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Mobilise YourCity

IN FOCUS

PROMOTING ACTIVE TRANSPORTATION AND CLIMATE ACTION IN AFRICAN CITIES

Capitalisation based on six "MobiliseYourCity" Sustainable Urban Mobility Plans

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IN FOCUS is a series of reports on the French Facility for Global Environment (FFEM) capitalisation projects. The aim of these projects is to share solutions and initiate large-scale change.

Since it was created by the French government in 1994, the FFEM has supported innovative projects combining environmental protection and socio-economic development in countries with developing and emerging economies.

Once evaluated and capitalised, these initiatives highlight technical and scientific knowledge, local expertise and novel ways of working.

Biodiversity, aquatic ecosystems, forestry and agriculture, resilient cities, the transition to a low-carbon economy, pollution – the IN FOCUS reports cover a wide range of topics and are aimed at anyone who puts innovation at the heart of their actions: development professionals, public and private actors, civil society organisations, funding partners, international organisations, and curious minds.

Happy reading!

ACKNOWLEDGEMENTS

The preparation of this report would not have been possible without the invaluable support and essential contributions of the numerous stakeholders involved in the design and implementation of the six Sustainable Urban Mobility Plans (SUMPs) supported by MobiliseYourCity and analysed in this study.

We extend our sincere thanks to all individuals and institutions whose discussions and exchange of experiences, gathered through interviews, have enriched and strengthened the analytical foundations of this work:

- The local and national authorities that led the projects: the Urban Municipality of Douala (CUD), the Urban Community of Yaoundé (CUY), the Urban Municipality of Antananarivo (CUA), the Dire Dawa City Administration, the Urban Municipality of Bouaké, the Ministry of Housing and Urban Development (MINHDU) and the Ministry of Transport (MINT) in Yaoundé, as well as the CETUD teams in Dakar;
- The technical and financial partners, in particular the AFD teams for their close monitoring of the six SUMPs;
- The consultancy firms for sharing their expertise and experience gained through the development of the six SUMPs: SYSTRA, Des Villes et Des Hommes (DVDH), Transitec, SUEZ Consulting, EGIS, Urbaplan, and TRANSAMO;
- Civil society representatives and users, including the President of the NGO Sama Vélo in Dakar, the School Inspector and Head of the N'Gattakro district in Bouaké, as well as all users who generously shared their testimonies.

We would like to express our gratitude to all those who contributed to this study for their time, expertise and commitment, which were instrumental in its successful completion.

NOTE

This publication is the result of a cross-capitalisation exercise, drawing on feedback from the implementation of six African Sustainable Urban Mobility Plans (SUMPs), with a focus on active modes and climate action. It was supported by the French Facility for Global Environment (FFEM) but outsourced by the FFEM Secretariat to an independent organisation. The views expressed are those of the organisation alone and do not necessarily reflect those of the FFEM. This capitalisation exercise aims to harness knowledge and lessons learnt from these six SUMPs and to share them as widely as possible. It is not intended to comprise a comprehensive state of the art, nor a full set of rules for improving future SUMPs in African cities.

Image 1 : Issues surrounding the sharing of public space in Bouaké.

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FOREWORD

The French Facility for Global Environment (FFEM) finances innovative environmental projects in developing countries. It supports initiatives that generate environmental, social and economic financial benefits at a local level. Established in 1994 by the French government following the first Earth Summit, it has already enabled the support of nearly 500 projects in over 130 countries, two thirds of them in Africa.

Projects supported by the FFEM aim to preserve biodiversity, the climate, international waters, territorial ecosystems and the ozone layer, and to tackle chemical pollution The FFEM seeks to learn from these pilot projects so that the most effective solutions can be deployed in other locations or on a larger scale.

The FFEM works in partnership with public and private stakeholders in countries in both the Global South and Global North: NGOs, local authorities and communities, public institutions, companies and other funding partners and international organisations. The projects it finances are also supported by the member ministries of its steering committee and by the French Development Agency (AFD).

FONDS FRANÇAIS POUR L'ENVIRONNEMENT MONDIAL

Image 2 : Road transport in Africa.

ABOUT MOBILISE YOUR CITY

MobiliseYourCity (MYC) is a global partnership with a European focus that supports cities and developing and emerging economies in transitioning from sustainable urban mobility strategies to investment-ready programmes. With over €30 billion in urban mobility investments identified and €4.4 billion in financing mobilised, MYC plays a key role in bridging the gap between planning and investment.

Supported by more than €120 million in grants – primarily from the European Union, France and Germany – MYC acts as a catalyst for the mobilisation of national and international funding. As of December 2025, the partnership comprised 82 member cities across 16 countries, representing over 172 million inhabitants. Through 75 projects implemented in 55 cities, MYC primarily supports mobility planning while maintaining a strong focus on implementation, backing concrete investments such as public transport infrastructure, integrated mobility systems and multimodal solutions.

Building on the Sustainable Urban Mobility Plans (SUMPs) methodology, originally developed in Europe and coordinated by a broad coalition of public and private development partners, MYC provides a platform for aligning planning, project preparation and financing within coherent mobility pipelines. By using SUMPs as common reference frameworks, MYC helps reduce fragmentation, strengthen coordination among partners, and translate global policy priorities – including the Paris Agreement, the Sustainable Development Goals (SDGs), Nationally Determined Contributions (NDCs), the EU Global Gateway and the UN Decade of Sustainable Transport – into concrete, country-appropriate investment opportunities.

The French Global Environment Facility (FFEM) has been a partner of MobiliseYourCity since the launch of the Partnership at COP21. This publication, funded by the FFEM, reflects a shared commitment to learning and continuous improvement. Drawing on ten years of SUMP implementation in cities and countries worldwide, it highlights key lessons learnt and proposes avenues to further strengthen the methodologies offered by MYC to its members.

Éléonore François-Jacobs,
Deputy Coordinator,
MobiliseYourCity Partnership

> ***MobiliseYourCity and the French Facility for Global Environment (FFEM) have been partners since the launch of the Partnership at COP21. On the occasion of the FFEM's 30th anniversary, it was highlighted that the institution has consistently embodied a spirit of exploration: a readiness to test new ideas, an acceptance of occasional failure, and a strong commitment to capitalising on experience. This publication reflects precisely this approach. It draws on ten years of Sustainable Urban Mobility Plan implementation to extract lessons learnt and to support the continuous improvement of the methodologies offered to cities and countries.***

MobiliseYourCity

ABOUT THE STUDY

Project evaluation and capitalisation processes are essential for highlighting technical and scientific knowledge, local expertise, and innovative practices in support of future action. The result of a reflective and forward-looking dialogue, capitalisation processes — which are multidimensional and informed by a range of projects — make it possible to take into account the diversity of contexts, pathways and solutions tested in the field. They are embedded in a participatory partnership approach, brin - ging together a wide range of stakeholders, including project leaders, field practitioners, civil society organisations, resear - chers, and other French and international institutions, in order to promote the dissemination of lessons learnt.

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Image 3 : Road transport in Africa.

Maëlis Borghese,
Project Officer to the FFEM Secretary General, Portfolio Monitoring, Evaluation & Capitalisation

« A catalyst for innovation, the FFEM provides project leaders with a partnership framework and financial resources to test the feasibility of pilot solutions and to better understand the conditions required for their scaling up. This implies encouraging a "right to try" and, at times, accepting a "right to make mistakes". It also requires systematically allocating time and resources to collective learning: evaluation and capitalisation studies make it possible to draw lessons from projects, identify pitfalls to avoid, and understand which solutions should be promoted in order to ultimately support their wider dissemination.

Thirty years after its creation, the FFEM stands as a unique observatory of socio-environmental challenges in developing countries. It has contributed to nearly 500 innovative initiatives across a wide diversity of natural ecosystems and human communities. Synthesising and sharing the most significant lessons from these experiments is the ambition of our "IN FOCUS" collection. Through in-depth analyses on targeted themes, decision-support notes, or video materials, we hope to provide a stimulating space for reflection for our partners and the wider community of development practitioners. »

OBJECTIVES, SCOPE AND METHODOLOGY OF THE SUMP KNOWLEDGE CAPITALISATION STUDY

To address the growing challenges related to mobility, air pollution and climate vulnerability in African cities, the French Facility for Global Environment (FFEM), alongside the Ministry for Ecological Transition and the French Development Agency (AFD), has launched a capitalisation initiative. This study is based on an analysis of six Sustainable Urban Mobility Plans (SUMPs)[1] developed as part of the MobiliseYourCity partnership in Dakar (Senegal), Douala and Yaoundé (Cameroon), Dire Dawa (Ethiopia), Bouaké (Ivory Coast), and Antananarivo (Madagascar).

A detailed presentation of these stakeholders is provided in Annex 1.

The aim of this report is to extract and disseminate key lessons learnt by identifying best practices, levers for action and success factors. It therefore provides operational and replicable recom - mendations for local authorities, donors and practitioners.

The methodology is based on a qualitative and comparative analysis of planning documents, complemented by feedback from local stakeholders. The analysis focuses on two main themes:

- **Active modes** (walking and cycling), assessed in terms of how they are taken into account in assessments, scenarios and action plans;
- **Climate issues**, addressed as a cross-cutting framework to identify both mitigation levers (emissions reduction, modal shift, etc.) and adaptation levers (infrastructure resilience, thermal comfort, etc.).

The study highlights the synergies between these two areas: measures promoting active modes of transport constitute concrete levers for both mitigation and adaptation. However, it also identifies a significant limitation: while active modes are recognised as a key area for action, climate change often remains an implicit analytical framework and is only rarely trans - lated into explicit climate measures within the SUMPs.

Finally, this analysis is limited to the formal content of the plans and does not assess the feasibility, implementation timelines, or actual delivery of the proposed actions.

1. It should be noted that the terms SUMP, PMUS and PMUD are considered equivalent and are used interchangeably throughout this publication.

Theme 1

Enhancing and promoting active modes

The first priority analyses the integration of walking and cycling into SUMPs. Although walking is the dominant mode of travel, accounting for up to 73% of journeys, and cycling remains marginal at just 1%, urban policies continue to prioritise motorised transport.[2] This prioritisation of motorised traffic results in infrastructure that is inadequate or poorly adapted to active travel: narrow, degraded or sometimes non-existent pavements, a lack of safe cycling facilities, and discontinuous pedestrian and cycling routes. These physical constraints are compounded by frequent conflicts with motorised traffic. In this context, travelling on foot or by bicycle becomes both more difficult and more hazardous, particularly for the most vulnerable users, including children, older people and those accompanying others.

This account illustrates the everyday inequity experienced by pedestrians in public spaces that are not designed with their needs in mind:

> ***"One day, on a narrow and damaged pavement, I was with two children: one in my arms and the other holding my hand. I simply wanted to cross the road — a daily, ordinary, almost instinctive action in any well-functioning city. I counted: fifteen cars passed; fifteen drivers saw us, or chose not to — not one stopped. I was not invisible; I was simply a pedestrian."***

Oumar BA,
Urban Planner, Senegalese Citizen – A plea for the pedestrian, the great forgotten figure of the Senegalese city

Image 4 : Cluttered sidewalks in Bouaké.

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The study examines how Sustainable Urban Mobility Plans (SUMPs) seek to rebalance these priorities through continuous pedestrian networks, safe cycling infrastructure, the protection of school environments, tactical urbanism interventions, and speed reduction measures. It highlights best practices, the challenges encountered, and the conditions required to establish active travel as a central pillar of sustainable urban mobility.

2. Analysis of the 6 cities' SUMPs.

Theme 2

Integrating climate issues into SUMPs

The second focus examines how SUMPs integrate climate change mitigation and adaptation considerations in contexts exposed to air pollution, flooding, extreme heat events and infrastructure vulnerability. The study analyses how these risks are taken into account in (i) assessments, through the evaluation of emissions and exposure to climate hazards; (ii) scenarios, through the definition of low-carbon pathways and urban resilience options; and (iii) action plans, through the gradual electrification of transport, the strengthening of public transport systems, the development of green spaces, parking regulation and traffic calming measures.

It also highlights persistent constraints, notably limited data availability and institutional capacity, while identifying key levers for progress, in particular the use of MRV (monitoring, reporting and verification) tools, capacity-building initiatives and improved access to climate finance.

Image 5 : Green landscaped pedestrian corniche in Dakar

© CODATU

Methodology adopted

The knowledge capitalisation process was based on a methodology structured in two complementary components, aimed at analysing the integration of active modes and climate issues into six Sustainable Urban Mobility Plans (SUMPs) in Africa.

First phase: Targeted literature review of the SMMPs

This phase consisted of a systematic review of planning documents to extract data relating to active modes and climate considerations. The analysis focused on three key dimensions:

- **The initial assessment,** which identifies the modal shares of walking and cycling, existing and planned infrastructure, reported user constraints (safety, comfort), as well as climate-related data (emissions, air quality, urban vulnerabilities);
- **Prospective scenarios,** to assess the role assigned to active modes and climate strategies in the envisaged development pathways;
- **The action plan,** to identify operational measures aimed at promoting active modes of transport and integrating climate mitigation and adaptation considerations, particularly projects delivering co-benefits (urban greening, green corridors, urban cooling).

Second phase: Qualitative interviews with key stakeholders

Semi-structured interviews were conducted with a range of stakeholders to gather feedback and compare the plans' stated objectives with on-the-ground realities. The main findings are presented below by way of illustration:

- **Consultancy firms** were asked about the methodologies used for data collection and analysis, as well as the difficulties encountered;
- **Local authorities** shared their experiences of implementing projects related to active modes and climate action, and identified the main operational challenges;
- **Financial partners** outlined the criteria guiding SUMP funding, particularly with regard to climate-related considerations and active modes;
- **Users and civil society** representatives expressed their perceptions of travel conditions and set out their expectations for more resilient and better-adapted infrastructure.

Summary and cross-analysis

The data derived from the literature review and interviews were consolidated into a summary analysis matrix, presented in Appendices 5 and 6. This tool highlighted similarities and discrepancies between the provisions of the plans and their actual implementation, and identified lessons that can be applied to future sustainable mobility initiatives in the African context.

The implementation of this methodology relied on the involvement of CODATU representatives in Senegal, Côte d'Ivoire, Cameroon and Madagascar, who contributed to the collection of visual material and the conduct of field interviews. These contributions were complemented by inputs from the CODATU team and an expert commissioned for the study.

Executive summary

African cities face rapid urbanisation and mounting climate pressures, Sustainable Urban Mobility Plans (SUMPs) have emerged as a powerful lever for urban transformation. Drawing on the experience of six MobiliseYourCity partner cities, this knowledge-sharing study distils key lessons and sets out recommendations for building mobility systems that are more inclusive, resilient, and sustainable.

African cities are undergoing rapid transformation, characterised by sustained urbanisation, strong population growth and ever-increasing mobility needs. Urban mobility represents a major challenge in these cities, not only in terms of quality of life and access to essential services, but also in relation to economic competitiveness and resilience to climate risks. However, many urban areas continue to face persistent congestion, high dependence on motorised transport, increased vulnerability for pedestrians, and growing exposure to pollution and climate-related hazards.

In this context, the analysis of Sustainable Urban Mobility Plans (SUMPs), based on the experiences of Dakar, Douala, Yaoundé, Bouaké, Dire Dawa and Antananarivo within the MobiliseYourCity partnership, highlights key lessons learnt and provides guidance for strengthening sustainable urban mobility strategies. Beyond a technical document, the SUMP emerges as a structuring process for governance and strategic dialogue, enabling the prioritisation of investments, the coordination of sectoral interventions and the consolidation of medium- and long-term urban visions.

In the cities studied, walking is the dominant mode of travel, accounting for up to 73% of daily journeys. However, this predominance is not sufficiently reflected in public policy. The urban environment remains largely oriented towards motorised traffic, with often discontinuous pavements, unsafe pedestrian crossings and limited access to public transport. Cycling remains marginal, with a modal share ranging between 0.1% and 1%, due to road safety concerns, a lack of appropriate infrastructure, climatic and topographical constraints, low levels of bicycle ownership, and limited social acceptance. Nevertheless, cycling offers significant potential as an alternative for medium-distance trips, which are currently predominantly made on foot.

At the same time, the cities studied are particularly vulnerable to episodes of extreme heat, urban flooding, deteriorating air quality and the gradual increase in emissions linked to motorisation. These challenges reinforce the need to rebalance mobility systems. SUMPs provide a strategic framework for linking mobility and local climate policies, through the integration of Nationally Determined Contributions, nature-based solutions, the development of green corridors, the strengthening of public transport and the promotion of active modes.

However, the implementation of SUMPs continues to face recurrent constraints, including insufficient technical, institutional and financial capacity to steer and coordinate actions, weak coordination between stakeholders, and the lack of legal enforceability, which limits the effectiveness and implementation of planned measures.

To address these challenges, six priority recommendations emerge: first, to consider the SUMP as a strategic process rather than a standalone study. Second, to strengthen project ownership and leadership. Third, to enhance the visibility of citizens' voices in decision-making processes. In the same vein, to place pedestrians back at the centre of public space design. Fifth, to develop green and traffic-calmed urban corridors conducive to active travel and climate action. Finally, to mobilise and optimise financing by maximising both social and climate co-benefits.

This report thus offers a strategic analysis of the conditions required to achieve safer, more sustainable, inclusive and resilient mobility in Africa, while providing concrete guidance for improving the planning and implementation of future Sustainable Urban Mobility Plans (SUMPs) across the continent.

FOUR QUESTIONS FOR

Aurélie Ghueldre,
Head of Climate- and Nature-Friendly Cities and Regions – FFEM

Why is the experience of African SUMPs worth sharing and analysing?

Since the launch of MobiliseYourCity in 2016, the French Facility for Global Environment (FFEM) has prioritised support for sustainable urban mobility in Africa. Although the continent remains a relatively low emitter overall, the 58% increase[3] in its predominantly urban population and the 105% rise[4] in transport-related emissions between 2000 and 2017 have already made this a major challenge for African cities. Action through Sustainable Urban Mobility Plans (SUMPs) to promote both active modes and lower-emission public transport systems therefore represents a key lever which, with ten years of hindsight, appears essential to capitalise on.

Drawing on the experiences of six cities with highly diverse contexts, the objective is to better understand the success factors, emerging trends and limitations encountered in the implementation of their SUMPs, in order to inform other cities wishing to engage in similar processes, both in Africa and beyond.

Anne Chaussavoine,
Project Team Leader – AFD, Mobility Division

What makes Dakar's SUMP unique?

The uniqueness and strength of Dakar's SUMP lie in its governance model, characterised by direct project management provided by the Executive Council of Urban Transport in Dakar (CETUD). This institutional arrangement, unique among the MobiliseYourCity SUMPs supported by the AFD, ensures continuous strategic steering and sustained operational involvement throughout the project cycle. This capacity for integrated management is supported by a transport organising authority with recognised expertise and a consolidated institutional structure. CETUD employs approximately 80 staff and has an organisational structure that includes a division dedicated to strategic studies, specifically responsible for monitoring the SUMP and the associated study portfolio. This setup enables the implementation of a rigorous monitoring and evaluation system for the action plan, supported by regular coordination and reporting meetings.

This centralised and professionalised mobility governance framework contrasts with the more fragmented institutional arrangements observed in other large cities, as well as with other transport authorities that are less mature and less structured.

While staffing levels may appear limited given the scale of challenges facing the Dakar metropolitan area and its 4 million inhabitants, they nevertheless constitute a solid and dedicated institutional foundation, ensuring the continuity, coherence and effectiveness of sustainable mobility policy implementation.

3. GIZ. (n.d.). Regional climate ambition in transport. In Regional Climate Ambition in Transport [Report].https://changing-transport.org/wp-content/uploads/2022_RegionalClimateAmbition_Africa.pdf https://changing-transport.org/wp-content/uploads/2022_RegionalClimateAmbition_Africa.pdf
4. GIZ. (n.d.). Regional climate ambition in transport. In Regional Climate Ambition in Transport [Report].https://changing-transport.org/wp-content/uploads/2022_RegionalClimateAmbition_Africa.pdf https://changing-transport.org/wp-content/uploads/2022_RegionalClimateAmbition_Africa.pdf

Dr Jean-Patrick Mfoulou Olugu,
Head of the Public Transport and Sustainable Mobility Unit, Yaoundé Urban Community (CUY)

What role does the SUMP play for your city in the planning and implementation of mobility policies ?

The Yaoundé SUMP serves as a key strategic document for the local authority, guiding teams in the implementation of mobility policies. It provides a shared strategic vision of the challenges, based on an in-depth analysis of mobility issues, and serves as a basis for identifying and prioritising the actions to be undertaken.

Karamoko Korotoumou,
Inspector of Pre-school and Primary Education, Head of the Bouaké N'Gattakro District

What successes has the SUMP brought about in your city?

The previous situation was characterised by a high level of safety risk for schoolchildren, particularly the youngest, when crossing the road. Serious accidents, including a fatal incident in N'Gattakro 2 and another in Ville Nord, had highlighted this vulnerability, leading to significant community and institutional mobilisation. These tragedies had a direct impact on school attendance, with many parents choosing to keep their children at home due to concerns over their physical safety. The implementation of targeted safety measures has led to a marked improvement in this situation. Crossings are now secured and traffic-calmed in the vicinity of school clusters in N'Gattakro 2 and Ville Nord. The primary outcome of this intervention has been the restoration of families' confidence, resulting in a return to regular school attendance. This thus illustrates the essential role of safe public infrastructure in ensuring effective and equitable access to education.

CONTENTS

01

CONTEXT AND CHALLENGES OF SUMP IN AFRICAN CITIES

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Image 6 : Bus parking.

1 What is a SUMP?

Sustainable Urban Mobility Plans (SUMPs) offer cities and their partners a practical and flexible tool for improving urban mobility. They support the development of more sustainable transport systems and make a concrete contribution to the Sustainable Development Goals (SDGs).

A SUMP has a dual dimension: it is both a strategic planning instrument and a governance process:

THE SUMP, AS A DOCUMENT,

formalises the outcome of the planning process. It consolidates all guiding principles, objectives and structural decisions within an official framework. Once approved by the relevant authorities, ideally through a regulatory act, it becomes a reference document for the institutions and departments responsible for its implementation in the short, medium and long term ;

THE SUMP, AS A PROCESS,

requires a long and collaborative approach to its development, based on consultation phases, technical studies and exchanges among the relevant stakeholders. This participatory process directly determines the quality, coherence and relevance of the final document.

This strategic reference document enables authorities and financial partners to clearly identify the city's mobility priorities and to structure projects that are technically sound, coherent, shared and investment-ready. It also seeks to propose a set of measures that can be implemented progressively, ensuring the rapid and effective translation of strategic guidelines into action on the ground. By providing a clear overview of needs, actions to be undertaken and required investments, it supports cities and governments in producing reliable cost estimates. This structure enhances project credibility and facilitates their presentation to funding partners.

Strategic objectives of a SUMP

The objectives of a SUMP are not fixed: they depend closely on the local and national context, institutional capacities, levels of car ownership, existing mobility patterns and political priorities. Key publications, notably the MobiliseYourCity Global Monitor, emphasise that the SUMP must remain an adaptable, action-oriented tool, focused on the gradual implementation of concrete measures.

As such, the main strategic objectives commonly found in SUMPs can be formulated as follows:

- Organising urban mobility and developing a strategic vision for the city's transformation;
- Reducing pollution and congestion in urban centres;
- Promoting active modes of transport such as walking and cycling;
- Improving public transport services;
- Strengthening coordination of actions among public authorities and partners;
- Facilitating access to a range of funding sources, including international donors, national and local public funding, sectoral funds and climate finance instruments, as well as public–private partnerships and private sector actors, through the structuring of robust and bankable projects capable of attracting investment for the implementation of sustainable mobility.

The SUMP: a lever for achieving the Sustainable Development Goals (SDGs)

SUMPs contribute directly to several Sustainable Development Goals (SDGs):

- **SDG 3: Good Health and Well-being** aims to reduce road traffic accidents, improve air quality and protect public health. SUMPs address these objectives by enhancing road safety, promoting active modes of transport and reducing transport-related pollution;
- **SDG 9: Industry, Innovation and Infrastructure** promotes modern, reliable and resilient infrastructure. By structuring appropriate transport networks and fostering innovation (open data, digitalisation, electrification), SUMPs contribute to the development of more efficient transport systems;
- **SDG 11: Sustainable Cities and Communities** aims to make cities more inclusive, safe and sustainable. SUMPs support this objective by improving public transport, facilitating the inclusion of vulnerable groups and promoting walking and cycling;
- **SDG 13: Climate Action** calls for reducing greenhouse gas emissions and strengthening climate change adaptation. Through the decarbonisation of transport, the transition to clean energy and the integration of adaptation measures, SUMPs provide a concrete lever for local climate action;
- **SDG 17: Partnerships for the Goals** promotes cooperation, capacity-building and the mobilisation of financing. SUMPs contribute to this by facilitating technical and financial partnerships, engaging public institutions and donors, and supporting knowledge-sharing through initiatives such as MobiliseYourCity. Taken together, these contributions demonstrate that SUMPs are a strategic tool for aligning local mobility priorities with international commitments on sustainable development and climate action.

The MobiliseYourCity methodological framework

The MobiliseYourCity (MYC) Partnership, established in 2016, plays a key catalytic role in the development of Sustainable Urban Mobility Plans (SUMPs), particularly in cities in the Global South. Driven by an international partnership bringing together national governments, local authorities and development partners, MYC acts as a facilitating platform by mobilising and coordinating the technical expertise and financial resources of its network of donors and operational partners. Its work involves supporting local authorities in the development of SUMPs, helping them define planning frameworks aligned with international standards, such as those set out in the European SUMP guidelines. This approach aims to deliver tangible progress and secure sustainable financing for the long-term development of urban mobility systems.

According to the MYC approach, sustainable urban mobility planning is based on an integrated and incremental process grounded in the analysis of actual mobility patterns and local institutional capacities. The primary objective of a SUMP is to improve access to services, employment and urban facilities, while taking into account the economic, social and spatial constraints specific to cities in the Global South.

Key principles of SUMPs

SUMPs are based on a set of key principles which, within the MobiliseYourCity (MYC) approach, explicitly integrate operational implications tailored to the contexts of cities in the Global South, taking into account local institutional, financial and urban constraints.

- **Sustainability:** reducing greenhouse gas emissions and the environmental impacts of transport, including local impacts; promoting low-carbon mobility; and strengthening resilience to climate change;
- **Inclusion:** taking into account the needs of all users through a participatory approach, particularly vulnerable groups, to ensure equitable access to mobility services and accessibility to all modes and infrastructure developed;
- **Safety:** prioritising the reduction of accidents and the protection of the most vulnerable users, notably pedestrians and cyclists;
- **Multimodal integration:** coherent coordination between walking, cycling, public transport and other modes to build a fluid, connected and accessible system;
- **Participatory approach and governance:** involvement of institutional, technical and civil society stakeholders at every stage of the process, from assessment through to implementation and monitoring of the plan;
- **Territorial coherence and integration with urban planning:** close coordination between policies on mobility, spatial planning, housing and economic development to reduce travel needs and promote local connectivity;
- **Realistic planning and sustainable funding:** definition of prioritised actions, scheduled over time and backed by identified funding mechanisms, to ensure the feasibility and continuity of mobility policies;
- **Monitoring, evaluation and continuous improvement:** establishment of performance indicators to assess the impact of the SUMP and adjust actions based on results achieved against quantified targets set for different time horizons.

Project cycle

The development of SUMPs is generally based on a cycle structured into four successive phases, comprising thirteen steps. This methodological process, which must be adapted to the specific characteristics of each city, supports the development of coherent, sustainable and inclusive planning oriented towards measurable results. This adaptation concerns not only the procedural steps, but also the structure of the document, the level of analytical detail and the prioritisation of objectives.

1 PHASE 1: PREPARATION AND ANALYSIS

Step 0 — Assessing readiness: Analysis of institutional capacities, available data and resources to define the conditions necessary for launching the SUMP, adapting the methodology and resources accordingly.

Step 1 — Establish working structures: Creation of governance bodies and participation mechanisms to organise the steering process and involve key stakeholders.

Step 2 — Define the planning framework: Delineation of the scope, timeframes and strategic objectives of the SUMP.

Step 3 — Analyse the mobility situation: Conduct a comprehensive assessment of travel patterns, infrastructure, and safety, environmental and accessibility issues.

2 PHASE 2: STRATEGY DEVELOPMENT

Step 4 — Develop and compare scenarios: Create several possible pathways to guide future mobility, taking into account demographic, climatic and technological changes.

Step 5 — Building a shared vision and objectives: Collective definition of a long-term vision and priority objectives in collaboration with citizens and stakeholders.

Step 6 — Define indicators and targets: Select measurable indicators to monitor the progress of the SUMP and assess the achievement of objectives.

3 PHASE 3: PLANNING OF MEASURES

Step 7 — Selecting measures: Developing and prioritising the most relevant and feasible measures to achieve the objectives.

Step 8 — Define actions and responsibilities: Provide a detailed description of actions, estimate costs, identify funding sources and assign institutional responsibilities.

Step 9 — Prepare for formal adoption: Finalise the SUMP, secure political endorsement and communicate the plan to ensure buy-in.

4 PHASE 4: IMPLEMENTATION AND CONTINUOUS IMPROVEMENT

Step 10 — Managing implementation: Operational coordination of projects, carrying out technical studies and awarding contracts.

Step 11 — Monitor, adjust and communicate: Regular monitoring of progress, necessary adjustments and active communication with users.

Step 12 — Evaluate and capitalise: Analysis of results, identification of lessons to be learnt and incorporation of these lessons into future revisions of the SUMP.

Image 7 : The SUMP cycle – 4 phases and 13 steps.
Source : Developing Sustainable Urban Mobility Plans – A Guide for Cities in the South.

2 Feedback from the development of a SUMP based on lessons learnt

Importance of governance and institutional ownership

Many African cities currently face similar challenges in the development, implementation and monitoring of Sustainable Urban Mobility Plans (SUMPs), mainly due to fragile governance systems, an insufficiently structured institutional environment and limited human and financial resources.

While some cities, such as Dakar, have been able to translate their plans into implementation thanks to CETUD — a dedicated transport authority responsible for planning, organising and regulating urban mobility — coordinated action has enabled the launch of major projects such as the BRT. In contrast, other cities remain at the planning stage, as in Dire Dawa, where strategic orientations are still difficult to translate into operational projects.

Difficulties emerge as early as the preparation phase. The lack of reliable data, the limited maturity of planning tools, the absence of municipal departments specifically dedicated to mobility, and insufficient human resources and technical expertise all constrain the production of robust diagnostics.

In many local authorities, mobility is not yet recognised as a fully fledged institutional mandate, which limits the mobilisation of the necessary human and financial resources. In addition, the relatively low level of awareness among decision-makers regarding sustainable mobility issues reduces the political prioritisation of these initiatives. The case of Yaoundé is particularly illustrative :

« The SUMP was initially led solely by the Roads Department, which was the only unit within the local authority responsible for transport-related matters. However, this department had limited expertise in mobility in its broader sense, beyond road infrastructure alone. It was only at the end of the process that a dedicated Mobility Department was established, marking a significant step forward in integrating mobility issues in a more comprehensive manner within the local authority, albeit with still limited human resources. »

Anne Chaussavoine.
Project Team Leader – AFD, Mobility Division

During implementation, these weaknesses result in insufficient ownership of the plan by municipal departments and stakeholders, difficulties in deploying the planned actions, and a strong reliance on external funding. In many African cities, local budgetary constraints remain particularly severe: municipal budgets allocated to mobility are often limited and fragmented, which restricts the capacity to undertake structural investments, even where political will is present. Initiatives supported by technical and financial partners are therefore not always translated into concrete actions, due to insufficient institutional capacity.

« Despite the quality of the study, the lack of formal approval by the City Council has hindered any operational implementation", illustrating the SUMP's critical dependence on strong, stable governance and sustained political commitment. »

Gautier Kohler
AFD

The monitoring phase remains one of the weakest links in the SUMP cycle. In most of the cities studied, institutional mechanisms for steering, evaluating and updating the plan are underdeveloped or non-existent. The absence of structured monitoring leads to a gradual loss of momentum, fragmented implementation of actions, and difficulties in measuring progress achieved. This governance gap undermines the continuity of the plan, particularly in contexts where political or administrative changes are frequent and may result in previously defined policies being questioned or even abandoned.

In this context, the establishment of clear mobility governance structures prior to the development of a SUMP is a key lever. Whether through a dedicated mobility planning authority or a local authority directly fulfilling this function, the challenge lies in ensuring adequate governance, technical and financial capacity for effective management. A well-established institutional framework enables coordination across departments, ensures coherence of interventions, facilitates the mobilisation of funding and supports the monitoring of project implementation. It also ensures that the strategic directions of the SUMP are translated into concrete, continuous and evaluated actions. When equipped with the necessary resources, the entity responsible for mobility becomes a strategic actor capable of influencing key decisions on urban transformation and ensuring the sustainability of the implementation process.

Strengthening institutional ownership is therefore an essential prerequisite for equipping African cities with the capacities required to implement sustainable, inclusive and resilient urban mobility systems that genuinely respond to the needs of residents.

Challenges for the operational implementation of SUMPs

Need for technical assistance for the team responsible for the SUMPD

The implementation of the SUMP is first and foremost a locally driven process rather than merely a study. It therefore requires the long-term commitment of a dedicated team, whose composition and profiles (technical, institutional, social or financial) depend on the local context. It must be led and driven by local stakeholders, through the coordination of action implementation, the monitoring of progress, and the promotion of public acceptance, with the support of stakeholders engaged during the preparation phase.

It is desirable for this team to be supported by technical assistance, which in most cases proves necessary to ensure appropriate ownership of the study, to facilitate exchanges, and to strengthen the capacities of local teams throughout the process.

Development of operational factsheets for each measure

When developing the measures resulting from Phase 3 of the SUMP cycle, operational action sheets should be prepared. These should specify the initial steps, the required preparatory studies, the implementation timetable, as well as the designated lead stakeholder and their respective responsibilities. This "one action – one lead actor" principle is a key driver for ensuring clear governance, effective coordination and controlled implementation. A financing plan and a monitoring mechanism should also be defined and regularly updated.

Drawing up a procurement plan for the works to be carried out

Preparing for the implementation of measures and the procurement of goods and services is a key step. This involves establishing a clear procurement plan that ensures transparency, efficiency and, where possible, economies of scale. The inclusion of social and environmental criteria in tendering processes contributes to responsible public procurement practices.

Ongoing stakeholder engagement

Finally, the success of this phase relies on continuous dialogue with stakeholders and on maintaining close coordination between institutions and/or their respective departments. Regular engagement with decision-makers, technical partners and funding agencies is essential to secure financing, support institutional reforms and ensure the coherent progress of the actions set out in the SUMP.

Effective integration of MRV (Measure, Report, Verify) monitoring

In Sustainable Urban Mobility Plans (SUMPs), the MRV (Monitoring, Reporting and Verification) system is used to monitor the implementation of the plan and ensure the credibility of results. The "Measure" phase involves the regular collection of data on key indicators, including changes in modal share, road safety, greenhouse gas emissions, air quality and project progress. The "Report" phase aims to communicate these results to public authorities, funding partners and stakeholders, ensuring transparency and enabling the identification of necessary adjustments. In particular, the measurement and reporting of GHG emissions and other local pollutants can facilitate access to additional funding sources, notably climate finance. Finally, the "Verify" phase ensures the reliability of the data, either through an internal mechanism or an external partner, in order to guarantee the accuracy of information and compliance with the objectives achieved. However, in practice, this MRV monitoring framework is rarely implemented in a comprehensive and systematic manner, which can undermine the effectiveness, ownership and sustainability of SUMPs. MRV therefore plays an essential role: it enables real-time adjustment of actions, demonstrates progress achieved, strengthens donor confidence and aligns the SUMP with national and international climate frameworks, notably Nationally Determined Contributions (NDCs). Experience shows that, where this phase is not implemented, the effectiveness, impact and ownership of SUMPs are significantly weakened.

Continuous adaptation and review of SUMPs

The SUMP follows a continuous cycle. Depending on the level of ownership of the actions and the assessment of their results, adjustments may be revisited and decided upon. Cities are constantly evolving; it is therefore essential to draw lessons in order to adapt the strategy to emerging challenges. It may also be necessary, and in some cases essential, to reorient the implementation of certain actions if significant difficulties arise.
At the end of an implementation period—typically lasting between 4 and 7 years—it is essential to assess achievements and limitations, identify unmet objectives, and capitalise on lessons learnt to improve the next iteration of the SUMP. This stage allows the strategy to be adjusted in line with urban developments and evolving mobility challenges. These lessons should be shared not only with governing bodies but also with citizens and stakeholders in order to maintain engagement and transparency. Presenting results in an accessible format or at a public event helps to highlight progress made and strengthen collective momentum.

This feedback loop effectively prepares the ground for the next planning cycle and ensures that the SUMP is subject to regular review and continuous improvement.

3 Mobility challenges in the African cities under study

Trends, issues and challenges in African cities

African cities are experiencing rapid population growth and urbanisation, placing significant pressure on urban transport systems. The continent's urban population is expected to double by 2050, increasing from around 700 million to nearly 1.4 billion inhabitants, making Africa the second most urbanised region in the world after Asia, and raising major challenges in terms of planning, governance and infrastructure provision.[5] This growth results in often unplanned urbanisation and inadequate public transport and road networks, leading to congestion, longer journey times and pressure on urban services.

In this context, mobility demand is increasing significantly. For example, in 2016, the Dakar metropolitan area recorded approximately 7.2 million daily trips across all modes of transport[6]. However, the provision of infrastructure and services, particularly formal public transport, remains insufficient[7]. Walking remains the dominant mode of travel, accounting for up to 70% of daily trips, while cycling remains marginal at less than 1%, due to the lack of appropriate infrastructure.[8]

African urban transport systems also face significant environmental challenges. Although greenhouse gas (GHG) emissions from the transport sector remain low at the global level, their contribution has increased substantially, with Africa accounting for around 4% of global fossil CO_2 emissions. In 2020, but up to 16% and 25% for methane (CH_4) and nitrous oxide (N_2O)[9]. At the same time, urban air quality remains a cause for concern at local level: $PM_{2.5}$ concentrations far exceed the WHO threshold of 5 µg/m³, sometimes reaching 8 to 11 times this level[10], which exacerbates vulnerability to climate change and health risks[11].

To address these environmental, social and public health challenges, a paradigm shift is required. Sustainable Urban Mobility Plans (SUMPs) are therefore emerging as key instruments to support African cities in their transition towards low-carbon, inclusive and resilient mobility systems.

The various cities studied covered by the capitalisation

This continental map shows the six African cities selected for the study, namely **Douala and Yaoundé (Cameroon), Dire Dawa (Ethiopia), Dakar (Senegal), Bouaké (Ivory Coast) and Antananarivo (Madagascar).**

Image 8 : Continental map showing the six cities studied © beandeas

5. OECD – Africa's Urbanisation Dynamics 2025
6. Household survey on mobility, transport and access to urban services in the Dakar metropolitan area – EMTASUD – CETUD, Synoptic Sheet No. 9
7. Analysis of informal transport usage in African cities (JSTOR / academic summary).
8. Engineering For Change – The African Commute: environmental impacts of the transport sector.
9. Earth System Science Data (ESSD)https://doi.org/10.5194/essd-16-245-2024
10. Africa's fight against the health risks of urban air pollution
11. OECD – Africa's Urbanisation Dynamics 2025: urban population projections and implications for cities

Summary of key data from the close-ups of the six cities studied

Table 1: Summary of general information on the six cities studied

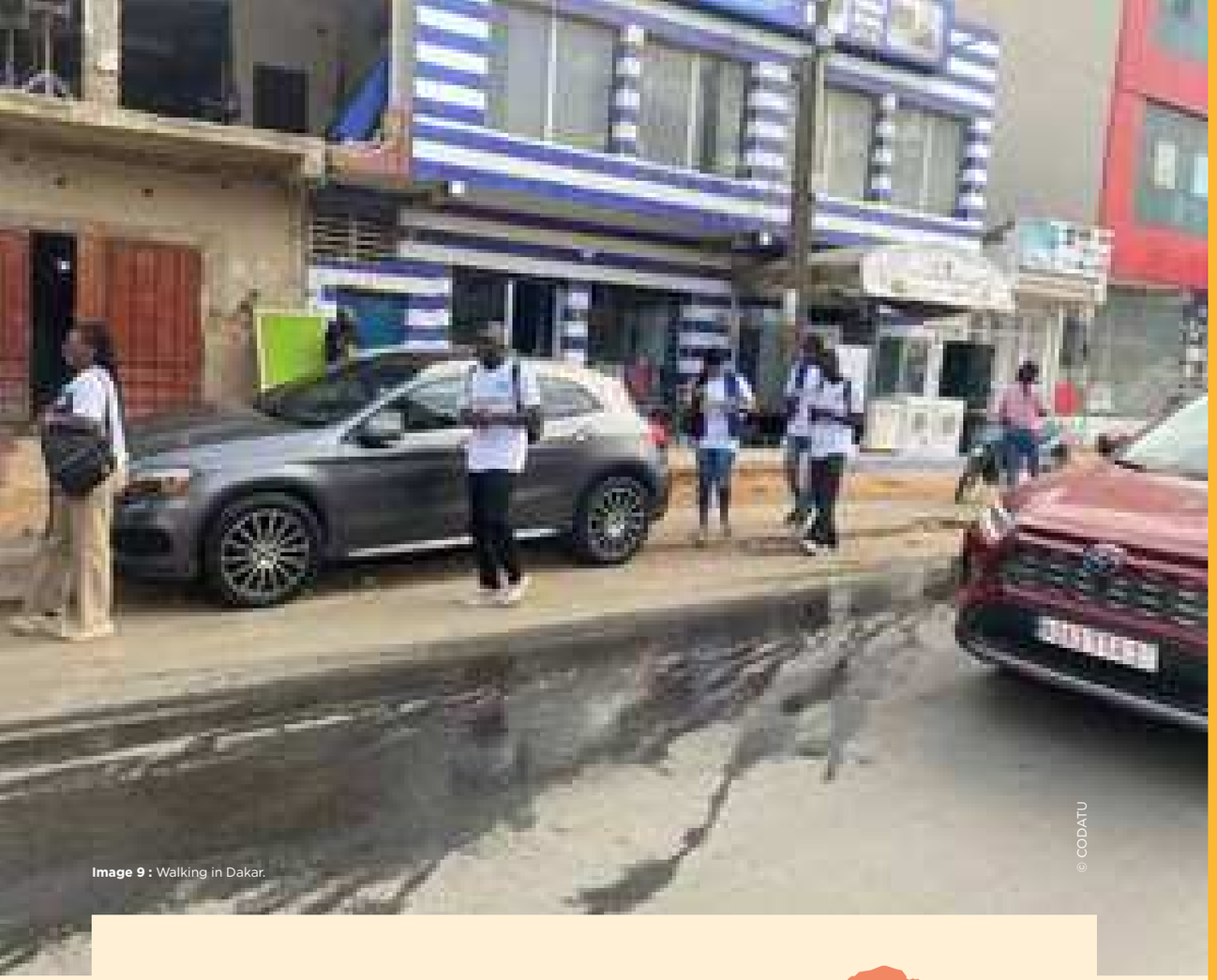
	Dakar	Douala	Yaoundé	Dire Dawa	Bouaké	Antananarivo
Urban area:	550 km²	923 km²	183 km²	70 km²	120 km²	85 km²
Population (millions)	4 (2022)	3.7	4.1	0.4 (2020)	0.8	3.2
Population growth rate	+2.8 %	+3.6 %	+3.5 %	4.4 %	+3 %	+4.8 %
GDP per capita (national level) (USD)	1 636 (2021)	2 952	1 423 (2019)	855,8 (2019)	2 286	522
National GHG emissions per capita (tCO_2eq/capita)	1.2	0.4	0.24	1.5	0.98	0.13
Exposure to climate change	Very high	High	High	Very high	High	High

Source : MobiliseYourCity Global Monitor 2025 | Factsheet for the 6 cities

Table 2: Summary of the SUMP project description in the six cities

	Dakar	Douala	Yaoundé	Dire Dawa	Bouaké	Antananarivo
Period	2020–2023 (completed)	2018–2021 (completed)	2018–2021 (completed)	2019–2022 (completed)	2021–2023 (completed)	2024–2026 (ongoing)
Funding	€400,000 – French Fund for the Global Environment (FFEM)	€400,000 – European Commission and FFEM	€350,000 – French Fund for the Global Environment (FFEM)	€550,000 – European Commission	€400,000 – European Commission	€500,000 - AFD
Local partner	Executive Council of Urban Transport in Dakar (CETUD)	Douala Urban Community	Yaoundé Urban Community (CUY)	Office of the Mayor and Cabinet Affairs of the Dire Dawa Administration, Office of Finance and the Economy	Municipality of Bouaké	Antananarivo Urban Municipality (CUA)

Source : MobiliseYourCity Global Monitor 2025 | Factsheet on the 6 cities



© CODATU

Image 9 : Walking in Dakar.

Focus on Dakar (Senegal)

BACKGROUND

Dakar is the capital city of Senegal. With a rapidly growing population, the Dakar region is highly urbanised but marked by significant territorial inequalities. Mobility remains dominated by walking, which is constrained by the lack of safe pedestrian infrastructure, while cycling remains marginal due to limited infrastructure and road safety concerns. Motorised transport combines a limited formal system (public buses and private minibuses) with a highly prevalent informal sector, often congested and weakly regulated. The metropolitan area benefits from an institutional framework centred on CETUD, which provides a strong basis for progress, alongside major infrastructure projects such as the Regional Express Train (TER) and the Bus Rapid Transit (BRT), both aimed at rebalancing mobility patterns and improving accessibility.

GENERAL INFORMATION

Urban area (Dakar Region)
550 km²

GDP per capita
USD 1,636
(2021)

Population
4 millions
inhabitants (2022)

National GHG emissions per capita
1.2 tCO_2/capita

Population growth rate
+2.8 %

Exposure to climate change
Very high

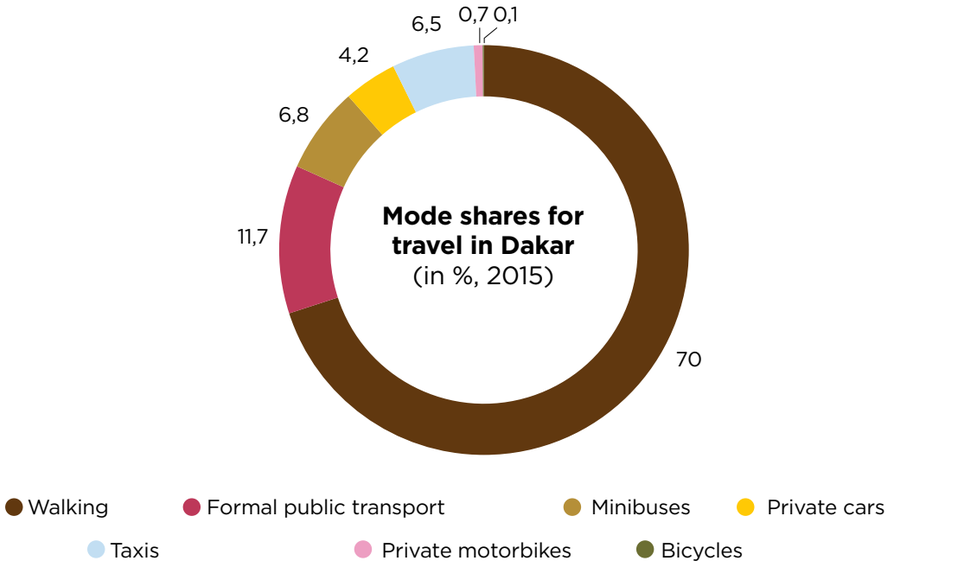


Figure 1 : Modal shares in Dakar Source: Dakar SUMP
This figure shows the modal split of travel in Dakar, highlighting the contribution of different modes of transport to observed mobility patterns.

DESCRIPTION OF THE SUMP PROJECT

PERIOD: Q2 2020 – APRIL 2023 (COMPLETED)

FUNDING: €400,000 – French Facility for Global Environment (FFEM)

PARTENAIRE LOCAL : Executive Council of Urban Transport in Dakar (CETUD)[12]

MOBILITY PROJECTIONS DERIVED FROM THE SUMP

Image 10: Overall vision of the multimodal network by 2035 © Dakar SUMP p.50

The map presents the overall vision of the multimodal network by 2035, based on a functional hierarchy of the network and a territorial organisation of mobility flows. It illustrates a system centred on a metropolitan network ensuring key transport flows and the protection of the urban core, complemented by a departmental network. It also incorporates measures to strengthen the network to support urbanisation trends, with a view to integrating public transport and active modes.

12. MobiliseYourCity Global Monitor 2025 | Factsheet: Dakar, Senegal

Image 11 : Mobility in Douala.

© Edouard Tamba via Unsplash

Focus on Douala (Cameroon)

CONTEXT

Douala, the regional capital, is experiencing sustained demographic growth across a coastal territory that is particularly exposed to recurrent flooding, significantly affecting the continuity of urban services. Urban expansion is rapidly extending towards peripheral areas, which remain poorly served by formal public transport systems, thereby limiting access to employment opportunities and essential services. In the absence of reliable alternatives, the population relies heavily on motor-bike taxis and informal minibuses. While these modes dominate the mobility supply, they are associated with high accident risks, environmental impacts and safety concerns, particularly for women. This situation is further exacerbated by a heterogeneous and often degraded road network beyond the main corridors, as well as by the insufficient provision of infrastructure dedicated to active modes. In parallel, intensive commercial and logistics activities—particularly around markets and port areas—generate persistent congestion. Finally, institutional fragmentation between urban planning and mobility governance reduces the capacity of public stakeholders to design and implement coherent responses to urban mobility challenges.

GENERAL INFORMATION

Urban area

923 km²

GDP per capita

USD 2,952

Population

3,7 millions
inhabitants

National GHG emissions per capita

0.4 tCO_2eq/ capita

Growth rate

+3.6 %

Exposure to climate change

High

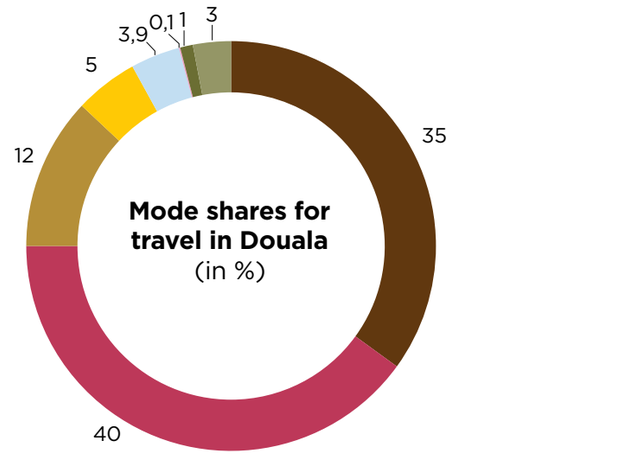


Figure 2 : Modal shares in Douala, Source: SUMP, 2019

This figure shows the modal split of travel in Douala, highlighting the contribution of different modes of transport to observed mobility patterns.

DESCRIPTION OF THE DOUALA SUMP PROJECT

PERIOD: Q1 2018–Q3 2019, THEN FINALISED IN 2021

FUNDING: €400,000 – European Commission and FFEM

LOCAL PARTNER: Douala Urban Community[13]

MOBILITY PROJECTIONS DERIVED FROM THE SUMP

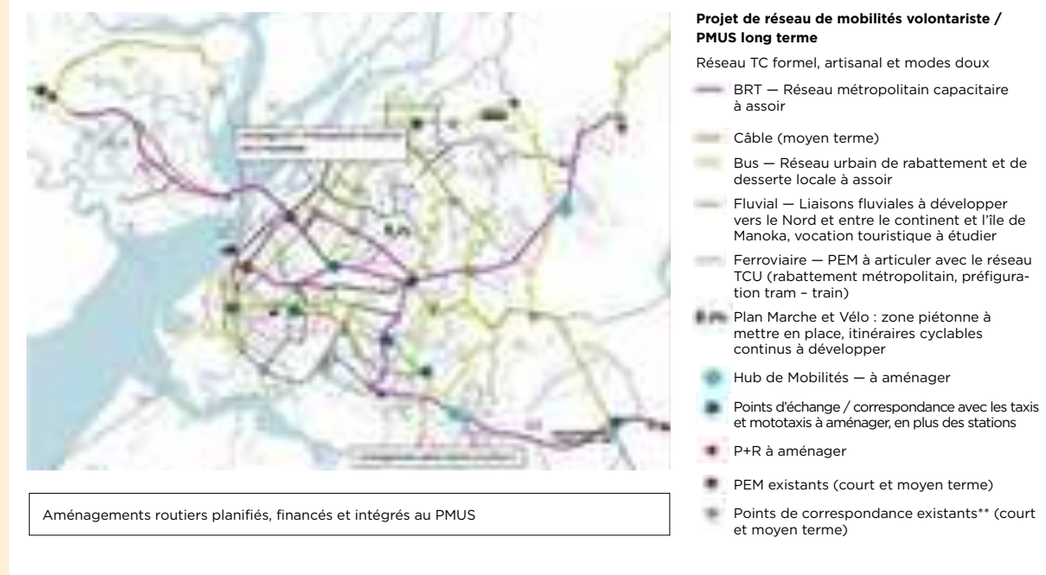


Image 12: Douala SUMP project for 2030 © SYSTRA 2019-Douala SUMP p.116

The map illustrates the long-term action plan of the Douala SUMP, highlighting the structural strengthening of the public transport system through the development of BRT corridors, transport hubs and multimodal interconnections. It also reflects an integrated approach to mobility, combining urban logistics, active modes and traffic management measures to enhance the overall efficiency of the system.

13. MobiliseYourCity Global Monitor 2025 | Factsheet: Douala, Cameroon

Image 13 : Mobility in Yaoundé.

© Ariel Nathan Acle Mbita via Unsplash

Focus on Yaoundé (Cameroon)

BACKGROUND

Yaoundé is experiencing rapid population growth, placing increasing pressure on already inadequate urban infrastructure, particularly a severely degraded road network and an underperforming public transport system. Urban mobility is characterised by widespread congestion, primarily along main corridors. Walking, the dominant mode of transport, takes place in unsafe conditions due to the lack of adequate pedestrian infrastructure, while taxis—an essential component of daily mobility—remain unaffordable for low-income households.

Motorcycle taxis, widely used in peripheral neighbourhoods, provide a flexible service but are associated with very high accident risks. Private car use remains limited due to the poor condition of the road network, while the minibus system, despite a certain level of efficiency, remains insufficiently developed and poorly structured. Air pollution is deteriorating, driven by an ageing vehicle fleet, with $PM_{2.5}$ concentrations reaching levels up to one hundred times higher than WHO guidelines, significantly increasing public health risks.

Road safety conditions remain critical, with a high number of annual casualties. In a context of pronounced social inequality, transport expenditure—representing more than 30% of household budgets—constitutes a major constraint for low-income populations, limiting their access to essential services and urban opportunities.

GENERAL INFORMATION

Urban area
183 km²

GDP per capita
USD 1,422.70
(2019)

Population (metropolitan area)
4.1 millions
inhabitants

Transport emissions per capita
0.24 tCO_2eq/ capita

Population growth rate
+3.5 %

Exposure to climate change
Very high

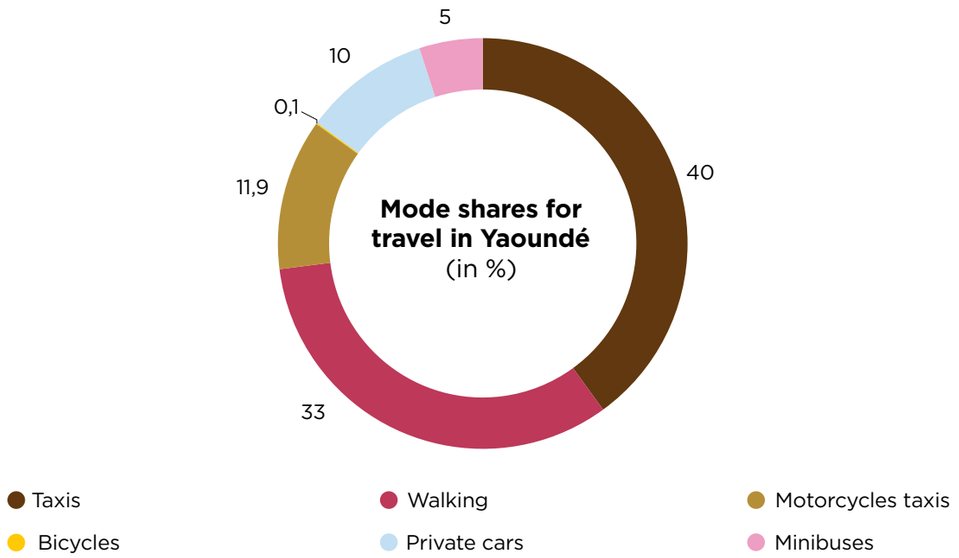


Figure 3 : Modal shares in Yaoundé. Source: Yaoundé Sustainable Urban Mobility Plan (SUMP), 2022

This figure illustrates the modal split of trips in Yaoundé, highlighting the respective contribution of different transport modes to observed urban mobility patterns.

DESCRIPTION OF THE SUMP PROJECT

PERIOD: Q1 2018 – Q3 2019, THEN FINALISED IN 2021

FUNDING: €350,000 – French Facility for Global Environment (FFEM)

LOCAL PARTNER: Yaoundé Urban Community (CUY)[14]

MOBILITY PROJECTIONS DERIVED FROM THE SUMP

Image 14 : "Infrastructure" action plan for Yaoundé for the 2035 horizon © Yaoundé SUMP p.152

The map presents the Infrastructure Action Plan of the Yaoundé SUMP for the 2035 horizon, structuring planned interventions across the road network, public transport system and urban centres. It highlights a prioritisation of the transport system around key dedicated public transport corridors along the North–South and East–West axes, complemented by the expansion of the bus network and the upgrading of roads and transport hubs.

14. MobiliseYourCity Global Monitor 2025 | Factsheet: Yaoundé, Cameroon

Image 15 : Walking in Dire Dawa.

© SYSTRA

Focus on Dire Dawa (Ethiopia)

BACKGROUND

As a regional capital located on the strategic corridor between Addis Ababa and Djibouti, Dire Dawa is expected to develop as a major economic hub; however, this growth is placing increasing pressure on urban infrastructure, which is already weakened by the intensity of commercial activities and freight flows. Urban mobility is active but remains poorly organised in the absence of an operational master plan, while the high volume of heavy goods vehicles along the logistics corridor generates persistent congestion and contributes to road network degradation. Although the city is served by two railway lines, including the Addis Ababa–Djibouti corridor, it does not yet fully leverage its rail potential, as the existing rail infrastructure remains unable to provide an effective alternative to road-based transport.

© SINAC

GENERAL INFORMATION

Urban area
70 km²

GDP per capita
USD 855.8
(2019)

Population
0.4 million
inhabitants (2020)

National GHG emissions per capita
1.5 tCO_2/capita

Population growth rate
+4.4 %

Exposure to climate change
High

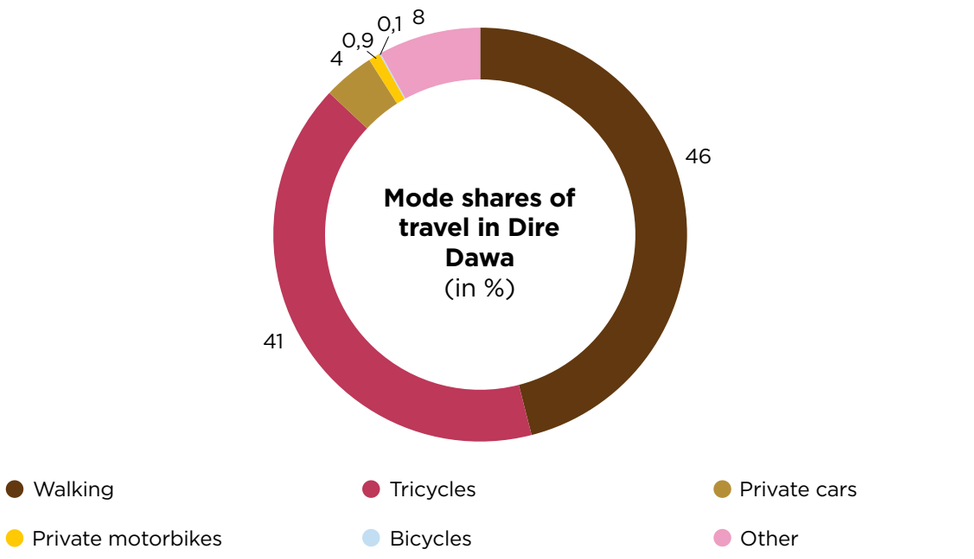


Figure 4 : Modal shares in Dire Dawa Source: Dire Dawa SUMP, 2022

This figure shows the modal split of trips in Dire Dawa, highlighting the contribution of different modes of transport to observed mobility patterns.

DESCRIPTION OF THE SUMP PROJECT

PERIOD: Q4 2019 – Q3 2022 (COMPLETED)

FUNDING: €550,000 – European Commission

LOCAL PARTNERS: Office of the Mayor and Cabinet Affairs of the Dire Dawa Administration, Office of Finance and Economy[15]

MOBILITY PROJECTIONS DERIVED FROM THE SUMP

Image 16 : Vision de la mobilité de Dire Dawa à l'horizon 2040 © PMUD de Dire Dawa P90

The map illustrates the 2040 mobility vision through a polycentric territorial structure, where population centres are prioritised as key nodes organising travel flows. It highlights a prioritised road network and an integrated multimodal system, effectively connecting public transport and active modes to ensure more balanced and sustainable accessibility across the city.

15. MobiliseYourCity Global Monitor 2025 | Factsheet: Dire Dawa, Ethiopia

Image 17 : Pavement obstructed by illegally parked vehicles in Bouaké.

© CODATU

Focus on Bouaké (Ivory Coast)

CONTEXT

Bouaké, a regional capital and strategic crossroads, presents a mixed road network: while primary corridors are relatively well maintained, the secondary network is in a severely degraded state, reinforcing spatial inequalities in access. Urban mobility is largely dependent on the informal transport sector (taxis and an insufficient supply of mini-buses), with a strong predominance of motorbike taxis, which are asso - ciated with higher accident risks. This configuration is part of a longer-term structural shift, marked by the transition from bicycles to motorcycles, particularly following the crisis of the 2000s. In a context of deteriorated infrastructure and economic constraints, motorised two-wheelers have emerged as an affordable and flexible mobility solution. Walking remains a fundamental mode of transport, especially in peripheral and underserved areas; however, pedestrians are exposed to significant safety risks due to the lack of appropriate infrastructure. The circulation of heavy goods vehicles and tricycles further contributes to congestion and accelerates road degradation. As a dynamic com - mercial centre, Bouaké hosts several major markets where walking is the dominant mode of access, although it remains insufficiently accounted for in infrastructure planning, leading to conflicts of use. Despite these constraints, the city retains significant potential for the development of active modes, supported by its scale and the structure of its urban fabric.

GENERAL INFORMATION

Urban area
120 km²

GDP per capita (national level)
USD 2,286

Population
0.8 million
inhabitants

National GHG emissions per capita
0.98 tCO_2eq/ capita

Population growth rate
+3 %

Expositions aux changements climatiques
High

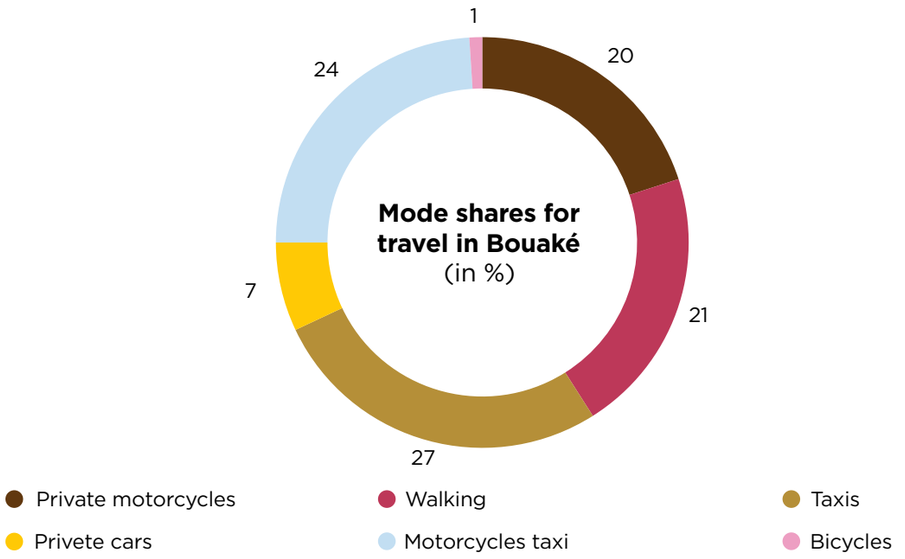


Figure 5 : Modal shares in Bouaké Source: Bouaké SUMP, 2022

This figure shows the modal split of trips in Bouaké, highlighting the contribution of different modes of transport to observed mobility patterns.

DESCRIPTION OF THE SUMP PROJECT

PERIOD: Q1 2021 – Q1 2023 (COMPLETED)

FUNDING: €400,000 – European Commission

LOCAL PARTNER: Municipality of Bouaké[16]

MOBILITY PROJECTIONS DERIVED FROM THE SUMP

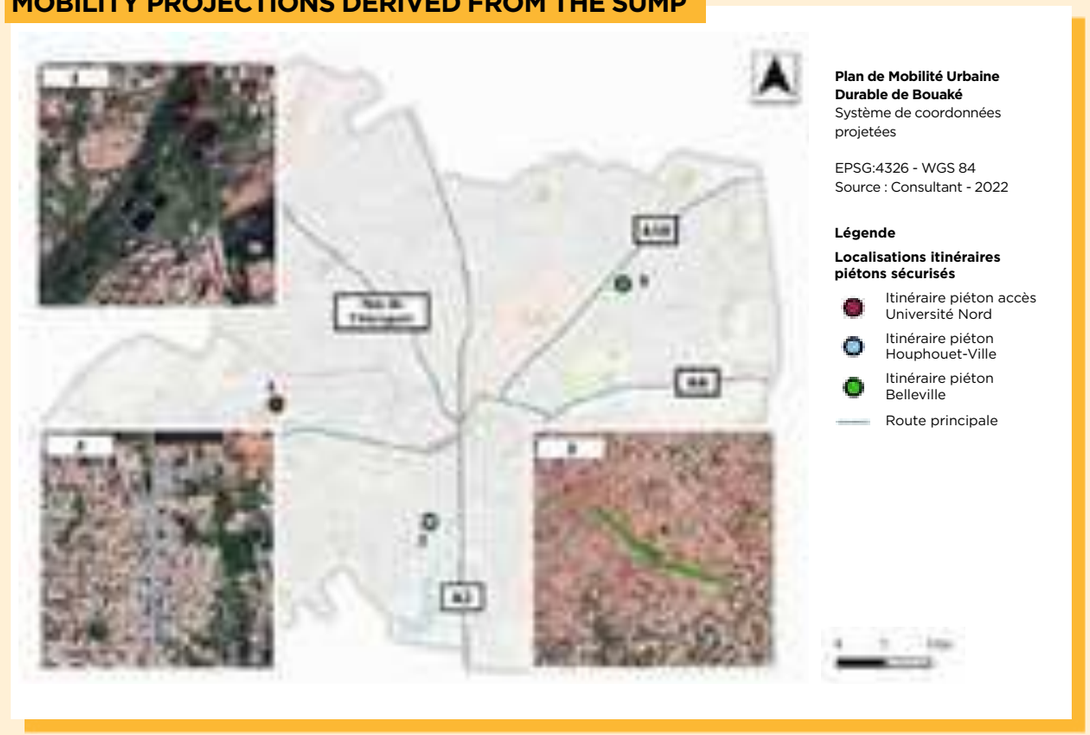


Image 18 : Proposed development of pedestrian routes in neighbourhoods © Bouaké SUMP p.95

The Bouaké Sustainable Urban Mobility Plan (SUMP) identifies 34 priority actions, including the improvement of neighbourhood-level pedestrian networks. Walking represents a fundamental mode of transport for local mobility and access to urban services; however, pedestrians face significant safety concerns as well as a lack of adequate infrastructure.

Against this backdrop, interventions are planned across three strategic areas—Houphouët-Ville, Belleville, and the northern access to the University[17] of Bouaké—including the development of safe pedestrian routes, the upgrading of street lighting, and the provision of appropriate crossings in flood-prone low-lying areas.

16. MobiliseYourCity Global Monitor 2025 | Factsheet: Bouaké, Ivory Coast
17. PMUD de Bouaké P.94

Image 19 : Cycling in Antananarivo

© CODATU

Focus on Antananarivo (Madagascar)

CONTEXT

Antananarivo is experiencing rapid population growth, which is exacerbating significant urban pressures: congestion, pollution, insecurity and deficiencies in essential services. Mobility relies heavily on walking – the predominant mode of transport due to a lack of safe alternatives – and on minibuses locally known as "Taxi be", which are dominant but cause congestion and offer limited accessibility. This situation is exacerbated by fragmented governance and inadequate planning, characterised by overlapping responsibilities and limited resources. Despite several ongoing projects such as the modernisation of informal transport, the development of cable car transport, the rail network and road improvements, the city is still struggling to develop a coherent, sustainable transport system suited to its growing needs.

GENERAL INFORMATION

Urban area

85 km²

GDP per capita

USD 522[18]

Population

3.2 millions
inhabitants

National GHG emissions per capita

0.13 tCO_2eq/ capita

Population growth rate

+4.8 %

Exposure to climate change

High

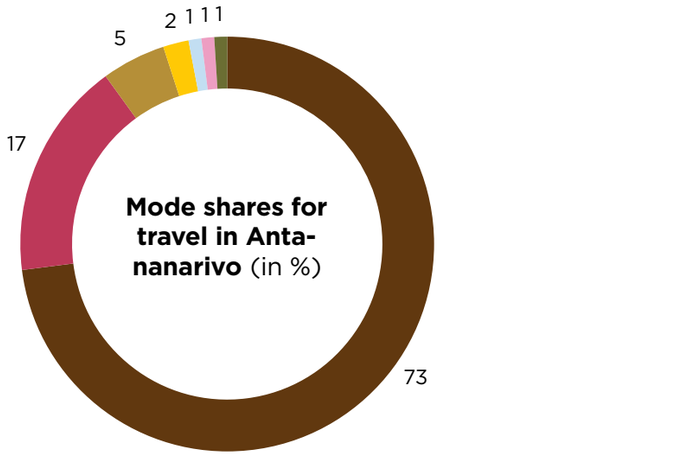


Figure 6 : Modal shares in Antananarivo
Source : 2024 Household Travel Survey (EMD), Greater Antananarivo Sustainable Urban Mobility Plan (SUMP)

This figure shows the modal split of trips in Antananarivo, highlighting the contribution of different modes of transport to observed mobility patterns.

18. MobiliseYourCity Global Monitor 2025 | Factsheet: Antananarivo, Madagascar

DESCRIPTION OF THE SUMP PROJECT

PERIOD: Q2 2024–Q2 2026 (ONGOING)

FUNDING: €500,000 – AFD

LOCAL PARTNER: Antananarivo Urban Municipality (CUA)[19]

MAP OF THE STUDY AREA

Image 20 : Administrative scope of the study © SUMP Antananarivo Deliverable 1, p. 9

The map above shows the study area for the Greater Antananarivo SUMP, encompassing the CUA and the 37 surrounding municipalities,[20] thereby defining a coherent and relevant territorial scale for the analysis. It highlights the functional area of the metropolitan region, which is suitable for understanding urban and mobility dynamics on a broader scale.

19. MobiliseYourCity Global Monitor 2025 | Factsheet: Bouaké, Ivory Coast
20. Antananarivo SUMP Deliverable 1 p.9

Box: Active modes and climate change mitigation issues are generally taken into account in the SUMP

How are active modes taken into account in the SUMP analysed?

Active modes are integrated into all stages of the SUMP, but with varying levels of detail:

- In the diagnostic phase, the plan analyses walking and cycling patterns, the quality of pavements and cycle paths, discontinuities in connectivity, and safety around schools, markets and places of worship, whilst taking into account the needs of women, children and vulnerable people. In African cities, this diagnostic phase often reveals the importance of walking and the low proportion of cycling, as well as the lack of suitable infrastructure;
- In terms of scenarios, these involve strategic choices: realistic or ambitious scenarios that assess the impact of policies promoting active modes (redistribution of space, traffic calming, cycling schemes);
- The action plan then translates these guidelines into pedestrian and cycling programmes, priorities for action and planning principles, without delving into the specific works or the governance structures required to implement them;
- Implementation constitutes the operational phase: minor measures funded from own resources (road markings, pedestrian crossings) or major infrastructure projects with the support of funding bodies (transport hubs, pedestrian corridors, cycle paths). User acceptance, public space management and usage monitoringare essential for adjusting the measures.

© CODATU

Image 21 : Pedestrians in Bouaké in front of a school with a redesigned access route and awareness-raising activities carried out by the AMEND association with support from the AFD.

How is climate change mitigation addressed in the SUMPs analysed?

Climate emissions reduction is taken into account throughout the entire process, from the diagnostic phase to the monitoring and evaluation of the SUMPs:

- During the diagnostic phase, the SUMPs identify transport-related emission sources (ideally by mode), car dependency and the climate vulnerabilities of the urban mobility network. They also analyse the exposure of the population and local residents to these risks in order to better guide resilience actions;
- In the scenario phase, climate trajectories (moderate or aligned with NDCs) assess the impact of the energy transition, traffic reduction or low-emission zones;
- The action plans organise these guidelines into thematic programmes (energy transition, strengthening public transport, air quality), the implementation of which depends on available funding;
- The action plans organise these orientations into thematic programmes (energy transition, strengthening public transport, air quality), whose implementation depends on available financial resources;
- Implementation brings climate measures to fruition: fleet renewal, improvements to the public transport network, charging points, dedicated lanes, greening initiatives and sustainable urban logistics;
- A monitoring system should make it possible to quantify emissions avoided, assess the public health benefits linked to improved air quality, adjust mobility policies accordingly, and strengthen the city's credibility with climate finance providers. Its effective implementation, however, remains dependent on the mobilisation of adequate technical and financial resources.

How is adaptation to climate change taken into account in the SUMPs analysed?

The dimension of climate change adaptation is integrated on an equal footing with mitigation throughout the SUMP cycle :

- In the diagnostic phase, the plan identifies and maps the main climate hazards affecting mobility (urban heat islands, flooding, inundation, etc.) as well as the specific vulnerability of transport infrastructure and users. It analyses the exposure of networks and the sensitivity of populations to prioritise areas for action;
- In the scenario phase, climate projections are used to assess the future resilience of the mobility system and to model the effectiveness of corrective measures (greening, permeable surfacing, protection of strategic junctions);
- The action plan organises these orientations into dedicated programmes (urban cooling, stormwater management, road safety, business continuity plans), whose feasibility depends on local technical and financial capacities;
- Implementation brings adaptation measures to fruition: creating shade through the planting of rows of trees, developing raised or protected cycling infrastructure, and integrating risk management into transport planning;
- A monitoring system should make it possible to measure changes in risks, assess users' thermal comfort, adjust policies and enhance the city's overall attractiveness and resilience. However, its effective implementation remains dependent on the mobilisation of adequate technical and financial resources.

02

RESULTS AND LESSONS LEARNT

Image 22 : Road transport in Africa.

Image 23 : Difficulties encountered by pedestrians.

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2.1 The integration of active modes into the development and implementation of SUMPs

Methods and tools used to analyse the integration of active modes into SUMPs

Several tools can be used to collect quantitative and qualitative data relating to active modes. As Étienne Lhomet, project director at DVDH, noted during the development of Yaoundé's SUMP:

> *The entire data collection and processing chain was managed, including the organisation of household surveys, the carrying out of counts supported by cameras, as well as the analysis and interpretation of the information gathered.*
>
> **Étienne Lhomet,**
> Project Director at DVDH

Several methods were adopted in the six cities:

Analysis of mobility demand

The demand analysis aims to objectively assess travel patterns and understand how residents live and travel on a daily basis. This analysis relies on the use of complementary quantitative and qualitative data collection methods.

Household surveys provide a detailed picture of residents' mobility patterns by identifying the variety of reasons for travel, their frequency, the modes of transport used, as well as the distances, journey times and associated costs. Their reliability depends largely on the sample size, which is essential to ensure a reliable representation of the population.

However, carrying out such surveys represents a significant financial and logistical investment.

The effectiveness of mobility demand analysis depends above all on local authorities taking ownership of it. The provision of raw data, accompanied by training in how to use it, makes it possible to monitor changes in mobility, evaluate public policies, design new mobility projects or update the Urban Mobility Plan (SUMP).

Furthermore, given their high cost, a proportionate approach is recommended: a simplified survey, tailored to local capabilities and actually used, supplemented by qualitative tools, is often preferable to a cumbersome and under-utilised system.

The use of camera-based traffic counting can complement these analyses by providing objective data on traffic flows. This method involves temporarily installing video equipment at strategic roads or junctions to measure traffic volumes, modal split and peak periods. Analysing the footage can help produce reliable and comparable indicators, which are useful for identifying priority issues, prioritising interventions and subsequently evaluating the effects of the measures implemented.

Focus groups

In all six cities studied, focus groups are engaged from the diagnostic phase onwards. This qualitative consultation method brings together various stakeholders and users to better understand, through a structured and facilitated discussion, their practices, expectations and the constraints they face regarding mobility. These discussions help identify specific issues related to active modes, which are often insufficiently reflected in quantitative data, and incorporate more appropriate measures regarding safety, comfort and accessibility. By involving representatives of civil society, economic and institutional stakeholders, this approach limits inappropriate technical and economic choices and promotes realistic, acceptable and financially viable solutions, thereby strengthening the integration of active modes into Urban Mobility Plans (SUMP).

© SYSTRA

Image 24 : Focus Group in Dire Dawa.

Walking assessment

Walking surveys provide a concrete understanding of the reality on the ground by walking through the city alongside users and local stakeholders. This approach highlights the difficulties of everyday life — discontinuities in routes, conflicts of use, and issues of safety, comfort or accessibility — which are often overlooked in technical analyses. By comparing planning with actual travel conditions, it helps to formulate more realistic guidelines tailored to the needs of active modes users, whilst raising awareness among decision-makers and local authorities of the challenges posed by dedicated infrastructure.

As Pauline Robert Etcheto, Project Manager at SYSTRA, who initiated the walking assessment as part of the Douala SUMP, explains:

> *The walking assessment is an essential tool for quickly grasping the reality on the ground, comparing perspectives and prioritising the most critical sites and issues, in order to effectively guide the assessment and the targeting of solutions.*
>
> **Pauline Robert Etcheto,**
> Project Manager at SYSTRA

In Dire Dawa, an alternative to the walking assessment was adopted, as highlighted by Marie Cleuet, deputy project manager for the Dire Dawa SUMP at SYSTRA:

« Unable to engage decision-makers on the ground, the team chose to document the area through photographs, in order to objectively record the issues observed on the ground and to facilitate awareness-raising and secure the support of public officials for the SUMP development project. »

Marie Cleuet,
Deputy Project Manager for the Dire Dawa SUMP at SYSTRA

Since then, SYSTRA has been using an open-source tool (Mapillary) to georeference the photographs collected in the field and to create a digital atlas, thereby facilitating its use and consultation by beneficiaries.

Road Safety Observatory

A road safety observatory is a body responsible for collecting, analysing and disseminating data on road accidents and their risk factors, in order to inform public decision-making and improve road safety policies. In Bouaké, such a system was established by AFD and IRD as part of the development of the SUMP. Operated through the SERIOUS project (Surveillance of Accidents and Injuries in Bouaké and on the Roads of Northern Ivory Coast), it aims to strengthen the collection and analysis of accident data. It relies on operational collaboration with law enforcement agencies, emergency services such as the National Civil Protection Office (ONPC), the fire brigade and Bouaké University Hospital. These organisations carry out daily monitoring, supplemented by behavioural studies (helmet use, speed). Launched in March 2022 for a three-year period, it produces accurate, geolocated data on accident statistics and victim profiles.

This image shows the platform's interface, highlighting the locations of road incidents to identify areas with a high concentration of accidents.

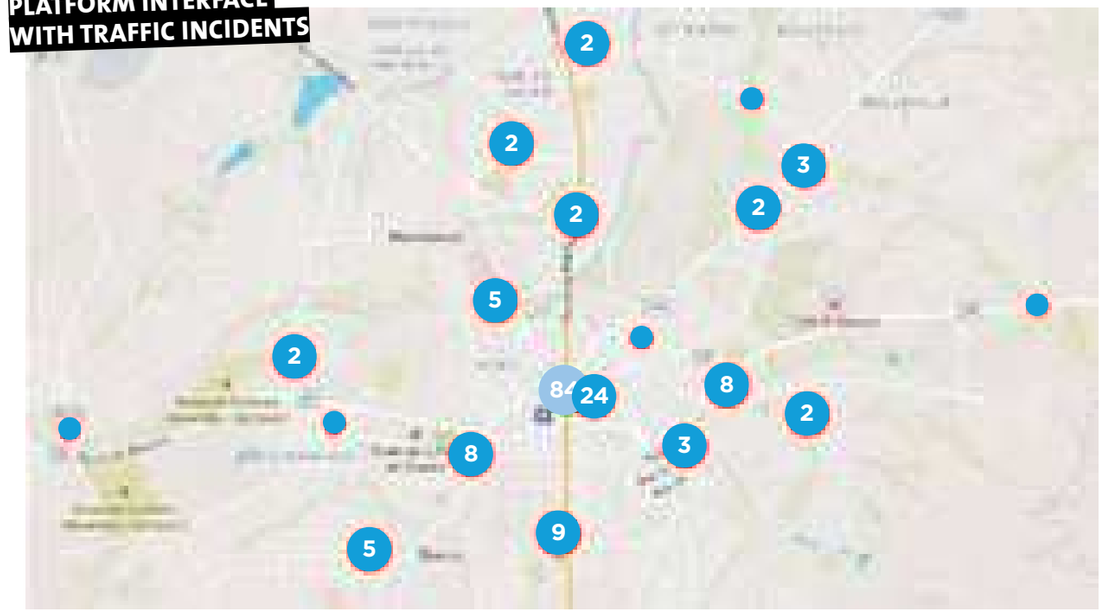

Image 26 : Road safety platform in Bouaké © rci.trafic.cloudlyyours.

Image 25 : Discontinuité d'une galerie piétonne à Douala.

Inclusion of active modes in the assessments

The diagnostic phase seeks to establish a shared understanding of the challenges, strengths and weaknesses of mobility.

Household surveys conducted in the cities studied highlight travel patterns that are often fragmented, linked to the prevalence of informal economic activities, and predominantly short-distance, particularly between neighbourhoods, though with disparities across areas, sometimes resulting in very long travel distances. They also show that walking remains the dominant mode of transport, less by choice than by necessity, as transport alternatives remain limited or financially unaffordable for a significant proportion of vulnerable households.

Although undervalued, walking remains the dominant mode

The modal shares of walking in the six cities studied are presented in this table.

Table 3: Modal shares of walking in the six cities studied

Cities	Dakar (2020-2023)	Douala (2018-2021)	Yaoundé (2018-2021)	Dire Dawa (2019-2022)	Bouaké (2021-2023)	Antananarivo (2024-2026)
Mode shares	70%	35%	33%	46%	21%	73%

Source: Each city's Sustainable Urban Mobility Plan

In most African cities, walking accounts for a very significant proportion of mobility, yet receives very little dedicated investment . Walking is very often used to cover very long distances and under arduous conditions. Walking conditions are challenging :

- In many cities, pavements are patchy, deteriorated, non-existent or occupied by shops or informal parking, forcing pedestrians to walk on the roadway, with the associated safety risks. In Bouaké, 70% of vehicles are parked on pavements, and in Dakar, 75% of streets lack functional sidewalks
- Road crossings are often difficult and unsafe due to the lack of road markings, pedestrian crossings or safety features; in some cases, road design severely constrains pedestrians (to prioritise motorised traffic), with elevated footbridges or significant detours, increasing travel effort and fatigue;
- Mobility is also constrained by climatic conditions, notably the inaccessibility of certain streets during the rainy season, which particularly affects vulnerable road users (children, women, older people, and persons with reduced mobility);
- Inadequate street lighting increases both road safety and personal security risks, contributing to a widespread feeling of insecurity: in Dakar, 50% of pedestrians report not feeling safe in their neighbourhood;
- The lack of vegetation, shade and street furniture makes walking conditions all the more difficult;
- In African cities, walking journeys fall into two categories: short journeys and long journeys. In Douala, the average distance covered on foot is 2.3 km, corresponding to moderate journeys. In contrast, in the Greater Antananarivo urban area, around 10% of pedestrians (approximately 404,201 people)[21] walk for more than an hour a day, covering over 5 km[22], often whilst carrying heavy loads. This situation illustrates the profile of long-distance walkers and highlights both the importance of walking as a mode of transport and the need to improve walking conditions.

21. According to the Household Travel Survey (HTS), approximately 5,537,000 journeys are made daily by residents of Greater Antananarivo (SUMP Diagnostic Report – Antananarivo, p. 40)
22. Interview with TRANSITEC, the consultancy firm responsible for implementing the Antananarivo SUMP.

Image 27 : Cluttered pavements in Dakar.

Cycling: low usage hampered by numerous obstacles

The following table shows the modal shares of cycling in the six cities studied:

Table 4: Modal shares of cycling in the six cities studied

Cities	Dakar (2020-2023)	Douala (2018-2021)	Yaoundé (2018-2021)	Dire Dawa (2019-2022)	Bouaké (2021-2023)	Antananarivo (2024-2026)
Mode shares	0.1%	0.1%	0.1%	0.1%	1%	1%

Source: SUMPs of the 6 cities

This table shows that cycling remains very limited, accounting for only around 1% of journeys, and may be virtually non-existent in some towns. This situation can be explained by several factors:

- However, this trend remains limited by the lack of a continuous and safe cycle network: dedicated infrastructure is scarce, patchy or non-existent, exposing cyclists to a high risk of accidents;
- Cycling conditions are also affected by various factors: physical fatigue, weather conditions (heavy rain, heat), as well as challenging topography, particularly in cities with steep terrain such as Yaoundé or Antananarivo;
- Added to this is a very low rate of bicycle ownership among households: only 5% of households own a bicycle in Bouaké and Antananarivo, equivalent to approximately 43 bicycles per 1,000 inhabitants, which further limits the uptake and use of this mode of transport, even though it could constitute an effective and affordable alternative to long walking trips, either in combination with or prior to public transport
- Cycling has declined sharply, gradually being replaced by motorised two-wheelers, whereas it was once widely used. In Bouaké, this trend intensified following the political and military crisis of the 2000s, which led to the rapid proliferation of motorbikes at the expense of cycling;
- Cycling suffers from a persistent stigma: it is perceived as a mode of transport reserved for vulnerable groups, which limits its local uptake. Reversing this trend would require communication and awareness-raising initiatives to improve the image of cycling, encourage its use, and integrate learning to cycle systematically from an early age;
- Despite these low emission levels, cycling is experiencing slow but steady growth, driven by a desire to avoid increasing congestion, the high cost of motorised trips, the youthfulness of the population, as well as initiatives led by NGOs, cycling associations or bike-sharing schemes, such as Sama Vélo in Dakar.

Image 28 : Lack of cycle paths in Antananarivo.

Image 29 : Cycle lanes occupied by commercial activities in Dakar

Inclusion of active modes during the scenario phase

The integration of active modes into forward-looking scenarios is a planning standard shared by all the SUMPs studied, with the exception of Antananarivo, where the development process is still ongoing. Each city develops this integration according to an approach specific to its urban context and strategic objectives.

The case of Dire Dawa illustrates the link between urban morphology and the potential for soft mobility. Its three scenarios (**“sprawling city”, “two cities”, “polycentric city”**) incorporate active modes, demonstrating that urban form is a major determining factor: a compact, polycentric city encourages walking, whilst sprawling urbanisation increases distances and dependence on motorised transport.

Finally, in Yaoundé, planning incorporates active modes into its three scenarios (**“Reference”, “Balanced” and “Proactive”**), confirming that this dimension is a key element of strategic thinking.

In Bouaké’s SUMP, the three scenarios developed incorporate measures to promote active modes; however, the “change scenario”, which places the greatest emphasis on the development of walking and cycling, has been selected. It provides for the gradual and integrated roll-out of active modes, based on better organisation of public space and the implementation of dedicated infrastructure designed to facilitate and make walking and cycling safer. This choice reflects the local authorities’ desire to prioritise a realistic yet ambitious pathway towards active modes.

Among the scenarios examined, two stand out for the ambition and integrated nature of their approach to active modes, warranting detailed analysis.

“Mixed and proactive scenario” in Douala

In Douala, the four scenarios developed – **the “status quo”, “100% road”, “mixed and proactive”** and “post-SUMP” **scenarios** – systematically include a component dedicated to active modes, demonstrating that these were taken into account from the modelling phase onwards.

The selected **“mixed and proactive”** scenario gives explicit and operational priority to the development of active modes: it is based on the strategic assumption of a governance model that places public transport and active modes at the heart of investment and planning priorities for the coming decade.

This approach is reflected in the integration of an ambitious “Walking and Cycling Plan” at the heart of the modelling. The aim is to redevelop public space in favour of pedestrians and cyclists, recognised as key players in a sustainable mobility system. The plan provides for a systemic improvement of pedestrian routes and the creation of a continuous network of cycle paths, with a particular focus on neighbourhoods in need of better connectivity or undergoing redevelopment. It also includes the establishment of key cycle routes, such as the banks of the Wouri River or the Bonanjo-Deido route, designed to provide efficient feeder services to transport hubs and resolve the ‘last mile’ issue. Pilot traffic-calmed and pedestrianised zones will be trialled to restrict access to motor vehicles and promote urban activities geared towards residents. Finally, a specific initiative to tackle the informal occupation of roadways is planned to make active travel safer and more fluid. Thus, beyond mere mention, active modes of transport form one of the cornerstones of the strategic scenario, with a spatially-focused action programme aimed at achieving a sustainable rebalancing of public space in their favour.

Prioritising walking in Dakar

Dakar’s SUMP structures its scenarios around a progression in the prioritisation of active modes. Thus, the “Calm City” scenario promotes a logic of systemic rebalancing of public space, which proves particularly relevant in a context where walking already accounts for nearly 70% of trips.

The strategic scenario adopted in Dakar’s SUMP establishes a clear and complementary two-tiered prioritisation framework. At the metropolitan level, priority is given to the development and structuring of public transport modes, considered the backbone of the transport system. This approach is complemented and reinforced, at the level of neighbourhoods and urban sectors, by a clear policy of prioritising active modes. Thus, walking and cycling are explicitly designated as the preferred modes for internal traffic and local journeys, forming the fine-meshed and indispensable fabric of the overall system.

To translate this local priority into practice, the plan sets out a series of structural measures aimed at reconfiguring public space in favour of pedestrians and cyclists. The central objective is to create a continuous, safe and prioritised network dedicated to these modes. This involves stricter management of the road network to limit non-compliant uses (unauthorised parking, commercial encroachments, technical installations), thereby freeing up the necessary space. Particular attention is paid to improving travel conditions for vulnerable road users and persons with reduced mobility, ensuring equity and inclusiveness of the interventions. At the same time, a proactive policy to promote cycling is being implemented to make it a credible and effective alternative to the car, both for local trips and for more structured urban connections. This two-pronged approach aims to build an integrated, efficient and resilient mobility system.

Inclusion of active modes in the action plan phase

The review of action plans, although planned but not yet carried out, indicates that the deployment of active modes is systematically integrated into the SUMP studied, primarily through the implementation of suitable infrastructure and facilities. For example, the Douala plan explicitly provides for the improvement of pedestrian routes, neighbourhood accessibility, and the creation of continuous facilities in areas undergoing redevelopment.

Standard cross-sections incorporating 3.6 m sidewalks in Yaoundé

In Yaoundé, the planning policy mandates the systematic inclusion of wide sidewalks in all new road projects, as defined in new prescriptive technical standards. Every construction project is now designed according to a standard cross-section incorporating a dedicated 3.6-metre-wide space. This space is carefully configured to meet pedestrian requirements in terms of comfort, safety and amenity: a 2-metre-wide walking corridor ensures smooth movement; a 1-metre-wide strip reserved for tree planting provides shade and cooling, thereby improving thermal comfort; finally, a 0.6-metre-wide area dedicated to street furniture and facilities, in particular street lighting, significantly enhances user safety at night.

This regulatory approach goes beyond the simple provision of pavements, establishing walking, from the design phase onwards, as a mode in its own right. It reflects a planning philosophy in which pedestrian space is not treated as residual space within the road network, but as a structured system that must simultaneously fulfil functional (mobility), environmental (greening) and safety (lighting) requirements.

Image 30 : Typical cross-section of a secondary road © Yaoundé SUMP P123

A standard cross-section incorporating 3.6-metre-wide pavements allows for the integration of a structured and safe pedestrian area right from the design stage of the road network, ensuring the smooth flow of pedestrians whilst clearly separating functions (movement, greenery and facilities). It thus improves user comfort, safety, and the environmental quality of public space.

Promoting cycling in Dire Dawa: “Cycling for All”

In Dire Dawa, the measures implemented are not limited to improvements in infrastructure and facilities, but are distinguished by the roll-out of a comprehensive programme to raise public awareness and support the uptake of cycling. This operational initiative aims to catalyse cycling as a mode of daily transport.

The “Cycling for All” initiative will be led by the City of Dire Dawa, in collaboration with the Mobility Committee and the Transport Authority, once established. Funding will be provided by the city and International Financial Institutions (IFIs). The plan’s implementation timeline is structured around two successive SUMP programming phases: the short-term programme (2025–2029), focusing on the launch and initial deployment of the action plan, including first infrastructure interventions as well as awareness-raising initiatives on active modes; and the medium-term programme (2030–2034), enabling the consolidation and scaling-up of initial measures, with expanded infrastructure and strengthened safety measures for pedestrians and cyclists. This initiative is structured around three complementary levers: affordability, support for cycling and walking, and the development of a user community.

The first lever consists of a targeted subsidy scheme enabling the purchase of quality bicycles at a nominal cost, subject to a commitment to use them and not resell them. Distribution will prioritise strategic population groups such as schools and universities, public administrations, companies, and residents of pilot neighbourhoods. This scheme acts as a catalyst to demonstrate the practical value of cycling and, through structured monitoring, helps identify operational barriers faced by new users, thereby informing future support and infrastructure policies.

The second key lever for safe and sustainable uptake is a structured training and awareness programme. It includes compulsory training modules on safe cycling in urban environments, tailored to different audiences, with a particular focus on women and young people to strengthen confidence and skills. This educational component is complemented by public awareness initiatives, including the integration of cycling education into school curricula and the organisation of dedicated awareness events.

Finally, to embed cycling within the community and ensure its long-term sustainability, the programme foresees the creation of a local cycling association. This organisation will be responsible for maintaining links between beneficiaries, organising community-building events, and acting as a collective voice in dialogue with public authorities on the improvement of cycling infrastructure and policies. It will thus play a key advocacy and promotional role in embedding cycling within urban culture.

Incorporating active modes into the implementation phase

Although the implementation of SUMPs remains, on the whole, at a very early or partial stage, several concrete achievements are already emerging in the cities studied, illustrating the operational translation of the strategies. The actions presented below illustrate the diversity of initiatives implemented in the cities studied within the framework of the SUMPs. The examples concerning Antananarivo are, however, an exception, as the SUMP there is still being developed; the actions mentioned were therefore carried out prior to its implementation. They include both small-scale projects, which are relatively simple to implement but effective and easily replicable in other African cities, as well as more structural and ambitious projects. The case of the BRT in Dakar, for example, shows that a large-scale project can be carried out within the framework of a SUMP. This list is not, however, exhaustive.

Other initiatives also exist, such as the Corridor Development Project in Dire Dawa or the widening of pavements in Yaoundé. Furthermore, certain projects are currently under way, notably the construction of motorways equipped with pedestrian footbridges in Yaoundé. In Douala, as of 2025, no specific measures to promote active modes have yet been implemented, although several projects are under consideration; some initiatives are also underway in the city, but these do not directly focus on active modes. All these examples demonstrate that the SUMP is an effective operational tool for guiding, planning and supporting the implementation of sustainable urban mobility policies.

Raising awareness on soft mobility in schools in Yaoundé

As part of Urban Mobility Week, held in Yaoundé from 28 February to 4 March 2022, a road safety awareness campaign was conducted by the SECUROUTE association in four schools. The aim of this initiative was to raise pupils’ awareness of the risks associated with road traffic and to encourage safer behaviour in order to help prevent road traffic accidents.

Image 31 : Awareness-raising in schools during Urban Mobility Week in Yaoundé © CODATU, March 2022.

Image 32 : Urban bike ride, Dakar© Sama Vélo.

Urban bike ride organised by the Sama Vélo association in Dakar

Since its creation in 2018, the association has been carrying out advocacy, communication and awareness-raising activities aimed at gaining recognition for cycling as a full-fledged mode of transport in the city. Comprising 15 members, it organises bike rides every Sunday as part of a broader initiative to promote cycling in Dakar. Furthermore, it develops initiatives in partnership with the Collectif Citoyen Mobilité Durable, a network of professionals and researchers working on the issue of the mobility of people and goods in a context of rapid urbanisation and climate change. These initiatives include, in particular, urban cycling exploration rides, incorporating an assessment of traffic conditions, as well as cycling lessons for 50 women per year.

Development of inter-neighbourhood footpaths in Antananarivo

The Lalankely III project — literally 'narrow streets' in Malagasy — aims to improve the living conditions of around one million residents spread across 222 fokontany (an administrative subdivision of the municipality). Co-financed by the European Union and the French Development Agency (AFD) to the tune of €26.37 million[23], this programme focuses primarily on deprived neighbourhoods with the aim of improving accessibility, cleanliness, safety and social cohesion. It involves the construction and development of pedestrian lanes, roads and drainage infrastructure, with the aim of opening up these neighbourhoods and improving the urban environment. The pedestrian facilities also incorporate universal accessibility principles to facilitate mobility for all, particularly for people with reduced mobility. The implementation of the project, initially scheduled from June 2019 to September 2025 [24], has been extended until 2026. By February 2026, the project had reached a 98% completion rate, indicating the imminent completion of the planned infrastructure.[25] In total, more than 1,600 infrastructure projects have been completed, including over 150 km of Lalankely (narrow alleyways), 80 standpipes and more than 30 wash basins,[26] the installation of 1,024 streetlights in several areas of the capital aims to ensure optimal and sustainable lighting coverage, whilst helping to reduce insecurity.[27]

Alongside the Lalankely III project, the PRODUIR project aims to strengthen urban resilience and access to essential services in vulnerable neighbourhoods within the cities concerned. Implemented under the supervision of the Ministry of Land Use Planning and Land Services (MATSF), which acts as the project owner, it is funded to the tune of 75 million dollars (equivalent to 63.3 million euros) by the Malagasy government and the World Bank[28] and runs from 2019 to 2026. Its objective is to improve living conditions in urban areas and reduce vulnerability to flooding in the informal settlements of Greater Antananarivo.

The C3 canal, located in the southern and south-eastern districts of Antananarivo, runs through several vulnerable neighbourhoods in the lower-lying parts of the city and serves as an urban drainage channel to convey stormwater, reduce flood risk and improve sanitation conditions.

The rehabilitation works on this canal include improvements to mobility conditions around the drainage infrastructure. Service roads are being created or upgraded along the canal and retention areas to facilitate both vehicular and pedestrian circulation. As a result, 18 km of footpaths have been constructed or rehabilitated along the canal. These improvements benefit both service operators, for maintenance and waste collection activities, and local residents. In the downstream section, which passes through rice-growing areas, footpaths have been created to improve access to plots and the transport of goods, while footbridges allow safe crossing of the canal. Finally, the strengthening of existing embankments and roads, designed to support construction traffic, contributes in the long term to improved mobility conditions for all users.

Image 33 : Construction of a footpath along the edge of an agricultural area.

Image 34 : Construction of a staircase.

Image 35 : Construction of a footbridge as part of the PRODUIR project.

23. https://www.eeas.europa.eu/delegations/madagascar/lalankely-iii_und_en?s=106&utm
24. https://www.agetipa.mg/projets/details/23
25. https://www.agetipa.mg/actualites/details/170
26. https://newsmada.com/2025/03/11/lalankely-iv-le-mdat-prepare-le-projet-a-hauteur-de-35-millions-deuros
27. https://new.moov.mg/article/96078-projet-lalankely-iii-un-volet-eclairage-public-pour-ameliorer-la-qualite-de-la-vie-dans-la-capitale?utm_source=chatgpt.com#body2
28. https://www.produir-madagascar.mg/lessentiel/le-produir-en-resume/

Image 36 : Cycle path along the Dakar BRT corridor.

Cycle path linked to the Dakar BRT project

Dakar's Sustainable Urban Mobility Plan (SUMP) provides for the development of a robust and well-defined cycling network, designed to complement the Bus Rapid Transit (BRT) system. This integrated approach aims to offer so-called "non-captive" users – that is, those with an alternative to private cars – a viable, efficient and safe mobility option, by positioning the bicycle as a credible mode of transport for everyday journeys.

This ambition is being realised on the ground, notably through the Dakar BRT project, led by the Government of Senegal and implemented by the Executive Council of Urban Transport in Dakar (CETUD). The BRT, which was inaugurated in 2024, is a project that received multi-partner funding from the World Bank, the European Investment Bank, the Green Climate Fund, the Government of Senegal and the private sector, totalling US$478.02 million (equivalent to €402 million).

Cycling infrastructure was at the heart of Component 1 of the BRT project, entitled "Infrastructure, vehicle fleet and systems for the BRT", which provided for detailed design studies, the construction and supervision of basic infrastructure works, and in particular the creation of pedestrian crossings, pavements and cycle lanes along the entire corridor. The 18.3 km pilot line between Petersen Bus Station and the Guédiawaye Prefecture is being commissioned and incorporates dedicated facilities for cyclists from the design stage, ensuring a physical and functional connection between active modes and the transport network[29].

29. https://cetud.sn/projet/bus-rapid-transit/

Tactical urbanism in Yaoundé

As part of the "Yaoundé Cœur de Ville" project, and as a continuation of a tactical urbanism initiative launched in 2021 following the installation of an air quality monitoring tool, temporary and reversible improvements were implemented in the city centre, on the eastern side of Avenue Kennedy. Combining road markings, temporary reductions in carriageway width, lightweight street furniture and traffic-calming measures, these aimed to test new configurations of public space and measure their effects on usage, speeds and pollutant concentrations. This initiative forms part of the Development Plan for Inclusive and Resilient Cities (PDVIR), the initial studies for which were funded by the World Bank[30], and which designated Avenue Kennedy as a pilot site for testing principles of tactical urbanism and progressive pedestrianisation. It was subsequently integrated with the city's **Urban Master Plan (PDU)** and **Sustainable Urban Mobility Plan (SUMP)**, to ensure consistency with urban planning and mobility guidelines[31]. The measures tested involved closing the eastern side of the avenue to motorised traffic, accompanied by the enhancement of the space through distinctive road markings, the installation of suitable street furniture and the incorporation of greenery. The objective was twofold: to contribute to the development of public spaces conducive to active modes and to assess, using sensors deployed for this purpose, the impact of these changes on air quality. The temporary closure of a lane for one week thus made it possible to observe changes in behaviour, encouraging residents to prioritise walking and public transport.[32]

To make this long thoroughfare more pedestrian-friendly, the design incorporated rest and pause areas, fitted with functional street furniture intended to improve pedestrian comfort and encourage walking.

This project forms part of a strategic approach to tactical urbanism, based on temporary, low-impact and reversible interventions, combined with environmental monitoring. Such an approach allows for the short-term testing of new configurations of public space, whilst forming part of a more structural medium- and long-term vision, notably incorporating expanded pedestrianisation, better organisation of parking and an overall improvement in traffic flow. Initial feedback shows that the temporary closure, including the pedestrianisation of one direction of traffic, has encouraged a modal shift towards active modes and contributed to a reduction in local pollutant emissions.

30. World Bank / CUY
31. Yaoundé Urban Community – Yaoundé Urban Development Plan (PDU) and SUMP.
32. Yaoundé Urban Community (2021)

Image 37 : Tactical urbanism, Yaoundé.

AImprovements to school surroundings in Bouaké

As part of the implementation of its Sustainable Urban Mobility Plan (SUMP), the city of Bouaké has undertaken safety improvements around four primary schools, benefiting more than 5,700 pupils, as part of the Safe Schools Africa programme, funded by the French Development Agency and the FIA Foundation.[33]

Implemented by the NGO Amend, in partnership with the municipal transport department, the Organisation of Ivorian Youth for Road Safety, the National Road Safety Organisation and the Research Institute for Development, this project marks the second phase of the programme in the city. It builds on the work already carried out in schools in N'gattakro, Koko 1 and Koko 2, extending safety measures to other school zones identified as particularly high-risk. It thus demonstrates the value of multi-stakeholder partnerships in protecting vulnerable road users, particularly children, in a context of rapid urbanisation.

The initiative is based on a user-centred approach and speed reduction. It combines traffic calming at critical junctions, the provision of protected pedestrian routes and the redesign of school entrances to make them safer and more clearly marked. Simple in design but transformative in their effects, these measures are now being rolled out on a significant scale across the local area.

The results are immediately apparent. School surroundings that were once dangerous have been reconfigured through marked pedestrian crossings and traffic calming measures. Pathways, previously shared in a conflictual manner between children and vehicles, are now separated and physically protected, giving concrete expression to the principles of road safety and universal accessibility promoted by the SUMP.

This approach is complemented by road safety awareness campaigns carried out in schools, involving pupils, teachers and local stakeholders, to encourage the uptake of these improvements and the adoption of safe behaviour from a young age. In light of the results observed, the project is set to be extended to a greater number of schools, with a view to rolling out these planning and prevention principles across the local authority area.

33. https://amend.org/fr/2025/09/08/a-bouake-des-trajets-scolaires-plus-surs-pour-des-milliers-denfants/

Image 38 : Before safety improvements to pedestrian crossings near schools

Image 39 : After – Safety improvements to pedestrian crossings near schools

Image 40 : Illustration of air pollution.

2.2 Integrating climate into the development and implementation of Sustainable Urban Mobility Plans (SUMPs)

Mobility and climate change are closely interrelated challenges. The transport sector ranks as the third-largest contributor to global greenhouse gas emissions, following electricity generation and manufacturing.

Integrating both air pollution mitigation and climate change adaptation considerations provides a critical framework for the formulation of sustainable urban mobility policies. While the reduction of local air pollutants and greenhouse gas emissions supports public health objectives and contributes to global climate change mitigation, adaptation seeks to ensure the safety, reliability, and comfort of transport users under increasingly frequent and severe climate-related events, including heatwaves, flooding, and extreme precipitation. By articulating these two dimensions, urban mobility can be positioned not only as a strategic lever for the low-carbon transition, but also as a key driver of urban resilience and population protection in the face of escalating climate risks.

Methods and tools used to analyse the integration of climate into SUMPs

Climate has been integrated as a cross-cutting theme throughout all phases of the Sustainable Urban Mobility Plans (SUMPs) studied, from the initial assessment through to the implementation of the action plan. Various tools can be used to collect climate data, some of which are presented below.

Modelling of greenhouse gas (GHG) emissions

The assessments of the six Sustainable Urban Mobility Plans (SUMPs) studied all include the measurement and modelling of greenhouse gas (GHG) emissions.

Within the framework of SUMPs supported by MobiliseYourCity, GHG emissions modelling, particularly CO_2, enables the assessment of the current and projected carbon footprint of urban mobility systems through scenario analysis of changes in travel behaviour, vehicle fleet composition, and transport policies. This quantification provides an objective basis for assessing contributions to climate change, comparing the effectiveness of different mitigation measures, and aligning mobility strategies with national and international climate commitments, such as Nationally Determined Contributions (NDCs).

Its integration into the SUMP process supports the prioritisation of measures with the highest emission-reduction potential and strengthens consistency between transport planning and decarbonisation objectives. To ensure long-term sustainability and impact, it is recommended to promote local ownership of the tool, enabling local stakeholders to update and actively use it in decision-making processes. This modelling also constitutes a strategic lever for building a robust, evidence-based rationale, thereby facilitating access to climate finance.

Air quality measurement using fixed or mobile sensors

Air quality monitoring relies on the use of fixed sensors, enabling continuous measurements at strategic locations, as well as mobile sensors, including portable devices or sensors installed on different modes of transport (public transport vehicles, municipal fleets, bicycles, or pedestrian equipment). This system allows for the collection of detailed, georeferenced real-time data on key urban air pollutants, such as fine particulate matter ($PM_{2.5}$ and PM_{10}) and nitrogen dioxide (NO_2).

This approach enhances the understanding of local pollution dynamics by precisely identifying exposure hotspots, particularly along major transport corridors, around mobility hubs, and in densely populated areas. When integrated into Urban Mobility Management Plans (UMMPs), it serves as a key decision-support tool to guide transport policies towards lower-emission solutions, improve air quality, and strengthen public health protection in urban areas.

However, this type of system, which requires dedicated equipment, has so far been implemented only in the SUMPs of Dakar, Yaoundé, and Antananarivo.

As Etienne Lhomet, project director for the Yaoundé SUMP at DVDH, explains:

> ***In Yaoundé, the environmental assessment process includes a section dedicated to air quality, based on the deployment of mobile sensors. The data collected in this way is then used in modelling work, supplemented by preliminary calculations of CO_2 emissions. This approach ensures comprehensive coverage of the value chain, from data acquisition through to processing and integration into analytical models.***
>
> **Etienne Lhomet,**
> **ProjectDirector for the Yaoundé SUMP at DVDH**

Integrating climate into the diagnostic phase

This table presents the main available data on greenhouse gas emissions and air quality in six African cities, as well as the associated health impacts.

Table 5: GHG emissions and air quality in cities

Cities	Dakar (2020-2023)	Douala (2018-2021)	Yaoundé (2018-2021)	Dire Dawa (2019-2022)	Bouaké (2021-2023)	Antananarivo (2024-2026)
Total annual greenhouse gas emissions	0.924 $MtCO_2eq$ (2015)	0.548 $MtCO_2eq$ (2019)	0.635 $MtCO_2eq$ (2018)	0.0354 $MtCO_2eq$ (2020)	0.784 $MtCO_2éq$	0.154 $MtCO_2éq$ (2024)
Average annual $PM_{2.5}$ concentration	25 µg/m³	NC	49 µg/m³ (2012)	NC	NC	29 µg/m³
Exceeding the WHO recommended threshold (5 µg/m³)	x5	NC	×10	NC	NC	×6
Average annual concentration of PM_{10}.	140 µg/m³	NC	65 µg/m³ (2012)	NC	NC	NC
Exceeded the WHO re-commended threshold (20 µg/m³)	x7	NC	x3	NC	NC	NC
Annual deaths attributable to air pollution	NC	+ 10 000	3 300 (2019)	NC	34 000 (2016)	40 000 (2016)

Source : SUMPs and climate data for the six cities studied.

The table highlights a concerning situation regarding air pollution in the cities analysed, caracterised by high annual greenhouse gas emissions, concentrations of fine particulate matter significantly exceeding WHO guideline thresholds, and a substantial number of deaths attributable to air pollution exposure.

A gradual incorporation of climate and health vulnerabilities into mobility assessments

The assessments carried out in the six cities studied indicate that climate issues are no longer entirely peripheral to urban mobility policies, although they do not yet constitute a fully structural component of Urban Mobility Plans (SUMPs). They are increasingly taken into account, primarily from the perspective of emissions mitigation, infrastructure adaptation, and health impacts associated with deteriorating air quality. In contexts characterised by rapid urbanisation, rising motorisation, constrained resources, and strong reliance on walking and informal transport, urban mobility systems present multiple vulnerabilities that remain only partially addressed and unevenly integrated into public policy.

Concerning emissions trajectories, but real potential for reduction

The assessments first converge on a clear finding: in the absence of proactive measures, emissions from urban transport are expected to increase significantly. This trend is driven by rising motorisation, congestion, urban sprawl, and the lack of efficient public transport provision. However, several Sustainable Urban Mobility Plans (SUMPs) underline that a substantial shift remains achievable. In Douala, Dakar, and Dire Dawa, the scenarios developed in the plans show that significant emission reductions can be achieved compared to current trajectories, provided that the development of public transport is combined with improved conditions for walking, the promotion of alternatives to private car use, and better organisation of transport systems. Climate therefore emerges as a strong driver for transforming urban mobility, rather than as an external constraint on the sector.

Severely degraded air quality and major health impacts

The second cross-cutting finding concerns the severity of air pollution challenges. In nearly all the cities covered, observed concentrations of fine particulate matter significantly exceed WHO guideline values, in some cases by a wide margin. Where data is available, it points to particularly concerning situations, notably in Yaoundé, Dakar, and Antananarivo. Even where monitoring systems remain limited, as in Douala, Dire Dawa, or Bouaké, complementary analyses indicate similarly high levels of urban pollution, with serious public health implications. These findings therefore underscore the close interlinkage between climate and public health issues: reducing emissions from urban transport not only contributes to global decarbonisation objectives, but also responds to an immediate imperative to protect exposed urban populations.

Tangibleclimate vulnerabilities for infrastructure and services

The assessments also show that climate change adaptation cannot be dissociated from mobility policies. In several cities, infrastructure and travel conditions are directly affected by clearly identified hydrological and thermal hazards. Recurring flooding in low-lying areas of Douala, Yaoundé, Bouaké, and Antananarivo, flood risks and disruptions along transport corridors in Dakar, and the combined challenges of flash floods and drought in Dire Dawa undermine travel continuity and reduce the reliability of transport networks.These factors lead to a shared conclusion: Urban Mobility Plans (UMPs) can no longer be limited to the organisation of traffic flows. They must also integrate infrastructure resilience, stormwater management, the preservation of ecological connectivity, and the consideration of territorial vulnerabilities into the very design of transport interventions.

Unevenness in assessments and growing maturity of approaches

A comparison of the six cities ultimately highlights a lack of consistency in the assessments. Some SUMPs include relatively advanced, quantified scenarios on emissions or air quality, while others still rely on fragmented data, external studies, or proxy indicators. This diversity indicates that climate considerations are increasingly being integrated, but remain uneven in terms of methodologies, tools, and analytical depth. It also implicitly underscores the need to strengthen local capacities for measurement, monitoring, and evaluation, particularly with regard to emissions, air quality, and infrastructure vulnerability.

A shift in perspective for African SUMPs

Taken together, these assessments reflect a significant shift in the approach to SUMPs in African cities. Climate is no longer viewed solely as an international issue or a compliance requirement. It is increasingly becoming a concrete analytical lens through which to assess the shortcomings of urban mobility systems, their cumulative costs, and the transformations required. In this regard, SUMPs play a central role in linking mitigation, adaptation, public health, and equitable access to mobility. Provided they are effectively implemented, they can provide a relevant strategic framework to guide cities towards more sustainable, more resilient, and safer transport systems for residents.

Focus on informal transport and motorised vehicles: convenient but highly polluting modes of travel

Table 5: Modal shares of informal transport and motorised vehicles in the six cities studied

Modal shares (in %)	Dakar (2020-2023)	Douala (2018-2021)	Yaoundé (2018-2021)	Dire Dawa (2019-2022)	Bouaké (2021-2023)	Antananarivo (2024-2026)
Minibus	6.8	1	5	0	0	17
Private cars	4.2	5	10	4	7	2
Taxis	6.5	12	40	0	27	1
Motorcycle taxis	-	40	11.9	0	24	0
Private motorcycles	0.7	3.9	0	0.9	20	5
Tricycles	0	0	0	41	0	0
Formal public transport	11.7	0	0	0	0	0
Other	0	3	0	8	0	1

Source : SUMPs of the 6 cities.

Analysis of transport structures in the cities studied highlights common trends characterised by a predominance of artisanal and informal transport modes, to the detriment of structured public transport systems. These modes, mainly comprising minibuses, shared taxis, and motorised tricycles, account for the bulk of motorised transport provision. They are generally characterised by an ageing vehicle fleet, often composed of second-hand imports, poorly maintained and subject to limited regulation, resulting in high emission levels and low standards of safety and comfort. Their limited passenger capacity requires a higher number of vehicles on the road to meet demand, thereby contributing to congestion and the deterioration of air quality. At the same time, formal public transport remains largely marginal, insufficiently structured, or still in the process of deployment, which limits its ability to effectively organise urban mobility. This situation encourages the use of individual or semi-collective transport solutions, exacerbating emissions and urban vulnerabilities.

However, disparities persist between the cities studied: Antananarivo and Dakar still retain a relatively significant share of public transport, although it remains partly artisanal and insufficiently structured, while Douala and Bouaké are characterised by a strong reliance on motorcycle taxis and taxis, reflecting the predominance of high-emission informal modes. Yaoundé presents an intermediate profile, structured around extensive use of taxis, whereas Dire Dawa relies predominantly on motorised tricycles (Bajaj), with private car ownership still limited but increasing. These configurations reflect different trajectories but converge on a common finding: a poorly structured transport supply and a strong dependence on informal modes.

Integrating climate during the scenario-building phase

Explicit consideration of climate in the scenario-building phase

The five finalised operational SUMPs, namely Dakar, Douala, Yaoundé, Dire Dawa and Bouaké, present strategic scenarios explicitly designed to meet several converging objectives: mitigating climate change through the reduction of greenhouse gas emissions, improving air quality, and strengthening resilience to the impacts of climate change. This development reflects a significant shift in planning approaches, in which climate is no longer considered solely as a consequence of transport policies, but as a key determinant in the selection between alternative development pathways.

In Dakar, a scenario-based approach grounded in progressive modal shift

In Dakar, this trajectory is structured around a series of scenarios, ranging from the "baseline scenario" to the "dedicated public transport corridor (TCSP) scenario", and subsequently to the "TCSP and traffic-calmed city" scenario. The underlying logic of this progression is based on a gradual modal shift towards more efficient public transport systems. Climate considerations are therefore integrated through the progressive transformation of the transport system, aimed at reducing the share of the most polluting modes in favour of a more sustainable and structured mobility framework.

In Douala and Yaoundé, climate becomes an explicit criterion for selecting scenarios

The approaches in Douala and Yaoundé are distinguished in particular by the structuring of their scenarios around an explicit ambition to decarbonise urban transport. In both cases, the selection of evaluation criteria is not based solely on improving traffic flow, but reflects an institutional commitment to align local mobility policies with climate commitments, notably the Nationally Determined Contributions (NDCs).

In Douala, the choice of criteria for the mixed and proactive scenario is closely linked to the city's high exposure to climate change. The city has integrated the reduction of greenhouse gas emissions as a standalone performance indicator. The climate objective, understood as both emissions reduction and the improvement of local air quality, emerges as a central and cross-cutting criterion, closely associated with objectives of efficiency, inclusion, and quality of life.

This integration is reflected in several specific elements. The chosen scenario thus targets 159 kg CO_2e per capita per year, representing a 6% reduction[34] compared to a conventional development scenario based solely on the road network. The modal shift towards higher-capacity modes is also a key criterion, as the institutional analysis has shown that taxis and private cars together account for 53% of emissions whilst meeting only 28% of demand. The scenario therefore prioritises improving the performance of BRT and buses, whilst aiming to reduce the share of motorbike taxis[35]. Finally, the preservation of active modes is explicitly incorporated, with the refurbishment of 10 km of cycle paths and safe pedestrian facilities designed to prevent a shift towards private car use.[36]

In Yaoundé, the criteria for selecting scenarios are based on four key performance indicators: total travel demand and its modal split, variations in network loads, public transport ridership, and greenhouse gas emissions. The integration of climate considerations into this assessment framework responds to findings highlighted by the ageing vehicle fleet and critical levels of air pollution. The selected scenario therefore targets both technological and organisational transformation. It aims for an 11% reduction in GHG emissions by 2035 compared to the "business-as-usual" scenario, which has led to the development of a public transport network designed to accommodate 500,000 trips per day, compared to 120,000 currently. It also relies on the regulation of the informal transport sector—where taxis account for 40% of vehicle-kilometres—as well as an environmental efficiency approach, including the introduction of a vehicle inspection scheme intended to improve air quality by reducing emissions of fine particulate matter and greenhouse gases.

Scenarios designed as environmental management tools

Thus, in the SUMPs of Douala and Yaoundé, the selection of criteria is no longer limited to a traditional approach focused on demand management or traffic optimisation. It is part of an "Avoid-Shift-Improve" approach, in line with MobiliseYourCity standards, where scenario planning becomes a genuine environmental management tool. The main advantage of these approaches lies in the fact that climate considerations are integrated from the early stages of trajectory comparison, rather than being introduced solely at the stage of ex-post justification of selected measures.

Integrating climate into the development of the action plan

Action plans derived from Sustainable Urban Mobility Plans (SUMPs) define concrete levers for translating climate ambitions into operational interventions. These measures aim both to reduce the carbon footprint of urban mobility and to adapt transport systems to the impacts of climate change.

The following examples illustrate this operational approach:

In Douala

The plan clearly prioritises the improvement and rehabilitation of the existing road network over the development of new infrastructure. This approach helps to limit land consumption while optimising existing investments. In addition, the implementation of a "Walking and Cycling Plan" constitutes a key component, closely linked to the regeneration of riverbanks and priority neighbourhoods.[37] Particular attention is paid to user comfort, especially for pedestrians, through the provision of shaded pavements that facilitate travel conditions suited to local climatic constraints. The plan also provides for a gradual transition towards a bus fleet powered by compressed natural gas (CNG). This transition will be accompanied by the introduction of dedicated monitoring tools, as well as a revision of parking policy to better regulate usage and support sustainable mobility objectives.

Finally, improved coordination between the various urban networks (water, energy, and waste) is envisaged along the main transport corridors[38]. This integrated approach aims to optimise urban interventions by reducing costs, delays and disruption for users.

34. Brief Summary of the Douala SUMP 2019, p. 6
35. MYC 2025 Douala Factsheet
36. Summary of the Douala SUMP 2019, p. 12
37. Brief Summary of the SUMP/SUMP for Douala (2019), p. 3
38. Douala SUMP Summary MobiliseYourCity v2, p.119

In Bouaké

The "Bouaké, Green City" project is based on the systematic integration of nature-based solutions into urban planning. The objective is twofold: to improve living conditions and reduce environmental vulnerabilities in a city of nearly 800,000 inhabitants, with an annual growth rate of +3%. The SUMP provides for the greening of public spaces in order to reduce exposure to heat, dust, and air pollution. This initiative is estimated at €30,000 (approximately 19.68 million CFA francs)[39], prioritises the busiest thoroughfares and transport hubs, particularly key pedestrian routes and public transport waiting areas.

The creation of a central urban park, designated as an "urban forest", is part of the same approach to the renaturation of the city centre. This park is intended to act as a green lung, to regulate the microclimate, and to serve as a venue for urban social interaction.[40]

Finally, the safety improvements and development of pedestrian crossings in the "low-lying areas" (zones prone to seasonal flooding) contribute to reconciling active mobility, climate resilience and ecological connectivity. This initiative is estimated to cost 30,000 euros (approximately 19.68 million CFA francs).[41]

Image 41 : Shaded street in Bouaké.

39. Bouaké SUMP, Table 8 – MB3 Measures
40. Bouaké SUMP – environmental and living environment guidelines
41. Bouaké SUMP, Table 8 – Measure MB5

Taking climate into account during the implementation phase

While the operational implementation of the SUMP' climate commitments remains limited at this stage, the first concrete achievements already demonstrate their feasibility and impact.

Car-free day in Douala and Yaoundé

In the two Cameroonian capital cities supported by MobiliseYourCity, the car-free day is an operational measure with immediate effects, making sustainable mobility policies more visible, allowing the reallocation of public space to be tested, and generating or mobilising impact data (air quality, usage, safety), complementing medium- and long-term structural investments.

In Douala, the Car-Free Day involved the temporary closure of certain urban roads to motorised traffic, notably during the event held on 24 November 2018 under the theme "The street for everyone"[42]. During this day, public space was primarily reallocated to pedestrians, cyclists, and social activities, marking a tangible temporary reappropriation of public space and a promotion of active mobility modes.

Car-Free Day helps align urban space with actual mobility practices by temporarily reducing the dominance of motor vehicles. At an institutional level, this initiative also serves as a full-scale pilot exercise: it enables the observation of pedestrian flows, public space usage, user interactions, and the social acceptability of traffic restrictions. Subsequent editions, announced or renewed after 2018, reflect a commitment to establishing this initiative as a long-term measure, serving as a tool to support behavioural change.

In Yaoundé, the Car-Free Day serves as a means of temporarily reducing motorised traffic and includes an explicit objective of assessing environmental impacts on air quality and the urban climate. The partial closure of roads enables an immediate reduction in local emissions, providing a suitable framework for observing the relationship between motor vehicle traffic and air quality. In particular, it allows for the isolated assessment of road traffic impacts by analysing pollution levels before, during, and after the event. The technical monitoring system, comprising fixed and mobile sensors geolocated via GPS and capable of taking measurements every 10 seconds, provides detailed mapping of pollutant concentrations and a precise spatial analysis of the effects of reduced vehicular traffic on urban air quality.

Image 42 : Before traffic closure on Avenue Kennedy.

Image 43 : After traffic closure on Avenue Kennedy.

42. Douala Urban Community

Solar charging station for electric motorcycles in Bouaké

The solar-powered charging station for electric motorcycles in Bouaké, inaugurated in August 2023, is a pilot sustainable mobility project developed under the Bouaké Sustainable City initiative, in partnership between the Bouaké City Council and the Ivorian start-up Africharger, which specialises in charging solutions and electromobility. The project aims to promote the electrification of motorcycles, a widely used mode of transport in urban areas, by providing a clean and reliable charging solution adapted to the local context, based on a 100% solar energy supply. In terms of impact, the station contributes to raising awareness of electromobility among local stakeholders, improving access to clean energy for daily travel, and serving as a demonstration project with potential for scaling up or replication in other neighbourhoods of Bouaké or in other Ivorian cities.

Image 44 : First solar-powered electric motorcycle charging station in Bouaké.

100% electric BRT in Dakar

The commissioning of a 100% electric Bus Rapid Transit (BRT) system is the central pillar of Dakar's Sustainable Urban Mobility Plan (SUMP) implementation. The BRT corridor, developed as a fully dedicated lane, connects densely populated peripheral areas to the central urban core, over a distance of approximately 18 km, with 23 stations and multimodal interchange hubs.

The system has been designed to accommodate several hundred thousand passengers per day, with high service frequencies during peak periods and commercial speeds significantly higher than those of mixed traffic. The choice of a fully electric bus fleet eliminates local emissions of air pollutants (NO_x, PM), while significantly reducing greenhouse gas emissions over the entire operational lifecycle.

A dedicated public transport lane has a capacity 8 to 10 times greater than that of a mixed-traffic lane. By transporting a substantially higher number of passengers within the same right-of-way, the BRT contributes directly to reducing the number of private vehicles on the road, thereby lowering energy consumption per passenger, reducing CO_2 emissions, alleviating congestion, and optimising the use of urban public space.[43]

Image 45 : Dakar's electric BRT.

43. Dakar SUMP

Image 46 : Issues relating to road sharing.

2.3 Lessons learnt

Structural constraints on implementation

Despite the significant progress made in the development of SUMPs, the main challenge remains their effective implementation. In many African cities, these plans constitute robust strategic frameworks, but their operationalisation remains partial, uneven, or delayed. This implementation gap constrains scaling-up processes, with promising initiatives struggling to be replicated, consolidated, and embedded within broader urban transformation dynamics.

Weak institutional capacity: the limitations of ad hoc technical expertise without a long-term vision

The SUMP provides an operational framework for implementation—including a set of actions, a timeline, and financial estimates—but external technical assistance, whose mandate typically ends with the finalisation of the plan, is not extended to support the implementation phase. While training is sometimes delivered during the preparation stage, it remains insufficient to equip local authorities with the capacities required to implement and monitor projects effectively. At the same time, institutional capacities within local authorities remain too limited to carry out all planned actions autonomously. This ad hoc support, confined to the upstream phase, does not ensure the sustainable embedding of expertise within local administrations, nor an adequate transfer of skills to guarantee long-term implementation. Political and administrative instability further exacerbates this fragility: changes in technical teams often result in a loss of institutional ownership of the plan, due to the absence of structured handover mechanisms.

Under these conditions, pilot projects are rarely scaled up, as a result of limited institutional continuity and insufficient internal capacity to ensure the monitoring, consolidation, and sustainability of implemented actions.

The lack of enforceability: a barrier to decision-making

The impact of the SUMP on concrete decision-making remains limited as long as it lacks enforceability. In the absence of a clear enforcement mechanism, the plan is not binding on other strategic documents—particularly those related to urban planning, road infrastructure, or fiscal policies—nor on private stakeholders. As a soft law instrument, it remains a guidance framework whose provisions are not legally binding on competent authorities or project developers.

This situation constitutes a major institutional constraint on its implementation. It leads to persistent gaps between the stated strategic vision and actual decision-making, thereby undermining the coherence and long-term sustainability of mobility policies. In terms of acceptability, it also weakens the ability of elected officials to implement often sensitive measures, in the absence of an enforceable framework to support them in addressing user resistance.

From this perspective, strengthening the enforceability of the SUMP represents a key lever. It would enable the prioritisation of funding allocations for mobility projects, ensure alignment between investment decisions and the plan's strategic orientations, and help secure, over time, the financial resources required to scale up sustainable mobility policies.

Insufficient financial resources to fund mobility investments and the maintenance of infrastructure.

National and local budgetary constraints: the dual challenge of mobility funding

In the majority of the cities studied, funding mechanisms dedicated to mobility infrastructure remain insufficient.

The financial assessment of Yaoundé's Urban Mobility Plan (SUMP) for the period 2015–2018 indicates that the Ministry of Housing and Urban Development and the Yaoundé Urban Community mobilise an average of €45.7 million per year for urban mobility, equivalent to approximately 30 billion CFA francs. Of this amount, only 15% is allocated to infrastructure maintenance, compared to an estimated requirement of nearly 27% of the total budget. Actual expenditure, amounting to around €6.7 million per year, therefore covers only about 55% of annual maintenance needs, estimated at €12.2 million. This results in a funding gap of approximately 45%, explaining the recurring under-maintenance of infrastructure.

This budgetary constraint is also evident in Bouaké, where, according to Ferdinand N'Guessan, Deputy Director in charge of urban planning at Bouaké City Council,

> ***The local authority does not have the necessary resources to fund, over the course of a year, the construction of one kilometre of asphalted road***
>
> **Ferdinand N'Guessan,**
> **Deputy Director in Charge of Urban Planning at Bouaké City Council**

Furthermore, for the Urban Municipality of Antananarivo, total tax revenue allocated to transport is estimated at around €5.8 million per year, or approximately 29 billion ariary per year, a very small amount given the needs. Furthermore, the resources mobilised by the National Road Fund remain at a modest level: annual revenue is estimated at 27.6 million euros, whilst the Ministry of Planning and Public Works estimates the cost of maintaining national and priority roads at 276 million euros, revealing a massive shortfall in funding.

Inappropriate distribution of resources between national and local levels

The CUY allocates a significant share of its own resources to urban mobility, primarily for the improvement and maintenance of the road network. However, its contribution represents only around 8% of total investment expenditure, compared to more than 92% for the MINHDU. This imbalance in funding allocation effectively places the MINHDU in a dominant position in budgetary decision-making and complicates the establishment of effective coordination between the two institutions. As a result, investment choices do not always fully reflect local priorities.

These institutional and financial imbalances are sometimes compounded by tensions between central government and urban authorities, particularly regarding the distribution of responsibilities and resources, which can slow down project implementation, as observed in Cameroon.

A reliance on funding from international donors

The majority of the cities studied face a structural shortage of financial resources, which limits their ability both to support major infrastructure investments and to ensure the long-term maintenance of existing assets. This budgetary constraint leads to a strong dependence on international donor funding, which has become essential for the implementation of large-scale projects.

In this context, the limited level of own-source revenues among local authorities undermines their financial autonomy, increases reliance on external financing for urban development, and constrains the effective implementation of Sustainable Urban Mobility Plans (SUMPs). In Bouaké, all road surfacing and rehabilitation works are financed through resources external to the municipality, whether from the State or international donors.

In Antananarivo, the structuring and implementation of transport investments illustrate a strong dependence on external financing. Between 2020 and 2024, support from the World Bank for the priority rehabilitation of urban roads mobilised nearly €92 million, reflecting the central role of technical and financial partners in infrastructure funding. Furthermore, the main infrastructure projects—the ring road and the cable car system—rely predominantly on funding from international partners such as the French Development Agency, the European Investment Bank, and the European Union.[44]

Unlike the other cities studied, the Dire Dawa Urban Municipality was able to implement a project under its Sustainable Urban Mobility Plan (SUMP) entirely independently, drawing exclusively on its internal resources. As Tahir Zuber Abdellah, a consultant within the municipality, points out:

> ***The implementation of the 'Corridor Development Project' proposed by Dire Dawa's SUMP relies on local technical expertise and is funded from the local authority's own resources, without recourse to external financial or technical support from donors or non-governmental organisations.***
>
> **Tahir Zuber Abdellah,**
> **Consultant within the Municipality**

Challenges for active modes: limited road-sharing

Road infrastructure under heavy pressure and competing uses

Road space allocation in African cities takes place in a context of high usage density and limited availability of public space. The road network simultaneously accommodates traffic, parking, informal economic activities, freight transport, and social functions, while remaining predominantly designed for motorised vehicles. This configuration allocates insufficient space to active modes and public transport, despite their central role in daily mobility patterns, and contributes to recurring conflicts between users.

In the cities studied, road use is characterised by persistent conflicts: in Douala, motorised two-wheelers frequently encroach on sidewalks; in Yaoundé, Antananarivo, and Bouaké, pedestrian pathways are largely occupied by parking or informal commercial activities; in Dire Dawa, interactions between motorised tricycles and heavy goods vehicles generate significant tensions; while in Dakar, conflicts between motorised traffic and active modes remain particularly acute.

This road configuration, shaped by an implicit hierarchy of uses, generates structural tensions between different categories of users and makes mobility particularly challenging for the most vulnerable groups.

In Dakar, this situation is particularly illustrated by the testimony of Baye Cheikh Sow, president of the Sama Vélo association, who analyses the current conditions for road sharing in these terms:

> ***"The congestion and lack of safety observed on the roads result largely from the inappropriate use of public space. The lack or discontinuity of pavements frequently forces pedestrians to walk on the carriageway, placing them in direct contact with motor vehicles.***
>
> **Baye Cheikh Sow,**
> **President of the Sama Vélo Association**

A matter of safety and social equity

Imbalances in road space allocation particularly expose vulnerable road users to safety risks. The lack of continuous infrastructure for pedestrians and cyclists, combined with high vehicle speeds, informal occupation of public space, and uncontrolled parking, increases the risk of accidents. Low-income groups, who rely more heavily on walking and public transport, are therefore the most affected by unsafe and non-inclusive road infrastructure.

Despite the limited availability of reliable statistical data, road safety remains a major concern in Africa, with traffic accidents occurring frequently and affecting all categories of road users, from pedestrians to motorised vehicle occupants.

A major obstacle to sustainable mobility and urban quality of life

The persistent dominance of the private car, the absence of clear prioritisation between competing uses of public space, and weak regulatory enforcement constrain the development of active mobility and public transport. These shortcomings contribute to congestion, air pollution, and the degradation of public space, while reducing urban accessibility and attractiveness, particularly for the most vulnerable populations. The issue of public space allocation has broader implications for the economic, environmental, and social conditions of urban residents.

In Bouaké, this phenomenon also affects the running of schools, as highlighted by Karamoko Korotoumou, a school inspector.

> ***In the Ville Nord district, the low attendance at schools is mainly due to parents' fears regarding the conditions for crossing the road, which are considered dangerous for children – a concern fuelled by previous accidents, including fatal ones.***
>
> **Karamoko Korotoumou,**
> **School inspector**

44. Antananarivo SUMP – Interim Technical Report Phase 2, p. 15

Image 47 : Unsafe crossing near schools in Bouaké.

Climate challenges: insufficient integration and limited monitoring capacity

A low level of integration between urban planning and transport, which increases vulnerability to the challenges of adapting to climate change

The lack of integration between urban planning and transport constitutes a major obstacle to climate resilience and the efficiency of mobility systems in the cities studied, creating vulnerabilities in both urban form and transport network performance.

In Douala, this gap is reflected in the development of transport infrastructure in areas highly exposed to flooding, without sufficient coordination with the preservation of mangroves and natural drainage systems that regulate water flows. This situation exposes the road network and the future BRT system to recurrent disruptions, in a context where over 30% of urbanised areas are located in zones subject to seasonal flooding, despite the fact that 35% of trips are made on foot.

In Yaoundé, transport planning remains poorly coordinated with stormwater management, which increases the vulnerability of infrastructure to recurrent flooding in low-lying urban areas. As a result, transport infrastructure is frequently disrupted by flood events, significantly affecting accessibility, while pollution linked to motorised traffic reaches critical levels.

In Bouaké, uncontrolled urban sprawl increases travel distances and reinforces dependence on motorised two-wheelers[45], while encroaching on natural drainage areas. Some low-lying zones, although not urbanised, are not subject to any form of development. Road projects are sometimes disconnected from nature-based solutions (wetlands, permeable pavements), limiting their contribution to climate adaptation.

In Antananarivo, the lack of detailed land-use data and the weak integration between mobility, sanitation, and stormwater management projects perpetuate the exposure of infrastructure and densely populated neighbourhoods to seasonal flooding[46]. This situation directly affects the continuity of travel in a city where mobility relies heavily on walking and informal transport.

In the absence of integrated planning linking urban form, transport networks, and ecosystem conservation, mobility investments not only fail to strengthen climate resilience, but may also exacerbate existing vulnerabilities (flooding, urban heat islands), ultimately undermining their own effectiveness and long-term sustainability.[47]

A necessary strengthening of capacity to monitor climate-related issues.

Significant difficulties in monitoring climate-related issues have been identified, reflecting a persistent gap between stated strategic ambitions and operational monitoring capacities. While indicators or orders of magnitude are sometimes included in planning documents, their effective monitoring remains limited due to the absence of dedicated institutional mechanisms, adequate technical resources, and sufficient human capacity. This gap is particularly evident in air quality monitoring, the assessment of greenhouse gas emissions, and more broadly, the continuous performance monitoring of mobility systems.

In this context, the lack of reliable data and structured monitoring and evaluation mechanisms undermines impact assessment and limits the scope for adjusting public policies through adaptive management. However, these shortcomings do not, at this stage, constitute a barrier to action, but rather a constraint on its optimisation and long-term sustainability. They highlight the need to strengthen the institutional, technical, and financial capacities of local authorities in order to sustainably embed integrated climate monitoring functions within mobility policies.

Image 48 : Pedestrians facing flooded road.

45. Bouaké SUMP
46. MobiliseYourCity – Methodological framework, urban planning, mobility and resilience
47. Antananarivo Urban Mobility Plan – Kick-off report

03

RECOMMENDATIONS FOR ACTION IN SUPPORT OF ACTIVE MODES AND CLIMATE ACTION IN AFRICAN CITIES

This section presents the recommendations drawn from experiences in six African cities and from the study of their SUMPs, focusing on active modes and climate.

A summary brochure of the six recommendations was distributed at the 2025 COP in Belém; it is available on the FFEM and MobiliseYourCity websites and is attached as **Annex 2**.

Image 49 : Le transport routier en Afrique.

01

View the development of the SUMP as a process rather than merely a study

During the development of the SUMP, placing a ‘political’ vision of the city at the centre of the debate is a key factor in facilitating its implementation

→ All too often, excessive expectations are placed on the project manager, whereas the success of the process depends primarily on clear guidance provided by the project owner. Policymakers, supported by technical staff, must facilitate dialogue and the exchange of perspectives in order to define as clearly as possible the vision of the desired city, thereby providing a shared and coherent strategic direction for the project. Defining this vision, making data-informed strategic choices, and prioritising actions helps ensure consistency across the measures set out in the SUMP, as well as their effective implementation and technical and economic feasibility.

This approach of prioritising active modes differently according to the local context is found in several cities, such as Douala, according to Pauline Robert Etcheto, project manager at SYSTRA:

> *The decision was made to exclude cycling in this specific context, whilst walking was given clear and deliberate priority.*
>
> **Pauline Robert Etcheto,**
> Project Manager at SYSTRA

Defining a shared and sustainable strategy

→ The development of a shared and sustainable strategy relies on a structured process combining assessment, stakeholder consultation, and explicit policy decisions. It aims to define a common medium- and long-term vision, prioritise objectives based on local challenges and implementation capacities, and formalise these choices within a coherent strategic framework.

Its “shared” nature is based on the active involvement of stakeholders throughout the SUMP development process, ensuring that objectives and priorities are understood, discussed, and collectively endorsed. This dynamic enables the exchange of perspectives, the clarification of constraints, and the construction of compromises—an essential condition for ownership and continuity of action.

The term “sustainable” refers both to the integration of environmental, social, and economic dimensions, and to the strategy’s ability to endure over time, avoiding isolated actions without long-term impact. In practical terms, the strategy translates the city’s political vision into clear objectives that guide medium- and long-term planning and investment choices, linking “quality of life” and “quality of the city”. It forms the bridge between an overarching vision and its operational implementation, setting out priorities, levers for action, stakeholder responsibilities, budgetary requirements, and the implementation timetable. It thus ensures consistency between mobility policies and urban projects, while strengthening coordination among stakeholders and the continuity of actions.[48]

48. A city in transformation refers to a concrete, ongoing and pragmatic process, rather than a “city in the making”, which may refer more to a projected and idealised vision of an urban future

Involving all stakeholders in the process to define strategic scenarios

→ The development of strategic scenarios requires the exploration of different visions of possible and desirable urban futures. To this end, this phase must involve a wide range of stakeholders. In addition to institutional and private transport actors, all state and municipal stakeholders whose decisions influence urban mobility should be engaged. These include, in particular, departments responsible for urban planning, spatial planning, environment, economic development, and housing.

Initially, the approach should primarily involve project owners and public stakeholders responsible for planning and decision-making. It can then be extended to private stakeholders whose choices and practices directly influence mobility dynamics. The involvement of civil society, including user associations, economic actors, and academics, brings a diversity of perspectives essential for understanding current needs and anticipating future ones.

This diversity makes it possible to define a shared strategy, balanced between the needs, expectations, and interests of stakeholders with different objectives and constraints, through dialogue and consensus-building.

Dakar’s experience clearly illustrates this dynamic of open and inclusive consultation: open in the sense that all participants can freely express their ideas and proposals, and inclusive through the involvement of a broad range of stakeholders to inform decisions on sustainable mobility.

As Baye Cheikh Sow, president of the Sama Vélo association, explains:

> *The Sama Vélo association was regularly invited to the SUMP validation and feedback workshops, alongside all the associations in Dakar active in the mobility sector.*
>
> **Baye Cheikh Sow,**
> President of the Sama Vélo Association

Bringing stakeholders together around a shared roadmap to translate the strategic vision into an action plan

→ Consultation exercises reveal the complexity of trade-offs between strategic interests that are sometimes divergent, highlighting the need to bring stakeholders together around a shared roadmap in order to translate the strategic vision into an operational action plan. The following examples illustrate these challenges.

Mobility challenges in the six cities studied involve complex trade-offs on social, economic and environmental fronts. Socially, the aim is to balance the safety and flow of pedestrian traffic with the preservation of informal and formal economic activities taking place on the pavements. Economically, decisions must take into account both the needs of vulnerable populations and the viability of private operators, requiring close coordination between users, the private sector, and public authorities. From an environmental and public health perspective, the predominance of private cars, linked to insufficient public transport provision, poses challenges in terms of reducing congestion, pollution, and impacts on public health.

These examples illustrate that decisions on sustainable mobility cannot be reduced to technical choices alone. They require informed trade-offs between social equity, short-term financial and economic viability, and long-term environmental protection. Consultation helps to make these tensions explicit, compare different viewpoints, and develop realistic compromises grounded in actual usage patterns and operational constraints.

A shared roadmap enables the strategic vision to be translated into a clear and coherent action framework,

Image 50 : Defining a roadmap for improving urban mobility – during the Greater Antananarivo Urban Mobility Forum (FMU).

Image 51 : Defining a roadmap for improving urban mobility using cartoons to spark debates.

prioritised over time according to implementation phases. It defines priority objectives, operational stages, institutional responsibilities, implementation timelines, and monitoring indicators, thereby ensuring the continuity of interventions over time and limiting disruptions linked to potential institutional changes or budgetary constraints. Its value lies in its capacity to guide day-to-day decision-making, facilitate trade-offs between projects, support budget planning, and tangibly measure progress achieved. As a genuine management tool, it ensures consistency between mobility, urban planning, road safety, and environmental policies, thereby embedding the mobility strategy within the territorial reality and the practices of all stakeholders involved.

02

Strengthening the ownership and coordination of the project

Strengthening institutional ownership of the SUMP, a key condition for its success

→ The SUMP must be led by a strong project management body, endowed with clearly defined institutional legitimacy and effective steering capacity. This leadership is essential for the plan's success: in the absence of strong political commitment and a designated lead institution, implementation tends to remain fragmented, subject to significant delays, or only partially realised.

A strong project owner is able to play a leading role in coordinating stakeholders, allocating resources, mobilising partners, and ensuring coherence across interventions. It also ensures continuity between the planning, programming, and implementation phases, so that the SUMP's strategic orientations are translated into concrete, feasible projects adapted to territorial needs. Through its commitment and institutional stability, it guarantees the sustainability of the process and creates the conditions for effective and durable implementation.

In many African urban contexts, this institutional capacity is not fully in place at the outset of the SUMP process. Its consolidation is therefore both a central challenge and an objective of the process itself, supported through methodological guidance, capacity building, and technical assistance mobilised by programmes such as MobiliseYourCity.

As Pablo Salazar of the consultancy firm Transitec points out:

« The success of a SUMP depends heavily on political and institutional support, as implementation remains a political decision whilst technical experts produce the analyses and recommendations. »

Pablo Salazar,
Consultancy firm Transitec

What are the possible institutional set-ups?

→ Feedback from SUMPs supported by MobiliseYourCity shows that several institutional configurations can fulfil the role of project owner, depending on the national and local context:

- **Mobility Planning Authority (AOM/AOT):** In Dakar, CETUD acts as the lead agency for the SUMP and coordinates major infrastructure projects (BRT, TER, bus networks), illustrating the central role that a dedicated authority can play in the planning and implementation of urban mobility;
- **Local authority (municipality or metropolitan authority):** In several African cities, the municipality directly leads the SUMP where responsibility for transport is recognised at local level, as in Bouaké or Antananarivo, with external technical support to strengthen internal capacity;
- **Specialised technical department (transport, urban planning, roads):** In Douala and Yaoundé, the implementation of the SUMP relied on existing municipal departments, sometimes initially focused on roads, whose remit was gradually expanded and structured during the SUMP process.

In several cases, the SUMP has actually helped to clarify roles and strengthen the project owner, by contributing to the creation or consolidation of units dedicated to urban mobility.

What are the characteristics of an effective project owner?

→ The success of the SUMP rests on clear, inclusive and unifying governance, led by a project owner with recognised institutional prerogatives and operational powers. It must combine:

CHARACTERISTICS OF EFFECTIVE PROJECT OWNERSHIP

- **Technical expertise**
- **Effective leadership**
- **Inter-institutional coordination capacity**
- **A long-term vision**

By acting as a catalyst, it must be able to bring together and coordinate the various project stakeholders. An effective project owner is characterised by its expertise, institutional authority and decision-making power, as well as its ability to ensure consultation among stakeholders and subsequently prioritise strategic directions. Structuring SUMP governance around such an entity helps strengthen the cross-cutting nature of public policies, optimise resources, and ensure the long-term coherence of implemented actions. In this context, strengthening institutional ownership of the SUMP is a key factor for its effective implementation and overall success.

Supporting the development of project owners' capabilities for the effective management and implementation of the SUMP

Strengthening project owners through technical assistance

→ In most cases, technical assistance to local project owners is essential for the management of a SUMP. It not only provides operational support to the project but also progressively and sustainably strengthens the capacities of local teams. Beyond the production of studies, it helps structure key functions related to planning, the exercise of the transport authority's role, and, where applicable, implementation. Thus, the development of the SUMP should be viewed as a structuring capacity-building process, fully embedded within local institutional realities.

Implementing appropriate support and training measures

→ Technical assistance draws on a range of complementary tools, from ongoing methodological support and training programmes to targeted coaching on strategic functions related to governance, planning, and financing, as well as peer-to-peer exchanges. It may also include awareness-raising and change management initiatives, particularly when introducing new transport modes such as cycling or BRT systems, or innovative tools. This diversity of approaches aims to foster effective ownership of processes and ensure that lessons learnt are sustained over the long term.

Feedback highlights the importance of a structured training programme throughout the SUMP development process. This enables local authorities to better understand the challenges of sustainable mobility and adapt their practices accordingly. For example, in Dakar, the launch of the TER and BRT was supported by a partnership between CETUD, APIX, and CODATU, aimed at strengthening institutional capacity, reorganising existing structures, and improving sector governance. As illustrated by the experience of the Douala SUMP, short, targeted training programmes can be delivered in the form of thematic sessions. According to Pauline Robert Etcheto, Project Manager at SYSTRA:

> *« A programme of overview-style thematic sessions was set up during the Douala SUMP, consisting of short awareness-raising and training sessions, lasting one to two hours, on key technical topics. These sessions covered, in particular, traffic forecasting models and public transport financing mechanisms. The aim was to provide an overview of international practices and trends, while analysing the conditions for their application in the local context, from both a strategic and operational perspective. »*
>
> **Pauline Robert Etcheto,**
> Cheffe de projet, SYSTRA

The sessions may adopt an integrated approach to mobility concepts, including systems designed to meet diverse user needs, active mobility, road safety, public space design, and intermodality, in order to clarify the principles of safe and inclusive pedestrian and cycling networks. Depending on local requirements, they may also include specialised modules on adapting the urban environment to the impacts of climate change, low-emission transport, or the strategic importance of developing long-term financing mechanisms and a transport system that is sustainable from a social, economic, and environmental perspective.

Strengthening decision-making and ensuring long-term implementation

→ By equipping technical and institutional teams with analytical and interpretative tools, these initiatives strengthen decision-makers' capacity to assess policy options and anticipate sector developments. They also contribute to stakeholder awareness-raising and the development of shared frameworks, thereby fostering the emergence of common visions and ensuring coherence in implemented actions.

To be fully effective, these training programmes must follow specifications defined by, or developed in collaboration with, the project owner and adapted to its level of institutional maturity. This approach should be accompanied by a simple, regular monitoring mechanism to ensure consistency and continuity of actions throughout the implementation of the SUMP.

Ensuring the sustainability of the project governance framework to guarantee the continuity of the SUMP

Establishing a stable institutional framework to ensure the continuity of the SUMP

→ Ensuring the sustainability of the project ownership function is a central challenge for guaranteeing the continuity of the SUMP and, more broadly, the implementation of investment and management actions in the field of mobility and transport, including in contexts of institutional or political instability. The existence of a Mobility Organising Authority or an equivalent structure helps strengthen operational coherence and institutional continuity throughout the process. This entity must be stable, established on a long-term basis, and technically recognised, while also benefiting from sustainable human, financial, and legal resources to ensure the continuity of policy orientations and decision-making.

Relying on a structured and operational mobility authority, such as CETUD

→ Executive Council of Urban Transport in Dakar (CETUD) is an example of this model. Established in 1997 and acting as the organising authority in Dakar, CETUD relies on a team of professionals with expertise in planning, project management, and inter-institutional coordination. It is responsible for the planning, coordination, and regulation of urban transport, while also steering the implementation of the SUMP. From the outset, CETUD has integrated the SUMP into its internal mandate, mobilising its technical departments, particularly those dedicated to studies, strategy, and the transport observatory. This organisational structure has enabled continuous monitoring of the process, from the initial assessment and multi-stakeholder consultation through the scenario development and the operational implementation of the action plan.

This institutional continuity has facilitated the translation of the SUMP into structural operational programmes, such as the Programme for the Improvement of Urban Mobility in Senegal, the electric Bus Rapid Transit system, the restructuring of the bus network, active mobility and energy transition projects, as well as the development of road planning guidelines. These achievements demonstrate the institutional framework's capacity to translate SUMP orientations into concrete and coordinated actions.

CETUD's ability to engage with donors, produce credible studies, and align the SUMP with national policies has significantly facilitated the mobilisation of substantial funding from the World Bank, AFD, AfDB, KfW, and GIZ. The presence within CETUD of a transport observatory and long-term technical expertise has laid the foundations for a monitoring and evaluation system ensuring the continuous updating and steering of the SUMP over time.

The key feature of Dakar's SUMP lies in the direct management provided by CETUD, an experienced transport authority with a comprehensive structure and a division dedicated to monitoring the SUMP, enabling regular and coordinated monitoring of the action plan, which is rare in other cities.

Anne Chaussavoine,
Project Team Leader – AFD,
Mobility Division

This experience highlights the importance, for any local authority, of having clearly identified institutional bodies with strong expertise in mobility, whether in the form of a dedicated organising authority or a municipal entity directly fulfilling this role. The effective implementation of a Sustainable Urban Mobility Plan (SUMP) relies on qualified human resources, adequate technical resources, and sufficient financial capacity to ensure the long-term planning, programming, monitoring, and prioritisation of investments. From this perspective, governance emerges as a determining factor in the sustainability and coherence of mobility policies.

Image 52 : Greater Antananarivo Urban Mobility Forum.

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03

Making citizens' voices more visible to decision-makers

Mobilising citizens' voices to develop SUMPs rooted in local uses and on-the-ground realities

Drawing on user expertise to inform territorial analysis

→ The involvement of local residents and users provides a crucial source of on-the-ground knowledge for the operational integration of active mobility and climate considerations into Urban Mobility Plans. Their detailed understanding of local conditions and daily practices enriches the analysis from the earliest stages of the process, offering insights that technical data alone cannot always capture.

From the diagnostic phase onwards, residents' testimonies help to better understand actual walking and cycling patterns, the barriers to their development, and situations of vulnerability to adverse weather conditions, whether heatwaves, heavy rainfall, or safety risks. This information usefully complements technical surveys by identifying, for example, poorly shaded routes, flood-prone areas, gaps in pedestrian infrastructure, or spaces perceived as unsafe—all factors that directly influence modal shift and exposure to climate risks.

Guiding strategic choices and priorities for action through consultation

→ In many African cities, mobility decisions are still largely made without structured dialogue with residents, road and public space users, or the most vulnerable groups. This lack of consideration for citizens' perspectives limits the ability of projects to respond to real needs and often leads to poorly adapted, underutilised, or contested interventions. It therefore undermines the effectiveness of public investment and hampers the implementation of sustainable mobility policies.

Consultation workshops and, where possible, co-creation initiatives with residents are nonetheless a key lever for informing public decision-making. They not only provide a better understanding of everyday uses and constraints, but also help to objectively assess the tangible benefits of measures promoting active mobility and improving air quality. To be fully effective, however, these approaches must be based on concrete evidence, enabling residents, their representatives, and decision-makers to visualise and assess the expected impacts of proposed interventions.

When developing scenarios, citizen input thus informs strategic choices regarding the prioritisation of active modes and the reduction of transport-related emissions. It helps steer decision-making towards solutions that promote low-carbon mobility, while taking into account requirements related to thermal comfort, safety, and accessibility, which are essential for the sustainable adoption of these modes.

In other contexts, such as Dakar, early-stage consultation also appears crucial to ensuring the relevance of investments. The development of a BRT system as an alternative to private car use can only fully deliver its expected benefits if future users understand the issues at stake and are willing to change their travel behaviour. Otherwise, there is a risk of significant investment with limited modal shift. These experiences highlight the value of consultation processes that incorporate an educational dimension and are oriented towards decision-making, in order to prioritise relevant, effective investments aligned with actual mobility patterns.

Adapting the action plan to usage patterns, vulnerabilities and climate constraints

→ During the action plan phase, residents provide concrete inputs to identify priority routes for walking and cycling, highlight congestion points or areas of exposure to pollution, and suggest practical adjustments to infrastructure. These contributions may relate to urban greening, water management, traffic calming, or improvements in comfort and safety within public spaces. They enhance both the effectiveness of mitigation measures and the resilience of public spaces to climate impacts.

By integrating these locally grounded insights, decision-makers are better equipped to design Sustainable Urban Mobility Plans (SUMPs) that combine the promotion of active mobility, emissions reduction, and adaptation to climate constraints, while responding to the practical needs of local communities. As Pauline Robert Etcheto, SYSTRA project manager for the Douala SUMP, notes, it is particularly valuable to engage directly with ground realities and to genuinely take them into account.

Testing solutions before they are implemented

→ Reporting on results and experimenting with temporary measures, particularly through tactical urbanism schemes, also provide a useful means of testing solutions and adjusting them as needed before making them permanent or scaling them up. In other contexts, lightweight and reversible measures allow for the testing of new routes, alternative forms of road space allocation, and street furniture placement—such as bus stops, lighting, or signage—in order to observe actual user behaviour and gather feedback from residents to refine and finalise projects.

Car-free days, such as those organised in Yaoundé, Douala, or Antananarivo, can also contribute to this approach when they help raise public awareness, measure impacts on air quality, and highlight the benefits of reducing motorised traffic in favour of active mobility. They also help reveal additional effects on public space use, pedestrian activity in commercial areas, or children's play, and thus serve as a useful tool for informing the development of the SUMP based on directly observable evidence.

Extending the dialogue during implementation to strengthen buy-in, adapt actions and enhance their effectiveness

Supporting changes in behaviour and adjusting developments over time

→ Beyond the design phases, the success of actions stemming from the SUMP depends on the ability of local authorities to maintain an ongoing dialogue with residents and local stakeholders throughout implementation. This approach is essential to support behavioural change associated with the development of active mobility and measures to reduce motorised traffic, and to ensure their long-term social acceptability.

Regular engagement with users enables the rapid identification and resolution of operational issues that arise after infrastructure has been put into service. It facilitates the adjustment of technical measures—whether related to signage, traffic management, parking regulation, or the thermal comfort of public spaces—in order to minimise conflicts of use and strengthen public support for ongoing changes. This capacity for iterative adaptation helps safeguard investments and maximise their benefits in terms of safety, quality of life, and emissions reduction.

Continuous public dialogue also plays an important role in fostering ownership of the climate objectives set out in the SUMP. By highlighting, where possible through quantified indicators, the tangible effects of interventions promoting walking and cycling—whether in terms of improved air quality, reduced pollution, or enhanced resilience to extreme weather events—it contributes to strengthening residents' understanding and support for sustainable mobility policies.

Finally, involving local residents in the monitoring and evaluation of initiatives helps ensure their long-term sustainability. It supports shifts in perception, consolidates behavioural change, and firmly establishes active mobility as a credible and desirable solution adapted to local climate constraints. These progressive, participatory, and adaptive approaches thus support the transition towards a less polluted, calmer, safer, and more inclusive city, notably by reducing conflicts over road space and improving accessibility for people with reduced mobility.

Building support by highlighting the benefits of actions

→ The objectification of the concrete effects of actions constitutes an important lever for strengthening public acceptance and informing decision-makers' choices. By enhancing understanding of the impacts of measures in favour of active mobility and climate action, and by increasing the visibility of citizens' voices, local authorities are better able to justify their decisions, anticipate resistance, improve the effectiveness of public policies, and ensure their credibility with the population.

Making results visible from other neighbourhoods or comparable cities can, in this regard, be a powerful tool, both for residents who do not yet benefit from such interventions and for decision-makers who may sometimes focus on large-scale infrastructure projects rather than investments in active mobility and climate action. Yet these investments are not driven by a theoretical vision, but by strong and legitimate social demand.

From this perspective, consultation is not limited to collecting needs. It also helps to objectify expected benefits, facilitate their understanding, and provide residents, their representatives, and decision-makers with tangible evidence to assess the impacts of proposed interventions. When accompanied by dissemination and educational efforts, it becomes both a tool for public appropriation of public policy and a decision-support instrument.

Using concrete results to legitimise, adjust and replicate interventions

→ In Bouaké, consultation with residents highlighted a major but often underestimated issue: the safety of road crossings near certain schools. Parents expressed genuine concern about sending their children to school, a situation exacerbated by serious accidents, including the death of a young girl while crossing the road. This context directly affected school attendance and perceptions of neighbourhood safety.

Based on these exchanges, the local council, with the support of the NGO AMEND, launched a targeted initiative to improve safety around selected pilot schools through simple, low-cost measures such as pedestrian crossings, speed bumps, and improved visibility of school zones. Without requiring significant investment, these interventions produced rapid and tangible results. Feedback from parents and teaching staff confirmed a marked improvement in the sense of safety, accompanied by a gradual increase in school attendance. The testimonies collected after implementation played a decisive role, both in terms of acceptance and in advocating for the measures to decision-makers. Supported by these results and their recognition by users, the schemes were subsequently replicated in many other schools across the city. This example shows that modest interventions, when they respond to clearly expressed local concerns and their impacts are made visible, can generate significant change and justify scaling up.

The case of Dakar illustrates, for its part, the importance of consultation prior to the launch of major infrastructure projects. To address severe congestion challenges, the Sustainable Urban Mobility Plan (SUMP) provides for the development of a Bus Rapid Transit (BRT) system as an alternative to private car use. However, the effectiveness of such an investment depends largely on user adoption. Early consultation with all mobility stakeholders therefore helps to better understand perceptions of the project, assess potential barriers to uptake, and reduce the risk of a costly investment with limited modal shift.

Car-free days, such as those organised in Yaoundé, Douala, or Antananarivo, follow the same logic when they demonstrate, during implementation, the benefits of reducing motorised traffic in favour of active mobility, while also revealing secondary effects on public space use. Similarly, small-scale and reversible interventions can serve not only to test solutions, but also to demonstrate, under real conditions, the relevance of certain planning choices and to facilitate their acceptance by both residents and decision-makers.

Integrating monitoring and evaluation into a continuous improvement process

→ Citizen engagement must ultimately extend to the monitoring and evaluation of implemented actions. This phase should not be regarded merely as a retrospective assessment, but as a learning process enabling the documentation of the actual impacts of interventions, the identification of persistent challenges, and the definition of necessary adjustments. Involving residents in this process helps to sustain, over the long term, the practical knowledge mobilised during the development of the SUMP, while redirecting it towards the continuous improvement of outcomes. By highlighting the real effects of implemented measures, facilitating the reporting of operational difficulties, and informing the adaptation of interventions, this shared monitoring contributes to consolidating behavioural change and embedding active mobility more sustainably within travel practices. It thus supports not only the technical effectiveness of actions undertaken, but also their social legitimacy and long-term sustainability.

Image 53 : Focus group on active modes of transport in Dire Dawa.

04

Putting pedestrians at heart of public spaces

Putting pedestrians at the heart of mobility plans to meet the needs of the majority

→ The SUMPs of the six cities studied show that walking is the dominant mode of travel in African cities. It can account for up to 73% of daily trips in Antananarivo, illustrating residents' structural dependence on this mode, often over distances that remain excessively long—up to 10 km—due to a lack of alternatives. Despite this reality, walking is frequently overlooked in mobility policies and urban investment strategies, which remain largely shaped by the needs of motorised traffic. In addition, technical expertise on pedestrian conditions remains limited.

In many projects, pedestrian considerations are introduced too late, resulting in infrastructure that is poorly adapted to users' needs, particularly for vulnerable populations. Road infrastructure continues to be primarily designed to ensure the fluidity of vehicular traffic, fragmenting neighbourhoods and forcing pedestrians to take longer or unsafe routes, notably via footbridges or unsecured crossings. A shift towards urban boulevards integrating safe and regulated crossings should therefore be encouraged, replacing closed expressways that rely mainly on pedestrian overpasses.

More broadly, walking must be promoted so that it is no longer perceived as a residual mode associated with low-income populations. The gap between the mobility practices of decision-makers and those of the wider population also indirectly influences planning priorities.

The disconnect between actual mobility practices and public policy priorities increases risks for pedestrians, exacerbates inequalities in access, and limits the effectiveness of other modes—particularly public transport—by making access to stops and stations more difficult, reducing service speed and reliability, and undermining the central role of walking in intermodality. Prioritising pedestrians in mobility planning is therefore essential to improve safety, optimise walking conditions and accessibility, and support a transition towards a more sustainable and less car-dependent mobility system, even if further efforts are still needed to foster wider acceptance of this shift.

Systematically incorporate pavements into all new road development projects

→ The systematic inclusion of pavements and safe crossings (at grade where possible) in all new road development projects is a fundamental principle for ensuring the safety and accessibility of pedestrian mobility.

In African cities, where walking often accounts for the majority of daily trips, the absence or discontinuity of pavements exposes users to significant risks, restricts mobility, and undermines the overall urban transport system by making access to other modes more difficult and less safe. Pavements should therefore be considered not as a secondary feature, but as a structural component of well-designed public space, incorporating street furniture, shading, and greenery, in the same way that carriageways are dedicated to motorised vehicles. The adoption of clear standards for pavement dimensions and quality is essential to provide comfortable and inclusive spaces adapted to the needs of all users, including people with reduced mobility, children, and other vulnerable road users.

Several African cities committed to sustainable mobility are leading the way:

- In Yaoundé, new development projects systematically include 3.5-metre-wide pavements, ensuring pedestrian continuity, reducing conflicts of use and creating a safer travel environment;
- In Dakar, the BRT project also reflects this commitment: the infrastructure incorporates safe, wide and comfortable pedestrian spaces, designed to protect users and improve their access to stations.

Thus, the quality, safety and continuity of pedestrian routes directly determine accessibility to stations, the safety of crossings in the face of motor traffic and, ultimately, the smooth operation and attractiveness of the public transport network. Furthermore, the systematic integration of pavements thus constitutes a strategic investment in safer, more inclusive and more sustainable cities, reinforcing the coherence of public mobility policies and contributing directly to improving the quality of urban life.

This approach is part of a multimodal planning strategy, where walking regains a central place in road design, as highlighted by Étienne Lhomet, SUMP project director in Yaoundé, DVDH

> ***The strategy aimed to structure the city around major multimodal ring roads incorporating wide pavements and right-of-ways, in order to design road networks suited to all users and not just motor vehicle traffic.***
>
> **Étienne Lhomet,**
> SUMP Project Director in Yaoundé, DVDH

Prioritising areas with high pedestrian traffic to ensure safety and improve user comfort

→ The implementation of measures to promote walking must be based on clearly defined prioritisation criteria, which are not limited solely to areas with the highest pedestrian flows. While city centres, school zones, markets, and public transport stops are strategic locations for improving user comfort for large numbers of people, other objectives may lead to different priorities. Reducing pedestrian accidents, for instance, justifies prioritising interventions in areas identified as most dangerous, even where pedestrian flows are currently low. Similarly, measures aimed at encouraging modal shift towards walking may target areas with the highest potential for behavioural change, regardless of existing travel patterns.

These trade-offs must be made explicit and based on a combination of indicators (traffic volumes, safety, accessibility, exposure to pollution, and potential for modal shift), in order to guide interventions in line with the objectives pursued. In all cases, simple, rapid, and low-cost improvements—such as safe pedestrian crossings, continuous and accessible pavements, adequate lighting, road markings, or measures to reduce urban fragmentation—can significantly enhance the safety, legibility, and comfort of walking, including in currently less frequented areas.

Recent examples illustrate the effectiveness of these approaches. In Antananarivo, the development of pedestrian alleyways has improved accessibility to isolated neighbourhoods. In Yaoundé, a pilot partial pedestrianisation of Rue Kennedy led to its permanent conversion into a fully pedestrian street. It is essential to ensure that such developments meet the needs of vulnerable users, particularly children, older people, and persons with reduced mobility.

This approach is fully supported by Paul Tangwe Mahop, Head of Department at the Ministry of Housing and Urban Development (MINHDU) in Cameroon, who highlights the priority given to dedicated infrastructure:

"The MINHDU has affirmed its commitment to prioritising the development of transport and sustainable mobility infrastructure. At this stage, efforts are primarily focused on developing pedestrian zones in urban centres through the construction of footbridges on key routes— n the first instance—the imminent start of construction work on the Yaoundé bypass, and studies for the construction of bypasses in certain cities in Cameroon, notably Bertoua and Buea. These efforts will continue with the widening of pavements as part of urban road rehabilitation and redevelopment projects, in order to enhance user safety."

Paul Tangwe Mahop,
Head of Department at the Ministry of Housing and Urban Development (MINHDU) in Cameroonn

The improvements made in priority areas could inspire measures to be implemented at the urban level.

Image 54 : Pedestrianised street in Yaoundé during Air Quality Week.

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05

Developing green, traffic-calmed urban routes: an opportunity to promote active travel and tackle climate change

Rethinking road space for safe, continuous and inclusive active travel

→ The urban developments set out in the SUMP must improve accessibility and safety for pedestrians and cyclists by incorporating protected crossings, wide, well-lit, and shaded pavements, as well as continuous and clearly marked cycle lanes. The configuration of street-level constraints, such as commercial activities, parking, or public transport stops, must be redesigned to avoid conflicts with active modes and to ensure continuous, safe pedestrian and cycling routes forming a coherent network.

Restructuring street layouts to prioritise pedestrians and cyclists helps address accessibility gaps and reduce both direct and indirect user costs, notably by shortening travel times and distances, limiting exposure to accident risks, reducing detours caused by network discontinuities, and decreasing time losses and discomfort associated with congestion and conflicts over road space.[49]

Urban planning based on proximity between residential areas, essential services, and activity centres helps reduce the time and physical costs of active mobility by limiting the distances to be covered on foot or by bicycle. The OECD note Rethinking Urban Expansion highlights that urban sprawl and low-density development increase travel times to services and raise mobility costs, particularly for populations dependent on walking.

The systematic integration of active modes into urban planning strategies—through connected pedestrian and cycling networks and targeted densification around facilities—therefore reduces these costs while strengthening the territorial coherence of interventions.[50]

The example of Dakar's BRT demonstrates that it is possible to reconcile public transport infrastructure with measures ensuring safe and comfortable active mobility, through an integrated design promoting multimodality and urban inclusion, provided that dedicated spaces are respected and kept accessible. The BRT infrastructure is designed to ensure smooth, comfortable, and safe coexistence between different users: buses, cyclists, and pedestrians. Pavements of 1.40 metres in width, arranged alongside the platform, guarantee a minimum level of safety, although comfortable pedestrian mobility would ideally require 2.5 to 3 metres, illustrating one of the key messages of Dakar's SUMP: major public transport projects must be conceived as comprehensive urban projects, fully integrating active modes and universal accessibility, rather than as purely technical infrastructure.

Pedestrian crossings at stations are equipped with raised platforms at entry and exit points to reduce vehicle speeds and enhance user safety. They also include a 2-metre-wide refuge island and tactile paving installed 50 centimetres from the kerb edge and obstacle clearance line, improving orientation and safety for visually impaired users. Finally, a dedicated area is provided to facilitate accessibility for people with reduced mobility, including waiting spaces and step-free boarding facilities.

Following a cross-cutting analysis of situations observed across various cities, the integration of pedestrian needs into traffic signal phasing has become essential. A signalised intersection must be designed to ensure pedestrian comfort and safety, including safe crossing conditions (with refuge islands, sufficient crossing widths, and layouts that preserve visibility), as well as signal phasing that allows safe and continuous crossing. In particular, pedestrian green phases must be sufficiently long to enable crossing in a single movement, and must not conflict with heavy traffic flows. The same principles apply to future cycling infrastructure.

49. Redesigning Accra's road network
50. Rethinking urban expansion for more accessible transport (proximity, networks and spatial governance)

Developing green urban corridors to improve thermal comfort and reduce pollution

→ Urban Mobility Plans (SUMPs) must promote urban developments that integrate thermal comfort, climate resilience, and improved air quality in order to create environments conducive to walking and cycling. The use of green and blue corridors, tree-lined avenues, shaded areas, and stormwater management systems helps reduce heat, limit urban heat islands, improve air quality, and strengthen infrastructure resilience. These green, traffic-calmed routes are intended to form a structured and coherent network across the territory. By providing more pleasant, shaded, and safer spaces, such developments also encourage residents to choose walking or cycling over motorised transport, thereby generating direct environmental benefits through reduced pollutant emissions.

Several initiatives illustrate this approach. In Dire Dawa, the "Corridor Project" combines pedestrian continuity, shading, and rainwater management. In Bouaké, the A3 road has been upgraded through the greening of pavements and the integration of street furniture. The city has also prioritised the development of main roads in each neighbourhood to ensure, under all conditions, the accessibility and safety of active modes, notably through improved lighting and infrastructure adaptation during the rainy season. In Dakar, the Corniche Ouest provides a landscaped and shaded pedestrian promenade.

These examples demonstrate that an integrated approach to climate, landscape, and mobility issues enables the creation of attractive and protective public spaces, thereby sustainably improving the quality of life and overall attractiveness of African cities.

Ensuring the successful uptake of infrastructure to guarantee clear routes for pedestrians and cyclists

→ Supporting infrastructure developments with awareness-raising initiatives after their implementation is a key lever for ensuring their proper use, effectiveness, and sustainability.

Feedback from the SUMPs of the six cities studied shows that the quality of infrastructure alone is not sufficient to bring about a lasting transformation in mobility practices. The real impact of infrastructure improvements depends largely on how users appropriate the new spaces and adhere to their intended functions.

In Antananarivo, public authorities and development partners have made significant efforts to improve pedestrian conditions, notably through the creation of safe, well-lit, and better-designed pavements along key corridors. However, these investments are sometimes undermined by insufficient respect for public infrastructure, including encroachments or damage that reduce their effectiveness. This observation highlights that awareness-raising must not only focus on the functional use of facilities, but also on their collective value, their maintenance, and their contribution to improving the urban living environment.

In Dakar, the example of the BRT corridor is particularly illustrative. The infrastructure clearly provides segregated facilities for pedestrians and cyclists, supported by dedicated signage and markings. Yet, in practice, many pedestrians continue to use cycle lanes even where pavements are available. This does not reflect a rejection of the infrastructure, but rather a lack of awareness and guidance on its use, in a context where the culture of shared space management and functional separation of modes is still emerging. It highlights the need for targeted, pedagogical, and continuous communication campaigns to explain usage rules and reduce conflicts between transport modes.

Conversely, in Dire Dawa, the developed corridors have been rapidly and visibly appropriated by residents. By the end of the day, these spaces are widely used for walking, cycling, and leisure activities by families, local residents, as well as public figures and local influencers. Their presence and visibility on social media contribute to enhancing the attractiveness of these developments, legitimising active mobility, and disseminating new usage norms among the wider public. This dynamic illustrates that the social and symbolic visibility of projects plays a key role in their long-term adoption.

Image 55 : Cycle path used by pedestrians in Dakar.

Image 56 : Extract from a social media video presenting the new corridor and facilitating its adoption.

In Yaoundé, a public service announcement broadcast during “Air Quality Week” played a key role in raising public awareness of the measures set out in the Sustainable Urban Mobility Plan (SUMP). It aimed to sensitise the public to a long-term strategy to improve the quality of mobility, making it more accessible, less costly, and less polluting, while linking mobility and public health through a free screening campaign for respiratory diseases. This communication initiative strengthened user acceptance and supported the adoption of Avenue Kennedy, now recognised as an iconic pedestrian street.

Feedback shows that the impact of SUMPs depends as much on the dynamics of social ownership as on the quality of the infrastructure delivered, and requires continuous support for usage once facilities are operational. Awareness campaigns, community outreach, educational signage, and the involvement of local communities are essential to transform infrastructure into effective use, reduce conflicts, enhance safety, and maximise the impact of public investment. Without such support, infrastructure risks remaining underused or misused, significantly limiting its contribution to sustainable mobility objectives.

Image 57 and 58 : Images taken from the promotional video for Urban Mobility Week in Yaoundé.

Integrating and regulating informal transport: an opportunity for quieter urban streets, better air quality and more efficient networks

→ Sustainable Urban Mobility Plans (SUMPs) aim to improve the consideration given to active modes of transport, but must also take into account the fact that, in many cities, walking is a dominant mode of transport whilst often being a necessity: it is not merely a choice, but a constraint linked to cost, or the lack or poor quality of alternatives. In Dakar, walking accounts for 70% of journeys (2015) and is "endured rather than chosen"[51], due to the absence and/or poor quality of pavements and obstacles on major roads. Consequently, "taking action for active modes" cannot be limited to making crossings safer: it also involves improving access to more reliable and affordable public transport to enable a chosen modal shift.

In many African cities, informal transport[52] accounts for a significant share of transport provision and journeys, but its unregulated growth can exacerbate congestion, degrade air quality and undermine the performance of more structured transport systems. In Dire Dawa, 41% of journeys are made by tricycles, highlighting the significant reliance on informal transport. In Antananarivo, local buses, commonly known as taxi-be, account for 68% of motorised journeys[53]. At the regional level, the picture is similar: in some African cities, up to 80% of the population relies on informal transport or 'paratransit transport'. It is therefore essential to take this mode of transport into account in discussions on sustainable urban mobility, and in particular the challenges of its governance (organisation, regulation, safety, professionalisation, environmental performance)[54].

Informal transport plays a central role in providing daily mobility in Africa, but it often faces structural challenges. This transport service generally offers limited comfort, relies on dilapidated and poorly maintained vehicles, suffers from inadequate enforcement of safety standards, and remains organised in a way that is unclear to users. These weaknesses increase exposure to road risks, contribute to the deterioration of air quality due to high emissions from older vehicles, and exacerbate conflicts over road use, particularly in the most congested areas. Despite its essential role in ensuring accessibility, informal transport remains largely outside the scope of planning and regulatio , which currently limits its contribution to the objectives of sustainable mobility, resilience and the performance of urban networks.

Within the framework of a SUMP focused on adaptation and resilience, the integration of informal transport is a major challenge. The aim is to better organise stops and feeder services, reduce conflicts over road use and improve service performance (fleet, standards, monitoring), in order to ensure functional coordination with dedicated public transport corridor projects (BRT, TER), bus networks and other urban mobility projects, and to position informal transport as a complementary and structuring link in the mobility system. The Dakar SUMP takes these actions into account in the measures to be implemented.

51. MobiliseYourCity Partnership – Dakar mobility assessment
52. Informal transport: informal mobility services provided by small vehicles (minibuses, motorbike taxis, tricycles, taxis) often operating without strict regulation or standardised norms.
53. Source: EMD 2024, Greater Antananarivo Urban Mobility Plan
54. MobiliseYourCity Global Monitor 2024 | Factsheet: Dakar, Senegal

Image 59 : Motorcycle taxi in Douala.

Image 60 : Bus in Antananarivo.

06

Mobilising and optimising funding to maximise social and climate impact

Mobilising climate finance to contribute to climate change mitigation

→ The implementation of Urban Mobility Plans (UMPs) is a key driver for climate change mitigation and the implementation of Nationally Determined Contributions (NDCs)[55]. By translating strategic guidelines into concrete actions, the SUMP enables a significant reduction in emissions from the urban transport sector, one of the main contributors to greenhouse gas emissions in African cities. Prioritising measures such as the modernisation or gradual electrification of public and informal transport, the development of high-performance infrastructure for active modes, and improved traffic management promotes more sustainable and efficient mobility.

These actions also have immediate effects on air quality, public health, and the reduction of nuisances, while strengthening cities' capacity to respond to the impacts of climate change, particularly heatwaves, floods, and service disruptions. The implementation of Urban Mobility Plans (SUMPs) thus translates public commitments to sustainable mobility into concrete action and reinforces alignment between local transport policies, climate objectives, and sustainable development requirements.

Ensuring budgetary continuity and local control over investment priorities is essential to guarantee that the SUMP results in tangible achievements. Effective implementation of the plan requires explicit financial planning. Without such planning, investments risk becoming fragmented or interrupted, and the objectives set out in the SUMP may remain declaratory, without concrete impact on mobility and user safety. Clear budgetary planning also makes it possible to align local priorities with available resources.

Mobilising climate finance to implement SUMP actions

→ In contexts where local authorities' own resources remain limited, access to climate finance is a key lever for implementing SUMPs, particularly for measures with strong potential for climate change mitigation and adaptation. Mobilising this funding requires a rigorous and well-substantiated demonstration of the environmental impacts of projects, notably their capacity to reduce greenhouse gas emissions, improve air quality, and strengthen the resilience of urban infrastructure. When local authorities present projects supported by robust data, costed scenarios, and a clear alignment with national commitments set out in NDCs, they enhance their credibility and significantly increase their chances of attracting international donors. The ability to translate SUMP actions into measurable climate benefits is therefore central to this process, as it provides financial partners with clear visibility on the actual impact of their investments.

55. NDCs – Nationally Determined Contributions. These correspond to the efforts made by each country to reduce its national emissions and adapt to the effects of climate change.

As Nancy Seck Sow of CETUD points out:

> *Dakar's SUMP has attracted the attention of numerous donors, including the World Bank and GIZ*
>
> **Nancy Seck Sow,**
> CETUD

illustrating how a structured mobility plan, aligned with climate challenges, can become a powerful tool for attracting funding. By strengthening communication around the environmental and societal benefits of projects, local authorities can thus secure the financial resources essential to ensuring the effective implementation of their SUMPs and accelerating their transition towards sustainable mobility.

Modelling the plan's overall climate impact in Dakar helped convince climate finance providers to fund the electric BRT project. This analytical rigour was decisive in securing major concessional financing, totalling US$478 million, or €402 million.

Connecting climate issues with public health and economic development to strengthen buy-in.

Building an integrated narrative to strengthen support for SUMPs

→ The success of SUMPs shows that linking climate objectives to concrete benefits in public health and socio-economic development is a key lever for securing the support of decision-makers, financial partners, and citizens. This approach enables climate actions to be framed not as a constraint, but as investments that generate tangible and immediate co-benefits.

Putting air quality and public health at the heart of advocacy

→ The findings show that improving air quality and public health is often the most compelling and legitimate argument for both decision-makers and citizens, more so than the reduction of greenhouse gas emissions alone, due to the tangible and immediate nature of the benefits. By anchoring sustainable mobility actions—such as the promotion of active modes, modal shift, or transport electrification—within a framework of health protection and improved living conditions, local authorities translate global climate objectives into concrete local benefits, thereby facilitating public acceptance and political support.

It is recommended that communication be structured around air quality as the primary, quantifiable objective, supported by local data, while the reduction of greenhouse gas emissions is presented as an integrated co-benefit, spanning from the local to the global scale, in order to build broad and lasting support for mobility policies.

Highlighting multisectoral co-benefits to legitimise action

The report recommends systematically identifying and highlighting multisectoral co-benefits, such as health savings, productivity gains, reduced congestion costs, or improved economic accessibility, from the design stage of action plans. Developing a comprehensive business case, supported by local data, is essential to justify investments, prioritise actions, and ensure the political sustainability of sustainable mobility strategies.

By making the concrete effects of mobility on living conditions more transparent, this approach facilitates the awareness and engagement of decision-makers and citizens, enhances the acceptability of SUMP-related interventions, and strengthens the credibility of projects among technical and financial partners, particularly in relation to climate issues.

Prioritising measures with a high cross-cutting impact

The study highlights the need to focus resources and public action on measures with a strong cross-cutting impact, whose positive effects are felt simultaneously across several dimensions of urban sustainability. This prioritisation helps both to optimise investments in a context of limited resources and to ensure systemic coherence in public action, avoiding the fragmentation of efforts across isolated sectoral initiatives.

A single investment, such as a traffic-calmed urban corridor integrating public transport, cycle lanes, widened and greened pavements, and sustainable drainage solutions, generates multidimensional added value: reduced greenhouse gas emissions, improved air quality and public health, enhanced climate change adaptation, and the economic and social revitalisation of the served neighbourhoods.

By prioritising such integrated measures, cities strengthen their overall resilience, broaden stakeholder and citizen support around tangible benefits, and enhance the sustainability of projects beyond political cycles. It is therefore essential to systematically favour interventions with the widest, most visible, and most structuring positive impacts for the urban future.

Image 61 : Le transport routier en Afrique.

04

CONCLUSION

© Kaysha via Unsplash

Image 62 : Le transport routier en Afrique.

1 Key findings of the knowledge capitalisation

This capitalisation study makes a key contribution to the understanding and operationalisation of Sustainable Urban Mobility Plans (SUMPs) in African cities, particularly regarding the central role of active mobility and the challenges of climate change mitigation and adaptation. It is based on an analysis of six cities: Dakar, Douala, Yaoundé, Dire Dawa, Bouaké, and Antananarivo.

The study documents current urban mobility realities in contexts characterised by rapid urbanisation, constrained resources, and a strong reliance on active and informal modes of transport.

Active modes: essential but limited by a lack of suitable infrastructure and conflicts of use

→ The analysis clearly highlights that walking plays a central role in urban mobility systems, accounting for up to 73% of journeys, while cycling remains very marginal, with a modal share of 1% or less across all the cities studied. This situation stems in particular from highly unfavourable conditions for cycling and a lack of promotion of this mode of transport: the absence or discontinuity of pavements, the encroachment on public space, the lack of safe cycling infrastructure, and conflicts over road use. Walking therefore remains predominantly a mode of travel driven by necessity, while cycling struggles to emerge as a credible alternative.

Thus, walking often remains a largely "imposed" mode of transport rather than a chosen one, used for trips of up to ten kilometres, while cycling continues to struggle to establish itself as a credible alternative, including to motorised transport.

GHG emissions and air quality: concerning levels requiring strategic action

→ At the same time, the study highlights significant concern regarding urban air quality, with concentrations of $PM_{2.5}$ fine particulate matter far exceeding the World Health Organisation's recommendations. This situation is accompanied by a gradual increase in greenhouse gas emissions linked to the use of ageing vehicle fleets and growing congestion. These health and climate impacts are exacerbated by still-limited monitoring systems and insufficient integration of climate issues into sectoral policies.

In light of these findings, Urban Mobility Plans (SUMP) are a key tool for comparing possible trajectories between uncontrolled motorisation and the transition to sustainable mobility.

SUMPs: operational barriers and possible improvement pathways

→ The review highlights a major and recurring limitation: the weak implementation and scaling up of actions under existing SUMPs. The operationalisation of SUMPs remains fragile due to a lack of local financial resources, insufficient technical capacity, limited monitoring and evaluation mechanisms, and persistent institutional instability.

Despite these constraints, it identifies several achievements that constitute genuine best practices transferable to other African cities. Thus, when SUMPs are supported by strong governance, sustainable funding, and local capacity building, they can become effective instruments for transforming African cities, promoting safer, more inclusive, and more climate-resilient mobility.

2 Best practices

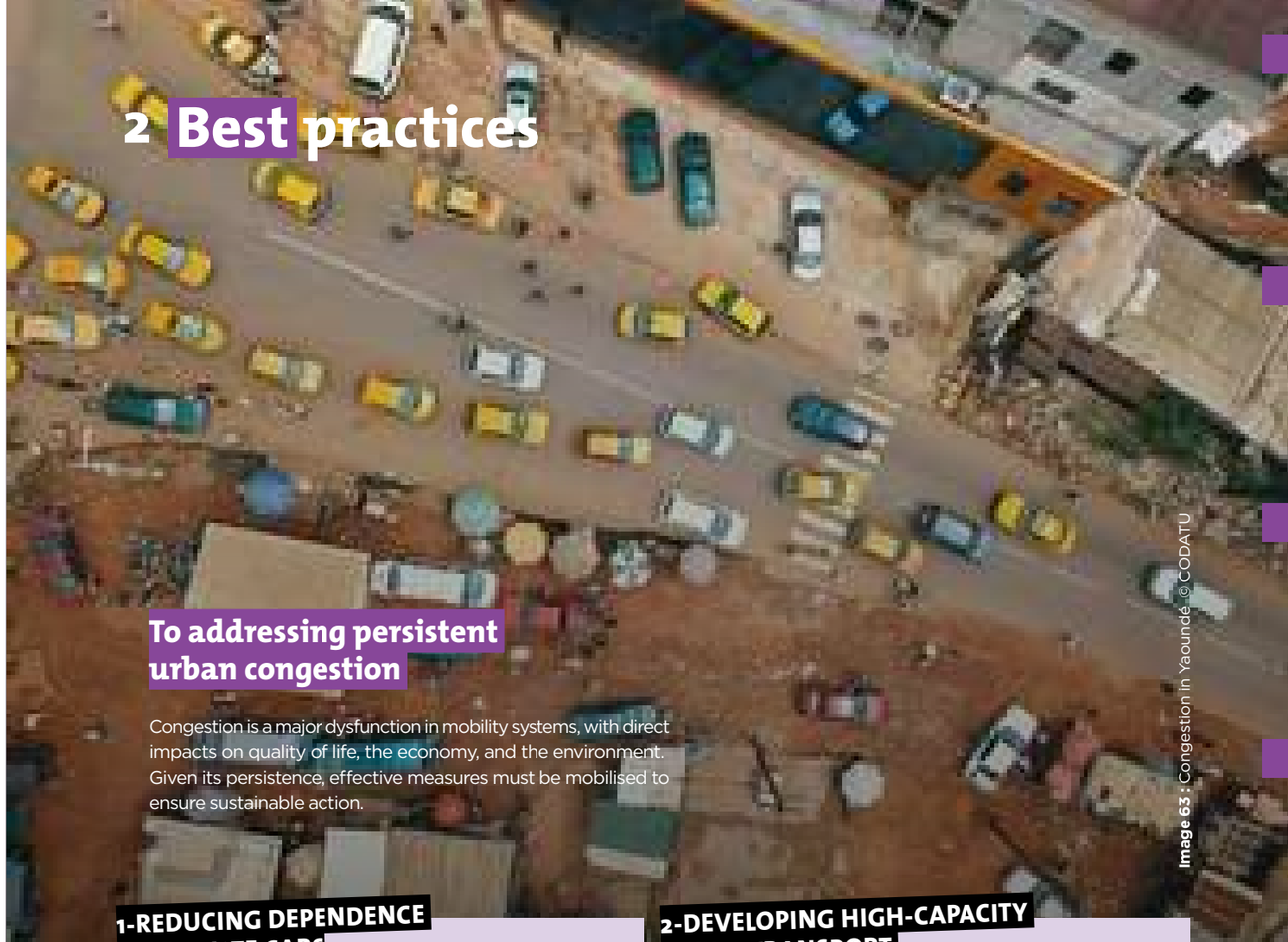


Image 63 : Congestion in Yaoundé © CODATU

To addressing persistent urban congestion

Congestion is a major dysfunction in mobility systems, with direct impacts on quality of life, the economy, and the environment. Given its persistence, effective measures must be mobilised to ensure sustainable action.

1-REDUCING DEPENDENCE ON PRIVATE CARS

This approach requires making alternatives genuinely attractive. Public transport, walking and cycling must offer a sufficient quality of service to absorb the bulk of daily journeys.

2-DEVELOPING HIGH-CAPACITY PUBLIC TRANSPORT

The development of public transport services using higher-capacity vehicles can improve overall transport capacity, reduce journey times for users and limit congestion on the road network.

3-BETTER ORGANISING PUBLIC SPACE AND PARKING

The haphazard use of roads limits the capacity of major routes, slows down traffic flow and exacerbates conflicts of use. Organising parking, prioritising the most efficient uses of public space and clarifying the rules for sharing would help improve traffic flow.

4-COORDINATING MOBILITY AND URBAN PLANNING

Congestion often stems from poorly managed urban sprawl, which forces people to travel further. Bringing urban functions closer to residential areas can structurally reduce the need for motorised transport.

To improve road safety in the long term

Improving road safety relies on a set of coordinated measures, which are still too rarely implemented together in the contexts studied.

1-MAKING USE OF ACCIDENT DATA

The lack of structured data collection and analysis systems severely limits the authorities' ability to identify high-risk areas and prioritise interventions. The example of the road safety observatory in Bouaké illustrates the importance of having a sustainable tool to centralise data, analyse accident factors and guide public policy decisions.

2-PROTECTING VULNERABLE ROAD USERS THROUGH APPROPRIATE INFRASTRUCTURE

Protecting vulnerable road users requires a rebalancing of public space. In several cities, the unregulated coexistence of pedestrians, motorcycles and motor vehicles, particularly on pavements and at junctions, highlights a lack of suitable infrastructure. This congestion, exacerbated by a lack of enforcement, leads to chronic insecurity. The experience in Bouaké shows that targeted improvements can have immediate effects.

To improve public health in the long term

Despite increasing consideration of health issues in planning, public health remains highly exposed to the negative externalities associated with urban mobility systems. Moving towards sustainable urban mobility requires a coordinated mobilisation of resources, addressing air pollution, road safety and lifestyles simultaneously.

1-STRENGTHENING POLICIES THAT PROMOTE ACTIVE MODES (WALKING AND CYCLING)

Promoting active modes of transport, through awareness-raising initiatives, directly contributes to increasing daily physical activity, reducing disease and improving well-being. Active modes offer a virtuous alternative to polluting motorised travel, provided that dedicated, safe, continuous and comfortable facilities are provided.

2-GREENING PUBLIC SPACES

Urban green corridors offer co-benefits for both transport and public health policies. Greening public spaces helps regulate stormwater, reduces heat islands and improves air quality. It also creates conditions conducive to active modes and a calmer city.

3-TAKING PUBLIC HEALTH INTO ACCOUNT IN TRANSPORT POLICIES

Strengthening collaboration between transport, environment and health departments would enable better consideration of health impacts in planning decisions, prioritise interventions and enhance the coherence of public policies.

4-UTILISING HEALTH AND ENVIRONMENTAL DATA

The development of shared monitoring tools enables the cross-referencing of data on mobility, air quality and public health, thereby providing an integrated view of the health impacts of transport policies. These systems facilitate the ongoing evaluation of actions taken and the adjustment of strategies to maximise their measurable benefits for public health.

3 Opportunities and prospects

Opportunities

Growing consideration of active modes and climate issues

→ Across all the cities analysed, Sustainable Urban Mobility Plans (SUMPs) now incorporate issues relating to walking, cycling and climate change more systematically, both in their assessments and in their scenarios and action plans. As Dr Jean-Patrick Mfoulou Olugu of the Yaoundé Urban Community (CUY) points out:

> *The main initial difficulty stemmed from decision-makers' limited awareness of the added value of active modes. This hurdle has now been overcome; the major obstacle that remains concerns the mobilisation of financial resources.*
>
> **Dr Jean-Patrick Mfoulou Olugu,**
> Yaoundé Urban Community (CUY)

At the same time, the integration of climate considerations (GHG reduction, air quality, adaptation to urban heat) is progressing, albeit unevenly across cities. This momentum paves the way for a gradual transition towards more sustainable, safer and more inclusive mobility systems, provided that this consideration translates into concrete implementation.

Funding available to support the implementation of SUMPs

→ Feedback highlights that, despite the budgetary constraints faced by local authorities, funding exists and can be mobilised to support the implementation of SUMPs. Indeed, they play a key role in accessing funding. By providing a clear and coherent strategic framework, they enhance the credibility of projects in the eyes of funders and facilitate their alignment with climate, urban and social priorities. They also help to demonstrate the complementarity between structural projects and local initiatives, which is essential for a sustainable urban transformation.

Furthermore, the study shows that smaller-scale interventions, with limited financial requirements, can generate rapid and tangible impacts in terms of road safety, public health and quality of life.

Gradual uptake of SUMPs by policy-makers

→ Interviews with policy-makers reveal a positive shift in the perception of SUMPs. Long regarded as mere technical documents driven by specialist departments or technical and financial partners, SUMPs are gradually coming to be recognised as strategic decision-making tools, capable of guiding urban policies and investments in the short, medium and long term. They now serve as a reference framework for structuring policy choices regarding mobility.

The growing involvement of policy-makers is also reflected in greater visibility for sustainable mobility issues in public debates and institutional agendas. This development creates a political environment more conducive to reforms that are sometimes sensitive.

However, whilst ownership of these challenges remains uneven and fragile, SUMPs are beginning to be seen not merely as technical documents, but as strategic instruments serving more sustainable, inclusive and resilient public transport policies.

Image 64 : Before the improvement of pedestrian crossings near schools.

Image 65 : After the improvement of pedestrian crossings near schools.

Outlook

Making walking a pleasant and desirable experience would constitute a key paradigm shift for African cities

→ As the primary mode of daily travel, walking can become much more than a necessary chore. It can benefit from continuous, tranquil routes, lined with pavements shaded by trees or lightweight structures, and lit by understated street lighting ensuring safety day and night. Wide, clean pavements free of obstacles invite people to walk without stress or fatigue. Dotted with accessible street furniture – benches, seating, shaded areas – these routes provide opportunities to rest. Public spaces that are better designed and structured as a network of green corridors thus reduce the hardship of travel, improve thermal comfort in hot weather and enhance the sense of safety, particularly for women, children and the elderly.

Cycling is also an accessible and effective alternative, particularly suited to medium-distance journeys

→ Provided there are wide cycle lanes that can form a continuous, shaded, and safe network, cycling can offer comfortable, smooth, and peaceful journeys, and become an obvious choice for everyday travel.

Making cycling safer also helps to change perceptions, promoting it as a modern, eco-friendly, and environmentally responsible mode of transport, rather than a last resort. For many "long-distance walkers", cycling could be an affordable solution to reduce the hardship and duration of journeys, without resorting to more expensive and polluting motorised modes.

By investing in attractive cycling infrastructure, African cities thus have a simple and cost-effective lever to improve urban accessibility, quality of life, and the transition towards more sustainable mobility.

Image 66 : Pavement equipped with street furniture in Bouaké.

Image 67 : Cyclists in Dakar.

New challenges are emerging, creating opportunities for decarbonisation and the improvement of mobility systems

→ The gradual electrification of transport fleets—whether backbone public transport systems such as BRTs and city buses, taxis, motorcycle taxis, or motorised tricycles—is a key lever for reducing greenhouse gas emissions and local pollution. Given economic and technical constraints, this transition relies primarily on the gradual renewal of existing fleets, as well as the professionalisation of informal transport services. The examples analysed show, however, that electrification cannot be considered in isolation from energy challenges, the availability and reliability of charging infrastructure, and the capacity of local authorities to support, supervise, and regulate operators.

New technologies, and in particular data analysis tools and artificial intelligence, offer valuable opportunities

→ These can offer opportunities to improve the planning and management of urban mobility. The use of data from smartphones, mobility apps, or transport systems could provide a better understanding of travel flows, optimise service provision, and improve information for users. Certain initiatives, such as the road safety monitoring platform in Bouaké or smartphone-bookable taxi services in Antananarivo, such as Piqla, e-VTC, etc., also illustrate this trend towards digital innovation.

While digital solutions and artificial intelligence can improve certain mobility services and the information available to users who have access to them, their reach remains limited to a segment of the population. At this stage, they do not constitute structural solutions for African cities and do not relieve public authorities of the need to effectively deploy, on a large scale, the strategies, organisations, and resources highlighted by the experience of the six cities studied. Their development is also constrained by unequal access to digital technologies, the cost of mobile data, inadequate digital infrastructure, limited technical capacity within local authorities, and the scarcity of available data, which can lead to incomplete analyses and exacerbate mobility inequalities. These tools must therefore be viewed as complementary instruments, deployed in a gradual and targeted manner.

Suggestions for improving frameworks and support mechanisms for future SUMP in African cities

Developing the methodological guide for SUMPs elaboration

→ The experience of the six cities studied demonstrates the value of adapting the methodological framework for developing SUMPs to African realities, while allowing for specific adjustments to each local context. This adaptation involves better integrating several key dimensions: the predominant role of active modes in daily travel, the central role of informal transport, and the consideration of climate-related challenges. It must also take into account the often limited institutional capacities of local authorities, ensuring that the terms of reference remain realistic and appropriate, in order to reduce the frequent gap between assessments, the ambitions of action plans, and actual implementation capacity. Furthermore, data collection and monitoring methodologies would benefit from being adapted to financial and human resource constraints, to ensure their sustainability and operational relevance.

Strengthening capacities of project owners through targeted training

→ The findings highlight a crucial need to strengthen the capacity of local authorities to develop, advocate for, and monitor SUMPs. Targeted and continuous training would enable relevant stakeholders to fully appropriate these strategic tools and better ensure the continuity of their implementation. Such training should place particular emphasis on active modes of transport, which have long been marginalised, as well as on climate-related issues, highlighting their co-benefits for public health.

At the same time, tailored technical assistance remains necessary to support local authorities over the long term, through methodological and operational support in specific areas of expertise that cannot always be mobilised internally. The training programme could be developed in collaboration with organisations specialising in mobility, such as CODATU, in order to design an approach adapted to each local context.

Supporting the regulatory implementation of SUMPs

→ The lack of legal force of the plans may compromise their effective implementation. Specific support for the regulatory implementation of the guidelines set out in the SUMPs therefore appears necessary to facilitate their long-term integration. This step would enable the translation of recommendations into enforceable provisions, thereby ensuring that sustainable mobility objectives are better taken into account in planning and investment decisions.

The SUMP should be integrated into the harmonisation of urban planning, transport infrastructure, urban development, economic, and environmental planning documents.

05

APPENDIX

© Malama Mushitu via Unsplash

Image 68 : Le transport routier en Afrique.

Appendix 1:
Overview of stakeholders

Why is the FFEM working with relevant partners to develop SUMPs?

A "map" of the stakeholders supported by the FFEM.

Established in 1994 following the Rio Earth Summit, the FFEM acts as a French cooperation instrument designed to support innovative projects in the Global South. Its work is based on a simple principle: experimenting on a small scale, learning from experience, and then supporting the scaling-up of proven solutions to a wider range of stakeholders. Over the past thirty years, the FFEM has funded more than 400 projects in over 130 countries[56], with a strong presence in sub-Saharan Africa, where the majority of its interventions are concentrated.

The FFEM supports a diverse range of stakeholders, reflecting the complexity of environmental and urban transitions.

It supports:

- Public actors, ranging from national institutions to local authorities;
- Private actors, whether companies, start-ups or service providers;
- Civil society, including NGOs, community associations, foundations and user groups;
- International stakeholders, including development banks, technical agencies, multilateral programmes and UN organisations, which provide co-financing, expertise and sector-specific support.

This diversity of stakeholders reflects the FFEM's dual mandate: to reconcile sustainable development with the preservation of the global environment. The projects supported aim to deliver social, economic and environmental benefits, and simultaneously contribute to several Sustainable Development Goals.

Areas of intervention include

- Combating climate change;
- Biodiversity conservation;
- Sustainable land and forest management;
- Water resource conservation;
- Reducing pollution and eliminating substances harmful to the ozone layer.

In its 2023–2026 strategic guidelines, the FFEM lists 'the adaptation and low-carbon transition of cities and regions' among its priorities. This priority is structured around three key areas:

- Promoting resilient solutions for low-carbon, better-adapted cities;
- Improving the energy efficiency of urban systems,
- Encouraging fair and sustainable energy transition models.

This focus appears particularly relevant to the present knowledge-sharing exercise, as it addresses the challenges revealed by the SUMP studied: rapid urbanisation, growing pressure on transport infrastructure and a significant rise in CO_2 emissions linked to mobility, as well as cities' high vulnerability to the impacts of climate change.

Knowledge capitalisation is also a central pillar of the FFEM's mission. Since 2020, it has strengthened its commitment to disseminating innovative practices by encouraging the sharing of experiences, collective learning and the networking of local and international stakeholders. This approach aims to highlight successful innovations, but also to learn from the difficulties encountered, in order to enrich public policies and future strategies.

56. https://www.ffem.fr/fr

The knowledge-sharing publication produced within this framework puts into perspective the cross-cutting lessons from the six African SUMPs studied, and highlights the importance of strengthening synergies between stakeholders, improving implementation capacities and promoting solutions tailored to local realities. The aim, beyond analysis, is to foster a dynamic of mutual learning and to inspire replicable approaches to support urban and climate transitions across the continent.

About the French Development Agency (AFD)

The French Development Agency (AFD) is the French public bank dedicated to inclusive and sustainable development. It implements France's international cooperation policy by supporting vulnerable countries, middle-income economies and overseas territories, and backs projects that sustainably improve living conditions and strengthen the resilience of these territories.

AFD is particularly active in the fields of urban infrastructure and mobility, climate and energy, as well as governance, in line with its cross-cutting priorities of protecting the planet, reducing inequalities and promoting human rights. Its 2025–2030 strategy reaffirms its alignment with the Paris Agreement and the Sustainable Development Goals.

As part of the scaling up of Urban Mobility Plans (SUMP), AFD plays a key role by mobilising its multi-sectoral expertise, its experience in urban and climate policies, and its institutional support to foster sustainable mobility initiatives in African cities. This contribution is fully in line with its mandate to promote a solidarity-based, resilient and low-carbon transition, consistent with the ambitions set out in the SUMPs.

Support from French institutions: the Ministry for Ecological Transition, Biodiversity and International Negotiations on Climate and Nature, the Ministry of Spatial Planning and Decentralisation, the Ministry of Transport, and the Ministry of Urban Affairs and Housing.

The ministerial departments responsible for Ecological Transition, Biodiversity and International Negotiations on Climate and Nature; Regional Planning and Decentralisation; Transport; and Urban Affairs and Housing implement France's policy across all these areas. They support all public and private stakeholders in the transition towards resource-efficient, resilient and inclusive development models, and assists cities in adapting to major contemporary challenges, notably climate change and air pollution.

In this context, the ministerial department has set up the Fund to Accelerate the Ecological Transition in Local Areas (Green Fund), a financial instrument designed to support local authorities and their partners in implementing practical projects aimed at improving the quality of life, strengthening the resilience of local areas and developing sustainable mobility. The Green Fund focuses in particular on priorities relating to renaturation, adaptation to climate change and sustainable mobility.

As part of initiatives such as the Sustainable Urban Mobility Plans (SUMPs), the ministerial departments plays a key role by providing strategic, regulatory and technical support, and by assisting local authorities in developing territorial pathways aligned with national and European ecological transition objectives.

Furthermore, the ministry's work forms part of a broader framework of support from French and European institutions for the ecological transition and sustainable mobility. Public bodies such as the French Development Agency (AFD) provide funding, technical assistance and expertise, drawing on French and European know-how to support local authorities and international partners. The AFD also cooperates with the European Union to co-finance projects promoting sustainable development, and agencies such as Expertise France mobilise French and European public funding to support public policies in partner countries.

About MobiliseYourCity (MYC)

MobiliseYourCity (MYC), launched at COP21 in 2015, is a global partnership dedicated to supporting sustainable urban mobility planning in developing and emerging countries. It brings together more than 100 partners and supports 79 cities and 16 governments in 39 countries, representing more than 155 million inhabitants. In Africa, MYC brings together 35 cities and 9 countries, making the continent a key pillar of the partnership.

MYC has played a leading role in the development and dissemination of Sustainable Urban Mobility Plans (SUMPs), and National Urban Mobility Plans (NUMPs). By 2024, 21 SUMPs had been finalised, 13 of which are currently being implemented; 6 NUMPs had been developed, 4 of which are operational; and €1.75 billion had been mobilised to support projects arising from these plans.

Thanks to contributions from several donors – the European Union, AFD, the French Ministry for Ecological Transition, BMZ, BMUV and FFEM – €60.95 million had been committed by the end of 2024 to fund technical assistance and project preparation in 32 SUMPs and 9 NUMPs.

MYC's work focuses on four service areas: mobility planning, capacity building, advocacy for low-carbon mobility policies, and support for implementation, whilst leaving operational responsibility with the cities. MYC supports the transition to sustainable mobility based on the 'avoid – shift – improve' principle, thereby helping to strengthen cities' capacity to develop integrated SUMPs and access sustainable funding.

Appendix 2:
Recommendations brochure

African cities are experiencing rapid urbanisation and sustained demographic growth. These transformations are resulting in a sharp increase in travel, generating congestion, unsafe roads and pollution.

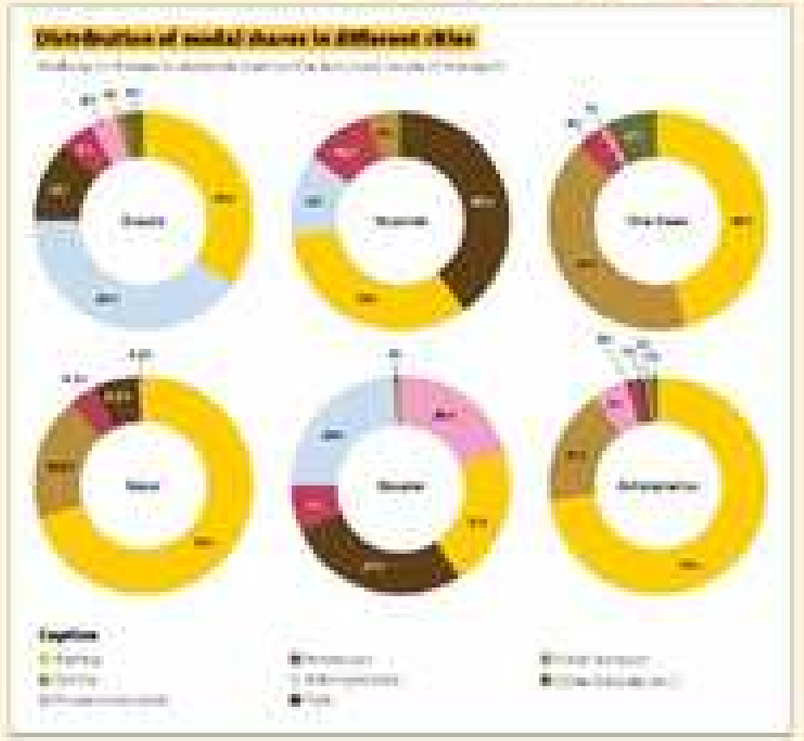
Urban mobility systems need to be improved to address these challenges.

The 4 recommendations presented in this document

CONTEXT

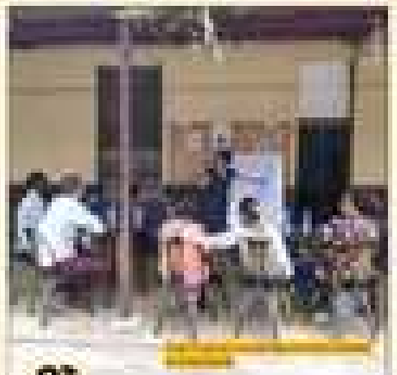
01

Consider developing a SUMP as a process rather than a study



02

Consolidate ownership and leadership of the Project Management authority



03

Ensure that decision-makers hear citizens' voices

04

Put pedestrians at the heart of public space

05

Develop peaceful green corridors in cities: an opportunity to promote non-motorised mobility and climate action

06

Mobilise and optimise financing by marketing social and climate impact

Appendix 3:
Summary of mobility assessments carried out city by city

Active modes Assessment in Dakar

In Dakar, walking dominates travel by a wide margin, with around 70 % of journeys made on foot. This exceptional level makes the quality of pavements, crossings and public spaces a central issue for safety, equity and access to the city. Any improvement to pedestrian spaces directly benefits the majority of residents.

Non-motorised two-wheelers remain very marginal, with an estimated modal share of around 1%, whilst the use of motorised two-wheelers appears to be significantly higher than that reflected by currently available data. This phenomenon, which is relatively recent in Dakar—having been observed for less than a decade—is growing rapidly, and local authorities have been able to adapt to it only partially. The lack of consolidated and regularly updated studies on motorised two-wheelers limits the ability of public authorities to accurately gauge their scale and adjust public policies, despite the now clearly visible growth of this mode of travel in the urban environment. Pedestrian and cycling infrastructure risks being dependent on larger-scale projects and becoming a variable to be adjusted in the face of major investments. However, walking is at the heart of the mobility system and cannot be treated as secondary. The operational priority is therefore the continuity and safety of pedestrian routes (pavements, crossings, junctions, shade, management of conflicts of use). Without this, walking remains arduous and accident-prone, and access to public transport deteriorates.

There is strong demand for walking, but walking conditions are dangerous, and cycling is non-existent. Unless conflicts of use and the obstruction of pavements are brought under control, walking will remain a forced choice. Similarly, without improvements to road safety, any revival of cycling is unrealistic.

Analysis of Active modes in Yaoundé

In Yaoundé, walking accounts for around 33% of journeys, reflecting a significant level of active modes, mainly over short distances. However, this mode of transport remains hampered by poor-quality infrastructure and safety issues, notably the lack of pavements in good condition and suitable pedestrian crossings. Cycling is virtually non-existent (0.1%), reflecting a major barrier linked to the lack of dedicated infrastructure and road safety concerns.

Active modes are well taken into account in the planning scenarios (reference, balanced and proactive), and the assessment clearly identifies the needs of pedestrians. Indeed, urban infrastructure projects currently underway increasingly integrate pedestrian mobility, reflecting a significant shift in planning practices.

Assessment of Active modes in Douala

In Douala, walking is already a very significant mode of travel: around 35% of journeys are made on foot, over average distances of 2.3 km. However, this practice is largely endured rather than chosen, as travel conditions are difficult and sometimes dangerous. Pavements and pedestrian crossings are inadequate, often occupied or crossed by motorbikes, which creates numerous conflicts of use.

Cycling is virtually non-existent (0.1% of journeys). This situation is due to the lack of cycling infrastructure and high levels of road danger, which discourage cycling altogether.

Assessment of Active modes in Dire Dawa

In Dire Dawa, walking is the dominant mode, accounting for 46% of journeys, which demonstrates a strong daily reliance on active modes. This situation is a major asset, but also a significant vulnerability: any deterioration in pavements, crossings or road safety directly affects a large proportion of the population.

Cycling is not clearly reflected in the data. The figures mainly refer to motorised two-wheelers (1%), suggesting low cycling usage and a risk of a rapid shift towards motorbikes if walking becomes less attractive or less safe.

Analysis of Active modes in Bouaké

In Bouaké, walking accounts for only 21% of journeys, a relatively low level compared to other cities in the sample, and cycling is virtually non-existent (1%). This indicates a strong dominance of motorised modes (particularly private motorcycles and motorcycle taxis), exacerbated by conditions that are not conducive to walking or cycling (related to infrastructure, climate conditions, and the limited availability of bicycles at household level).

This low level of cycling, however, contrasts with the city's recent history. According to accounts gathered from municipal services, a cycling culture previously existed in Bouaké, prior to the political and military crisis of the 2000s.[57] The collapse of formal transport services during this period and the deterioration of road infrastructure led to the rapid rise of motorcycles and motorcycle taxis, which have firmly established themselves as the dominant mode of transport. This shift was accompanied by a decline in the social status of the bicycle, which is now widely perceived as an outdated mode of transport associated with low-income groups, making a spontaneous return to cycling difficult in the public imagination. Nevertheless, the past existence of cycling highlights a potential opportunity, which could be revived in the medium term through appropriate, safe and attractive infrastructure, although this prospect must be viewed with caution given the climatic and comfort constraints specific to the local context.

The difficulties faced by pedestrians are deeply structural. Pavements are not treated as dedicated spaces; they are often used for parking or shared with cars and motorbike taxis, and sometimes even for commercial activities that spill out onto the pavement, creating constant conflicts and a sense of insecurity. Cyclists, for their part, have no protection, which makes cycling dangerous and unattractive.

In Bouaké, the difficulties faced by pedestrians are not solely due to the lack of pavements. In reality, the city has a relatively extensive network of pavements, in some cases exceeding that found in other major Ivorian cities such as Abidjan. The problem lies mainly in the quality of the infrastructure and its discontinuity: pavements that are interrupted, damaged, or feature potholes or uncovered drains, creating dangerous and confusing situations for users.

Added to this is the scant consideration given to pedestrian crossings, which are rarely marked and inadequately secured. The lack of speed-calming measures, safe refuges or adequate crossing times leaves pedestrians particularly vulnerable, especially children, the elderly and people with reduced mobility.

Assessment of Active modes in Antananarivo

According to the Household Travel Survey (EMD) conducted as part of this study, approximately 5,537,000 journeys are made daily by residents of Greater Antananarivo[58]. Walking accounts for the vast majority of journeys (73%), with 10% of these being "long-distance walkers", indicating a strong daily reliance on walking, often over significant distances generally corresponding to journeys on foot **of more than 30 minutes,** or **approximately 2 to 4 km per trip**. Despite this, cycling remains marginal (1%), due to a lack of dedicated facilities, but also constraints related to terrain and infrastructure, which make cycling difficult.

Conditions for pedestrians are very poor. Pavements are often obstructed, patchy or non-existent; conflicts with vehicles are frequent, and the risk of accidents is high. These difficulties directly affect the majority of residents, as nearly three out of four journeys are made on foot. The city's physical constraints (terrain, bodies of water) complicate certain routes, but do not justify the absence of pavements and safe crossings.

57. Revue Géographique – University of Daloa
58. SUMP Diagnostic Report – Antananarivo P40

Appendix 4:
Summary of climate assessments carried out city by city

Climate assessment in Dakar (Senegal)

> *In Dakar, congestion, pollution, insecurity, noise and greenhouse gas emissions have a significant impact, amounting to almost 6% of GDP, or roughly €1.37 billion (900 billion CFA francs) per year*
>
> **Mouhamadou Lamine Gaye,**
> CETUD

Dakar's Sustainable Urban Mobility Plan would prevent the emission of 0.2 $MtCO_2eq$ in 2035 compared to a "business as usual" scenario, by limiting the increase in emissions to 1.2 $MtCO_2eq$ compared to the 1.4 $MtCO_2eq$ projected without the SUMP, based on a baseline of 0.924 $MtCO_2eq$ in 2015.

Dakar's Sustainable Sustainable Urban Mobility Plan (SUMP) reports, for the year 2016, an average annual concentration of $PM_{2.5}$ estimated at 25 $\mu g/m^3$, and PM_{10} reaching nearly 140 $\mu g/m^3$. These levels significantly exceed the annual guideline valmzetues recommended by the World Health Organisation (WHO), set at 5 $\mu g/m^3$ for $PM_{2.5}$ and 15 $\mu g/m^3$ for PM_{10}. Consequently, the concentrations observed are five times and more than nine times higher than the reference thresholds, respectively.

According to the 'Open Journal of Air Pollution', the air quality index ranges from poor to very poor during the dry season (November to May), whilst it is considered good to moderate during the rainy season (June to October). The measured levels vary between 120 and 180 $\mu g/m^3$ for PM_{10}, and between 25 and 48 $\mu g/m^3$ for $PM_{2.5}$.[59]

More recently, research published in a scientific journal has confirmed that particulate pollution in Dakar is not limited to the mass of particles: it may also be associated with compounds (including certain metals) that increase health risks, reinforcing the importance of a mobility–health nexus perspective.

Although less explicitly focused on adaptation to climate change, the assessment incorporates the resilience of transport corridors to flooding and coastal inundation, in connection with the preservation of the hydro-ecological network.

Climate assessment in Douala (Cameroon)

Annual baseline emissions are estimated at 0.548 $MtCO_2eq$ (2019), with a "trend" projection of 0.95 $MtCO_2eq$ (2030 BAU) and a "plan" trajectory 0.76 $MtCO_2eq$, representing a projected reduction of –0.19 $MtCO_2eq$ (–20%) by 2030; per capita transport emissions would fall from 161 $kgCO_2eq$/capita (2019) to 138 $kgCO_2eq$/capita (2030 plan).[60]

The current situation is alarming. Unless strong action is taken quickly, the trajectory of GHG emissions will continue to deteriorate.

The assessment identifies a high vulnerability to flooding, linked to urbanisation in low-lying areas and pressure on mangroves and natural drainage systems, requiring greater integration of transport infrastructure with hydrological risk management.

No air quality assessment has been carried out as part of Douala's Sustainable Sustainable Urban Mobility Plan (SUMP). Nevertheless, according to data published by IQAir, concentrations of fine particulate matter $PM_{2.5}$ in the metropolitan area regularly exceed the guideline values recommended by the World Health Organisation (WHO[61]). As a guide, the recommended annual threshold is set at 5 $\mu g/m^3$, whilst observed levels can be three to four times higher than this standard.

These levels of pollution have proven health impacts. Across Cameroon, exposure to outdoor air pollution is associated with tens of thousands of premature deaths each year, mainly linked to respiratory and cardiovascular diseases[62].

59. Tchanche, B. et al., "Monitoring of Atmospheric Pollutant Concentrations in the City of Dakar (Senegal)", Open Journal of Air Pollution, 2021.
60. MobiliseYourCity Global Monitor 2025 Factsheet – Douala: "Projected impacts", annual and per capita emissions (p. 6).
61. IQAir / WHO – Air quality data for Douala
62. World Health Organisation (WHO)

Climate assessment in Yaoundé (Cameroon)

In 2017, Cameroon ranked 15th among the most polluted countries in Africa, out of a list of 54 states. In Yaoundé, measurements taken in 2012 recorded an **annual average** concentration of $PM_{2.5}$ of 49 µg/m³, whereas the threshold recommended by the World Health Organisation (WHO) is 5 µg/m³, which is nearly ten times lower. As for PM_{10}, the recorded concentration was 65 µg/m³, whilst the WHO threshold is set at 20 µg/m³, which is more than three times the recommended standard.

Measurement campaigns carried out as part of the SUMP revealed a marked increase in $PM_{2.5}$ concentrations. A peak was recorded in November 2018[63], reaching 1,138 µg/m³, a level considered extremely hazardous to human health. A study conducted in late 2023 showed that on 21 out of 30 days in November, $PM_{2.5}$ concentrations exceeded **35 µg/m³**.[64]

For the reference year 2018, greenhouse gas emissions generated by travel within the Yaoundé Urban Community (CUY) were estimated at 635 kteqCO_2.

This pollution translates into a significant health burden: around **3,300 premature deaths in Yaoundé in 2019, or nearly 19% of the total, were attributed to air pollution**, mainly linked to emissions from road traffic, industry and diesel generators.[65]

The main risk factor remains the high level of motorisation among households, with 37% of households owning at least one motorbike. This trend is exacerbated by strong population growth, with the population set to reach around 1.1 million by 2036, at an annual growth rate of 3%. Without a rapid expansion of public transport, this trend will inevitably lead to increased congestion and emissions.

The challenging topography and urbanisation in low-lying areas expose transport infrastructure to landslides and waterlogging, highlighting a critical need for joint planning of mobility and stormwater management.

Climate assessment in Dire Dawa (Ethiopia)

The main risk is linked to the rapid rise in motorisation, driven by an increase in freight transport flows, very high population growth (around 4.5% per year) and an extremely mobile population. This dynamic is causing a surge in travel demand. Without a robust provision of public transport and safe walking conditions, motorcycles and cars become the default solutions.

The SUMP reports annual emissions of 35,400 tCO_2eq (and 47 CO_2eq/capita) in a baseline scenario for 2020, and reduced trajectories such as 21,500 tCO_2eq (and 28 CO_2eq/capita) depending on the scenarios.[66] It also mentions a 40% reduction target, i.e. a target trajectory of around 21,500 tCO_2eq/year of GHG emissions by 2040 compared to the 'business-as-usual' scenario[67].

Within the framework of Dire Dawa's Sustainable Sustainable Urban Mobility Plan (SUMP), no information regarding fine particulate matter has been provided. However, academic research based on air quality measurements and analysis highlights a deterioration linked to urban emissions, with levels of pollutants such as nitrogen dioxide (NO_2) and certain volatile organic compounds (VOCs) reaching, depending on the period and the pollutant, levels ranging from **moderate to concerning**.

[68]The region faces a dual climate challenge, with risks of flash floods and periods of drought, impacting the reliability and sustainability of transport infrastructure and requiring appropriate infrastructure design and construction.

Image 69 : Taxi rank in Yaoundé.

Image 70 : Motorised tricycles (three-wheeled vehicles) in Dire Dawa.

63. Yaoundé SUMP (Sept. 2019)(p. 168)(p. 27).(p. 26).
64. Actu Cameour "Air pollution in Yaoundé: fine particulate matter above WHO recommended thresholds", published on 19 January 2024.
65. Clean Air Fund, "Yaoundé and air pollution" (Clean Air Africa's Cities), published in 2023
66. Dire Dawa SUMP (DDW-220524-SUMP-V03)
67. Dire Dawa SUMP, GHG scenarios and climate targets
68. Kasim, O.F. et al., "Analysis of air quality in Dire Dawa, Ethiopia", Journal of the Air & Waste Management Association, 2018

Climate assessment in Bouaké (Ivory Coast)

In the absence of a dense local sensor network, several studies rely on satellite data to characterise particulate matter levels: a study published in *IOP Conference Series: Earth and Environmental Science* estimates, based on 15 years of MISR data, average AOD levels of around 0.4 ± 0.05, and concludes that there is **seasonal pollution** (particularly at the start of the year) and high aerosol concentrations, which are likely to affect the comfort and health of exposed populations.[69] In this context, the public health argument is all the more compelling given that, at the national level, the WHO sets a reference benchmark for **annual $PM_{2.5}$ at 5 µg/m³**, whereas Côte d'Ivoire has significantly higher average levels[70]. Above all, estimates attribute a major health impact to this exposure: **approximately 34,000 premature deaths in Côte d'Ivoire in 2016** were linked to exposure to pollution levels exceeding WHO recommendations.[71]

By 2038, annual emissions under the 'business as usual' (BAU) scenario are projected to reach 198 million tonnes of CO_2 equivalent, whilst the target set by the SUMP aims to reduce them to 186 million tonnes of CO_2 equivalent per year.

The assessment also includes an analysis of the low-lying areas (or backwaters), which are particularly numerous in Bouaké, and highlights the challenges associated with their preservation and development. These areas are identified both as environmentally sensitive zones and as potential levers for appropriate uses, notably urban agriculture. The assessment also highlights the significant accessibility challenges faced by several neighbourhoods, particularly during the rainy season, due to a lack of appropriate infrastructure, which has a lasting impact on mobility conditions and access to urban services.

Climate assessment in Antananarivo (Madagascar)

In 2024, urban transport generates approximately 154,000 tonnes of CO_2 across the Greater Antananarivo area.

In the conurbation, freight transport is a major source of air pollution, contributing significantly to emissions of carbon dioxide (CO_2), nitrogen oxides (NOx) and fine particulate matter in urban areas; It is estimated that freight transport generates approximately 25% to 30% of CO_2 emissions, 30% to 40% of NOx emissions and 40% to 50% of transport-related fine particulate matter[72].

The annual average levels of $PM_{2.5}$ fine particulate matter are around 29 µg/m³, which is nearly six times higher than the exposure limits recommended by the WHO for the same period (compared to a standard set at 5 µg/m³). According to the Ministry of Transport and Meteorology (MTM), concentrations of up to 150 µg/m³ are regularly observed during peaks, which is around ten times the daily limit recommended by the WHO. These pollution peaks are particularly pronounced in September and October, a period that coincides with the bushfire season. This situation, which is a cause for concern for the health of Antananarivo's residents, is due to several factors. The MTM highlights in particular the impact of bushfires, but also that of road traffic, industrial activities, and the burning of biomass and waste.

These high levels of air pollution have major health consequences. In Madagascar, 22.3% of deaths recorded in 2016 were attributable to air pollution, amounting to nearly 40,000 deaths per year, and up to 31% of premature deaths according to some national estimates.[73] In a city such as Antananarivo, where 73% of journeys are made on foot, these levels of pollution directly expose a large proportion of the population to increased health risks.

Greater Antananarivo is highly vulnerable to recurrent flooding in densely populated low-lying areas, with increasing soil sealing exacerbating the vulnerability of transport networks and calling for integrated adaptation solutions.

Image 71 : Low-lying area in Bouaké.

69. (E. Emetere, Air pollution Estimation Over Bouake, IOP Conf. Ser., 2019)
70. (WHO Health and Environment Scorecard – Côte d'Ivoire, 2025).
71. (UNEP/WHO – factsheet "Pollution / Côte d'Ivoire").
72. Antananarivo SUMP Diagnostic Report P41
73. https://lexpress.mg/20/10/2021/sante-31-des-deces-prematures-attribuables-a-la-pollution/

Appendix 5: Analysis grid for active modes of transport (1/2)

The following table presents information gathered from various stakeholders during interviews conducted as part of this study, as well as from the analysis of the SUMP.

Criteria	Dakar (Sénégal)	Douala (Cameroun)	Yaoundé (Cameroun)
Difficulties encountered by pedestrians	Crowded, non-existent or damaged pavements, forcing pedestrians to walk on the road – -Difficult crossings: – Serious road safety issues – Over 75% of streets lack functional pavements – Harassment of women: 50% feel unsafe in their neighbourhood and 80% in other areas (CETUD, 2023)	– Inadequate pedestrian facilities – Safety hazards due to open drains, – Conflicts of use (two-wheelers/ pedestrians) – Unregulated occupation of public space – Pedestrians as both victims and causes of accidents: failure to obey traffic lights, erratic behaviour	Pavements that are damaged and cluttered, forcing pedestrians to walk on the road – Insecurity: sharing the space with vehicles – Complex topography – Pedestrians are both victims and perpetrators of accidents – J'aime mon pays' junction (Yaoundé), a dangerous area
Difficulties encountered by cyclists	– Lack of dedicated and safe infrastructure – Sharing the road with motor vehicles – Low social acceptance: – Perceived as a 'poor' or rural mode of transport. – Women are severely marginalised – Cycling network still in its infancy (future BRT routes) – Limited intermodality: cycling and public transport	**Lack of cycling infrastructure and high levels of danger:** lack of regulation for cyclists, risk of accidents and user fatigue. – Weather-related constraints (rain, heat) – Lack of local ownership	– Sidewalk occupied by vehicles – Challenging topography: The city's hilly terrain limits cycling – Road safety concerns: -Sharing the road with heavy, inconsiderate motorised traffic – Culture: lack of cycling culture
Number of scenarios that take active modes and climate into account	3/3 'Reference', 'TCSP' and 'TCSP + Calm City' scenarios:	4/4 Go-with-the-flow scenario, 100% road-based, mixed and proactive, post-SUMP scenario	**3/3** **Developed scenarios (Reference, Balanced, Proactive)**
Selected scenario	TCSP and Calm City scenario	Mixed and proactive scenario	Balanced scenario
Lessons learnt from incorporating active modes into urban transport planning and the design of public spaces	– **Key takeaways:** Prioritise walking and cycling, integrate multimodal transport hubs and ensure unified management for coherent mobility. – **User-centred approach:** Design the network to meet multimodal needs and prioritise the movement of people over vehicles.	– Need for ongoing improvements to public space management and tackling informal development – Dense areas (New Bell, Bepanda) offer examples worth replicating – Priority given to pedestrian safety and improving walkability	– Importance of providing continuous and accessible pavements – Need for a regulatory framework – Limit the obstruction of verges by vehicles – Lack of an action plan for long-distance walkers – Priorities relating to soft mobility
Key success factors	– Awareness-raising – Establishment of a mobility-urban planning coordination body – Reform of the funding model – Strong local ownership --Engagement of a wide range of stakeholders. – Use of concrete examples: case studies and the 'neighbouring town effect' to persuade	– **Continuity and safety of pedestrian facilities:** Safe crossings, adequate lighting – **Urban integration and community involvement** – **Clear regulations:** Parking and management of bendskinners – **Funding and maintenance** – Institutional support and Strategic alignment: Consistency with SND30	– Accessibility – Strong local ownership: – Engagement of a wide range of stakeholders – Supported by concrete examples: case studies and the 'neighbouring town effect' to persuade – Institutional support and - Alignment with the 2020–2030 National Development Strategy (SND30)

Criteria	Dakar (Sénégal)	Douala (Cameroun)	Yaoundé (Cameroun)
Best practices, recommendations for future SUMPs	– Standard terms of reference to be considered as an adaptable framework, rather than an exhaustive set of specifications, to be adjusted according to the local context and available resources – Promote simple but effective measures – A phased approach to active modes: start with vulnerable areas – A paradigm shift: addressing both supply AND demand – Treat walking as a priority mode of transport – Plan for a systematic preparatory phase (studies, implementation plans, phasing) – Create a department/team dedicated to active modes -Consult cycling experts from the design stage onwards. – Better coordinate existing projects – Increase the use of public transport – Install comfortable, clean pavements and cycle paths, with water points and safety features	– Support for skills development: overview – Prioritise and focus resources on real needs: walking – Redesign of standard cross-sections with continuous, comfortable and safe pavements. – Specific measures for cycling to encourage its growth – Revise plans to accommodate unforeseen circumstances	– Prioritising functional road infrastructure – Incorporation of existing projects into the recommendations – Highlighting measures to promote walking, which are often overshadowed by road infrastructure projects. – Quantification of health and environmental benefits (quantification of pollution-related mortality) – A pragmatic and modest approach, focused on road rehabilitation and improving road safety – Specific focus on cycling to encourage its growth ( ) – the creation of mobility observatories – Establish a permanent body to monitor and evaluate the SUMP and strengthen the capacities of its stakeholders. – Regularly update the SUMP
Difficulties encountered in the development or implementation of the SUMP	– No major difficulties thanks to competent project management by CETUD - Difficult coordination with the DGPU – Lack of feasibility studies or preliminary design (APD) limits access to funding. – Long project development process (1–2 years for studies, plus 2 years to raise funds). – Overly ambitious targets – Lack of cycling studies, often not carried out by experts. – Proliferation of poorly coordinated small- – Lack of regulation regarding the sharing of public space, conflict with local councils' economic interests – Measures difficult to implement, not yet achieved: safety improvements, modernisation, development of related infrastructure	– Methodological transition: as a tool for evaluation, monitoring and steering – Tensions between the MINHDU and the Urban Communities (CUY, CUD in Douala) are slowing down projects, linked to the sharing of responsibilities and financial resources. – Scarcity of financial resources – Resistance from the population – Lack of sustainability among the various stakeholders – Global constraints: COVID-19, the Ukraine crisis > slowdown in project, such as the BRT in Yaoundé and Douala	– Fragile governance, political instability – Tight deadlines versus the complexity of data collection and processing – Development of traffic models is very time-consuming – Discrepancies between local ambitions and actual financial capacity – Pavements by – Hesitation in decision-making due to a limited understanding of the value or impact of projects on soft mobility – Lack of human resources to deal specifically with urban mobility issues – Lack of financial resources
Captions	– Consultancy firm – AFD – CETUD – Former CETUD – Sama Vélo – CODATU representative in Senegal – SUMP analysis	– Consultancy firm – AFD – CUD (to be done) – MINHDU – MINT – SUMP analysis	– Consultancy firm – AFD – CUY – MINHDU – MINT – SUMP analysis

Appendix 5: Analysis grid for active modes of transport (2/2)

The following table presents information gathered from various stakeholders during interviews conducted as part of this study, as well as from the analysis of the SUMP.

Criteria	Dire Dawa (Éthiopie)	Bouaké (Ivory Coast)	Antananarivo (Madagascar)
Difficulties encountered by pedestrians	– Lack of continuous and safe pavements – Risky coexistence with vehicles – Clutter caused by commercial activities – Inadequate lighting and urban infrastructure – Organic waste on public roads – Walking remains a neglected policy issue – Severe congestion in the city centre	– Poor condition or absence of pavements, dangerous crossings and lack of lighting – Insecurity, assaults, accidents – Walking is seen as a necessity – Difficult crossings: Wide roads with fast-moving traffic – Limited connections between neighbourhoods – Limited accessibility during the rainy season Students' safety is compromised, sometimes exposing them to serious or even fatal risks	– Narrow, congested or non-existent pavements, sharing space with motorised and human-powered vehicles, difficult terrain and urban barriers – Active modes are «imposed» – Walking is poorly planned – Significant constraints due to the topography and narrow roads.
Difficulties encountered by cyclists	– Lack of cycling infrastructure – Unfavourable topography – Road safety concerns. – Fatigue – Climate – Cycling, historically present, is in decline – A cycling culture is virtually non-existent. – Thermal comfort, safety, sharing the road with (tricycles) – Disorganised parking	– No cycling infrastructure, and cycling in mixed traffic is risky – Low rate of bicycle ownership among households: 5% – Weather: either heavy rain or 40°C heat – Social status of cycling: cycling remains unpopular – Decline of the bicycle: Replaced by the motorbike	– Lack of dedicated facilities, – Low provision of facilities (43 per 1,000 inhabitants) – Hilly terrain – Urban divides (rivers and lakes) – Underdeveloped, but some initiatives by companies providing bicycles to their employees
Number of scenarios that take active modes and climate into account	3/3 Scenario: dispersed city (Business As Usual), 2 cities, polycentric city	**3/3** **Reference, change and disruption scenarios**	To be detailed in Phase 3
Selected scenario	The 'Polycentric City' scenario	Change scenario	To be detailed in Phase 3
Lessons learnt from incorporating active modes into urban transport planning and the design of public spaces	– Integration of pedestrians and cyclists into infrastructure from the urban design stage – Need for shared governance, monitoring tools and urban planning – Stating that walking is the primary mode of transport creates something – -Example of high-quality public spaces in the old town: potential for inspiration	– **Infrastructure and governance:** Well-designed pavements, cycle paths and lighting, combined with strong local governance, are essential for supporting active modes of transport – **Road redesign:** Giving space back to pedestrians by widening pavements and providing safe access promotes walking – Urban development management: Wide streets require limiting urban development pressure on low-lying areas	**Pathway dimensions:** Pedestrian density is not always suited to the width of the infrastructure – **Separation of transport modes:** Certain routes, whether urban or interurban, ensure effective coexistence between vehicles and pedestrians – **Forward-looking planning:** Incorporating population growth to anticipate demand and access saturation
Key success factors	– Intermodality with public transport – Political will – Coordination of stakeholders – Reliable data – Establishment of a transport authority – Competent institutional and technical body – Importance of a sound assessment and awareness-raising	– Sustainable funding, user involvement, inter-institutional coordination – Involvement of staff and political commitment from the Town Hall – Control of urban sprawl	– Promotion of active modes of transport and public transport – Managing the growth in demand for mobility – Reclaiming and reorganising public space for mobility – Good governance: reducing inter-institutional conflicts – Ownership and active involvement of all stakeholders

Criteria	Dire Dawa (Éthiopie)	Bouaké (Ivory Coast)	Antananarivo (Madagascar)
Best practices, recommendations for future SUMPs	– Monitoring of post-study implementation – Conducting walk-through assessments, making films and taking photographs to convince decision-makers – Give citizens a more prominent voice – Avoid overly complex plans – Do not separate planning from investment: target towns where a project or political dialogue is already underway – Work with pilot projects and ensure strong municipal involvement and from the outset Priority actions for walking/cycling and reducing pollution: – Developments leading to sports grounds and stadiums used by the public and local authorities. – Promoting the social benefits of walking and cycling	– Improving pedestrian safety around schools – Governance of public space (use of pavements, regulation of motorbike taxis) – Establishment of a road safety observatory – Prioritising a phased approach – Promoting simple but appropriate solutions – Support greening initiatives – Strengthen stakeholders' capacities from the outset, and ensure th s are preceded by a review of mobility, in order to ensure greater consistency and effectiveness in development	– The importance of robust assessments and realistic planning – Developing solutions tailored to specific needs. – Adapting the methodology to suit the resources available to towns – Give preference to the moderate scenario, as ambitious ones are rarely considered feasible – Ensure light monitoring: Regular monitoring (even via Excel) rather than sophisticated platforms
Difficulties encountered in the development or implementation of the SUMP	Political instability: – Civil war, Covid, and shifting political priorities: Dire Dawa marginalised – Lack of official endorsement of the SUMP by the city council – Lack of political will after 2020 > no concrete implementation – Budgetary constraints on scaling up actions – Budgetary constraints related to the management of expropriations and rehousing – Initial lack of awareness and a comprehensive development vision – However, the second phase was facilitated by the experience gained	– The council was passively involved, without significant engagement in the analysis of deliverables – Access to information requires a formal hierarchical process – Lack of communication between stakeholders – Weakness of the key contacts – Lack of resources: severely limits the implementation of the SUMP's actions, forcing the council to prioritise minimal infrastructure maintenance and rely on external support – Collaboration with AGEROUTE is considered difficult by Bouaké Town Hall, due to a lack of consultation, - «It is easier for us , to assert ourselves when dealing with donor-funded projects than when dealing with government projects» – Limited regulations - Lack of clear integration of Sotra, due to a lack of information – Cycle paths on the A3 abandoned due to a lack of resource	– Weak governance and political instability, which complicate the adoption of tools – Lack of inter-institutional coordination – No major difficulties encountered by the CUA, but occasional adjustments are requested from the design office if elements are missing
Captions	– Consultancy firm – AFD – Local authority – SUMP analysis	– Consultancy firm – AFD – Bouaké Town Hall – School inspector – SUMP analysis	– Consultancy firm – AFD – CUA – SUMP analysis

Appendix 6: Climate analysis grid (1/2)

Criteria	Dakar (Sénégal)	Douala (Cameroun)	Yaoundé (Cameroun)
Air quality measurement	Yes	No	Yes
GHG model	Yes	Yes	Yes
Difficulties encountered by public transport users	– Outdated equipment – Low frequency – Overcrowding – Lack of intermodality	– Outdated buses (Socatur), – Long waiting times – Inadequate coverage – Congestion – Inefficient buses, a decline in shared taxis, and minibuses facing both competition and restrictions – Frequent accidents – Outdated vehicles – Lack of structured routes – Proliferation of motorbike taxis	– Poorly organised public transport network – Long waiting times – Inconvenience – Low frequency – Supply poorly matched to demand: a radial network ill-suited to scattered journeys, often making taxis more attractive than buses – Frequent accidents – Outdated vehicles – Lack of structured routes – Proliferation of motorbike taxis
Reasons for dependence on polluting vehicles	– Low informal cost – Comfort/convenience of car travel – Public transport is not attractive enough	Reliance on motorbike taxis (61% of motorised journeys) and private vehicles due to a lack of public transport provision	Reliance on informal transport: lack of a structured public transport system, flexible and fast services (motorcycle taxis, shared taxis) and poor road conditions that favour motorcycles
Current pollution situation	– Total number of 'cars': 120,900 units, car ownership rate: 40 cars per 1,000 inhabitants – Motorised travel increasing in line with population growth	– Urban sprawl and the increase in motorised journeys, combined with a very old vehicle fleet, are causing high levels of air pollution and GH – Increasing motorisation, chronic congestion – Rapid increase in motorbike taxis (50,000 in 2018) – Reliance on motorbikes as an alternative to buses, due to a lack of reliable formal transport services	– Old vehicle fleet: 20% of vehicles are over 20 years old – 35,000 highly polluting motorbike taxis – Poor-quality fuel – Air quality: alarming s comparable to those found in Delhi – Rising motorisation, chronic congestion – +4% annual growth in the vehicle fleet
Lessons learnt in urban transport planning	– Integrating climate into urban planning; mobility = a lever for reducing emissions – Controlling growth in vehicle use	– Multimodal planning and inter-institutional coordination are essential; intermodality of public transport and strategic logistics must be integrated, and CNG should be used for buses and BRT Prioritisation of the following actions: – Professionalisation of stakeholders – Organisation and supervision – Fleet renewal (following professionalisation)	– Integrate climate considerations from the planning stage, develop a comprehensive public transport system and renew the vehicle fleet – Priority given to funding and road infrastructure to facilitate safe and comfortable public transport within the SUMP Prioritisation of the following actions: – Professionalisation of stakeholders – Organisation and supervision. – Fleet renewal (following professionalisation)

Criteria	Dakar (Sénégal)	Douala (Cameroun)	Yaoundé (Cameroun)
Best practices and recommendations for future Urban Mobility Plans	– The Centre for Air Quality Management (CGQA): an institution dedicated to monitoring air quality – Structure transport provision around public and high-capacity transport – Incorporate innovative financing from the planning stage (PPPs, carbon markets, green finance) – Promote low-emission and non-motorised modes of transport – Accelerate the electrification of the public transport fleet	– Integrating a low-carbon mobility approach – Prioritise dedicated public transport lanes and walking – Raising awareness of GHG reduction and local pollutants (fine particulate matter) – Organising a car-free day – Offering more affordable public transport for long-distance walkers	– Organising a car-free day – Quantifying the reduction in deaths caused by pollution – Offering more affordable public transport for long-distance walkers – Prioritising the least polluting modes of transport – Establishment of monitoring bodies, directly linked to strategic spreadsheets and strategic models – Integrating nature-based solutions (shading, greening) more systematically
Captions	– Consultancy firm – AFD – CETUD – Former CETUD – Sama Vélo – CODATU representative in Senegal – SUMP analysis	– Consultancy firm – AFD – CUD (to be done) – MINHDU – MINT – SUMP analysis	– Consultancy firm – AFD – CUY – MINHDU – MINT – SUMP Analysis

Appendix 6: Climate analysis grid (2/2)

Criteria	Dire Dawa (Éthiopie)	Bouaké (Ivory Coast)	Antananarivo (Madagascar)
Air quality measurement	No	No	Yes
GHG model	Yes	Yes	Yes
Difficulties encountered by public transport users	– Low frequency – Lack of punctuality – Lack of dedicated lanes for buses and minibuses – Outdated rolling stock – Service is less attractive than Bajaj – Very limited urban bus services (4 journeys per day)	Dilapidated gbakas (informal public transport minibuses), surviving on very low, unregulated fares, operating without coordination with other vehicles. – SOTRA (Société des Transports d'Abidjan) is launching its operations without sustainable infrastructure, using temporary equipment and without transport hubs – Lack of organisation and spatial coverage of public transport	– Unreliable and inefficient minibuses: timetables not adhered to, informal operation, poor service quality, long waiting times, dilapidated vehicles and reckless driving
Reasons for dependence on polluting vehicles	– Barriers to electric vehicles and dominance of combustion engines: mistrust due to breakdowns and high costs, unreliable electricity supply	– Predominance of individual and informal transport modes: motorbike taxis and motorbikes are widely used as they are flexible and affordable; low car ownership due to a lack of reliable public transport; and gas-powered taxis are attractive thanks to subsidised fuel – Emergence of motorbike taxis following the crisis	– Numerous urban traffic bottlenecks, – Lack of infrastructure – Limited availability of Taxi-Be
Current pollution situation	– Current annual emissions estimated at 35,400 tCO_2eq (i.e. 47 tCO_2eq/capita/year), with an expected 40% reduction in the target scenario (Business-as-usual scenario) – Rising car ownership rates	– Transport is one of the main contributors to emissions in Bouaké – The projected growth in population (+400,000 inhabitants by 2036) and travel (doubling) will exacerbate this pressure – High motorisation rate (37% of households own a motorbike)	Total number of private cars: 120,900 units (40 per 1,000 inhabitants) – Growth of motorized two-wheelers: 156,100 motorcycles (52 per 1,000 inhabitants) – Motorcycle taxis: 50,000 (in 2018) – Freight transport: 25 to 30% of CO_2 emissions – Annual CO_2 emissions: 154,000 tCO_2 (2024) – $PM_{2.5}$: average 29 µg/m³, peaks up to 150 µg/m³
Lessons learnt in urban transport planning	– An integrated, multi-sectoral approach enables GHG reductions whilst improving living conditions – Key approach: coherent urban planning, regulated public transport, support for fleet electrification and active governance at all levels – Replace tricycles with minibuses – Dire Dawa has experienced flooding in the past, which has resulted in loss of life – Flood resilience	– Aligning transport policies with climate targets – SOTR – A: target schoolchildren and students with attractively priced season tickets to expand the public transport customer base – Preserving and enhancing natural spaces – Prioritise the location of bus terminals on the outskirts	– The current network of urban taxi-buses shows significant route overlap across the CUA – Factor in population growth when projecting future demand and assessing access capacity

Criteria	Dire Dawa (Éthiopie)	Bouaké (Ivory Coast)	Antananarivo (Madagascar)
Best practices and recommendations for future Urban Mobility Plans	– SUMP: mitigation strategy, – Selecting more virtuous scenarios from the outset. – Addition of an air quality component – Monitoring of post-study implementation – Promote electric mobility, particularly electric tricycles, by supporting the sector, public-private dialogue and access to infrastructure – Importance of learning by doing (trial and error) to strengthen in-house expertise – Demonstrating that local implementation is possible with political will and in-house resources	Encourage a modal shift towards public transport to reduce emissions A desire to avoid disproportionate projects (e.g. premature BRT projects). – Having paved routes is an essential prerequisite for the operation of an efficient bus network – A bus network enables mass transit, reduces emissions and structures the transport system	– Develop an open-source tool accessible online to create a mobility observatory available to all
Captions	– Consultancy firm – AFD – Local authority – SUMP analysis	– Consultancy firm – AFD – Bouaké Town Hall – School inspector – SUMP analysis	– Consultancy firm – AFD – CUA – SUMP analysis

Appendix 7: List of planned or completed actions (1/2)

	Actions	Dakar (Sénégal)	Douala (Cameroun)	Yaoundé (Cameroun)
Steering	Umbrella organisation for urban mobility Improving governance	V (CETUD), P (Information system, governance and project management)	P (ACTUDY) ATCUDY	P (ACTUDY)
	Regular monitoring of the implementation of the SUMP	V (CETUD)		
	Urban Mobility and Road Safety Observatory		P (ACTUDY) Urban mobility	P (ACTUDY) Urban mobility
Planning	**Pedestrian plan**	P (MOVE Dakar)		
	Cycling plan	V (SUMP) P (MOVE Dakar)		
Infrastructure	**Pavement/footpath improvements**			P (Yaoundé City Centre)
	Improvements to difficult crossing points			
	Widespread provision of safe pedestrian crossings Reconfiguration of junctions	P (ITS project)		P (Yaoundé City Centre)
	Improving safety/traffic calming around schools			
	Pedestrian zone			V (Urban Mobility Week)
	Shade for pedestrian/cycle paths			
	Lighting for pedestrian/ cycle paths			
	Cycling facilities	V (BRT) P (Free-floating bike-sharing pilot project) (GIZ)		

	Actions	Dakar (Sénégal)	Douala (Cameroun)	Yaoundé (Cameroun)
Infrastructure	Accessibility for people with reduced mobility			
	Intermodality Improving pedestrian access to public transport	P (MOVE Dakar), P (RTC), P (BRT 2), V (BRT 1)	BRT project	BRT project
	Tactical urbanism			V (Air Quality Week)
Awareness-raising	**Car-Free Days**		V (SUMP)	V (SUMP & Air Quality Week)
	Raising awareness of sustainable transport	V (SamaVélo, sustainable mobility citizens' group) City walk, round table		V (CUY) Yaoundé Urban Mobility Week Raising awareness of soft mobility in schools
Shared road use management of conflicts of use	**Charter on public space**	P (CETUD, relevant ministries, local authorities, etc.)		
	Studies	P (AFD, CETUD) Study on the use and distribution of road networks		
	Prioritisation of the road network			P (EU, bypass)
	Development of standard cross-sections including wide pavements (3.5 m)		V (SUMP)	
	Removal of street vendors		V ("Clear the pavements")	
	Parking policy (Creation/improvement/ enforcement)	P (ITS Project)		V Parking road markings
Climate / air quality	**Air quality monitoring**	V		
	Fleet renewal	P (Professionalisation of informal transport)	P (MINT, Songho Motors, Cameroon Taxi Project)	P (MINT, Songho Motors, Cameroon Taxi Project)

Key:
V : Directed
P : Scheduled

Appendix 7: List of planned or completed actions (2/2)

	Actions	Dire Dawa (Éthiopie)	Bouaké (Ivory Coast)	Antananarivo (Madagascar)
Steering	Umbrella organisation for urban mobility Improving governance		-V (GTMU Urban Mobility Working Group stemming from the SUMP) -P (SUMP Operationalisation – AFD/EU)	
	Regular monitoring of the implementation of the SUMP		P (Implementation of the SUMP – AFD/EU)	NC
	Urban Mobility and Road Safety Observatory		V (IRD) Road safety	
Planning	**Pedestrian plan**			
	Cycling plan			
Infrastructure	**Pavement/footpath improvements**	V (Corridor 1)	P (Implementation of the SUMP – AFD/EU)	V (alleyway project)
	Improvements to difficult crossing points			V (pedestrian bridge, alleyway project)
	Widespread provision of safe pedestrian crossings Reconfiguration of junctions			
	Improving safety/traffic calming around schools		V (3 schools per AMEND) P (Implementatio n SUMP - AFD/EU) Approximately 40 schools	
	Pedestrian zone			V(Semaine de la mobilité urbaine)
	Shade for pedestrian/cycle paths	V (Corridors 1 and 3)		
	Lighting for pedestrian/ cycle paths	V (Corridors 1 and 3)		
	Cycling facilities			
Infrastructure	Accessibility for people with reduced mobility			
	Intermodality Improving pedestrian access to public transport			
	Tactical urbanism			
Awareness-raising	**Car-Free Days**			
	Raising awareness of sustainable transport			
Shared road use management of conflicts of use	**Charter on public space**			
	Studies			
	Prioritisation of the road network			
	Development of standard cross-sections including wide pavements (3.5 m)		P (Implementation of SUMP – AFD/EU)	
	Removal of street vendors		P (relocation of vendors and advertising hoardings)	
	Parking policy (Creation/improvement/ enforcement)	P (Corridor 2)		
Climate / air quality	**Air quality monitoring**			
	Fleet renewal			

Key:
V : Directed
P : Scheduled

GLOSSARY

AFD	French Development Agency
ODA	Official Development Assistance
AOM	Mobility Planning Authority
ATT	Land Transport Agency (Madagascar)
BRT	Bus Rapid Transit
NDC	Nationally Determined Contribution (NDC)
CETUD	Executive Council of Urban Transport in Dakar
CHU	University Hospital
CODATU	Cooperation for the Development and Improvement of Urban and Suburban Transport
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CUY	Yaoundé Urban Community
CUA	Antananarivo Urban Municipality
CUD	Douala Urban Community
DVDH	Consultancy firm specialising in mobility and urban planning
EMD	Household Travel Survey
EUR	Euro
FCFA	CFA franc
FFEM	French Fund for the Global Environment
GHG	Greenhouse gases
GIZ	German Society for International Cooperation
IRD	Research Institute for Development
MINHDU	Ministry of Housing and Urban Development (Cameroon)
MINT	Ministry of Transport (Cameroon)
MRV	Measure, Report, Verify
MTE	Ministry for Ecological Transition (France)
MYC	MobiliseYourCity
NO_2	Nitrogen dioxide
NOx	Nitrogen oxides
SDGs	Sustainable Development Goals
OJISER	Organisation of Ivorian Youth for Road Safety
ONPC	National Civil Protection Agency (Ivory Coast)
OSER	National Road Safety Organisation (Ivory Coast)
PAMUS	Programme for the Improvement of Urban Mobility in Senegal
PDU	Urban Master Plan
PDVIR	Plan for the Development of Inclusive and Resilient Cities
$PM_{2,5}$	Fine particles with a diameter of less than 2.5 µm
PM_{10}	Fine particles with a diameter of less than 10 µm
PMR	People with reduced mobility
SUMP	Sustainable Urban Mobility Plan
PRODUIR	Integrated Urban Development and Resilience Project
SECUROUTE	Road Safety Awareness Association
SERIOUS	Accident and Injury Surveillance in Bouaké and on the Roads of Northern Côte d'Ivoire
SOTRA	Abidjan Transport Company
SUEZ	Group specialising in water and waste management
SUMP	Sustainable Urban Mobility Plan
SYSTRA	Engineering and transport consultancy firm
TC	Public Transport
Dedicated Lane	Dedicated Lane Public Transport
TER	Regional Express Transport
USD	US dollar
VOCs	Volatile Organic Compounds
VOCs	Composés Organiques Volatils

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AUTHORS' NOTE

Urban mobility is much more than simply a matter of getting from A to B: it is the foundation of access to services, education, employment and opportunities. Yet, in many African cities, millions of people travel every day under difficult conditions, due to dilapidated or non-existent infrastructure, road safety issues and exposure to pollution.

For over forty years, CODATU has been committed to promoting sustainable mobility in cities in the Global South, convinced that it lies at the heart of community life, local economic development and social well-being. As a partner of MobiliseYourCity, CODATU supports cities in the development and implementation of Sustainable Urban Mobility Plans (SUMPs), effective tools for long-term action and policy-making, to place mobility at the centre of ecological and social transitions.

This cross-cutting knowledge-sharing study, carried out with the support of the French Facility for Global Environment (FFEM), is based on an analysis of six SUMPs supported by MobiliseYourCity in Africa: Douala, Yaoundé, Bouaké, Dakar, Dire Dawa and Antananarivo. It reveals, beyond territorial specificities, common dynamics and persistent challenges, as well as concrete progress and inspiring innovations. By highlighting best practices, tools and conditions for success, this work aims to enrich discussions and support local decision-makers, donors and practitioners committed to transforming urban mobility.

Several key lessons and recommendations emerge to help strengthen future African SUMPs, particularly in two areas that must be fully integrated into planning and implementation:

Firstly, active modes of transport – particularly walking, which forms the basis of travel in Africa – deserve a more central place in urban planning policies.

Secondly, integrating climate considerations from the very outset of planning presents an opportunity to generate tangible benefits for health, the economy and urban resilience, whilst helping to mitigate the effects of climate change.

This study also highlights that urban transformation is not merely a technical issue: it is a living ecosystem, shaped by people, nature, the climate and the resources of its territory. Promoting sustainable mobility also means reconciling the city with its environment, preserving blue and green infrastructure, creating calmer public spaces and guaranteeing everyone the right to a safe, accessible and breathable city.

We would like to extend our warmest thanks to all the stakeholders who contributed to this knowledge-sharing initiative. We hope that these insights will fuel the dialogue on sustainable mobility in Africa and beyond, and that they will enable the large-scale roll-out of integrated, low-impact approaches centred on residents' needs and the quality of the solutions offered.

Building the city of tomorrow means choosing, today, more equitable, low-carbon and inclusive mobility solutions — an ambition at the heart of CODATU's mandate, the FFEM's mission and that of its partners.

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