SSATP
Africa Transport Policy Program

MINISTRY OF INFRASTRUCTURE AND TRANSPORT
REPUBLIC OF BENIN

FINAL REPORT

Policies for Sustainable Accessibility and Mobility in the Cities of Benin

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Acknowledgements

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Acronyms and abbreviations

ACV-DT	Agence du Cadre de Vie pour le Développement du Territoire
AFD	Agence Française de Développement
ANaTT	Agence Nationale des Transports Terrestres
ARCH	Assurance pour le Renforcement du Capital Humain
BRT	Bus à haut niveau de service (*Bus Rapid Transit*)
CNSR	Centre National de Sécurité Routière
DCVDD	Direction du Cadre de Vie et du Développement Durable
DFTL	Direction des Transports Fluvio-lagunaires
DGDU	Direction Générale du Développement Urbain
DGI	Direction Générale des Infrastructures
DTT	Direction des Transports Terrestres
EASI	Permettre, Eviter, Reporter, Améliorer (*Enable, Avoid, Shift, Improve*)
EPCI	Etablissement Public de Coopération Intercommunale
FR	Fonds Routier
MCVDD	Ministère du Cadre de Vie et du Développement Durable
MDGL	Ministère de la Décentralisation et de la Gouvernance Locale
MEF	Ministère de l'Economie et des Finances
MEUR	Million d'euros
MIT	Ministère des Infrastructures et des Transports
MPD	Ministère du Plan et du Développement
PAG	Programme d'Action Gouvernementale
PDU	Plan de Développement Urbain
PFT	Partenaires Techniques et Financiers
PMU	Plan de Mobilité Urbaine
SDAU	Schéma d'Aménagement Urbain
SIRB	Société des Infrastructures Routières du Bénin
SSATP	Programme de Politiques de Transport en Afrique (*Africa Transport Policy Program*)
UEMOA	Union Economique et Monétaire Ouest Africaine

1. Introduction

Urban transport and mobility form one of the pillars of the Africa Transport Policy Program (SSATP), whose objective is to provide African decision-makers with the tools to develop affordable, safe and sustainable urban transport in Africa for primary and secondary cities. This fits into Sustainable Development Goal No. 11: “Make cities and human settlements inclusive, safe, resilient and sustainable.” The expected outcome of this pillar is to provide secure, universal access to sustainable transport for urban populations.

To achieve this, the SSATP has launched a program to craft a set of policies designed to improve accessibility and mobility in urban areas of Africa, based on an empirical study in a representative sample of cities in the region.

That study led to the publication of Working Document No. 106 entitled "Policies for sustainable mobility and accessibility in urban areas of Africa"0F[1]. This paper describes an approach called the "EASI conceptual framework,” which comprises a set of specific policy actions grouped in four categories: Enable, Avoid, Shift, Improve. The paper proposes specific measures that could be adopted by African cities in each of these categories.

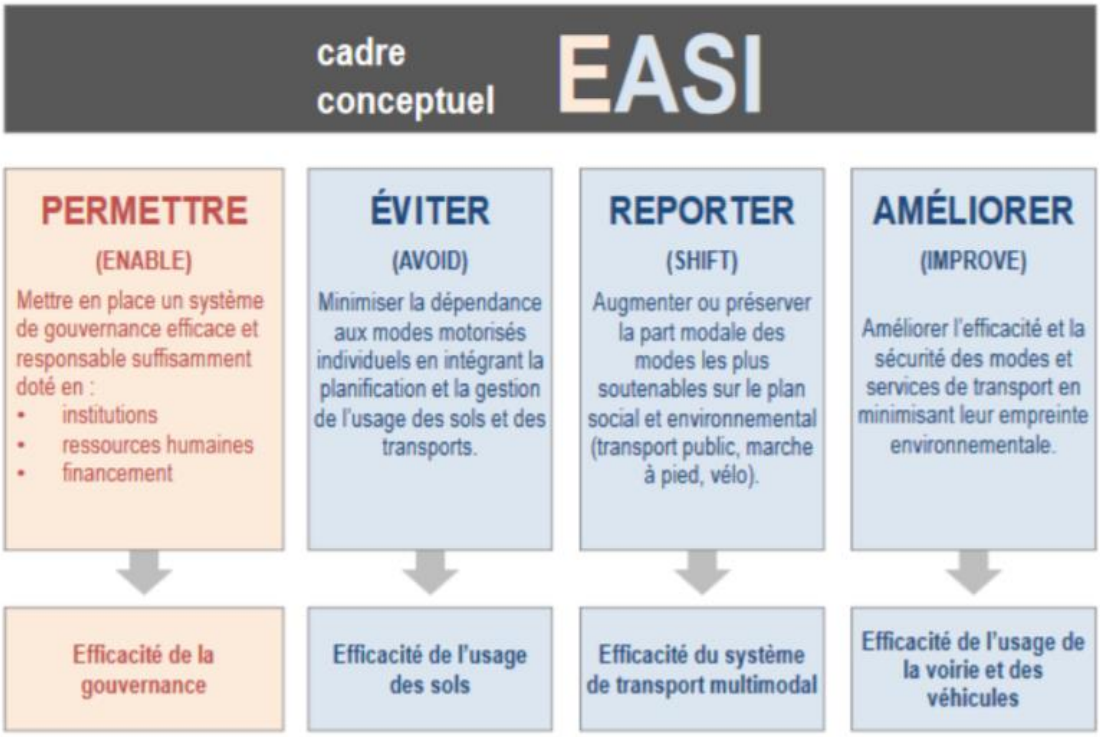

Figure 1: EASI conceptual framework

As a follow-up to this publication, an additional work program was established to implement these guidelines: firstly, in eight countries in 2018, then in four program-member countries in 2019. The goal is to foster the emergence of a political vision for urban mobility and transport.

The present study aims to prompt a change in thinking about accessibility and mobility, and to raise awareness among decision-makers so that they will implement strong policies, strategies and

[1] Stucki M. (2015), Policies for sustainable mobility and accessibility in urban areas of Africa, SSATP Working document n°106, available online: http://documents.worldbank.org/curated/en/467541468191641974/pdf/95606-REVISED-PUBLIC-SSATPWP106-Urban-Mobility-IO.pdf

operational practices that make an effective contribution to improving transport and mobility in urban areas of Africa.

With this in mind, the present final report contains:

- a policy letter on urban mobility for Benin highlighting the context, objectives, ambitions and the orientations for achieving them;
- the urban mobility strategy per the four categories of the EASI concept;
- action plans at national scale, for Cotonou and for the secondary cities.

This report is based on the recommendations formulated in the assessment report on urban mobility in Benin. These recommendations were finalized following the National Urban Mobility Forum held in Cotonou on November 7-8, 2019, which provided the opportunity to present a preliminary version.

2. Policy Letter

2.1. A need for quick actions

Like most Sub-Saharan African countries, Benin is undergoing a process of rapid urbanization. The urban population represented 47% of the country's total population in 2018 and, with an annual growth rate of 3.8%, is expected to reach 57% by 2025, spread over a hundred urban areas.

However, the tools necessary for planning, controlling and guiding this urban growth have remained obsolete or absent for at least two decades, with serious impacts on the mobility conditions for the country's citizens.

The Cotonou metropolitan area, which accounts for about one-third of the country's GDP, has rapidly expanded to encompass Abomey-Calavi in the north and Sèmè-Kpodji in the east, with 1.8 million inhabitants in 2018 spread across 350 square kilometers, i.e. a density that is 2.5 to 3 times lower than that of Greater Dakar or Abidjan, for example. This expansion creates huge volumes of commuter traffic, made all the worse because it has to compete with international freight transport on the Abidjan-Lago corridor crossing the city center. At present, the situation in secondary cities is far less critical but, without any strong action, could soon follow the same trend.

The lack of public funding for collective transport to meet this rising demand for mobility, and the low number of surfaced roads (14% of all the roads in Cotonou, 1% to 2% in Abomey-Calavi and Sèmè-Kpodji), have driven people towards individual motorized transport, as can be seen in the sharp increase in the number of motorized two-wheelers owned by individuals or operated by informal, poorly regulated taxi services.

Consequently, mobility remains severely restricted, not only physically but also due to the heavy financial burden that these individual modes of transport and motorbike taxis represent for household budgets.

The proliferation of motorized two-wheelers also contributes to a high number of accidents, perceived by the population as a serious problem. They are also the source of a high level of air pollution, aggravated by the poor quality of the fuel that is smuggled into the country from Nigeria, which is creating a very real health risk in the medium to long term.

However, the statistics on annual registrations of motorized two-wheelers (around 170,000 registrations per year) mean that the risks could soon spiral out of control. Without a major shift away from the current trend, the national development goals will not be met. Hindered mobility reduces or even cancels the positive effects of urbanization on economic growth. And, to borrow a recent expression from the World Bank, the city will be "closed for business."1F[2],2F[3]

2.2. A vision based on Benin's development policy

The need for a national sustainable urban mobility policy

Given the rising number of individual motorized trips and the significant risks of this trend, it now seems necessary to adopt a National Sustainable Urban Mobility Policy (PNMUD). The PNMUD must

[2] Lall, Henderson and Venables, *Ouvrir les Villes Africaines au Monde / Africa's Cities: Opening Doors to the World*, World Bank, 2017.

[3] This considerable risk is not unique to Benin. According to the World Bank, "many cities in Sub-Saharan Africa have characteristics in common that hinder their economic development and growth […]: they are disconnected because of inadequate public transport and other inadequate infrastructures. Finally, it is also expensive to live and work in the cities, and this is partly due to the fact that they are poorly connected. […] African cities are among the most expensive in the world, both for businesses and for households, not least because of the inefficient spatial planning. […] Motorized travel is not only slow, but it is also expensive, and workers find it difficult to accept, and hold on to, jobs that match their skills. […]" (op.cit.)

guide the actions of all the public players concerned. Its purpose is to organize urban mobility in a way that halts the current trend and aligns with the principles of sustainable development.

Its main objective is to make the urban areas more economically dynamic by improving mobility conditions for people and goods. For the public authorities, it is also important to ensure the financial sustainability of infrastructure investments and transport service operations that enable efficient mobility.

From a social point of view, the PNMUD aims to guarantee the mobility of city dwellers at an affordable price and under acceptable conditions (as part of its mission to improve road safety), to give as many people as possible access to the services and opportunities offered by the urban areas, and to take into consideration the role of motorbike taxis in the employment of young people.

Consistency with the Government Action Program and the National Development Plan

In response to a 2016 diagnosis of the population's living conditions, which indicated continuing problems related to poverty, unemployment, corruption and institutional failure, a Government Action Plan (PAG) for 2016-2021, known as "Benin Révélé", was adopted. It comprises 26 actions divided into three main categories, and 45 major projects, particularly for infrastructure, the main objective being to *"boost Benin's economic and social development in a sustainable way*".

Benin's 2018-2025 National Development Plan (PND) sets out the sustainability framework for the PAG. It aims for "*strong, inclusive and sustainable economic growth of around 10% by 2025,*" based on four strategic objectives:

- Develop durable, competent and competitive human capital;
- Sustainably increase the productivity and competitiveness of Benin's economy;
- Ensure sustainable management of quality of life and the environment, and support the emergence of regional development hubs; and
- Consolidate State institutions and good governance.

While several projects of the PAG 2016-2021 have already been designed with an objective of sustainable urban mobility, the PNMUD will extend the government actions in this field, in alignment with the PND.

Contribution to Benin's international commitments

Based on Benin's long-term strategic vision, Benin Alafia 2025, adopted in 2000, the NDP has included longer-term economic and social development goals arising from agreements concluded over the past two decades at African and international levels, in particular:

- The 2030 Agenda for Sustainable Development Goals adopted by the United Nations in 2015.
- The 2063 Agenda adopted by the African Union in 2013, the primary aspiration of which is to achieve "*a prosperous Africa based on inclusive growth and sustainable development*".

The PNMUD will also contribute to these objectives. In addition, by 2030, the implementation of the PNMUD will allow Benin to strengthen its contribution to mitigating climate change by stemming the sharp increase in transport emissions, which is not currently part of Benin's commitment to the Paris Climate Agreement. More generally, the recommended measures also aim to control the impact of motorized travel on air quality (and thus to protect public health from the effects of pollution).

2.3. An integrated approach

The priority for sustainable urban mobility in Benin is to provide all the public players involved with a common framework for action, the overarching objective being to give all citizens of Benin's urban areas access to the services (starting with health and education) and economic opportunities (jobs,

markets, etc.) that the urban areas offer, and to enable the urban areas to act as drivers of economic growth that is inclusive and respectful of the environment.

Through flagship projects for infrastructure and to improve the living environment, the PAG 2016-2021 provides for funded actions linked to the four categories described in the EASI conceptual framework for promoting sustainable urban mobility (developed by the African Transport Policy Program (SSATP) and presented in Figure 1)3F[4]. The PNMUD will create a general sustainability framework for the PAG, by complementing the major projects of investments and infrastructures with the promotion of sustainable mobility services and practices, and by constantly looking for synergies between these different elements, and by systematizing for all the stakeholders the global intervention logic of the EASI framework, in an adapted application to the specific context of Beninese cities. In particular, the PNMUD is aligned with the government will to strengthen decentralization (action 45 of the PAG) by supporting local authorities in assuming the role assigned to them by the decentralization legislation.

The four pillars of the PNMUD

- **Strengthen the sector's governance**

Governance of the transition towards sustainable urban mobility will be structured according to the organizational principles of Benin's public authorities: a clarified breakdown of the different levels of action (policy, planning, regulation, operation) between public institutions; and respect for the municipalities' own powers, as part of a decentralization process that the Government aims to strengthen. The PNMUD will provide the framework for ensuring that the measures taken by each of the stakeholders are in line with the common objectives.

Sector laws and regulations will be updated to include the concept of urban mobility which requires specific regulations and tools.

The existing inter-municipality cooperation tools will be operationalized, particularly for Grand Nokoué, the country's main urban and economic center, in order to provide this broad functional area of mobility with a unified governance arrangement.

To break the current trend (proliferation of motorized two-wheelers and the related economic, social and environmental risks) will require an increase in the financial resources allocated to urban mobility. Scarce public funds should be maximized thanks to new tax resources that should have a double positive impact: by ensuring the financial sustainability and autonomy of the most sustainable modes of transport through the direct allocation of taxes to the appropriate institutions; and by discouraging (taxing) the modes of transport that generate the most negative effects.

Finally, it must be acknowledged that the transformation of governance (in functional, financial and human terms) can only take place gradually, and that the necessary measures cannot wait until an ideal governance and funding framework is in place. The municipalities, especially, are totally unprepared to tackle the enormous challenges of urban mobility. They need to be supported by a proactive program to be able to take on the new responsibilities assigned to them by the legislation. This should mobilize external concessional resources which would be used to kick-start the PNMUD.

- **Improve land use management**

A proactive PNMUD must change the way in which Benin's urban areas are spatially organized in order meet two objectives: rationalized land use to limit urban sprawl, bring the various urban functions (housing, employment, services) closer together, and reduce or prevent any further increase in travel distances; and improved spatial planning to encourage the use of collective transport and active mobility.

[4] The points in common of the PAG and the EASI framework are shown in detail in Part 2: Urban mobility strategy.

Given the urgency of the challenges, the PNMUD is expected to act simultaneously on the three areas of intervention listed below, rather than tackling them one at a time, as is usually the case:

- regulatory frameworks for urban planning and transport, that will be updated to incorporate the need for sustainable urban mobility;
- planning tools (territorial development plans, urban master plans, urban mobility plans, and traffic plans) that will be aligned with each other and the PNMUD's objectives;
- projects: those already provided for in the PAG (relocating hubs of employment and creating new housing areas), and new projects.

Develop a multimodal transport system

If the extremely rapid growth of motorized two-wheelers is to be reversed, an attractive collective transport service must be established to absorb a significant share of the increase in demand for mobility. A cornerstone of the PNDMU is therefore to identify the conditions for the success of a mass transport mode (and implementing this mode in the urban area of Grand Nokoué).

At present, the motorbike taxi is virtually the only option available for people who do not have their own vehicle. Yet the cost remains very high in terms of pollution and road safety, and in relation to household incomes, especially as commutes get longer due to the expansion of residential areas towards Calavi. This situation offers a window of opportunity to create a public transport network: the system should offer competitive travel times and fares compared to motorized two-wheelers, in order to become attractive as a link between well-organized hubs. A partnership will be sought with major employers, which currently have little or no involvement in the funding or organization of mobility for their employees, in order to maximize the chances of success of such a project, or even to fund part of it.

The paradigm shift towards public transport will only be possible if spatial reorganization facilitates genuinely intermodal travel so that transport services can reach into the neighborhoods where high-capacity vehicles cannot operate. Active modes of mobility, which are another way to complete the transport chain, will also be promoted.

For the regional cities, active modes represent a particularly inexpensive solution that perfectly suits the distances and geographical conditions. All the more reason to promote them, by creating appropriate spaces for sidewalks and cycle paths, which are currently lacking.

Improve the efficiency, safety and environmental impact of motorized trips

Serious efforts have already been made by the government to improve the efficiency and safety of modes of transport while reducing their environmental footprint: the PAG is boosting the number of surfaced roads, road safety has benefited from better regulation of the use of motorbikes (most drivers now wear helmets), and a ban on the highly polluting two-stroke engines.

Continued and amplified efforts should now find connections with the strategy's other levers of action. For example, the newly surfaced roads and, above all, the creation of the Cotonou northern bypass and its road link to the port, could be used to improve the attractiveness of new modes of collective transport; the improved regulation of motorbike taxis could facilitate the organization of multimodal hubs; measuring pollution will serve to raise citizens' awareness of the need for a proactive policy of sustainable mobility and therefore make it easier for the public to accept the policy's courses of action.

The regulation of motorbike taxis and, more generally, of two-wheelers, needs to be strengthened but, to avoid a hostile reaction, measures must be put in place to benefit not only the public but also to improve the zémidjans' difficult working conditions. A win-win proposal, such as offering the drivers social security cover, would help gain the necessary support of members of this influential

professional category which offers a much-needed service to the functioning of Benin's cities, in the short and even medium term.

3. Urban mobility strategy

The urban mobility strategy aims at achieving the objectives defined in the policy letter. The urban mobility strategy proposed below is based on the four strands of the EASI concept.

The implementation of this strategy requires numerous actions to be undertaken which cannot be performed simultaneously. A time schedule for these actions is proposed in the action plan presented in part 4.

3.1. Strengthen the sector's governance (Enable)

In order to implement the urban mobility strategy, Benin must equip itself with an effective system of governance, capable of anticipating needs, guiding actions and ensuring the integrated management and development of urban transport systems. Each institution involved must be assigned a role that is clearly defined by law and consistent with the decentralization framework. To perform its role, each institution must have access to sustainable financial resources and suitable human resources.

Though certain elements remain to be defined, the current principles concerning the allocation of urban mobility powers between institutions and government levels are relatively clear — particularly when compared with other WAEMU countries — and are not likely to be modified. The general desire to deepen the decentralization process calls for the broad municipal powers and autonomy to be maintained and even increased.

However, it must be acknowledged that the transformation of governance (in functional, financial and human terms) can only take place gradually, and that the necessary measures described in the EASI framework cannot wait until an ideal governance is in place. The municipalities, especially, are totally unprepared to tackle the enormous challenges of urban mobility and they need to be supported by a proactive program.

Finally, in a context of limited public funds, any increases in financial resources allocated to the sector must be designed to have a double positive impact: by ensuring the financial sustainability and autonomy of the most sustainable modes of transport through the direct allocation of taxes to the appropriate institutions; and by discouraging (taxing) the modes of transport that generate the most negative effects. To improve services without waiting for new funding which may only increase very gradually, external concessional resources could be mobilized in an initial phase.

Strategic axis 1: A clear role for the government and its agencies

Current transport legislation is mainly focused on national and extra-urban road networks, on intercity transport and goods transport, and on the role of the government and its agencies in these areas (Road Fund, Benin Society of Road Infrastructures (SIRB), etc.). Where urban mobility is concerned, the role of the government is poorly defined, and the concept is not emphasized by the sectoral legislation.

Updating the legislation on transport offers the opportunity to integrate urban mobility and specify the role of the government and its agencies in line with the principles already implemented for the PAG,4F[5] and in accordance with the legislation pertaining to decentralization. This will enable more effective public action and make better use of the technical skills dedicated to this strategic sector.

[5] These principles can be summarized as follows:
- The Presidency designs the action plan and supervises its implementation;
- The Ministries define the policies, planning and regulatory framework;
- The Agencies implement the regulations and collect the related taxes ;
- The Agencies, Public companies and Mixed organizations fund and implement the projects.

New legislative provisions must, in particular:

- Clearly define the different modes of transport;
- Pave the way for regulations that better reflect the different modes and functions of urban mobility, including for active mobility: for example, specialize the roads per mode of transport, and determine their size in a more appropriate manner.
- Provide for the development of unified traffic plans on roads that are under the responsibility of the central government, and those under the responsibility of the municipality;
- Plan to gradually regulate parking in parallel with the creation of specially dedicated areas;
- Specify the role of the central government in relation to municipalities wherever necessary (the legislation pertaining to decentralization came after the current sectoral legislation);
- Include any specific provisions enabling a national program to be implemented to provide municipalities with support in developing urban mobility.

Strategic axis 2: Functional inter-municipality cooperation for Grand Nokoué

The institutional fragmentation among the municipalities constituting Benin's largest urban area is unsuitable for managing the risks and potential economic benefits related to urban mobility.

The municipalities of Abomey-Calavi, Cotonou and Sèmè-Kpodji clearly form one single functional area for mobility. The urban areas spreading from Ouidah in the west, to Porto Novo in the east are not yet contiguous, but the daily journeys between them are of a distinctly commuter nature and mobility must be managed there in a unified way.

To achieve this, the government intends to transfer the powers of the municipalities of Cotonou, Abomey-Calavi, Sèmè Kpodji, Ouidah and Porto Novo in terms of organization and management of urban mobility, to a Public Inter-municipal Cooperation Establishment (EPCI) in Grand Nokoué.

In compliance with Benin's decentralization laws, the EPCI which, legally-speaking, is a structure formed by the municipalities that works independently of the government, will be governed by a board of directors made up of municipal representatives to whom the municipal councils delegate some of their powers and authority.

In the absence of laws and practical tools for applying legislative provisions, the government will support the founding municipalities and the council of the new EPCI to equip it with technical and operational bodies.

The following elements will have to be specified:

- Clear allocation of roles between the EPCI and the municipalities, defining in detail that which is to be transferred and that which is not, whether in terms of assets (for example, road signs clearly relate to mobility, but the road network and urban lighting have other roles), or in terms of management (regulation of taxis, occupation of public spaces, etc.), and reciprocal collaborative arrangements ;
- The financial and human resources allocated to the EPCI by the government (tax transfers or annual allowances) or by the member municipalities;
- The other sectors in which the EPCI is involved in addition to urban mobility, the corresponding internal organization (organization chart distinguishing between transversal and sectoral departments, possible specialization of financial resources). It is indeed likely that, in the short or medium term, the cooperation will also have to cover other sectors;

- The possible benefit of creating a separate operational project entity (a company or agency) dedicated to urban mobility, or of assigning this role to a government agency, with the EPCI then being limited to a strategic governance role.5F[6]

Concerning this last point, the solution adopted will have to be consistent with the measures to organize government support for all of Benin's urban local authorities in the field of mobility.

Strategic axis 3: National program to support municipal and inter-municipal initiatives for urban mobility

Benin's municipalities (and consequently their inter-municipal authorities) have a broad mandate regarding urban mobility (organization, investment, management) but are completely impoverished in terms of the tools, and human and financial resources required. Beyond supervising the road network and controlling taxis and motorbike taxi operators, their powers remain largely unexercised.

It will take time to develop the capacity to fulfill their devolved responsibilities but, meanwhile, strong initiatives are urgently needed to resolve the critical situation of urban mobility.

In particular, the municipalities' lack of resources threatens the viability and full economic effectiveness of the significant investments being made for asphalting/paving within the framework of the PAG.

Without encroaching on the prerogatives of local authorities, but to support them and enable them to fully carry out their duties, the government intends to set up a national program to provide them with financial and technical support, and to strengthen their capacities in terms of urban mobility management.

Though a detailed needs assessment should be conducted, the program could include:

- Technical support and a training program to strengthen local project management;
- Funding of the maintenance of asphalt roads, for example, through output-based or results-based payments;
- Technical and financial support for the development of urban mobility plans and traffic plans;
- Technical and financial support for collective transport projects, first and foremost for the Grand Nokoué area;
- Technical support, or even a financial incentive, for putting inter-municipal cooperation initiatives into practice.

To fund this program, the government could call upon:

- Existing decentralization support funds;
- One or more sources of funding by multilateral or bilateral international donors;
- Any other resources to be identified.

An implementing agency will have to be mandated to effectively roll out the support program. As the municipalities will retain their prerogatives, the actions of the agency must be governed by a contract with the beneficiary municipalities and/or the EPCI.

[6] This is the model of local development companies (SDLs) set up to manage transport in Morocco's largest cities. Casa Transports for the Inter-municipal Cooperation Establishment (ECI), Al Beida, in Greater Casablanca, and STRS for the Inter-municipal Cooperation Establishment, Al Assima, for Rabat-Salé-Témara. Casa Transports and STRS are public limited companies, created at the instigation of the government, and responsible for the financial arrangements and implementation of transport projects on behalf of the ECIs. Under the law, the ECIs, which are governing bodies, remain the organizing authorities and take strategic decisions.

Multiple options are possible:

- An existing entity with new functions, or a new entity,
- A single national agency or territorial agencies,
- Delegation of government officials to a specialized department of the EPCI of Grand Nokoué,
- Operational project management support or delegation of project management, and/or financing agreements,
- Direct implementation of external funds or an on-granting role only,
- Etc.

These options will be studied prior to roll-out in order to define one clear overall plan for Grand Nokoué and for the other local authorities, but distinguishing the two cases, given the specificity and scale of requirements in the largest urban area. In all cases, the central government will be called upon to supervise the resources levied by the chosen entity.

Finally, the support program will also have to enable a gradual increase in the powers of the municipalities and their agencies, with the aim of promoting more autonomy for local authorities to govern and fund urban mobility.

Strategic axis 4: An increase in the financial resources allocated to developing collective transport services and active mobility

The widespread use of private, individual modes of transport in Benin is due among other factors to (i) the absence of a public transport service, and particularly the lack of resources to fund it, (ii) a deteriorated road network, also partly due to insufficient financial resources, and (iii) comparatively low taxation and para-fiscal charges on individual transport, which keeps the cost down. In fact, motorized two-wheelers – by far the leading mode of individual transport – do not pay tolls and, in most cases, do not pay fuel taxes (due to the prevalence of informal supply), and therefore do not contribute to either of the transport sector's two main sources of funding.

To reduce the negative impact of private vehicle usage — pollution, congestion, accidents — and to mobilize new resources for more sustainable modes of transport, the new strategy relies on the gradual taxing of individual modes (disincentive) and using the resources collected to subsidize collective modes (support).[7]

The commonly adopted solution of taxing fuel is not likely to generate the rapid return needed for a real impact, in the specific context of Benin. An in-depth study will be carried out to identify a more suitable mechanism.

Initial discussions during the National Forum on Urban Mobility resulted in the following recommendations:

- The main target should be motorized two-wheelers as they represent a very large majority of the private vehicles in use and currently contribute very little to transport funding;
- A precise analysis needs to be conducted on the feasibility, tax yield, ease of control and comparative social impacts of the taxation options (import duty, registration duty, road tax disk, etc.);
- Import duty on motorized two-wheelers would be the most straightforward method of taxation to set up and control and would have several advantages, including:

[7] See "Study on the socio-economic rationale for subsidizing urban transport," Setec International — Nodalis Conseil, published by the French Development Agency (AFD), 2015.

- No need for police checks or fines out on the road (unlike road tax disks),
- It would have an impact on the number of vehicles rather than on the cost of living of current users,
- If, in parallel to this taxation, a credit is granted on license fees for motorbike taxi drivers (a source of revenue for the municipalities), it would help encourage formal registration;

- Taxation would have to be implemented gradually while simultaneously raising awareness and implementing alternative modes of transport;
- If fines are necessary (for example, for failure to present a road tax disk), they should only be imposed gradually.

These new resources will fully finance the government's support of municipalities in developing urban mobility by allocating the tax revenue to the entity (entities) responsible for urban mobility. This aligns with current policy: taxes on motorized travel are allocated to the Road Fund, toll revenues are allocated to the SIRB.

However, the time frame for putting these new resources in place is incompatible with the goal of achieving the paradigm shift that underpins the current strategy. Social acceptance of gradually increased taxation depends on providing the public with a transport service offering a good alternative to the modes being discouraged through financial disincentives. In other words, investments in public transport must first be made before new resources can be levied to finance it. Therefore, external concessional financing, which is available for these types of projects, will also be used to kick-start this strategy.

3.2. Improve land use management (Avoid)

Benin needs to reduce the need for individual motorized travel through a proactive policy linking land use and transport. This strategy aims at reversing the trend observed over the last two decades where urbanization has resulted in urban sprawl and in longer travel distances, leading to an increase in travel by individual motorized vehicles.

Land management and the management of urban development will have to organize daily mobility flows and facilitate access to the various urban functions (housing, employment, services) through collective transport and active modes.

The usual approach would involve acting in the three areas (projects, regulatory framework and planning) in three separate phases. First, by resolving the specific deficiencies and lack of coherence between the regulatory frameworks for planning and managing urban development, on the one hand, and for mobility and transport, on the other. Second, by developing plans in line with this reformed framework. Then, finally, by implementing them.

However, the urgency of the challenge cannot be limited by this time frame. It is now necessary to take action simultaneously in the three areas. Through the implementation of the PNMUD, the government must ensure consistency between all these actions.

Strategic axis 5: Relocation of major traffic-generating centers

The PAG, a cornerstone of this strategy, provides for a massive effort to curb commuter travel by relocating certain major traffic-generating centers. A large number of public sector jobs and related employment will be transferred to the Calavi residential area, thanks to the construction of a new administrative complex. Another major undertaking consists of moving the airport and the wholesale market out of the city center.

Other PAG projects are aimed at reducing congestion on the road network, for example, by creating a car park and logistics area at or in the immediate vicinity of the port.

Further projects that will profoundly change the morphology of cities around Benin, such as the creation of 11,800 housing units for the Cotonou urban area, open the way for reorganizing the urban space and services to better meet the travel requirements that these housing units will create.

Beyond the current PAG, other projects for relocating major traffic-generators will learn from the experience of the initial projects and from the planning work conducted in parallel.

Strategic axis 6: Integrating urban mobility into the regulatory framework for urban planning

The current urban planning texts and documents — rarely put into practice — integrate the concept of urban transport into their infrastructural (roads) aspect, but do not take into account urban mobility as a whole (mobility needs and means of transport, all modes included). As a result, they do not provide for land use planning or for appropriate urban planning geared towards effective and sustainable mobility.

This will be remedied, thanks to:

- Binding provisions in legislative and regulatory texts and in particular in the new urban planning code, currently in preparation,
- Taking sustainable mobility objectives into account in urban master plans (SDAU) being drafted in several of Benin's urban areas,
- Possible amendments to the most recent urban master plans.

The future urban planning code will stipulate that all urban areas must have an Urban Development Plan (PDU), and that this must include a specific plan for managing urban mobility. New regulatory texts will have to specify, in concrete terms, the principles to be applied when preparing these plans.

Integrating obligations into urban planning legislation and documents should enable:

- The reduction of mobility needs by promoting mixed-use development and bringing housing and employment areas closer together, as is currently being tested in specific projects such as the new administrative complex. These principles should be broadly applied in urban planning as a whole, through land use regulations;
- Greater urban density, a prerequisite for developing efficient collective transport;
- Setting aside spaces which are necessary for multi-modal urban mobility;
- Classifying the road networks in the Urban Development Plans in conjunction with the Urban Mobility Plans (PMU).

Strategic axis 7: Urban mobility plans or traffic plans in all the major cities

Urban mobility is currently characterized by poorly organized areas and flows of traffic. The regulations concerning the use of roads are present in formal texts, or adopted de facto, such as the assignment of local access lanes to motorcycles only, or the management of intersections equipped with traffic lights. However, the regulations are only occasionally enforced, and without any discernible overall logic.

In the short to medium term, certain major PAG projects will no doubt significantly change the demand for motorized travel (administrative complex, housing) and the traffic conditions (asphalting). They provide an opportunity for a comprehensive rethink of traffic management.

The preparation and implementation of urban mobility plans (PMU) in the main cities and of a traffic plan for Grand Nokoué will enhance the positive impacts of current investment projects for urban mobility. They will provide municipalities and the central government with clear guidelines for optimizing the benefits in future projects and developments.

In particular, highly structural projects such as the Cotonou northern bypass and its road link, the relocation of the wholesale market, the port's new logistics area, the Parakou east-west ring road, and the asphalting of a large number of new roads over a relatively short period of time will see their positive impact enhanced by the concomitant drafting of traffic plans promoting multimodal travel.

Updating the regulations and planning tools will provide the opportunity to improve road sharing among the different modes of transport by assigning spaces for use by buses/minibuses, taxis and cars, "zems" and motorized two-wheelers, and by pedestrians. On the main arterial roads, there was an attempt to improve the safety of motorized two-wheelers by assigning them space in local access lanes. However, this reorganization of traffic flows was not given careful thought and it failed to optimize the separation of modes, by more appropriate handling of collective vehicles, intersections, stopping areas and marked crosswalks, for example.

The preparation and implementation of traffic plans should also be accompanied by the gradual regulation of parking areas so that pedestrians can return to the sidewalks which are currently impassable. The Urban Mobility Plan, Urban Master Plans and traffic plans will have to include this aspect and provide for specific parking areas. In the medium to long term, effective restrictions on chaotic parking should create a source of revenue for towns by imposing parking fees in the city center.

3.3. Develop a multimodal transport system (Shift)

In Benin, urban mobility primarily consists of individual and private modes which, in addition to the high cost in terms of pollution and road safety, remain very expensive for commuters when measured against household incomes.

Reversing the extremely rapid growth of motorized two-wheelers requires the creation of structuring lines of mass collective transport, able to absorb a significant share of the increase in the demand for mobility. Relaunching organized mass transit in the urban area of Grand Nokoué is a priority in the current strategy.

Those designing the new service will draw lessons from the failures of previous experiences. In particular, the attempt in the 2000s by the company BenAfrik to create a scheduled service failed due to high fares, a lack of reliability and frequency of service, and the absence of well-organized areas to ensure connections at stops with other modes of transport allowing passengers to continue their journey into local neighborhoods (generally by motorbike taxi). Nor were any measures (e.g. bus lanes, priority for buses at traffic lights, etc.) put in place to make the service's travel times more attractive compared to other modes.

Beyond motorbike taxis, active mobility could also provide a suitable way of accessing the new collective network. In the regional towns, active mobility offers an efficient, economical and sustainable solution, adapted to the local geographical conditions, though the organization of collective transport is only likely to occur in the medium term.

Strategic axis 8: An attractive collective transport service across Grand Nokoué

In the face of competition from motorbikes offering point-to-point transport available at all times, collective lines of transport need to be designed from the outset to accommodate a large number of potential users, thereby justifying frequencies that are high enough to make the service attractive to these users. This could be possible under the following conditions:

- Target commuting as a priority, particularly between Abomey-Calavi and Cotonou city center which account for the majority of motorized journeys between home and the workplace in the urban area;

- Establish pricing for these journeys that lowers the cost of travel compared to motorbike taxis or tricycles, even if the journey has to be supplemented with a short local trip by motorbike taxi — which may require partial subsidizing of the collective service;
- Provide good quality service with adequate frequencies and passenger information systems to avoid adding long waiting times to journey times:
  - with large capacity buses accessible to people with reduced mobility,
  - with lagoon transport from the Ganvié landing wharf in Calavi to the Dantokpa market, if its feasibility is confirmed;
- Rely as much as possible on major PAG projects to reduce overall travel times:
  - for newly surfaced roads, provide suitable stopping areas and, where possible, priority bus lanes and/or signaling systems giving priority to buses,
  - use the future northern bypass and road link to the port to provide an express bus service on this route which will be prohibited for motorbikes, thus offering an extremely competitive travel time;
- Call upon an experienced private operator to run the new transport services through a public service delegation contract, a management contract or any other appropriate contractual arrangement.

The success of the current strategy could boost demand for collective transport in the medium to long term, which would justify the use of exclusive rights of way (road or rail).7F[8] The spatial planning tools need to identify and reserve the areas required for these dedicated routes where it is still possible to do so.

Strategic axis 9: "Backbone" services linking hubs

The collective transport network will be made up of "backbone" services, offering an alternative to the high cost of motorbike-taxis for journeys over relatively long distances. To be attractive for its users, it must provide for good connections with other modes of transport in order to enable point-to-point journeys, including connections with local services into neighborhoods which cannot be provided by high-capacity vehicles both for technical (inadequate roads) and economic reasons (commercial speeds and occupancy that are too low to cover the costs of such service).

Good organization of access by other modes — walking (or even cycling), motorbike, taxi, tricycle — to the nodes of the future mass transit network will not only require suitable physical facilities but also good traffic and parking management in the vicinity, organized in agreement and in coordination with the police.

Strategic axis 10: Contractualization of the development and financing of transportation services linking the sites of major employers and traffic

In countries where public transport is poorly developed, it is very common for employers to contribute to the funding of their staff's transport by organizing it themselves ("own-account" transport); and in countries where collective services are abundant, through tax contributions or compulsory charges.8F[9]

[8] Until collective modes of transport have demonstrated their commercial viability within the context of the limited density of Greater Nokoué and of the prevalence of motorized two-wheelers, fully exclusive rights-of-way are likely to remain too great an investment.

[9] In France, employers contribute in two ways, through taxation (the "mobility tax" based on payroll), and often also through a mandatory contribution to their employees' travel passes.

Benin is a country with a low level of public transport but where the major private and public employers rarely organize transport for their staff even though, in Grand Nokoué, many employees live in Calavi and work in Cotonou.

This is an opportunity to consolidate significant flows, as soon as the new system begins, while at the same time getting the beneficiary employers to contribute to the funding of the system at a reasonable price.

The public authorities will therefore endeavor to create the conditions for constructive dialog between the major employers (public and private sector) and the EPCI of Grand Nokoué or the future implementing agency that will support it, according to the following principles:

- The organizing authority or operator would draw up a contract with each of these employers to provide a service adapted to the requirements of their employees, with a level of reliability that would ensure a reduction in late arrivals to the workplace;
- In return, the employer would contribute to funding the system, directly and/or by covering the costs of part of the travel passes used by their staff;
- The definition of service lines should make it possible to pool the flows between several employers in order to offer better bus frequencies, for example.

Strategic axis 11: Promoting active modes

Apart from “imposed” walking for those who cannot afford motorized modes of transport, the practice of active mobility as a “chosen” activity in Benin is not very widespread or entirely absent. And yet, active mobility would be a well-suited response to a three-fold problem:

- In all the country’s urban areas, it covers the need for short-distance travel at no cost;
- In Grand Nokoué, it could provide the solution for the “last mile” which is essential for the commercial viability of mass transit lines;
- In the regional capitals, cycling would provide a suitable response to the geographical conditions and distances as it is not only sustainable but also very economical for a large part of the demand for mobility.

Therefore, the current strategy includes the promotion of active modes which today suffer from a lack of dedicated areas and a poor image compared to motorized modes. The actions will include:

- Developing cycle routes and pedestrian footpaths to clearly distinguish between the different types of mobility, secure their use (this currently represents the main obstacle to this type of mobility), and possibly promote their use for sport or recreation;
- Applying road safety regulations and signs to ensure more fluid and integrated mobility;
- Conducting an awareness-raising campaign, particularly on the health benefits of this type of mobility, among the general public in a context where popular opinion is becoming increasingly concerned about such issues;
- Taking the requirements of people with reduced mobility into account in the developments to be implemented.

3.4. Improve the efficiency, safety and the environmental impact of motorized trips (Improve)

The current national urban mobility strategy is a continuation of the major efforts already made by the government to improve the efficiency and safety of modes of transport while minimizing their environmental footprint:

- considerable improvement in the proportion of surfaced roads,
- improvement of road safety, particularly by better regulation of the use of motorbikes (widespread wearing of helmets by drivers),
- a ban on two-stroke engines which are the most harmful to air quality.

The continuation or even amplification of these efforts will be accompanied by a search for ways to connect with the strategy's other levers of action. For example, the asphalting of more roads and, above all, the creation of the Cotonou northern bypass with its road link to the port, could be used to improve the attractiveness of new modes of collective transport; better regulation of motorbike taxis could facilitate the organization of transit hubs; measuring pollution could make it easier to raise citizens' awareness of the need for a proactive policy of sustainable mobility, and therefore make it easier for the public to accept some of the policy's courses of action.

Strategic axis 12: A quantitative and qualitative leap for road networks

The major asphalting program for urban roads, which is already under way, will be continued to improve traffic conditions. The design of these projects aims to maximize the co-benefits and their use by the most sustainable modes. The program will be sustained by government support for municipal initiatives in the area of urban mobility.

The construction of the Cotonou bypass in the north with its road link to the port is essential to the success of the current strategy. Beyond an immediate and visible effect on congestion, its operational and economic efficiency will have to be aligned with the current strategy in the context of multi-modal planning and to maximize the positive effects for more sustainable mobility in Cotonou.

The implementation of a multi-modal traffic strategy should favor public transport, reduce the risk of accidents and optimize the use of roads to guarantee access to downtown and traffic-generating centers. Management of parking in these different hubs will be necessary to ensure good traffic conditions while avoiding disorderly cluttering up of the roads and reducing the recourse to individual motorized modes of transport.

Strategic axis 13: Better regulation of motorbike taxis

Despite various rounds of regulation of the motorbike-taxi profession since 1989, the zémidjans are still generally an informal market which is difficult to evaluate. It appears that compliance with regulations and restrictions is low, and enforcement remains difficult, although helmets and high-viz jackets are now worn by all drivers.

Improved and standardized regulation of motorbike taxis, and more generally of motorized two-wheelers, will enable better monitoring for greater efficiency in the use of roads and a reduction in their harmful effects.

To succeed, these reforms must bring benefit to the public but also help improve the difficult working conditions of zémidjan drivers. A win-win proposal would help gain the necessary support of members of this influential professional category. The proposal could thus include:

- The development of a social protection program for drivers and operators inspired by the government's ARCH insurance scheme currently being developed. Relying on a database listing all the motorbike taxi drivers in the country, it could be accompanied by a package granting them certain advantages to improve their situation (insurance, uniforms, badges, etc.) at a subsidized price;
- The development of a program imposing the wearing of safety helmets by passengers which could include:
    - A legal obligation preceded by an awareness-raising campaign and accompanied by gradual checks (informative to start with, then repressive);

- Making it mandatory to sell two high-quality helmets (meeting established standards) with motorbikes;
- A government subsidy for the distribution of free hair nets, similar to the mosquito net program;

- Systematize registration and fee collection by:
  - Establishing real collaboration between the town halls, the police and the motorbike-taxi trade unions to set up combined patrols;
  - Making it mandatory for zem drivers to have class 2 and 3 driving licenses but reducing the cost to obtain them, which currently creates a counter-productive obstacle in terms of road safety;
  - Introducing an identification system through digitized badges.

The government will frame these measures in a dialog with the profession. This will require the prior identification of specific discussion partners, given the very fragmented representation. To achieve this, the government will encourage the creation of motorbike-taxi federations and groups with a genuine trade union and non-political representation role.

Strategic axis 14: Measuring pollution

The harmful effects associated with the uncontrolled use of private motor vehicles, and especially of motorbikes, are not all perceived by the general public and decision-makers to the same degree. Congestion and the safety risks for users of motorized two-wheelers (both passengers and drivers) are often cited, however, air pollution is not often mentioned. And yet the health impacts could have severe consequences in the long term.

In order to provide a quantifiable basis for the efforts to be made, and to facilitate the support of the general public and decision-makers for the steps to be taken to reduce the use of private vehicles, it is essential to measure the levels, the nature (including fine particles) and the sources of air pollution. This requires:

- Creating permanent measuring points;
- Conducting free emission checks on vehicles on a random basis or during roadworthiness tests;
- Conducting these checks at the same time as awareness-raising and communication campaigns with town halls and motorbike taxi trade unions, in particular to encourage good practices for motorbike maintenance.

3.5. Monitor the implementation of the urban mobility strategy

The urban mobility strategy is reflected operationally in an action plan which guides the measures for implementation (chapter 3, Action Plan), and in a program to monitor its implementation through indicators until 2030, described in this chapter.

An outline for the monitoring program is presented below, to be expanded upon according to the government's objectives and new data resulting from initial studies of the action plan and other input.

Pilar	Strategic axis	Indicator	Objective
Strengthen the sector's governance	A clear role for the government and its agencies	▪ Laws and regulations are updated	▪ [Date to be defined]
	Functional inter-municipality cooperation for Grand Nokoué	▪ EPCI of Grand Nouaké is functional (with adequate human and financial resources)	▪ [Date to be defined]

	National program to support municipal and inter-municipal initiatives for urban mobility	▪ Financing of a national support program of CFAF [____] billion is available	▪ [Amount and date to be defined]
		▪ A new agency for mobility is created, or another institution was selected/created to take this role	▪ [Date to be defined]
	An increase in the financial resources allocated to developing collective transport services and active mobility	▪ Annual amount of budgetary resources affected to the development of collective transport services	▪ [CFAF_____Billions] in [date to be defined]
Improve land use management	Relocation of major traffic-generating centers	▪ The projects related to the administrative complex, the restructuration of the port's logistics area, the relocation of the wholesale market, are completed.	▪ 100% of projects are completed in [Date to be defined]
	Integrating urban mobility into the regulatory framework for urban planning	▪ A new urban planning code coherent with the objective of the PNMUD is put into effect.	▪ [Date to be defined]
	Urban mobility plans or traffic plans in all the major cities	▪ Number of cities with urban mobility plans and/or traffic plans	▪ [Number] in [date]
Develop a multimodal transport system	An attractive collective transport service across Grand Nokoué	▪ Modal share of collective transport services in commuter travel	▪ [% and date to be defined after the feasibility study]
	"Backbone" services linking hubs	▪ Number of intermodal hubs connected to collective transport services	▪ [Number to be defined after the feasibility study]
	Contractualization of the development and financing of transportation services linking the sites of major employers and traffic	▪ Number of jobs for which major employers contribute to the financing of the new transportation system	▪ [Number to be defined after the feasibility study]
	Promoting active modes	▪ A national promotion program is defined and deployed	▪ [Date to be defined]
Improve the efficiency, safety and environmental impact of motorized trips	A quantitative and qualitative leap for road networks	▪ % of surfaced roads in cities of more than [____] habitants	▪ [To be defined]
	Better regulation of motorbike taxis	▪ % of motorbike taxis with an insurance coverage ▪ % of passengers wearing a safety helmet	▪ 90% ▪ 95%
	Measuring pollution	▪ The MCVDD and the EPCI of Grand Nokoué (and/or the municipalities) receive a monthly report on pollution levels in key zones in the Grand Nokoué.	▪ [Date to be defined]

4. Action plan

4.1. Government action plan (PAG) at the territorial level

4.1.1. Actions on the national level: Roll-out of the PAG through an updated policy framework and creation of vectors for technical and financial support

The Benin government's action plan for urban mobility is notable for its commitment to large-scale projects, via the PAG, with the aim of making a rapid impact. This adds to the progress already made in certain areas such as road safety. The PAG's urban mobility projects focus on two essential elements: the demand for mobility (between activities, jobs and housing), and the quality and organization of the road network.

The action plan linked to the strategy for sustainable urban mobility aims to complement the measures already planned and to amplify their impact.

Another aspect underlying the strategy and the action plan is the decentralization process in Benin, which is intended to be deepened and consolidated.

At national level, this will involve providing:

- A common policy so that the multiple stakeholders pursue actions together,
- An updated legal framework to provide regulatory tools for actions and regulation,
- New financial resources, by establishing viable revenue streams and finding transitional solutions (external funding) to move forward without having to wait for the conclusion of a necessarily long process connected to a new fiscal instrument.
- One or more institutional vectors of action, equipped with human, technical and financial resources, to act quickly in support of local authorities, get projects off the ground, and support them as they develop their own capacities.

Although, legally speaking, it is the responsibility of local authorities, one key objective of the action plan, which particularly requires the joint effort of all stakeholders and very strong support from the government, is **the creation of attractive and viable modes of public transport**.

4.1.2. Actions for Grand Nokoué

Grand Nokoué has a specific action plan, with two main goals:

- To set up functional inter-municipal governance (the EPCI);
- To equip itself with collective transport, by relying as much as possible on the actions of the PAG and the lessons learned from past failures.

These two objectives are directly related, as the decentralization process in Benin clearly positions the municipalities (and, by transfer, the EPCI) as the organizing authority for public transport. Given the magnitude of the project, however, a partnership with the government will be essential to its success, especially since international experience shows how difficult and complex inter-municipal processes can be.

4.1.3. Actions for the main secondary cities

For the main secondary cities, the action plan should make it possible to:

- Create planning tools (Master Development Plans, Urban Master Plans and Urban Mobility Plans);
- Promote suitable active modes of mobility;
- Better regulate existing motorized modes.

4.2. Detailed action plan

The action plan contains about 50 actions, and is based on the Enable / Avoid / Shift / Improve classification of the EASI concept, with the following information:

- Action (How?): description of the action
- Scale (Where?): scale of action, i.e.
  - National: action at the national scale
  - Main cities: action at the local scale, equally concerning the main secondary cities
  - Greater Nokoué: action at the local scale, concerning Greater Nokoué
- Action type:
  - Do (short term): actions are ready for kick-off, and can be carried out in the short term
  - Explore how to do (mid-term): actions require additional studies, which must be conducted as quickly as possible so that the mid-term action can be carried out
  - Anticipate (long-term): actions concern planning, which must be carried out quickly in order to prepare the territory with respect to a long-term vision
- Timeframe (When?): time concept based on progress of the action
- Steering (Who?): entity in charge of steering the action
- Partner (With whom?): entity to involve in the action's planning and implementation

No.	Action (How?)	Scale (Where?)	Action Type	Timeframe (When?)	Steering (Who?)	Partner (With whom?)	Recommendation	Theme
	ENABLE							
1	Finalize and enact a national policy for sustainable urban mobility.	National	Do:	As soon as possible	MPD	MIT, MCVDD	1.1 Update the transport law to specifically address urban mobility and specify the role of the central government and its branches in this area.	1. Governance
2	Prepare and submit to Parliament a draft law on urban mobility: ▪ To clarify the responsibilities of the various institutions (ministries, agencies, local authorities). ▪ For all modes, including low-impact mobility. ▪ To create the legal instruments necessary for effective planning and management (e.g. unified traffic plans for national and local roads, for parking and for specializing and sizing roads by mode).	National	Do:	As soon as possible	MIT	MCVDD		
3	Prepare and issue decrees for the implementation of the new law, including those for road use, unified traffic plans and parking.	National	Do:	After taking the action	MIT	MCVDD, municipalities		
4	Determine the guiding principles of a national urban mobility program, designate a pilot institution for its preparation, and seek the support of technical and financial partners to implement it without waiting for the mobilization of new tax revenues.	National	Do:	As soon as possible	Chair	MPD, MIT, MCVDD, MDGL	1.3 Develop and fund a national program to strengthen municipal and inter-municipal initiatives for urban mobility.	2. Funding

	Initiate technical assistance to define and operationalize the central government's support to municipalities for urban mobility, specifically for the EPCI of Grand Nokoué. This support can include: 1) First phase of preparatory studies: ▪ Principles of a technical support program and funding to municipalities ▪ Institutional options for the sustainability of this support (identity and nature of the national "agency" for urban or alternative mobility) ▪ Impact on the organization, human and financial resources for the functioning of the EPCI of Grand Nokoué 2) Second phase of support for implementation: ▪ For the new agency or existing entity that will assume the duties (powers, procedures, etc.) ▪ For the municipalities of Grand Nokoué and the new EPCI to initiate their operations (human and financial resources, organizational chart, etc.) ▪ To formalize the relationship between the two entities						1.2 Institutionalize and initiate inter-municipal cooperation for urban mobility in the Grand Nokoué area.	1. Governance
5		National	Explore how to do	As soon as possible	Chair	MPD, MIT, MCVDD, MDGL, ACV-DT, ANaTT, municipalities	1.3 Develop and fund a national program to strengthen municipal and inter-municipal initiatives for urban mobility.	2. Funding
6	Establish the "National Agency" defined in the preceding study, either by creating it or by assigning the necessary responsibilities and budgets to an existing agency.	National	Do:	After taking the action	Chair	To be determined based on the results of Phase 1 of Action 5		
7	By decision of the municipalities, create a Public Inter-municipal Cooperation Establishment (EPCI) in Grand Nokoué and transfer to it the responsibilities for organizing and managing urban mobility for Cotonou, Abomey-Calavi, Sèmè-Kpodji, Ouidah and Porto Novo. Specify in detail what is transferred and what is not, whether in terms of assets (e.g., road signage is exclusively for mobility, while the	Grand Nokoué	Do:	After taking the action	Municipalities, MDGL	Institution responsible for preparing the support program (see Action 4)	1.2 Institutionalize and initiate inter-municipal cooperation for urban mobility in the Grand Nokoué area.	1. Governance

	roads and urban lighting have other roles) or management (regulation of taxis, occupancy of public space, etc.).							
8	Establish EPCI governance bodies (its board), approve and allocate a budget.	Grand Nokoué	Do:	After taking the action	Municipalities, MDGL			
9	Provide the EPCI with technical and operational capabilities by: ▪ Recruiting its staff (or through staff made available by municipalities or ministries). ▪ Contracting assistance from the agency for urban mobility.	Grand Nokoué	Do:	After taking the action	EPCI, MDGL			
10	Initiate a study to determine the most suitable tax instrument (tax yield, ease of collection, redistributive and social impacts, etc.) to mobilize new resources to promote public transport, while making ownership and use of private vehicles and motorbikes more expensive.	National	Explore how to do	As soon as possible	MEF	MIT, MEDDPN	1.4 Increase the taxation of transport modes that generate the highest levels of pollution and disturbance (particularly motorized two-wheelers and tricycles) and use the revenues to fund collective transport and active mobility.	2. Funding
11	Plan specific provisions for motorbike taxis, such as a credit on municipal registration fees equal to the amount of the tax (see Action 41).	Grand Nokoué and major secondary cities	Explore how to do	After taking the action	MEF, municipalities	To be determined		
12	Include this new instrument in the appropriations bill and allocate its revenues to the sector (municipalities, EPCI, and budget of the new agency for mobility or other entity chosen through the institutional study).	National	Do:	After taking the action	MEF	To be determined		
13	Define and implement a communication plan and gradual deployment of this tax measure.	National	Do:	After taking the action	New “agency”	To be determined		
	AVOID							

14	Introduce binding provisions on urban mobility in the urban planning code, which is being prepared, with the following objectives: ▪ Minimization of mobility needs by mixed use development and bringing housing and employment areas closer together ▪ Promotion of urban density, a prerequisite for developing efficient collective transport ▪ Reservation of the land necessary for multimodal urban mobility	National	Do:	As soon as possible	MCVDD	MIT, ACV-DT, municipalities	2.1 Integrate urban mobility obligations into urban planning texts and documents.	5. Multimodal planning
15	Review the urban master plans currently being prepared in some Benin cities to ensure that they include the principles of the PNMUD/EASI framework.	Grand Nokoué and major secondary cities	Do:	As soon as possible	MCVDD	Municipalities		
16	Amend the most recent urban master plans to ensure that they include the principles of the PNMUD/EASI framework.	Grand Nokoué and major secondary cities	Do:	Over the longer term	MCVDD	Municipalities		
17	Prepare a traffic plan for Grand Nokoué, taking into account the PAG projects.	Grand Nokoué	Explore how to do	As soon as possible	ACV-DT	MIT, CNSR, municipalities, police	2.2 Prepare and implement urban mobility plans for the main cities and a traffic plan for Grand Nokoué.	
18	Prepare urban mobility plans for the main cities (outside Grand Nokoué).	Main secondary cities	Explore how to do	Over the longer term	ACV-DT	MIT, municipalities		
19	Reserve the land identified in planning documents that will be necessary for multimodal urban mobility.	Grand Nokoué and major secondary cities	Anticipate	After taking the action	MCVDD	Municipalities		

20	Create cycle routes and pedestrian footpaths to clearly distinguish the various types of mobility, make them safe (currently the main problem for users), and consider promoting their use for sports and recreation.	Grand Nokoué and major secondary cities	Anticipate	Over the longer term	MCVDD (department responsible for urban roads)	ACV-DT, municipalities	2.3 Design and implement a program to promote the use of cycle routes and pedestrian footpaths.	
21	Install road safety signs and set regulations to ensure more fluid and integrated mobility.	Grand Nokoué and major secondary cities	Do:	As soon as possible	Police	CNSR		
22	Conduct an awareness campaign that focuses on the health benefits of this type of mobility in light of the public's increasing concerns about health issues.	National	Anticipate	Over the longer term	Ministry of Health	Municipalities		
23	Include the requirements of people with reduced mobility in urban development planning.	Grand Nokoué and major secondary cities	Anticipate	As soon as possible	ACV-DT	Municipalities, CNSR		
	SHIFT							
24	Conduct a household travel practices study, including a survey of preferences, to fine-tune the future service and its pricing.	Grand Nokoué	Explore how to do	As soon as possible	MIT	Municipalities	3.1 Create attractive, mass transit lines across Grand Nokoué.	5. Multimodal planning
25	To complement the lagoon transport study already completed, conduct a study to check the cost/time tradeoff and conditions for financial feasibility of a ferry line between the Ganvié landing wharf in Calavi and Dantokpa Market.		Explore how to do	After taking the action	MIT	-		3. Public transport
26	Conduct studies of the scope, technical and financial feasibility, and contract structuring of a public transport "backbone" bus network that: ▪ Connects transport hubs and major traffic generators. ▪ Offers attractive fares. ▪ Includes a feasibility study of an express bus service that uses the future northern bypass and road link to the port.		Explore how to do	After taking the action	EPCI of Grand Nokoué, with the backing of the new support agency for urban mobility (MIT for the	Municipalities, SIRB, ACV-DT, ANaTT, MIT	3.2 Organize transit hubs	5. Multimodal planning

	▪ Includes physical and operational design of intermodal transit hubs. (Possibly combined with the household travel practices study)				launch of the study if and for as long as the two new institutions are not operational)			
27	Negotiate partnerships with some major employers to have them contribute to funding public transport in exchange for service commitments.		Do:	After taking the action		All ministries concerned, private employers	3.3 Draw up contracts with major employers and traffic generators to ensure rapid viability of a collective mode of transport.	3. Public transport
28	Validate the funding plan for the new transport service, including a lump sum balancing grant, if applicable, and include it in the financial planning of the urban mobility support program for municipalities.		Do:	After taking the action		MEF, technical and financial partners	1.3 Develop and fund a national program to strengthen municipal and inter-municipal initiatives for urban mobility. 3.1 Create attractive, mass transit lines across Grand Nokoué.	3. Public transport
29	Launch a tender to recruit a private partner to operate the public transport network in accordance with the terms and conditions set out at the end of the study.		Do:	After taking the action		MEF, technical and financial partners		4. Private sector
30	In the design of new surfaced roads, provide suitable stopping areas and, where possible, consider priority bus lanes and signaling systems giving priority to buses.		Anticipate	As soon as possible	ACV-DT	New “agency”	3.1 Create attractive, mass transit lines across Grand Nokoué.	5. Multimodal planning
31	Conduct a prospective study of future collective transport using dedicated lanes (road transport, bus rapid transit (BRT) and rail) to identify the rights of way to reserve for future investment.		Anticipate	Over the longer term	MIT	Municipalities, ACV-DT, MCVDD, EPCI Grand Nokoué		3. Public transport
	IMPROVE							
32	Mobilize the funding required to construct the northern bypass and road link to the port,	Grand Nokoué	Do:	As soon as possible	Chair, MPD, MIT, SIRB	MEF, technical and financial partners	N/A (included in PAG)	5. Multimodal planning

	construct them and ban motorized two-wheelers.							
33	Establish a database listing all the country's motorbike taxis.	National	Do:	As soon as possible	ANaTT	Municipalities, MIT, ANaTT, CNSR	Improve and harmonize the regulation of motorbike taxis.	4. Private sector
34	Develop a social protection program for motorbike-taxi operators: Conduct a feasibility study based on the ARCH program.		Explore how to do	As soon as possible	To be determined			
35	Offer stakeholders in the motorbike-taxi sector a package of benefits that improve their situation (insurance, uniforms, badges, etc.) at subsidized prices.		Do:	After taking the action				
36	Program for mandatory helmet use by passengers: Prepare a detailed action plan and appoint a responsible department.	National	Explore how to do	As soon as possible				6. Management of externalities
37	Program for mandatory helmet use by passengers: Include an obligation in traffic regulations.		Do:	After taking the action	MIT	CNSR		
38	Program for mandatory helmet use by passengers: Implement a policy of gradual checks (first informational, then repressive).		Do:	After taking the action	Police	CNSR		
39	Program for mandatory helmet use by passengers: Require the sale of two high-quality helmets (meeting established standards) with each motorbike through a legal instrument to be defined.		Do:	After taking the action	To be identified	To be identified		
40	Program for mandatory helmet use by passengers: Size and provide a government subsidy for the distribution of free hair nets, similar to the mosquito net program.		Do:	After taking the action	Department responsible for program management	To be identified		
41	Systematize registration and fee payment: Establish strong collaboration between municipalities, the police and motorbike-taxi trade unions to set up joint patrols.	Grand Nokoué and major secondary cities	Do:	As soon as possible	ANaTT	Municipalities, police, motorbike-taxi trade unions		4. Private sector
42	Require zem drivers to have a class 2 and 3 driving license, while reducing the cost of obtaining the license, which currently creates a counterproductive obstacle in terms of road safety.	National	Do:	As soon as possible	ANaTT	CNSR, police		6. Management of externalities

43	Introduce a motorbike-taxi identification system using smart card IDs.	National	Do:	After taking the action	ANaTT	Municipalities		
44	Encourage the creation of federations and motorbike-taxi groups.	Grand Nokoué and major secondary cities	Do:	As soon as possible	To be determined	Municipalities, motorbike-taxi trade unions		4. Private sector
45	Create permanent air quality monitoring stations.	Grand Nokoué	Do:	As soon as possible	MCVDD	Municipalities	Monitor pollution.	6. Management of externalities
46	Create permanent air quality monitoring stations.	Main secondary cities	Anticipate	Over the longer term				
47	Perform free emissions checks randomly or during vehicle inspections.	Grand Nokoué and major secondary cities	Explore how to do (medium term)	As soon as possible	CNSR	Police		
48	Simultaneously with emissions checks, conduct awareness and communication campaigns targeting municipalities and motorbike-taxi trade unions to encourage best practices for motorbike maintenance.	Grand Nokoué and major secondary cities	Explore how to do (medium term)	As soon as possible	CNSR	Municipalities, motorbike-taxi trade unions		