

Dakar, Senegal

Partner city

Status of the project: Completed preparation of the Sustainable Urban Mobility Plan



Basic Information

Urban area (Dakar Region): 550 km²

Population: 4,042,225 (2022) | Growth rate: +2.8%

Country capital city

GDP per capita: USD 1,636 (2021)

Modal Shares (in 2015):

Walking: 70%

Formal public transport: 11.7%

Informal public transport (minibuses): 6.8%

Informal collective taxis: 3.5%

Private cars: 4.2%

Formal Taxis: 3.0%

Private motorbikes or 2-wheelers: 0.8%

GHG emissions per capita: 0.6 tCO₂eq at national level in 2016 and 2.1 tCO₂eq/capita in Dakar

Exposure to climate change: MEDIUM

Context

The Dakar region is a fast-growing conurbation that includes the cities of Dakar, Guédiawaye, Pikine, and Rufisque. It is home to over 4 million people and accounts for 25% of the country's population and 50% of the urban population. The population is expected to reach 5 million by 2030 with a growth rate twice as high as in the past 30 years.

The high population density of the region (7,350 inhabitants/km²) masks significant disparities between urban areas and territorial imbalances due to the peninsula's geography and uncontrolled urbanisation. The concentration of jobs in Dakar city center leads to pendular mobility, and income inequality between Dakar and suburban cities increases the use of private vehicles.

The limited space in Dakar and road congestion have led the government to pursue ambitious urban projects outside the current agglomeration, such as the Diamniadio urban pole, which is planned to be the future administrative center of Senegal.

Walking is the most common mode of transportation, accounting for 70% of trips, but is imposed rather than chosen due to the absence or poor condition of sidewalks and obstacles from larger roads. Cycling is hindered by a lack of infrastructure and unsafe road conditions, encouraging a shift to private vehicles.

Public transportation options in Dakar include the public operator Dakar Dem Dikk (DDD) with 42 standard bus lines, 14 private operators with 64 minibus lines under the AFTU's, informal minibus operators, Clando taxi operators. Since 2022, the Express Regional Train (TER) is in addition operating on the corridor of the former "Petit Train de Banlieue", between Dakar downtown and the Blaise Diagne International Airport located in Diamniadio at 36 km distance. Additional mass rapid transit projects are underway: a BRT line between Dakar downtown and Guédiawaye suburb (under construction, expected to begin in 2024) and the extension of the TER beyond the airport (under construction).

The total number of trips within the region of Dakar stands at 3.36 trips per person on average on weekdays. Of these trips, 1.0 trips are made using motorised modes.

The Conseil Exécutif des Transports Urbains de Dakar (CETUD) manages mobility in Dakar and is responsible for piloting public transport (while the TER is under the APIX mandate) and implementing a transport master plan. CETUD's mission is to organise and regulate urban transport and promote healthy competition in accordance with state policies. CETUD has revised its transport master plan with the support of the MobiliseYourCity Partnership to create a Sustainable Urban Mobility Plan (SUMP) 2020-2035.

CETUD has the mandate and responsibility to manage public transport, under the direct authority of the Ministry of Infrastructure. Systems and procedures are in place to monitor, evaluate and report on urban mobility.

Support from the Partnership

Technical assistance: Sustainable Urban Mobility Plan (SUMP)

Funded by: FFEM

Funding amount: EUR 400,000

Implemented by: AFD: supported the elaboration of a SUMP for Dakar metropolitan area, contracted and managed by the local mobility authority, Conseil Exécutif des Transports Urbains de Dakar (CETUD)

Local counterpart: Conseil Exécutif des Transports Urbains de Dakar (CETUD)

Supported activities:

Update the existing urban mobility plan into a SUMP which:

- Builds upon existing studies, plans and documents
- Is aligned with the national urban mobility strategy
- Is the result of a participatory process
- Is ready to be adopted by the CETUD and the relevant authorities

Status of the SUMP process

Project start date: 2020 Q2

SUMP completion date: April 2023

Completed outputs:

Update the existing urban mobility plan into a SUMP which:

- Evaluation of the existing transport master plan report
- Inception report
- Diagnostic report
- Scenario and financing report

Next expected outputs:

- Vision, objectives, and action plan of the SUMP
- Monitoring and reporting of the SUMP
- Reports about the participatory process of the SUMP

SUMP key measures and cost estimates

The following table highlights the most significant measures identified in the SUMP.

Measure	Cost Estimate (million FCFA)
Reserving rights of way for the development of the TCSP network and active modes of transport	Million CFA 147,820
Organisation of events and participative activities on active modes of transport	
Creation of a cycle lane near UCAD	
Updating the technical inspection centre and introducing environmental constraints	
Organisation and management of mobility events in Diamniadio	Million CFA 5,800
Taking gender into account in the provision and management of mobility	
Taking account of PRMs in mobility provision	
Open data for public transport data	
Communication campaigns on the SUMP	
Restructuring of the CAPTRANS system	
Implementation of a programme to extend the number of air quality measurement stations	
Setting up a mobility/urban planning coordination body	
Opportunity study for a TOD on Grande Médine	Million CFA 7,945
Management of motorbike taxis	
Establishment of a consultation framework for possible changes to the SUMP	
Setting up a vehicle pound	
Road safety study for the urban area	Million CFA 220
Organisational support for CETUD's growth	Million CFA 50
Reform of the urban transport financing model	Million CFA 50
Strategic traffic plans	
Accessibility study of the Daga Kholpa area	
Update of the multimodal accessibility study for the Diamniadio area	Million CFA 520
Multimodal accessibility planning study for the airport sector	
Accessibility study for areas undergoing urbanisation	
Strategic plan and works upgrade for multimodal hubs	
Operational study to improve urban bus stations	Million CFA 22,770
Network restructuring study, second round	
Setting up of a working group on intermodal ticketing	
MAAS study and development of services	Million CFA 1,450
Opportunity study for a maritime transport network	
Feasibility study and construction of TCSP lines	Million CFA 773,750
Strategic study and works upgrades on cycling routes	Million CFA 35,000
Public space charter	
Study on the management of on-demand modes using digital platforms	Million CFA 420
Study of active mode crossings on infrastructure with capacity (N1, A1, VDN)	
Pedestrian master plan and works upgrade	Million CFA 46,360
Feasibility studies	Million CFA 675
Operationalisation of the goods flow management study	Million CFA 9,375
Feasibility study on setting up a parking system for the conurbation	
Training in traffic management and initial analysis of the current situation	Million CFA 2,370
TOTAL SUMP	Million CFA 1,054,600 (Billion EUR 1.6)

Projected impacts

Indicator	Baseline – 2015	Projected 2035 SUMP scenario
Total annual GHG emissions (Mt CO₂eq)	0.924 Mt CO ₂ eq	Not available
Annual transport related GHG emissions per capita (kg CO₂eq)	243 kg CO ₂ eq	Not available
Access Increase of the proportion of the population living 500 meters or less of a public transport stop	56%	Not available
Air pollution Decrease in mean urban air pollution of particulate matter (in µg PM2.5) at road-based monitoring stations	45 µg/m ³ of PM2.5	Not available
Modal share Increase of the modal shares of trips by public transport, walking and cycling	Walking: 70% Cycling: 0% Personal cars: 3% Motorized two-wheeler: 1% Taxi: 2% TC hors TCSP: 23% TCSP: 0%	Walking: 55% Cycling: 3% Personal cars: 9% Motorized two-wheeler: 2% Taxi: 2% TC hors TCSP: 17% TCSP: 10%
Road safety Decrease in traffic accidents in the urban area, per 100,000 inhabitants	165 accidents / 100,000 inhabitants	95 accidents/100,000 hab
Affordability of public transport Percentage of disposable household income spent on public transport for the second quintile household income group	14.3% (2015, EMTASUD)	Not available

Perspectives for implementation

The Sustainable Urban Mobility Plan of Dakar has been finalised in April of 2023. The official governmental approval of the SUMP is still in progress.

Insights from practice: lessons learned from the SUMP process

One specificity of the Dakar SUMP is that the CETUD was the contracting authority for the SUMP study (not AFD). A delegation agreement was signed between AFD and CETUD for this purpose. This had been possible because CETUD is quite a mature mobility authority, with rather skilled staff. The CETUD was very much involved in the monitoring of the SUMP, more than for usual SUMPs. This was possible because CETUD is a mature mobility authority and also because they were the contracting authority of the SUMP study.

Highlights and Lessons Learned

Finalisation of the SUMP in 2023

The main highlight in 2023 was the finalisation of the SUMP. Although the direct impact of the SUMP process is not yet clear, it is worth mentioning that many major mobility projects are ongoing at the moment in Dakar: mainly BRT, TER extension, and bus priority lines projects. In addition, under the bus priority project financing, CETUD is planning to conduct several studies in the follow-up of the SUMP process: a new households survey, road safety action plan, study of public transport tariffs, study on public transport financing, elaboration of public space design guidelines, traffic study for Dakar city centre within others.

Future projections show the need for increased ambition, beyond ongoing project

In 2022, the SUMP process delivered a vision and possible scenarios for 2035. In Dakar, urban mobility is already experiencing significant change with the arrival of the BRT and light train TER, the network's restructuring, and the construction of new infrastructures. However, projections show that despite the current efforts, meeting the increased demand resulting from population growth will be difficult and costly, as peak hour demand cannot be met by the currently projected transport supply. The scenario-building phase highlighted the need for increased ambition to prevent saturation and meet the city's colossal mobility challenge.

The involvement of various stakeholders makes the SUMP a recognised and valuable plan

Throughout the SUMP process, the responsible committees and the SUMP task force put a strong focus on involving diverse stakeholders in the development of the plan. Workshops were conducted with private and institutional actors as well as the population. The topics of the workshops covered a broad variety of SUMP related issues, including the sharing of roads and the importance of gender for transport. The results from the diagnosis were also presented during a public event to collect feedback on the outcomes. The success of these participatory events is visible through the acknowledgement that the SUMP was able to gain. While the urban mobility plan from 2007 was unknown to some stakeholders, their involvement in the process of preparing the SUMP led to an increased awareness of the aims of the plan.

A multi-modal transport system that favours public transport is key for sustainable mobility

The road network in the densely populated districts of Dakar is already under pressure under the current motorisation rates. At the same time, most trips are still taken by foot as large parts of the population cannot access or afford public transport. In this context, the collaboration of CETUD with paratransit operators to support the professionalisation and upgrading of their buses, as well as the planned development of a BRT system, feed into the SUMP process. Approaches for increasing a multi-modal transport system that focuses on public transport also include the development of a fare system adjusted to the household income and the improvement of conditions for walking and cycling.

Urban planning and transport planning go hand in hand as part of the SUMP

Urban development is a crucial driver for the increasing transport demand in Dakar. Differences in the density among urban districts influence mobility and transport systems. To effectively integrate land use and transport planning, the Ministry of Urban Planning is an essential partner in the SUMP development and has been involved from the start. The objectives of the urban master plan (Dakar 2035) directly feed into the SUMP process. Especially in the less densely populated districts in the outskirts of Dakar, the SUMP aims to focus on developing compact city structures according to the principles of the 15-minute city.