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# **SUMMARY REPORT**

# **Urban Mobility** in African Cities

Developing National Urban Mobility Policy and Delivering at the City Level









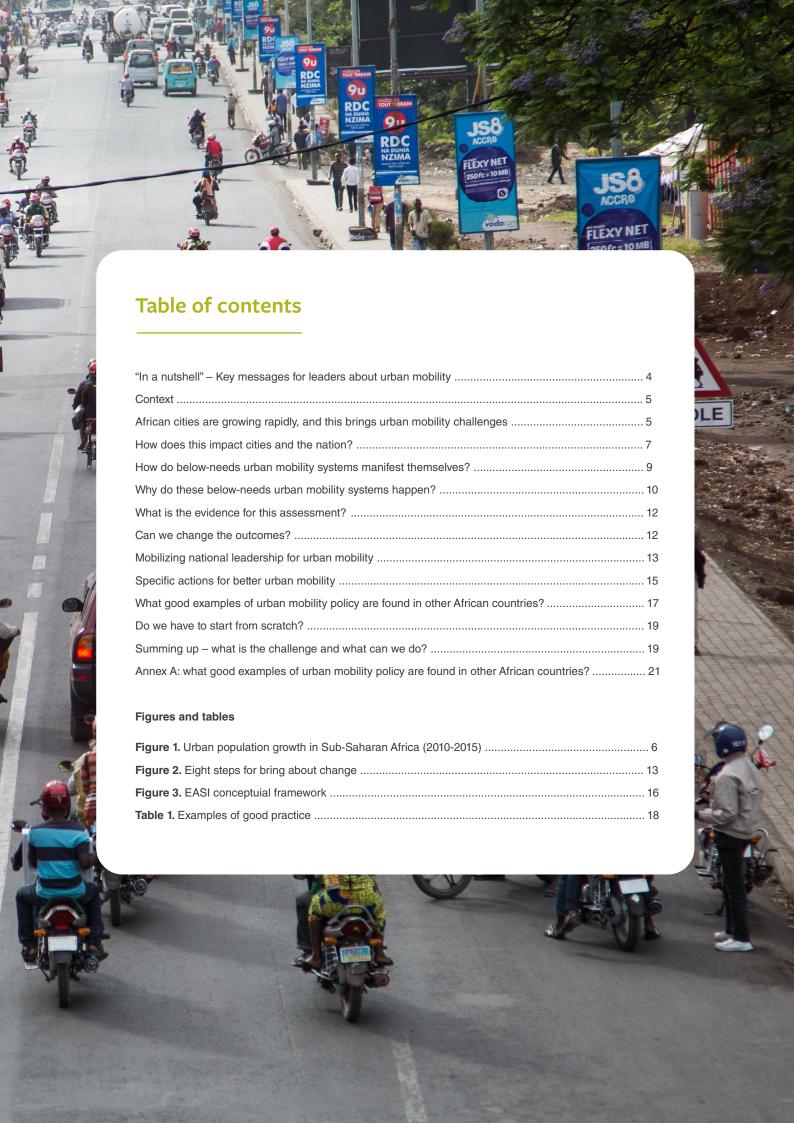












# "In a Nutshell"

# Key Messages on Urban Mobility for Leaders

- (1) Well-functioning cities that give good access to social and economic opportunities are key to national economic growth and stability.
- (2) Many cities in Africa are increasingly dysfunctional due to the inability to cope with rapid population growth accompanied by even faster growth in motorized vehicles. These challenges are exacerbated by poor planning and urban management.
- 3 National leaders have a critical role in articulating a national vision for improved urban mobility in all their cities, and building and coordinating institutions at the national and city level with capacity to plan intelligently and drive implementation.
- 4 Strong urban governance institutions, appropriate to the local context, are required to strategically manage mobility and land use together at a metropolitan scale while integrating this with the management of streets and local precincts.
- (5) The complex mobility challenges facing cities require developing a wide variety of skills across many disciplines.
- (6) Mobility challenges must be tackled in conjunction with land use planning and the management of the built environment.
- Planning-led approaches with short, medium, and long-term horizons that consider operating and maintenance costs rather than only capital costs are needed. These approaches should be informed by effective and sustained data collection.
- 8 Needs are varied, so mobility solutions will be multi-modal and are thus best enabled by a metropolitan-wide institution that prioritizes users' needs rather than a particular mode.
- While big projects can impact and leverage change, more incremental approaches, including working with paratransit and managing it better, carry less risk and can often generate more significant improvements across the whole city area at a lower cost.
- (10) As the number of private motor vehicles and congestion grow, it becomes more difficult but increasingly important to protect road space for public transport and pedestrians, including through dedicated lanes, prioritized intersections, good sidewalks, and control over parking.
- (1) Addressing mobility challenges requires substantial and sustained financial resources generated through mechanisms that strengthen local institutions and incentivize efficiencies.
- The public sector must facilitate private involvement in providing transport infrastructure and services within a framework that optimizes the public good.

#### Context

African cities are growing at an extraordinary rate. Unfortunately, many cities are growing so fast that national, provincial, and city governments cannot manage how they develop or assure the provision of the services people need. This has many negative consequences for national and city economies and the people who live in these areas.

Urban mobility is one of the key challenges for African cities. In many cities, the transport system has failed to keep up with urban growth. There is inadequate provision of dependable, affordable, and safe transport services to meet the travel needs of the people. Private vehicle ownership and use is increasing, congesting the roads. The informal sector provides much of the general transport service, using very large numbers of small vehicles. At the same time, the travel system impacts the city through congestion, increased costs, pollution, accidents, noise, intrusion, and long delays for both users and non-users.

Cities cannot resolve these things alone. National Governments need to lead by guiding the development of cities, developing urban mobility policies, improving the implementation frameworks, and mobilizing finance. Critical to this strategy is ensuring city level capabilities are built to develop and implement locally appropriate strategies.

African leaders are faced with three major questions:

- 1) Can the dynamics of urbanization be managed so that the cities of their country function well, become engines of economic development, are pleasant to live in, and are environmentally friendly?
- 2) What urban mobility strategy will work best for the cities of their country, strengthening their primary cities and developing the potential of their secondary cities?
- 3) Through what mix of policy, longer-term planning, enabling measures, near-term actions, and investment projects should Government make this happen?

The Africa Transport Policy Program (SSATP) aims to provide African decision-makers with the tools necessary to support the implementation of such policies and measures. Within this work, SSATP has developed guidance and prepared specific recommendations for urban mobility policy for 12 Sub-Saharan African countries. This note also provides a concise synthesis of the key issues and guidance, which can then be read in detail in the technical reports.

# African cities are growing rapidly, and this brings urban mobility challenges.

Africa's population continues to grow at a rapid rate. In 1990, Africa's population was about 630 million. By 2009, it had reached one billion people. Today, the population is over 1.3 billion people, and it is expected to reach 2.5 billion people by 2050. There are twice as many people in African countries today as there were 30 years ago. Moreover, the population is expected to double again in the next 30 years.

Growth brings opportunities, but it also brings many challenges. Among these are the need to house, feed, educate and provide employment opportunities for a greatly increased population, and provide healthcare and services at a much larger scale than before. It falls to Government to ensure that these needs are met and that growth is orderly, or at least avoids disorder.

However, population growth is only part of the story. This growth does not happen evenly within countries, and the greatest growth has been occurring in urban areas as people migrate from rural areas to cities searching for work and better opportunities. Sub-Saharan African countries are all experiencing a high rate of urbanization, while West African countries already have a high level of urbanization. In Nigeria, half of the population now lives in urban areas; in Ghana, the proportion is even higher, at 55 percent; Mali, Togo, and Benin all have urbanization rates already exceeding 40 percent of the total population. East African countries are relatively less urbanized, with urbanization rates of 30 percent in Rwanda, 26 percent in Kenya, and 20 percent in Ethiopia. These countries also have high urban growth rates, so in the coming years, they will be increasingly urbanized. Thus, all African countries will continue to experience strong urban growth regardless of their starting point (see Figure 1).

Urban population growth (annual %)

< 0.37

0.37 - 1,23

1.23 - 2.33

2.33 - 3.45

> 3.45

Figure 1. Urban Population Growth in Sub-Saharan Africa (2010-2015)

World Bank staff estimates based on the United Nations Population Division's World Urbanization Prospects: 2018 Revision. https://data.worldbank.org/indicator/SP.URB.GROW?end=2020&locations=ZG&start=2020&type=shaded&view=map&year=2020

Another feature of rapid urbanization is that, in some countries, the primary city has attracted such a high proportion of the population that it has become a dominant factor in society. This is seen particularly in Senegal (Dakar), Cote d'Ivoire (Abidjan), and Guinea (Conakry), and to a lesser extent in Ghana (Accra), Nigeria (Lagos), and Togo (Lomé). One consequence of this phenomenon is that a substantial proportion of national resources then needs to be allocated to a single city. A less visible consequence is that the secondary cities are not developing to the same extent and may fall further behind.

As African cities grow rapidly, both in numbers of people and in size, the scale of growth is seriously stretching the ability of governments and agencies to cope. In many cities, growth is happening on the periphery faster than governments can plan or provide essential infrastructure such as paved roads, water, and sanitation, or indeed, exercise the necessary control over housing and other developments.

This rapid growth leads to sprawling, low-density suburban areas that are difficult to serve and manage. Again, the urbanized area has spread out beyond the original city boundaries in many cities, so it straddles multiple local government areas and even adjacent provinces. This situation can make it very difficult to coordinate the development of the overall area and the necessary provision of services. In many cases, there are no institutional frameworks for governance and management of the overall urbanized areas.

Urban mobility is one of the key challenges for African cities. The urban population needs to travel to get to work, to school, to markets and all the other activities of a city. Very large numbers of people need to travel. Still, the sprawling development and its limited road infrastructure are often unable to cope. This situation results in congestion so that people must spend a long time traveling every day, often in crowded conditions or using unsafe means of travel. This problem has been exacerbated by the rapid increase in motorization, more people having and using their own vehicle, and the rise of informal transport based on large numbers of small vehicles.

The traffic problem also has heavy consequences for the adjacent neighborhoods, including pollution, accidents, and noise. Many Africans walk to their place of work, school, or market, but this has become increasingly dangerous and unpleasant as traffic takes over the streets, and motorists often drive recklessly while pavements are absent or in poor condition.

### How does this impact cities and the nation?

In general, urban mobility is not functioning well in many African cities. In large part, this is a consequence of the speed and manner in which the cities themselves are developing. At the same time, urban mobility is also impacting the city itself and its ability to function well.

#### Consequences for the nation

When cities do not function well, there are consequences for the nation, the city, and the people. These consequences can be broadly summarized as:

- Cities are the primary drivers of the economy of any country, even those with strong extractive and agricultural bases. If the cities are not functioning well, it damages the entire country's economy.
- Developing cities require substantial resources for infrastructure development and ongoing maintenance. Much of this funding must come from funds collected nationally. Cities that are not well planned and managed will continue to consume scarce national resources yet deliver poor mobility outcomes for their citizens.
- Unmanaged development of cities leads to regional imbalances within a country. Growth is centered on the primary cities; secondary cities often have population growth without improved incomes, while the country's other regions fall further behind.
- The quality of the cities and associated employment and services have a significant bearing on the level of popular content and political calm at the national, regional, and local levels.
- The quality of life in the cities and their perceived conditions have a bearing on the international standing of the country.

#### Consequences for the cities

- Uncontrolled urban development leads to sprawl, as the peripheral agricultural areas are reclaimed for affordable dwellings. Cities become significantly enlarged, often at relatively low densities, which stretches the ability to provide fundamental services such as roads, water, sanitation, public transport, schools, and healthcare. In many cities, those who cannot afford alternatives utilize land that should not be used for housing, thereby creating many problems.
- Environmental degradation is an inevitable consequence of urban development that is not well managed. The urban mobility system can also bring many serious environmental impacts throughout the city, including pollution, dust, noise, intrusion, and the dominance of streets, pavements, and public areas by motorized vehicles.
- Sprawling cities with poor urban mobility systems and congestion lose their competitiveness. Travel distances and time increase, driving up the cost of moving people and goods, with knock-on effects from unreliability and delays.
- Unsafe road conditions and poorly regulated transportation results in accidents and fatalities. In addition to the personal cost, these matters have direct societal costs at national and city levels.

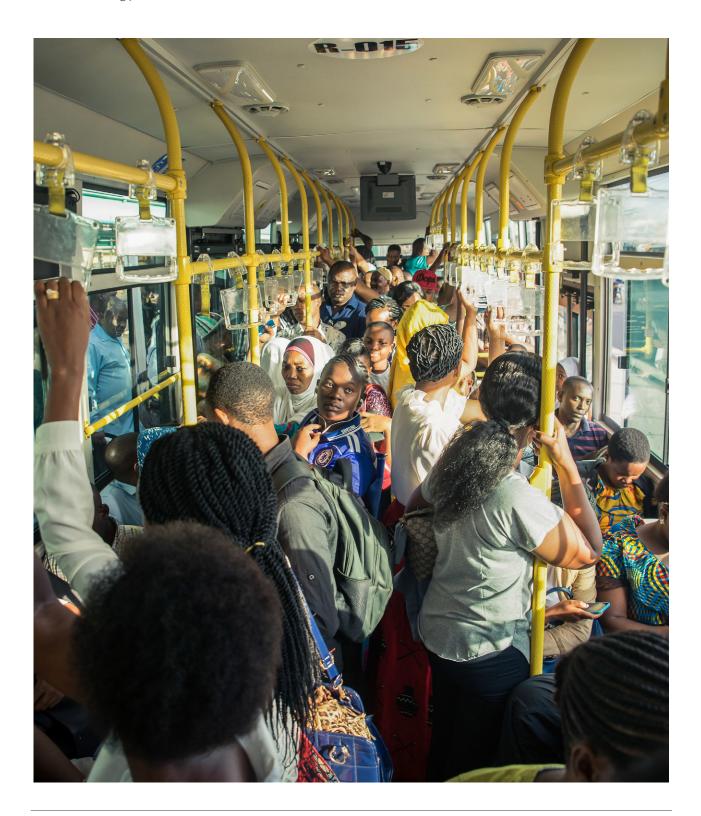
#### Consequences for the people

- Without an effective urban mobility system, growing cities invariably suffer from congestion. Many commuters can spend several hours each day going to and from work, school, or market. Congestion does not solve itself and only worsens without strong intervention.
- Few African cities have an efficient, organized public transport system. Commuters and other travellers are mostly dependent on informal transport, whether by minibus-taxi, sedan-taxi, or motorcycles. Households must spend a high proportion of their income on mobility. This reduces their available income for other things and puts many households on or below the poverty borderline. Among other things, this makes the population highly sensitive and resistant to any increase in prices, even if it would give better and safer services.
- Most African cities are dependent on informal transport, which usually offers poor quality and safety control. Combined
  with long commuting times and the high cost of travel, this situation impacts heavily on the quality of life and health of
  commuters. In addition, women and girls can face harassment, while vulnerable people such as the elderly and the
  disabled can face difficulties in accessing and using the services.
- Equity becomes a significant factor in the urban mobility systems of many African cities. Roads are often the principal investment, which frequently benefit car users. There is generally minimal investment in priority for public transport, which would benefit lower-income commuters. Pavements, calmer streets, and safe crossing places would benefit the large number of people who walk, including the poorest residents.

Political leaders, senior government officials, and policymakers need to be attentive to these matters, which become extremely difficult to rectify if/when they get out of hand.

All these things are connected, in part by how the cities grow, whether and how the urban mobility systems are developed, and whether the institutions and regulations are working effectively.

National Government has a special responsibility to plan, provide guidance and establish the frameworks for urban development – including institutional frameworks – to ensure that its cities can function effectively. This issue is particularly important in most African countries where authority and decision-making are primarily at the national level, and cities have limited autonomy or revenue-raising power.



# How do below-needs urban mobility systems manifest themselves?

It is generally quite visible when urban mobility systems rate below the needs and expectation of the people. Obviously, it will vary among countries and even among cities within the same country. However, several features crop up repeatedly in many settings across Africa. Most of these features are readily visible to the people who live and travel in the city.

A structured diagnostic analysis highlights the issues most in need of attention. 12 individual country studies undertaken by SSATP<sup>1</sup> already provide a good starting point regarding the prevailing concerns with transport in their main cities.

#### Characteristics associated with the city

- Rapid, uncoordinated expansion of the urban area, extending into the surrounding hinterland and converting former agricultural or grazing lands.
- Diffuse, low-density development in the peri-urban areas and in some cases, areas unsuitable for housing. (e.g., areas vulnerable to flooding or landslides, nature areas) taken over for development.
- Increasingly complex and polycentric demand for mobility and travel.
- Degraded environment due to traffic congestion, noise, pollution, dust, intrusion, etc.

#### **Characteristics associated with infrastructure**

- Limited primary road network with relatively few arterial and circumferential roads and limited connectors between the emerging districts.
- Narrow street network in the downtown/traditional area, based on earlier times.
- Extensive unpaved roads in the periphery and developing areas, often unsuitable for public transport.
- Degradation of existing infrastructure due to lack of maintenance or periodic rehabilitation, resulting in reduced speeds and capacity.
- Unsafe conditions for walking limited/degraded pavements, lack of street lighting, lack of safe crossing points, encroachment of pavements for street trading, etc.
- Limited urban traffic management control systems, traffic management measures, bus priority measures, on-street parking management, off-street parking.
- High accident and fatality rates, especially of pedestrians.

#### **Characteristics associated with mobility services**

- Lack of an organized route-based public transport system.
- Limited or no established, corporate public transport operators.
- Extensive reliance on the informal sector as the main provider of mobility services (minibus-taxi, sedan-taxi, motorcycle-taxi, 3-wheeler/bajaj, plus local versions), which reinforces the dominance of the informal economy in the city.
- Terminal-to-terminal routing, without timetables or fixed intervals.
- Lack of adequate services outside the busy times and routes.
- Limited/no customer charter or mechanism for complaint and redress.
- Increased fragmentation within the informal transport sector.
- Major increase in the number and role of motorcycle taxis, which in some cases have become the dominant form of transport.
- Old and low-grade vehicles characterized by poor compliance with roadworthiness and environmental controls.
- A large number of drivers who lack formal training, who are usually lowly-paid, and without job security or social protection.

#### Characteristics associated with national and city institutions

- Underfunded, under-capacitated institutions and agencies.
- Limited/low regulation of the transport service providers.
- Low enforcement capacity on transport services, traffic, and parking.

<sup>&</sup>lt;sup>1</sup> Benin, Burkina Faso, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Kenya, Mali, Nigeria, Rwanda, Senegal, Togo

- Reliance on sticker fees, fines, etc. to finance basic administration costs.
- Low-level corruption and harassment of transport operators and motorists.

Of course, the situation is never completely bad as the urban mobility system of any city continues to function. People still get to work, school or markets every day. The issue is that the quality of transport is less than people need or would expect. It imposes avoidable burdens and costs and impedes the city's progress. The system could be made much better.

## Why do these below-needs urban mobility systems happen?

The features of a dysfunctional urban transport system listed above are the only most visible outcomes. In many ways, they are merely the "symptoms" of root causes, which need to be understood more clearly. Until the root causes are addressed, it will be difficult to change the outcomes.

Root causes tend to be deep. They are often long-established and interlinked with other factors such as the overall governance, administration, and legacy of policy intervention in the country. Some may have arisen from Government's diminished ability to sustain normal governance and financing during prolonged periods of economic or political instability.

Dealing with many (or indeed most) of the root causes is primarily in the hands of National Government, which sets the policy, legal, administrative, and financial framework for the country and determines the main investment programs and the distribution of resources within the country.

In urban mobility, the following root causes are repeatedly observed in many African countries:

#### National policy and governance

- Facing rapid growth of cities and their traffic, Governments struggle to know whether, how or where to respond. As a result, they can become overwhelmed by the situation and tolerate whatever unfolds.
- Limited tradition of Policy as a central pillar guiding Government action over a sustained period, which, once approved, must be followed by all Ministries, institutions, agencies, and regional/local levels of Government.
- Limited tradition or capacity to sustain programs over decades, as required for shaping and controlling urban development.
- Dominance of national-level institutions and agencies involved in regulation, permitting, enforcement, etc. of transportation matters, which undermines cities.
- Low salary levels in the public sector, making it difficult to recruit and retain higher caliber staff. This leads to corruption and bribe-taking at all levels, undermining the purpose, authority, and effectiveness of the institutions and agencies.

#### Urban development and governance

- Limited capacity, or lack of political will, to control urban development and sprawl of cities.
- Lack of national spatial development and urban development policies and guidelines, which are mandated by the regional/ provincial and urban authorities.
- Lack of urban development strategy or master plan for the city, some capital cities, and especially most secondary cities.
- Limited capacity, limited legal instruments, or lack of political will, to control land use.
- Urban areas that have spread out beyond their original administrative boundaries (now covering multiple local administrative areas, and in some cases even into other Provinces/Regions).
- Metropolitan-wide governance and institutional frameworks and planning systems that have not kept pace with growth but have become fragmented and even competitive with each other.
- Economic activity that remains concentrated in the traditional downtown or port area while the city expands, leading to ever-increasing travel distances, and increased and chronic congestion.
- Urbanization without increasing wealth, where the size and scale of the city grows but without any real improvement in income or living conditions (particularly relevant to secondary cities).
- Cities that have high dependency on National Government for key decisions and finance and limited ability to plan and manage.

#### Urban mobility planning and infrastructure

- Lack of a national urban mobility policy, or one that has been recently updated
- Lack of city-specific urban mobility plan, or one that has been recently updated
- Where they exist, urban mobility plans that cannot realistically be implemented and financed, or that are excessively centered on a specific investment project
- Limited budget for infrastructure or operations, resulting in a backlog of new construction, rehabilitation, and maintenance works
- Investment programs often based on external support, focused on specific projects rather than on overall city and transport system improvements
- Poor governance, competing interests, and limited capacity that often delay implementation of investment projects, while inadequate preparation or provision is made for the operation and maintenance phases (particularly relevant to mass transit projects)
- Over-emphasis on investing in roads and vehicular traffic at the expense of public transport, walking, and non-motorized transport.

#### **Urban mobility management and systems**

- Limitations of implementing agencies, impacting staffing levels, technical capacity, enforcement capacity, databases, methods, equipment, etc.
- Inability to sustain regulations, restrictions, controls, or safety measures over long periods.
- Limited knowledge of transport demand and transport models, especially for secondary cities.
- Limited sources of suitable finance for investment in transportation assets and systems.
- Organized transport services undermined by non-compliant, illegal operators.
- Controls on importation of second-hand, aged, low-quality vehicles that are weak or are poorly directed or implemented (including controls on roadworthiness that result in few new vehicles, many aged vehicles, poor emissions, and less safety).
- Low fuel quality due to no/low fuel standards plus limited measures and controls, leading to much higher levels of harmful pollutants.
- Large numbers of poorly maintained small vehicles, which get caught in congestion and lead to higher fuel consumption and increased emissions.

Leaders in most African countries will recognize many of these root causes and may already be acting on some of them. However, each of these concerns is a complex issue in its own right, not to be solved easily or quickly. Many issues are interlinked, and one might not be solved without needing to tackle another. Moreover, acting on one issue in a standalone way may have unintended knock-on effects elsewhere.

It is increasingly clear that improving cities and urban mobility requires a comprehensive approach led by Government while cross-cutting and coordinating many Ministries, institutions, and agencies. The purpose of the list above is to indicate the many concerns that should be considered. The rest of this note deals with how to go about implementing viable changes to the system.



#### What is the evidence for this assessment?

As part of the implementation of its Third Development Plan (DP3) covering the period from 2015 to 2020, the SSATP launched a pilot scheme to support the development of transport policies with the aim of improving accessibility and mobility in Africa's urban areas.

The first step in this process was to draw up Working Document no. 106 entitled "Policies for sustainable mobility and accessibility in urban areas of Africa." This paper describes an approach called the "EASI conceptual framework" which comprises a set of specific policy actions grouped into four areas of strategic intervention: Enable, Avoid, Shift, Improve. Under each of these strategic categories, specific measures are proposed that could be adopted by African cities to develop a sustainable transport policy. This is described in the next section.

After the paper was validated and published, another experimental framework was defined to implement the guidelines initially in eight countries (Senegal, Guinea, Côte d'Ivoire, Ghana, Nigeria, Rwanda, Kenya, Ethiopia) in 2018, followed by four other member countries in 2019 (Mali, Burkina Faso, Togo, and Benin).

Individual country reports were prepared during the period 2018-2020.<sup>3</sup> The reports provided current information and diagnostics on urban mobility in the cities of each country. They each made recommendations on policies for sustainable accessibility and mobility in cities. These were prepared in conjunction with the national Ministries (2018-2020), and national and local political and technical leaders within the framework of National Urban Mobility Forums.

Thus, the assessment is based on both an evidence-based diagnostic and key stakeholder discussions in each of the 12 African countries. Two transnational studies then consolidated the knowledge and recommendations from the country-specific reports.

### Can we change the outcomes?

The prospects for the future are alarming for many cities and most countries, based on the current situation and the established patterns of urban growth. Bad as things may be now, they will not rectify themselves and they will only get worse without government intervention. It can be difficult to imagine exactly what way or how much worse congestion, pollution, or inequality can get, and how people or civil society will respond, but the sense of impending crisis is certainly there.

An important thing to consider is that trends and predicted outcomes are not inevitable given effective intervention. This will require a clear vision of what to do, the tackling of root causes, and enabling alternative pathways to succeed. Above all, this will also require leadership and sustained commitment from national, regional, and local governments.

As already posed in the opening section, African leaders are faced with a major question: "Rather than undergoing urban expansion that promotes inequality and informality, how can the dynamics of urbanization be managed so that urban centers become engines of economic development that are pleasant to live in and environmentally friendly?"

In other words, how can African leaders go about making change, and what specifically can they do?

This is addressed in the next two sections. The first considers how National Governments can mobilize their departments, define, and lead the vision for urban mobility, and enable individual cities to achieve change. The second outlines specific measures relating to policy, planning, organization, and actions regarding improved urban mobility.

<sup>&</sup>lt;sup>2</sup> Stucki M. (2015), Politiques de mobilité et d'accessibilité durables dans les villes africaines, [Sustainable accessibility and mobility policies in African urban areas], SSATP Working Document no. 106, available online at: https://www.ssatp.org/sites/ssatp/files/publications/SSATPWP106-Urban%20Mobility\_FR.pdf

<sup>&</sup>lt;sup>3</sup> SSATP News. (October 1,2021), Policies for Sustainable Urban Mobility & Accessibility in African Cities: Policy/Strategy Papers and Diagnostic Studies for 12 Pilot Countries. Available online at: https://www.ssatp.org/news-events/policies-sustainable-urban-mobility-accessibility-african-cities-policystrategy-papers

### Mobilizing national leadership for urban mobility

The countries cited in the study are facing a crisis particularly with regard to the traffic conditions in their capital cities. In recent years, numerous institutional developments have taken place and new projects have been launched. However, the proposed approaches are often taken in response to the urgency of the situation or in the context of an opportunistic partnership. They rarely, if ever, are part of a committed long-term vision to be translated into a strategy and rolled out in a coordinated manner by those concerned.

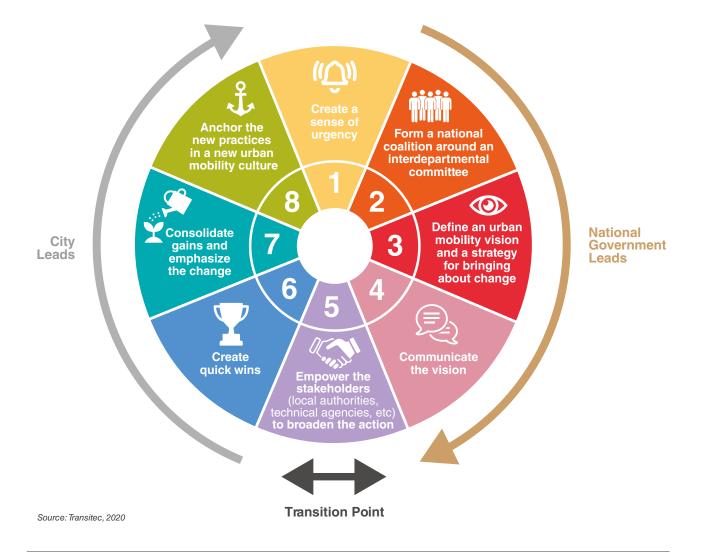
In view of the mobility crisis which has been described in the previous sections, SSATP has developed an eight-step process for bringing about change<sup>4</sup>, shown in Figure 2 below.

As already noted, most authority, capacity, and resources are vested in the national ministries and their agencies in Sub-Saharan African countries. For the most part, city institutions are administrative and operational units with limited autonomy and limited revenue-raising powers. Thus, changing cities and their mobility policies will have to be initiated, authorized, and supported by National Government. In this 8-step process, National Government leads steps 1 through 4.

Step 5 is the key transitional step, in which National Government mandates, empowers and capacitates the city institutions to plan, implement, and manage the change.

The city itself leads steps 6 through 8, with ongoing support and oversight from National Government.

Figure 2. Eight Steps for Bringing About Change



<sup>&</sup>lt;sup>4</sup> Adapted from Kotter, J. (2015), 'Conduire le changement', Pearson

#### **STEP 1:** Create a sense of urgency

In the countries concerned, relatively little is known about the economic and social issues relating to the current mobility situation or the consequences in terms of road safety and air pollution. The lack of measurement tools prevents decision-makers from correctly appraising the scale of the problems. Based on simple findings and considering ad hoc urban development trends, it is important that the highest levels of government are made aware of the urgent need to take action to improve urban mobility and to make every effort to ensure that these findings are shared as widely as possible with political and technical leaders.

#### **STEP 2:** Form a national coalition around an interdepartmental committee

Given all the ministries that have a role to play in ensuring the success of an urban mobility policy, it is essential to set up an interdepartmental coordination committee under the authority of the President or Prime Minister. This committee can collaborate on defining and validating a policy vision, on the one hand, and address its implementation and monitoring, on the other. The policies pursued by the different ministries responsible for town planning and housing, transport and infrastructures, local authorities, the police, energy, and the environment must be able to work together to meet the stated vision.

Beyond institutional responsibility, the interdepartmental coordination committee will need to assemble a cohesive team to direct the change. This guiding coalition will therefore have to bring together competent and motivated individuals who will contribute as much energy to developing this interdepartmental mechanism as they will to making changes within their respective agencies.

#### STEP 3: Define an urban mobility vision and a strategy for bringing about change

This step for defining a shared vision is essential because it must, on the one hand, clarify the general approach, and on the other, compel the institutions to act in the right direction even if certain disruptions are necessary. Finally, it must ensure the involvement of each ministry, specialized agency, and local authority. In many countries, differences of opinion undermine the drive for sustainable mobility and result in inefficient public spending.

In this step, the objective is to clearly create one, unified image of the future of urban mobility, which is attractive and attainable and allows for varied solutions appropriate to local contexts. This vision must form part of a national development policy, even if the policy must be changed. The work carried out with the support of the SSATP through national forums, bringing together a multitude of participants to discuss the recommendations made by a team of experts, was a positive step in this direction.

#### **STEP 4:** Communicate the vision

Once the vision and strategy have been developed, they must be widely communicated among all parties involved. Also, they should be explained in a simple way through communication documents, examples, or accessible references. The vision must be widely presented in all kinds of meetings, conferences, and events. To ensure the broadest understanding by as many people as possible, it should be repeated and referred to on a regular basis through various means. Most importantly, it must be visibly supported by government leaders and never allowed to be undermined publicly or privately.

#### STEP 5: Empower the stakeholders (local authorities, technical agencies, etc.) to broaden the action

While the clear definition of a vision and its appropriate communication have certainly exposed many stakeholders to the stated perspective, various structural obstacles in society still need to be removed for this vision to take effect. Because of the centralization of power and capacity in Africa where urban mobility is concerned, the prevailing system gives neither local players the possibility to implement a regional approach, nor state players the means to adopt a nationwide, multimodal policy.

Therefore, numerous reforms are required to improve the distribution of powers, particularly by strengthening power at the metropolitan level, while at the same time empowering the local authorities at the regional level. Then, financial resources must be made available to enable project leaders to plan, regulate, and delegate to partners or implement metropolitan urban mobility policies that are in line with the national vision. It is also necessary to contribute to capacity-building both within local and metropolitan authorities as well as ministries and technical agencies. Staff training is an essential element to enable implementation of the urban mobility strategy. At the same time, promotions and wages within local governments or semi-public agencies must be aligned with the efforts required to implement the national vision.

#### STEP 6: Create quick wins

Quick wins (or short-term wins) make it possible to capitalize on the vision and proposed strategy, and thereby develop long-term projects which will have a far more resounding impact. Quick wins also ensure that the efforts of all those working to achieve this vision are sustained, and they provide a way to silence cynics and critics. The more numerous these opponents, the more these small victories need to increase so that they fulfill their role as effective examples.

To meet these objectives, a quick win must be visible, unambiguous, and clearly related to the effort for change. Quick wins also have many virtues. First, they enhance the sense of urgency and therefore keep up the pressure to act. Early lessons can also be learned from projects that did not go as planned. Finally, they can help attract partners or beneficiaries who will then become true supporters of the urban mobility policy.

#### STEP 7: Consolidate gains and emphasize the change

Progress in the implementation of reforms or projects must be monitored by the interdepartmental committee. This will make it possible to consolidate any achievements and to sustain the pace of change. Unexpected resistance may occur and interdependent relationships between institutions may make the implementation of the urban mobility policy more complex. Launching an operation to transform the urban mobility policy will necessarily have consequences in other fields of activity which will lead to political trade-offs in relation to urban development and land management strategies, industrial and commercial strategies, the transport sector, public-private partnerships, and the management of local authorities. There is no doubt that the effort required to achieve the targeted outcome will be greater than initially imagined.

However, it will be important to persevere by capitalizing on short-term wins, gaining momentum for reform and new partnerships, and extending the scope of reforms. Additional resources will need to be summoned, certain overly burdensome legacies will need to be eliminated, and decision-makers will need to be mobilized to exercise a certain degree of leadership to bring projects to fruition.

#### STEP 8: Anchor the new practices in a new urban mobility culture

Implementing the urban mobility strategy and vision must bring about a cultural change. This will not happen on its own to start with. But cultural change should begin to be realized by the end of this first cycle and be a major byproduct of the next cycle. Thus, in the capital cities studied, it is clear that one of the key elements in implementing a new urban mobility policy is the sustainable development of reliable and attractive public transport systems in the capital cities being studied. Once mass transport projects have been set up, it will no longer be possible to design new road infrastructure without considering the integration of public transport services. Similarly, developing the road system without shaded sidewalks will no longer be possible.

### Specific actions for better urban mobility

Urban mobility policies, combined with urban development policies, can play a major role in meeting the challenges outlined in this report. By promoting intensive urban development along transport corridors and controlling the urbanization of agricultural land on the periphery of a city, political leaders can structure cities more effectively by making them, on the one hand, less costly to live in for their inhabitants and more conducive to economic and social interaction, and on the other hand, less dependent on individual transport modes and less intrusive to arable land.

In order to develop sustainable, safe, and affordable urban transport in the continent's cities, it is essential to develop a comprehensive approach at the national level that can provide a clear direction and a framework for action by the public and private actors concerned. The "EASI conceptual framework," (Figure 3) summarized here and described in detail in other SSATP documents, outlines a set of specific policy actions according to four areas of intervention:

# Conceptual Framework



Establish an effective and responsible governance system with adequate:

- institutions,
- human resources,
- financing.





#### AVOID

Minimize the need for individual motorized travel through adequate land-use and transport planning and management.



Land use efficiency



Increase or maintain shares of more socially & environmentally sustainable modes (public transport, walking, cycling).



Multimodal transport system efficiency



Improve the efficiency and safety of transport modes & services while minimizing their environmental footprint.



Road space use & vehicle efficiency

The four EASI "pillars" are summarised in the following policy recommendations:



#### Policy recommendations relating to "Enable"

- To define, adopt and implement, at the central government level, a national urban transport strategy that ensures the sustained development and management of urban transport systems.
- To ensure that the main urban transport public responsibilities at the urban/metropolitan level are assigned and carried out.
- E3 To set up an entity in charge of urban transport planning and of guiding and coordinating public action aimed at the provision of a multimodal urban transport system.
- E4 To provide all institutions and stakeholders in the urban transport sector with adequate human resources.
- To increase financial resources allocated to urban transport systems and to ensure the availability of long-term funding for urban transport.
- E6 To create the preconditions for continued civil society participation in the development of urban transport systems.
- E7 To enhance the involvement of the private sector in the provision of transport infrastructure and services.



#### Policy recommendations relating to "Avoid"

- A1 To plan for urban forms and land use policies that minimize the need for individual motorized travel and promote public transport and non-motorized transport modes.
- A2 To deploy transport infrastructure and services in a manner that promotes sound urban forms and land use.
- A3 To strengthen land use management.



#### Policy recommendations relating to "Shift"

- S1 To adopt and systematically introduce, at all levels and scales, a multimodal approach to the development and management of urban transport systems.
- S2 To develop and maintain for each urban area a pedestrian network that is continuous, safe and accessible for all throughout the day, and to develop and maintain bicycle paths with similar characteristics.
- S3 To provide an integrated and hierarchical public transport system that is efficient, reliable and capable of serving the needs of constantly evolving populations and the urban economy.
- S4 To plan and implement mass transit systems that operate on exclusive infrastructure and can form the backbone of the urban public transport system.
- S5 To enhance the level of service provided by paratransit operators by fully restructuring, modernizing, and promoting reforms to the public transport system.



#### Policy recommendations relating to "Improve"

- To improve planning, operation, and maintenance of urban roads considering and balancing the needs of all transport modes and keeping the use of individual motorized vehicles in check.
- To define and implement realistic and incrementally demanding requirements in terms of fuel components, energy efficiency, and gas emissions.
- To promote safe and environmentally responsible behavior for all urban transport stakeholders by strengthening technical control of vehicles and keeping the public informed of the negative externalities of individual motorized transport.

# What good examples of urban mobility policy are found in other African countries?

There are many exemplary national urban mobility policy frameworks worldwide that have been planned and implemented with city-specific goals in mind. Examples of good policy initiatives can be found in countries of Europe, South-East Asia, Latin America, and elsewhere. These are certainly worthy of study and building "know-how" transfer arrangements as a basis for developing capacity or mentoring programs.

Of particular interest is whether there are good examples of national or city-specific urban mobility policy, planning, and deployment in Africa. These would have arisen in broadly comparable contexts, often involving similar constraints and legacy challenges. Again, this issue can be very important when faced with opponents or critics who use arguments such as "but that wouldn't work in our country."

It must be said that no African country or city has yet been able to get it all right. Moreover, no African country has yet been able to develop a national urban mobility policy, supported by suitable frameworks and funding commitments, that is now being deployed in its various cities.

However, there are emerging examples of specific initiatives that offer many of the building blocks needed for practical and comprehensive policy implementation. If they can be combined in an appropriate way for a country/city context, they can provide a good way forward.

The SSATP has documented many good practices from the 12 countries studied. A brief synopsis of some interesting cases is presented in Table 1 below, and in Annex A. More detailed information on each case is available in the multi-country technical reports (cross-referenced in Annex A for convenience) and in the individual country reports.

**Table 1.** Examples of Good Practice

COUNTRY	EXAMPLES OF GOOD PRACTICE
* Burkina Faso	<ul> <li>Urban Master Plans drawn up for all 12 regional capitals</li> <li>Bobo-Dioulasso Urban Program for Mobility and Sustainable Development (a rare case of urban planning for a secondary city) with dedicated roads and mobility department</li> <li>Development of a Roads Hierarchy approach in Ouagadougou, with improved traffic management and road surfacing scheme</li> </ul>
Côte d'Ivoire	Urban Planning and Transport Master Plan developed for Abidjan in 2015
Ethiopia	<ul> <li>The Addis Ababa Road and Transport Bureau (AARTB) created to concentrate urban mobility mandates through four internal departments in charge of road construction, transport, traffic management, driving permits, and licenses</li> <li>Transport Fund created in 2017 to supplement the existing budget receives all traffic penalties and fines, road user charges and bus shelter advertising revenues</li> </ul>
★ Ghana	<ul> <li>Availability of real-time traffic data on the main arteries and streets in Accra</li> <li>Digital mapping of the minibus (tro tro) services in Accra</li> </ul>
Guinea	Law on "Organization of Inland Transport and Transport Intermediaries" in 2018
Kenya	Digital mapping of the informal minibus (matatu) services in Nairobi
Mali	<ul> <li>Establishment of SMIB, an association of the local authorities in the Bamako area, comprising 24 municipalities and the district of Bamako</li> <li>Program for professionalisation of the minibus (sotrama) sector, with fleet renewal and acquisition of mid-sized vehicles, following the Dakar model</li> </ul>
Nigeria	<ul> <li>Lagos Metropolitan Transport Authority (LAMATA) created in 2002</li> <li>Lagos Transport fund created in 2007 to cover the cost of maintaining the transport infrastructure in the Lagos Metropolitan Area</li> <li>BRT-Lite established by LAMATA in 2009, operator association takes responsibility for fleet purchase and service operation</li> </ul>
Rwanda	<ul> <li>The Ministry of Infrastructure (MININFRA) "super ministry" created to oversee urban mobility, has competence in all modes of transport, and provides a global vision of all urban, interurban, and rural infrastructures.</li> <li>In Kigali, the institutional framework is achieved through coordination of the various mandated actors: the Public Services Regulatory Agency (RURA), the City of Kigali, the Roads and Transport Development Agency (RTDA) and the Ministry of Infrastructure (MININFRA). The policy vision and transport master plan guide mobility development.</li> <li>Kigali transport master plan completed in 2013, building on the Kigali Conceptual Master plan and developing the multimodal mobility strategy</li> <li>In Kigali, public transport network restored through contracts for c. 400 large buses awarded to three companies, and informal minibus services eliminated</li> <li>Smartcard ticketing system implemented for bus services in Kigali</li> </ul>
<b>★</b> Senegal	<ul> <li>Legislation requiring local authorities to draw up Urban Master Plans (UMP) and Priority Investment Plans</li> <li>Dakar Urban Transport Executive Council (CETUD) created in 1997</li> <li>Urban Transport Development Fund established in 2005 to fund CETUD and the urban mobility development actions</li> <li>The UMP for Dakar updated in 2016, with quantitative performance objectives for the road network, traffic and public transport based on an integrated urban planning-transport vision and environmental assessment of the envisaged strategy</li> <li>Vehicle renewal program for the minibus sector in Dakar to replace old fleet, coupled with contract system, reorganization and professionalization of the artisanal sector</li> <li>Since 2015, extension of the vehicle renewal scheme to six inland cities, along with capacity building program for scheme implementation and artisanal operators</li> <li>Development of Bus Rapid System in Dakar</li> </ul>
★ Togo	Establishment of the Autonomous District of Greater Lomé in 2019

#### Do we have to start from scratch?

Countries and cities do not need to start from scratch in terms of developing the framework for effective urban mobility policy or the means of its implementation. The central subjects, including national and urban governance, urban development, and the regulation of transport, are not new subjects; they have been part of the framework since and even prior to the foundation of the State itself. Most and perhaps all building blocks will already be in place, even if they are not fully suited to their purpose. These building blocks include:

- The mechanisms for national, regional, and urban governance
- The legal base for the management of urban development and land use
- The legal base for the regulation and management of all aspects of transportation
- The institutional framework, including Ministries and local government
- The implementing agencies, including planning, finance, and enforcement
- The urban infrastructure, including roads and traffic management systems
- A base of transport operators, with extensive provision for mobility service
- Extensive travel demand and a current base of ridership.

The key challenges for urban mobility in African cities are primarily to:

- 1) Coordinate and align what already exists;
- 2) Strengthen the individual elements and update them to current needs;
- 3) Guide them and give them a sense of common purpose;
- 4) Mobilize resources where they are required; and
- 5) Assign responsibility, provide oversight and support, and intervene with corrective measures where required.

It is the responsibility and role of the National Government to lead this process and ensure that it happens. The EASI Framework (Enable, Avoid, Shift, Improve) described on pages 16-17 provides a framework of actions designed to:

- 1) Develop and commit a national urban mobility strategy that will provide the guidance for all the public and private actors;
- 2) Assign responsibilities at national and city levels and ensure there is a sufficiently empowered entity in charge of the urban transport planning and delivery; and
- 3) Develop and implement city-specific urban development and urban mobility plans.

The 12 country-specific reports prepared under SSATP provide valuable recommendations for the countries concerned, which other countries can use as starting points for their own diagnostic process.

### Summing up - What is the challenge and what can we do?

#### The challenge of urban mobility

- African cities are growing at an extraordinary rate. Many cities are growing so fast that national, provincial, and city
  governments cannot manage how they develop or provide the services that people need. Fundamental elements of civil
  society, including the transport system, have not been able to keep up with the urban growth in many cities.
- 2) Urban mobility is one of the key challenges for African cities. Travelers often have inadequate access to dependable, affordable, and safe transport services. Meanwhile, the poor travel system causes congestion, increased costs, pollution, accidents, noise, intrusion, and long delays for both users and non-users in the cities.
- 3) When cities do not function well, there are many consequences for the nation, the city, and the people. Cities should be the primary driver of the economy of any country. Still, they lose their competitiveness if uncontrolled urban sprawl leads to congestion and higher transport costs, while people spend hours in their daily commute under challenging conditions.
- 4) African national and city leaders need to know how to confront these challenges and determine what urban mobility strategy will work best to strengthen their primary cities and develop the potential of their secondary cities.

#### The role of National Government to avoid crisis and lead toward solutions

- 5) Cities cannot resolve these things alone. National Governments need to lead by guiding the development of cities, developing urban mobility policies, improving the implementation frameworks, and mobilizing finance. Leadership must come from the very top, with visible commitment, and be sustained over time.
- 6) All relevant National Government ministries and agencies need to be aligned and mobilized, and act with common purpose with effective inter-departmental and oversight mechanisms.
- 7) National Government is in a unique position to develop the vision for urban mobility, tackle root causes, remove or mitigate barriers, and develop enablers and support finance.
- 8) While the overall strategy is national, locally appropriate strategies should be implemented at the city level. It is essential to provide the necessary mandate and empower the city stakeholders, assigning responsibility and accountability while ensuring the availability of the required resources.

#### The most essential and effective actions to improve urban mobility

- 9) Develop an urban mobility vision and strategy that is articulated in a National Urban Mobility Policy (or equivalent). This should cover both primary and secondary cities and establish responsibilities and financing mechanisms.
- 10) Develop city-specific urban mobility plans that address the needs of each city, its people, and its businesses. These plans should be practical with readily implementable plans, ensure equity for all sectors of society, and prioritize public transport and Non-Motorized Transport, which are the most popular means of transport.
- 11) Develop urban transport institutions at the city level. For larger cities, urban transport authorities should have a mandate across all local government functions in metropolitan areas, including all modes of transport.
- 12) Develop and integrate individual modes of transport, including NMT. Improve the availability, coverage, and safety of public transport modes. Improve conditions for those who walk, focusing on footpaths, safe crossings, and lighting. Use 'quick wins' to make initial progress, gain public support, and build momentum for the more ambitious actions.



# **Annex A:** What good examples of urban mobility policy are found in other African countries?

There are many exemplary national urban mobility policy frameworks worldwide that have been planned and implemented with city-specific goals in mind. Examples of good policy initiatives can be found in countries of Europe, South-East Asia, Latin America and elsewhere. These programs are certainly worthy of study and building "know-how" transfer arrangements as a basis for developing capacity or mentoring programs.

Of particular interest is whether there are good examples of national or city-specific urban mobility policy, planning, and deployment in Africa. These would have arisen in broadly comparable contexts, often involving similar constraints and legacy challenges. Again, this issue can be very important when faced with opponents or critics who use arguments such as "but that wouldn't work in our country."

It must be said that no African country or city has yet to get it all right. Moreover, no African country has yet developed a national urban mobility policy, supported by suitable frameworks and funding commitments, that is in practice in its various cities.

However, there are emerging examples of specific initiatives that offer many of the building blocks needed for practical and comprehensive policy implementation. If they can be combined in an appropriate way for a country/city context, they can provide a good way forward.

The SSATP has documented good practices from the 12 countries studied. A brief synopsis of some interesting cases is presented here. More detailed information on each case is available in the multi-country technical reports (cross-referenced for convenience) and in the individual country reports.

#### National policy and plans

- Most of the pilot countries have put in place a national strategy aimed at promoting economic emergence. These national strategies have a horizon of 2020 in **Rwanda** (Vision 2020) and **Ethiopia** (second five-year Growth and Transformation Plan), 2030 in **Kenya** (Kenya Vision 2030), and 2035 in **Senegal** (Senegal Emerging Plan). Urban development and transport are generally among the sectors with highly ambitious plans for change.<sup>5</sup>
- In **Mali**, a new "National Policy for Transport, Transport Infrastructures and Accessibility (PNTITD)" was drawn up in 2013 as a continuation of the "2020 Transport Infrastructure Development Plan and the Policy Paper on the Transport Sector" (2008). In **Burkina Faso**, considerable attention was oriented toward urban mobility projects in Ouagadougou within the framework of the Project to Support the Modernization of the Transport Sector (PAMOSET) and the Transport and Urban Infrastructure Development Project (PTDIU) two programs financed by the World Bank.<sup>6</sup>
- Within the context of COP21, **Burkina Faso** and **Togo** have made specific commitments to reducing fuel consumption and Greenhouse Gas (GHG) emissions.<sup>7</sup>

#### Institutions and regulations

- In **Rwanda**, the Ministry of Infrastructure (MININFRA) oversees urban mobility. It has jurisdiction over all modes of transport (including air and lake transport), as well as energy and water. This "super-ministry" provides a global vision of all urban, interurban, and rural infrastructures.<sup>8</sup>
- Although the ministries of transport in Mali and Burkina Faso are small compared to their ministries of infrastructure and facilities, they have nevertheless taken the lead in the area of urban mobility by adding mobility directly to the jurisdiction of their ministries. In this way, the ministries can help influence investment programs through the development of a clear strategy and an effective partnership with local authorities.9

<sup>&</sup>lt;sup>5</sup> Country Reports (T8, §5.1.1, 48)

<sup>&</sup>lt;sup>6</sup> Country Reports (T4, §3.1.2, 68)

<sup>&</sup>lt;sup>7</sup> Country Reports (T4, §3.1.3, 68)

<sup>8</sup> Country Reports (T8, §5.2.1, 52)

<sup>&</sup>lt;sup>9</sup> Country Reports (T4, §3.2.1, 69)

- Metropolitan entities have been created at the behest of local authorities such as the SMIB of Bamako, Mali (association of local authorities), which brings together 24 municipalities and the district of Bamako. Greater Ouaga's inter-municipal project, which brings together eight municipalities, was initiated by the municipality of Ouagadougou, Burkina Faso. In both cases, the local authorities have benefited from a legal framework allowing inter-municipalities to be established and come together to tackle metropolitan challenges such as urban planning, waste management, sewage systems, funeral services, and, of course, urban mobility.¹º In 2019, the government of Togo used the opportunity offered by the acceleration of the decentralization process to create the Autonomous District of Greater Lomé (DAGL).¹¹
- In some countries, a law governing the transport sector defines the responsibilities of the major actors in the sector. For example, **Senegal** and **Côte** d'Ivoire introduced a transport "organization law" in 2003 and 2014, respectively, that fully integrates urban mobility. On the same model, **Guinea** adopted a law in 2018 called the "Organization of Inland Transport and Transport Intermediaries (LOTRIT)." In other cases, urban mobility is governed by decentralization laws (Ghana, Kenya, Ethiopia, Nigeria, and Rwanda).<sup>12</sup>
- Transport Organizing Authorities have been established in several African cities. In **Senegal**, the Dakar Urban Transport Executive Council (CETUD) was created in 1997, and in **Nigeria**, the Lagos Metropolitan Transport Authority (LAMATA) was created in 2002. These are among the best examples of urban mobility governance in Africa. The impact of these institutions can be measured mainly in the long term. For many years, CETUD's role is primarily one of public transport regulation and mobility planning, while LAMATA was given extensive jurisdiction from the outset over the main corridors where BRT lines were to be built.
- In Addis Ababa, **Ethiopia**, the Municipality has been able to concentrate mobility-related skills within a single department, the Addis Ababa Road and Transport Bureau (AARTB), which has four departments in charge of road construction, transport, traffic management, driving permits, and licenses.<sup>13</sup>
- In Kigali, **Rwanda**, the institutional framework is achieved through coordination between the various actors: the Public Services Regulatory Agency (RURA), the City of Kigali with its important planning role, the Roads and Transport Development Agency (RTDA), and the Ministry of Infrastructure (MININFRA). The policy vision and the transport master plan provide a common perspective for these different actors who work together to develop the public transport network, build new bus stations, and provide infrastructure for active modes.<sup>14</sup>

#### **Urban mobility plans**

- In **Senegal**, newly enacted legislation required local authorities to draw up, with the support of the Ministry in charge of Urban Planning, an Urban Master Plan and an associated Priority Investment Plan. In Dakar, for example, the urban master plan for the city was updated in 2016 with support from JICA. It includes quantitative performance objectives for the road network, traffic, and public transport based on an integrated urban planning/transport vision and an environmental assessment of the envisioned strategy.<sup>15</sup>
- In 2011, **Burkina Faso** drew up Urban Master Plans (SDAU) in all 12 regional capitals apart from Ouagadougou and in the urban municipality of Pouytenga with the financial support of the World Bank through the "Regional Development Centers" project. These Urban Master Plans are tools for planning the development of urban areas in the medium and long term (15 to 20 years). They also form part of the national policy on housing and urban development (PNHDU) and the national landuse policy. They have defined priority investments in each town and city amounting to CFAF 155 billion of investments in the road network between 2019 and 2023. These urban master plans, therefore, offer a valuable basis for mobility planning.<sup>16</sup>
- The government of **Togo** kicked off an ambitious policy to deploy Urban Master Plans (SDAU) for all towns and cities with more than 5,000 inhabitants. To date, nearly a quarter of these plans have already been produced by the Ministry of Urban Affairs, Urban Planning, Housing and Public Health (MVUHSP). However, the deployment of Urban Master Plans faces a lack of funding, slowing down the production and updating of documents and creating other implementation problems.<sup>17</sup>
- In Abidjan, **Cote d'Ivoire**, the urban planning and transport master plan for Greater Abidjan 2030 was completed in 2015 and is a detailed component of the nation's Master Plan. It has enabled a common vision to be offered to all stakeholders

<sup>10</sup> Country Reports (T4, §3.2.4, 71)

<sup>&</sup>lt;sup>11</sup> Country Reports (T4, Box 14, 72)

<sup>&</sup>lt;sup>12</sup> Country Reports (T8, §5.2.2, 53)

<sup>&</sup>lt;sup>13</sup> Country Reports (T4, Boxes 4, 5 and 6 respectively, 54-56

<sup>&</sup>lt;sup>14</sup> Country Reports (T8, §5.2.4, 56)

<sup>&</sup>lt;sup>15</sup> Country Reports (T8, §5.5.1/2, 69)

<sup>&</sup>lt;sup>16</sup> Country Reports (T4, Box 19, 79)

<sup>&</sup>lt;sup>17</sup> Country Reports (T4, Box 18, 78-79)

- from both the urban planning and transport points of view and has made it possible to define an ambitious investment program.<sup>18</sup>
- Kigali, **Rwanda** completed the transport master plan in 2013, six years after the publication of the Kigali Conceptual Master Plan (KCMP). The master plan provided an opportunity to clarify the multimodal mobility strategy.<sup>19</sup>
- Bobo-Dioulasso, Burkina Faso, is a relatively rare case in Africa of a secondary city to have an organized urban plan. It has the Bobo-Dioulasso Urban Program for Mobility and Sustainable Development, a department dedicated to road infrastructure and mobility (DIRMO), and a collective public transport network.<sup>20</sup>

#### Improving urban traffic management and flows

- In **Burkina Faso**, the Ouagadougou City Hall took steps in 2006 to improve traffic conditions and improve access to the city center as part of the Ouagadougou Mobility Support Project (PAMO). The first step in this process was the development of a simplified traffic plan, aimed at ultimately improving traffic conditions and the long-term accessibility of the city center. This initiative, based on optimizing the operation of existing road infrastructure, developed a traffic strategy that promoted diverting transit flows to two bypass routes: the inner boulevard ring and the outer beltway. To supplement this strategy, a three-tier hierarchy of the system was established to strike a balance between circulatory and urban functions for each tier of roads and to prioritize investment targets. A road surfacing scheme is being drawn up to pinpoint priorities and envisage a capital road upgrade program lasting 5-7 years. The municipality of Ouagadougou's traffic count data from traffic light monitors at major crossroads are also serving to optimize management and control of these road junctions where there is still plenty of potential for improving road conditions.<sup>21</sup>
- In 2014, as part of the same program, the city council undertook a second counting campaign using the same protocol but this time piloted directly by municipal departments and staff trained in 2011.<sup>22</sup>
- Greater Cotonou, **Benin**, was facing uncontrolled sprawl and rising congestion. To prevent imminent gridlock, the government has taken a proactive approach as part of its Action Program 2016-2021. This consists of implementing major projects designed to reduce and redirect demand for home-to-work travel by relocating activities to reshape the conurbation itself and its generated traffic flows, and to reduce freight traffic crossing through the city center.<sup>23</sup>
- Real-time traffic data is available on the main arteries of major cities (Google Traffic) and the streets of some cities, including
  Accra (Ghana), Lagos (Nigeria), Dakar (Senegal) and Nairobi (Kenya). These cities have been filmed by satellite and
  added to Google Street View.<sup>24</sup>

#### Improving urban mobility services

- As part of the Urban Mobility Improvement Program (PAMU, 2001-2008), the **Senegal** government undertook a replacement of public passenger vehicles in the Dakar metropolitan area. In addition to reducing the negative externalities (accidents, congestion, and pollution) arising from a very old fleet, the core objective was to organize and professionalize the small-scale operators. Supported by the World Bank with financing of CFAF 8 billion, the first phase was launched in 2005. This ultimately involved the replacement of 2,000 dilapidated minibuses, strengthening the managerial and technical capacities of artisanal operators, and the beginning of professionalization of the overall structure for provision of public transport services (contractualization, creation of funding entities, mutual health insurance, line management capacity, etc.).<sup>25</sup>
- Also in Dakar, **Senegal**, a Bus Rapid Transit system is being implemented. CETUD, the transport organizing authority is the project owner. The Dakar BRT is expected to improve travel conditions considerably for the population who currently travel mainly by foot (70%), or public transport (25%), as dedicated lanes will speed up public transport that currently experiences long delays when caught in congestion.<sup>26</sup>
- In Dakar (Senegal), Lagos (Nigeria) and Addis Ababa (Ethiopia), specific funds have been created to finance urban

<sup>18</sup> Country Reports (T8, §5.5.2 and Box 13, 69-71)

<sup>&</sup>lt;sup>19</sup> Country Reports (T8, §5.5.2 and Box 14, 69-72)

<sup>&</sup>lt;sup>20</sup> Country Reports (T4, Box 10, 49-50)

<sup>&</sup>lt;sup>21</sup> Country Reports (T4, Box 2, 31-32)

<sup>&</sup>lt;sup>22</sup> Country Reports (T8, Box 8, 60-61)

<sup>&</sup>lt;sup>23</sup> Country Reports (T4, Box 1, 28-29)

<sup>&</sup>lt;sup>24</sup> Country Reports (T8, §5.3.3, 62)

<sup>&</sup>lt;sup>25</sup> Country Reports (T8. Box 15. 74-75)

<sup>&</sup>lt;sup>26</sup> Country Reports (T8, Box 16, 76)

transport. Managed by the Transport Organizing Authorities, these funds are designed to raise financial resources to be allocated directly to their multimodal strategy. These funds are particularly effective when they have their own resources, as is the case in Lagos and Addis Ababa.<sup>27</sup>

- In Dakar, the Urban Transport Development Fund (FDTU) was created in 2005 to finance the CETUD and various urban transport development activities. According to the law, the fund was to be financed by a contribution shared between the State, local authorities, and the private urban transport sector.
- In Lagos, the Transport Fund was created in 2007, 5 years after the creation of the Lagos Metropolitan Area Transport Authority (LAMATA), to cover the cost of maintaining the transport infrastructure of the Lagos metropolitan area.
- In Addis Ababa, the Road and Transport Bureau (AARTB) created the transport fund in December 2017 to which all transport fines and penalties, road user charges, and bus shelter advertising revenues will be paid. The transport fund represents an annual budget of between US\$43.5 and US\$58 million. The AARTB already manages an annual budget of about US\$290 million. The funds are intended to be used in the urban mobility sector.
- In Kigali, **Rwanda**, the public transport sector has been restructured to restore large bus services' primary position and eliminate informal minibus services. Four public service contracts have been awarded to three different operators (KBS, Royal Express and RFTC), which altogether operate 400 buses.<sup>28</sup>
- In some countries, modern ticketing systems have emerged. One public initiative in Kigali (**Rwanda**) uses a smartcard for more than two-thirds of the trips made on the urban transport network. In Dakar (**Senegal**), small-scale operators have equipped themselves with an electronic ticketing system that also serves as an aid to the management of their businesses. In addition, some start-ups have been developed, and passenger information systems have been implemented in Dakar.<sup>29</sup>
- Digital technologies have been used to map informal transport in Nairobi (**Kenya**) and Accra (**Ghana**). In both cities, interviewers equipped with GPS-enabled smartphones were spread out on informal transport lines to collect various types of data on transport services. The use of smartphones made data collection relatively inexpensive and more convenient. These data made it possible to produce the first public transport network maps distributed in these two cities. In addition, developers have been able to use standardized GTFS databases describing transport services for internet or smartphone applications (e.g., for route calculation).<sup>30</sup>

#### **Capacity building**

- Given the satisfactory results obtained in implementing the program to replace the public transport fleet in Dakar, the Government of **Senegal** has decided to devote the resources from the repayment of loans made to operators to the continuation of the operation. Since 2015, the government therefore extended the operation to the following inland cities whose traffic justified the implementation of a public transport system: Kaolack, Louga, Saint-Louis, Tambacounda, Thiès, and Ziguinchor. A program execution mandate was signed with the Association de Financement des Professionnels du Transport Urbain (AFTU). A firm will assist the AFTU in mobilizing, as is already the case in Dakar, the human, technical and organizational resources needed to ensure the administrative, financial, and accounting management of the leasing mechanism in various regions.<sup>31</sup>
- Also drawing on the Dakar model, the Ministry of Transport and Urban Mobility (MTMU) in Mali has initiated a program to professionalize the informal operators of Sotramas (minibuses). A replacement of the fleet of vehicles will allow their role to be defined within a modern and tiered public transport network that will ultimately benefit the program. The aim is to migrate from an informal management of micro-companies to an organization formed around cooperatives or economic interest groups that operate on networks contracted out by government agencies based on a public service delegation approach. The government will reorganize the hundreds of current lines and will adjust the offer to include more comfortable and larger vehicles with seating/standing capacity totaling 45 persons.<sup>32</sup>
- In 2015, a master's degree entitled "Transport and Sustainable Mobility in African Cities" was created at the African School of Architecture and Town Planning (EAMAU) in Lomé, **Togo**. This degree aims to train high-level executives and equip them with the skills to meet the specific requirements of African towns and cities in terms of mobility and transport. Specifically, this vocational, hands-on training course will train transport specialists to implement urban mobility policies and action plans in African towns and cities. Sixty-two students have graduated since 2015. Some completed their initial training while others were supplementing their qualifications during their professional careers.<sup>33</sup>

<sup>&</sup>lt;sup>27</sup> Country Reports (T8, §5.7.4, 81)

<sup>&</sup>lt;sup>28</sup> Country Reports (T8, §5.8.2, 85)

<sup>&</sup>lt;sup>29</sup> Country Reports (T8, §5.3.3, 62)

<sup>30</sup> Country Reports (T8, Box 9, 62-63)

<sup>31</sup> Country Reports (T8, Box 12, 65-66)

<sup>32</sup> Country Reports (T4, Box 22, 85-86)

<sup>33</sup> Country Reports (T4, Box 16, 75)





