efforts and launching new data-based tools in the near future.
HARNESSING PRIVATE FINANCE

How to finance sustainable urban services is one of the key challenges every mayor faces. The World Economic Forum estimates that some $700 billion in new investments is needed each year to move from business as usual to a global “green growth” economy, but too many projects remain unfunded. WRI Ross Center, in partnership with C40, is working with non-traditional investors, impact investors, bankers and equity investors to increase domestic investment in sustainable urban services. This work will be a continuation of the Financing Sustainable Cities Initiative, supported by Citi Foundation, to transform how cities and investors look at innovative urban services. The Initiative has already shown promising results, helping move forward projects in Santiago (an electric bus fleet), Bhopal (bike-sharing network), London (green loans) and New York (clean energy legislation).
WRI Ross Center’s Key Performance Indicators measure our impact on human well-being.

We developed a simple matrix of leading indicators that will help us assess if we are going in the right direction to achieve our overall goal of cities being more productive, healthier, safer and green. We estimate impact for projects where we had direct engagement by counting:

- **People served (people/year)** – the number of total daily users of a project, such as the passengers on a BRT corridor, bicyclists utilizing a new bicycle pathway or residents of an improved urban development or service.

- **Lives saved (live saved/year)** – comprises lives saved due to reductions in road fatalities, decreased exposure to particulate matter emissions, increased physical activity or decreased environmental risk (e.g. flooding risk).

- **Carbon dioxide and particulate matter emissions avoided (tons CO2e/year - PM/year)** – reductions in carbon dioxide equivalent (CO2e) and particular matter (PM) emissions due to avoided trips, trips shifted to less carbon intensive modes, or improved efficiency of existing systems or technologies.

- **Travel time saved (hours/year)** – reductions in total travel time (including accessing the system, waiting, traveling, and transfers, if applicable) due to increases in travel speeds, reductions in the number of transfers and/or increased service frequency.

- **Money Leveraged (USD/year)** – external funds invested in sustainable urban solutions that have been facilitated by our intervention or participation. Includes planning, capital and operations costs.

This table indicates WRI Ross Center’s progress and impact since its 2014 launch.

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<tbody>
<tr>
<td>People served (million)</td>
<td>1,788</td>
<td>2,749</td>
<td>3,894</td>
<td>4,246</td>
<td>12,677</td>
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<tr>
<td>Lives saved</td>
<td>387</td>
<td>414</td>
<td>633</td>
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<td>CO2 avoided (tonnes/year)</td>
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<td>3,209,729</td>
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<td>Time saved (hours/year)</td>
<td>359</td>
<td>429</td>
<td>599</td>
<td>665</td>
<td>2,052</td>
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<tr>
<td>Money leveraged (USD million)</td>
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* The team is finalizing methodologies for measuring particulate pollution avoided and monetized resources, and expects to report on these two indicators next year.
WRI Ross Center’s Advisory Group is comprised of globally recognized city leaders and experts who contribute their expertise and influence. The group meets annually to provide high-level strategic guidance and connections to key partners.

Throughout 2016-2017, we have continued to strengthen and engage our Advisory Group, which guides strategy and performance, and creates opportunities for working closely with cities and engaging new partners.

- **Stephen M. Ross** is the honorary chair of WRI Ross Center for Sustainable Cities. He provides strategic guidance to enhance the Center’s visibility.
- **Charlotte Matthews** actively supports WRI Ross Center as a reviewer and advisor of key projects and emerging strategies.
- **Robin Chase** presented at the Smart and Innovative Business Models in Transportation Conference in Turkey and is partnering to create a global coalition around new mobility protocols.
- **Ede Ijjasz-Vasquez, Sam Parker and Robin Chase** were panelists at the 2017 Transforming Transportation Conference in Washington, DC.
- **David Kennedy** facilitated discussion between the UK Department for International Development and WRI Ross Center on an urban strategy for Africa.
- **Patrick Phillips** facilitated the participation of the Urban Land Institute’s Greenprint Foundation in an urban development workshop and provided guidance and support to the Coalition for Urban Transitions.
- **Clay Nesler** served as a co-author on “Accelerating Building Efficiency: 8 Actions for Urban Leaders,” a guidebook published in April 2016. He is also the lead private-sector co-convener in the Building Efficiency Accelerator partnership, engaging 28 cities around the world.
- **Janette Sadik-Khan** traveled to São Paulo to discuss the urban renewal project in the São Miguel Paulista neighborhood.
- **Gino Van Begin** represents the International Council for Local Environmental Initiatives on the Building Efficiency Accelerator Steering Committee.
- **Mark Watts** partners with WRI Ross Center on new business models for sustainable urban solutions, our energy efficiency program, and the Global Platform for Sustainable Cities forum.
- **Sam Parker** is collaborating on a strategy for New Sustainable Mobility and WRI Ross Center’s mobility work in Africa.
- **Marcio Lacerta**, as president of the National Front of Mayors in Brazil, has helped WRI Ross Center establish partnerships that are scaling-up our impact.
FUNDS SECURED AND DIVERSIFIED

• CURRENT FISCAL YEAR:
  $27.6 million budget planned for FY17.
  As of June 2017, $27 million has been raised.

• FUTURE:
  $38 million secured for next three years. There
  is increasing demand on limited resources to
  produce a trajectory for a $40 million annual
  target by 2022.

• STRATEGY:
  We aim to develop funds to strengthen our
  comprehensive cities program across multiple
  sectors and expand into new geographic areas.
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EXPLORE
Our free resources—online at wrirosscities.org and in print—provide objective, fact-based analysis of the latest urban sustainability information. WRI Ross Center’s blog family, TheCityFix—online at thecityfix.com—are great introductions to our work.

DONATE
We welcome support from governments, foundations, companies and individuals who share our belief that we can protect the planet and improve people’s lives. To learn more or make a donation, please call Tina Duong at +1 202 729-7865.

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