

Dire Dawa, Ethiopia

Sustainable Urban Mobility Plan

Completed

Basic information

Urban area	→ 1,213 km ²
Population	→ 521,000
Growth rate	→ 4,44%
GDP per capita	→ USD 855,8 (2019)
Baseline motorisation rate	→ Marginal (not quantified)

Modal share

Formal public transport (city buses/minibuses)	→ 1 %
Informal public transport (mainly Bajaj)	→ 41 %
Walking	→ 46 %
Cycling	→ ≈0 %
Private cars	→ 4%
Private motorbikes or 2-wheelers	→ 1%
Other	→ 7%
Annual transport emissions per capita	→ 0,127 (tCO ₂ eq)
Exposure to climate change	→ HIGH



Support from the Partnership

Technical Assistance: Support to develop a Sustainable Urban Mobility Plan (SUMP)

Funded by: European Commission

Funding amount: EUR 550,000

Implemented by: Agence Française de Développement (AFD) through Intra-ACP

Local counterpart: Dire Dawa Administration Mayor and Cabinet Affairs Office, Finance and Economy Bureau

Consultant(s) involved: Systra

Final Sump report: [Sustainable Urban Mobility Plan of Dire Dawa | MobiliseYourCity](#)

SUMP Summary

SUMP Status	Adopted
SUMP Development Timeline	Dire Dawa joined MobiliseYourCity in Q2 2018. Preparation phase - 2023-2024 SUMP short term program - 2025-2029 SUMP medium term program - 2030-2034 SUMP long term program - 2035-2039
SUMP Vision	"Make Dire Dawa a polycentric, inclusive, compact and mobility-wise city."
Key expected results (GHG, modal share and access)	GHG: -40% vs BAU (0.029 → 0.018 Mt CO ₂ eq) Modal share: Maintain 88% sustainable modes (PT + NMT) vs drop to 83% in BAU Accessibility: 86% of residents within 500m of a PT stop (+28% vs BAU 2040)
Total SUMP Investment Requirement	Total investment of 373 012 531 EUR. <ul style="list-style-type: none"> 98% of the SUMP budget corresponds to operational projects / CAPEX 52% of the SUMP budget is spent in the midterm, when the BRT is introduced. The financial plan is built so that the City has 7 years to consolidate its financial resources, improving revenue collection and liaising with IFIs. 18% (about 69 MEUR) of the SUMP budget are related to the New Industrial Park internal infrastructures and services.

The SUMP preparation process and stakeholder involvement

Functional urban area

The SUMP perimeter is an urban boundary distinct from the regional perimeter of the Dire Dawa region. The latter is much more extensive and includes wide rural areas, to be structured with upgraded rural centres (rural cities)

Stakeholder involvement process. Throughout the SUMP development process, institutions and civil society were actively involved through various consultation activities:

- **Technical workshops:** Regular workshops with the technical committee were held to discuss key elements of the SUMP and ensure that each output was adapted to the local context. The vision and development scenarios were prepared collaboratively with technical stakeholders.
- **Stakeholder interviews:** Mobility stakeholders were interviewed to support the diagnostic phase, gathering insights from institutions, transport operators, and Bajaj associations. Meetings with Kebele administrations provided a closer look at location-specific issues, particularly those related to central markets.
- **Focus groups:** During the diagnostic stage, focus groups explored the links among mobility, the local economy, and perceptions of Bajaj services. Additional sessions were organised during the action and financing plan phase to gather feedback on proposed micro-actions and refine measures, particularly those related to non-motorised transport (NMT) and urban marketplaces.

Diagnosis of urban mobility in Dire Dawa

Located on a vast, flat plain between Addis Ababa and Djibouti, Dire Dawa is poised to emerge as the primary economic hub in eastern Ethiopia. Nowadays, it boasts a high concentration of commercial activities, with bustling markets generating substantial flows of goods and people across different scales. This has placed considerable pressure on the city's roads and public spaces. In the future, the city anticipates a surge in national freight transit, aligned with the expansion of the national road network and the integration of a new railway system. Currently, Dire Dawa witnesses 477,000 daily trips.

Dire Dawa sits on a secondary national/international freight corridor between Addis Ababa and Djibouti, serving as a pivotal point for a significant volume of truck traffic. Despite this, the city lacks a comprehensive transport master plan. Two railway lines serve the region: the century-old Ethio-Djiboutian railway, now mostly disused, and the new Chinese-built line connecting Addis Ababa and Djibouti, which has been operational since 2018. The latter accommodates both passenger and freight services, with a planned dry port near the new station. However, railways are not yet considered a competitive alternative to road freight.

The city's road network is notably imbalanced, with local roads bearing the brunt of pressure and a limited number of structuring roads (primary, secondary, tertiary). Notably, Dire Dawa lacks a mass transit system, and the public transport landscape is dominated by Bajaj, with 6,000 units and around 100 lines. Bajaj, a fully private service, predominantly targets the more affluent market segments, leaving some mobility demands unmet. During peak hours, a few minibuses complement the Bajaj services on three routes. The publicly operated city bus service is limited to 10 urban routes and operates only during peak hours (four rides a day).

Modal split

The household survey finds that a significant majority of trips in Dire Dawa are on foot, accounting for 45% of total trips. This data collection has brought to light an earlier underestimation of the importance of walking among local decision-makers. Consequently, it has played a pivotal role in elevating the significance of active modes of transportation in the SUMP process.

Considering these revelations, the SUMP's primary objective is to maintain the existing modal share of active modes while concurrently transforming the entire city into a pedestrian-friendly environment. The integration of non-motorised modes will be a key consideration in planning and enhancing roads to ensure sufficient space is allocated for pedestrians. This strategic approach underscores a commitment to fostering a walkable, sustainable urban environment in Dire Dawa.

Modal share per mode in Dire Dawa 2020

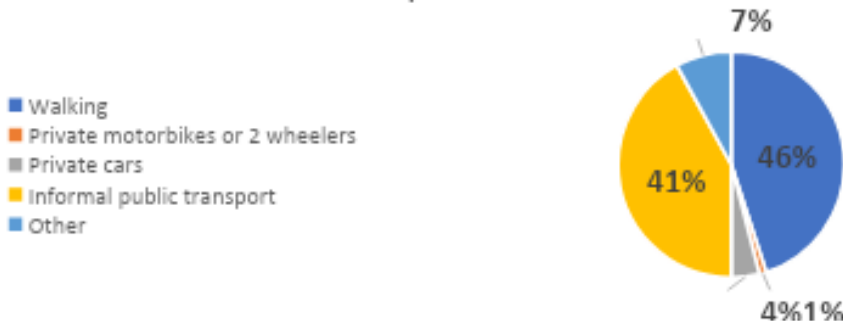


Figure 1 Modal share per mode in Dire Dawa in 2020—source: Dire Dawa SUMP.

Environmental challenges

In 2019, the registered vehicle fleet in Dire Dawa totalled 18,689, which is a conservative estimate because it does not account for vehicles licensed in other cities that may be utilised in Dire Dawa. The largest share of the fleet consists of 4- and 3-wheeled taxis, with approximately 4,000 and 7,000 vehicles, respectively. Following closely are 4-wheeled trucks, automobiles, and public cars, each category with nearly 2,000 vehicles.

According to representatives from Bajaj associations, there is a widespread lack of trust among drivers in electric vehicles. This scepticism is attributed to factors such as a scarce electricity supply and the high cost of spare parts. Previous attempts with electric motorcycles were hindered by battery failures after just two years of operation, mainly due to the unavailability of spare parts and heat-related damage.

Regulations favour the importation of vehicles aged 9 years or older, as newer models face significantly higher taxation, reaching up to 200%. Additionally, purchasing a new locally manufactured car is economically challenging, with a Toyota Yaris priced at 15,000 EUR, which far exceeds local spending power.

Fuel quality in Dire Dawa is currently suboptimal, limiting motorisation to the EURO 3 norm due to catalyst converter limitations. The Integrated Green Economy Implementation Plan of Dire Dawa proposes establishing emission standards, imposing a limited service life on imported vehicles, and actively encouraging the importation of new vehicles, including hybrid and plug-in electric vehicles. These measures aim to facilitate a sustainable and environmentally conscious transition in the city's transportation landscape.

Regarding climate hazards, Dire Dawa faces significant exposure to climate change, which could disrupt precipitation patterns in the highlands. Currently, the high-altitude areas receive around 1,200 mm of rainfall per year, which contributes to the rivers that flow through the city. The city is intersected by five rivers that flow from south to north, with torrential flow during the rainy seasons for approximately two months, followed by mostly dry periods for the rest of the year. The primary river, Dechatu, divides the city into two distinct parts.

While not deep, these rivers have noticeable erosive effects on the city, severing some districts from one another. This challenge is exacerbated by the city's loose main road pattern and a limited number of bridges. Formal and informal fords provide alternatives for crossing the rivers, but they are periodically submerged during the rainy season.

The abundance of water serves as a crucial asset for Dire Dawa, creating a green oasis in an otherwise semi-desert region. However, heavy rainfall during the wet season poses the risk of potentially devastating flash floods. Situated in a floodplains expansion area where multiple large highland river basins converge, the city has experienced recurring flooding. One significant event took place in August 2006, resulting in the death of 250 people and widespread damage to housing and infrastructure. More recently, a flood destroyed the southern bridge over the Dechatu River. Subsequent measures have been implemented to enhance water management in the upper river basins and to establish early warning systems for flood risk, aiming to mitigate the impact of rainy episodes.

Social and economic issues

Safety: Since 2010, the number of road crashes has been steadily increasing. It found a peak in 2018, with more than 700 occurrences reported. However, the increase is mainly due to light crashes (damage only). The volume of fatalities or serious injuries remains constant over the period. Main causes for crashes are listed below:

- Drivers' behaviour.
- Road users are not using the space properly.
- Weather conditions, especially the heat, make long-distance drivers less cautious.
- Lack of working or coherent road facilities, such as traffic lights or signals.

- Road design, especially at intersections that are not necessarily dimensioned or managed for traffic.
- Second-hand vehicles, as there is neither a lifespan limit for vehicles nor effective technical control

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Gender: Due to societal roles, women exhibit lower mobility compared to men, with only 10% engaged in full-time employment (three times less than men). One-third of women stay at home, a rate six times higher than their male counterparts. The distribution of other occupations is similar between genders. The significant disparity in workforce participation is the primary factor influencing the mobility rate gap.

Setting aside the higher number of non-mobile women, the mobility rate is relatively comparable between mobile men and women. Among the mobile population, 20% of women undertake four trips per day, while the corresponding figure for men is 30%. Notably, the proportion of mobile women making two trips per day exceeds that of mobile men with the same mobility rate by 10%.

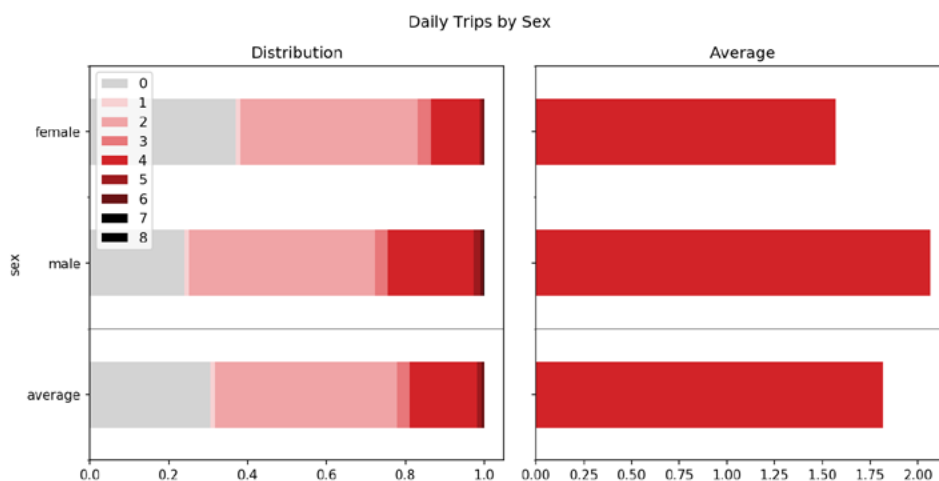


Figure 2 Daily trips according to gender. Source: Household survey, SYSTRA, 2020

Because of their lower mobility, women allocate less time and money to transportation. Interestingly, they also tend to cover significantly shorter distances, two-thirds of the average distance travelled by men. This pattern may indicate either lower spending power or a preference for engaging in activities nearby, influenced by the nature of the activity or the convenience it offers.

Daily Trips by Sex and Associated Data

sex	trips	distance	duration	price
female	1.6	2000	30	5.8
male	2.1	3200	39	8.4
average	1.8	2600	34	7.1

Figure 3 Mobility rate and associated data according to gender. Source: Household survey, SYSTRA, 2020

Compared to men, women are less likely to own a car, take a Bajaj, or use a staff bus. As a result, the walking share is higher among women. Indeed, the share of women mobilising themselves for non-constrained purposes is more important. Therefore, they might consider walking more easily than men.

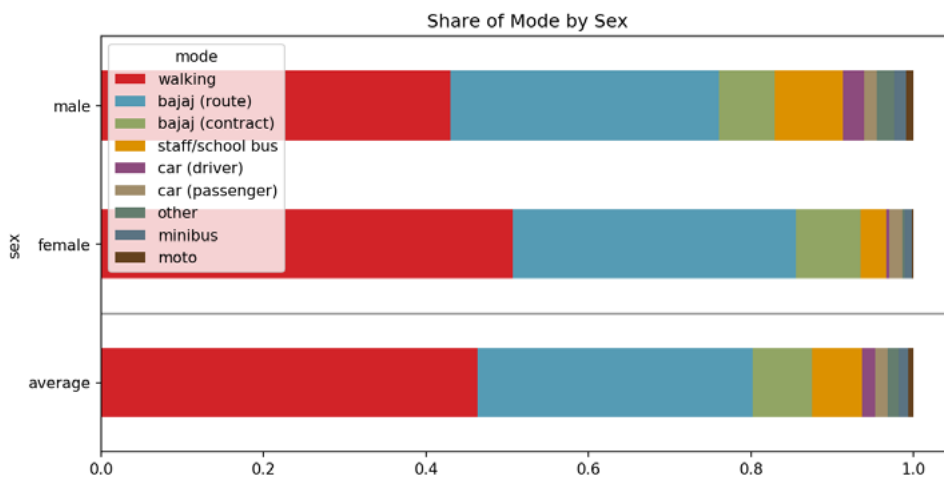


Figure 4 Share of mode by gender. Source: Household survey, SYSTRA, 2020

According to a focus group conducted with Bajaj users, both male and female participants identified high occupancy as a drawback. Female participants specifically mentioned that the issue is not the coexistence with male passengers but rather the overcrowding itself.

Affordability of transport for users

The average household consists of four individuals and exceeds the national income standard, with a monthly income of 5,000 BRR (142 USD), compared with the national average of 3,600 BRR (103 USD). Socioeconomic disparities are evident among the Kebeles: Kebeles 2, 3, 4, 5, and 9 exhibit higher wealth, while Kebeles 1, 6, 7, and 8 appear more vulnerable.

Mobility is a crucial factor in household organisation, accounting for 17% of their budget. At the individual level, daily commitments include 35 minutes and 7 BRR, with an average distance travelled of 7.6 km.

The primary mode of public transport in Dire Dawa is the Bajaj, with a fare system that exhibits economic segregation. Line-based operated Bajaj are affordable for most passengers, while contract Bajaj, which function like taxis, are considerably more expensive, with a cost difference of 5 to 10 times between the two. This disparity reflects differences in passenger time values, as contract Bajaj quickly transports well-off passengers directly to their destinations. At the same time, line Bajaj caters to passengers with fewer means and a lower value of time, resulting in longer, less predictable travel times. Additional challenges include scarcer and more expensive night services, as well as elevated prices on festival days for both shared and contract Bajaj.

Despite the mixed feelings among Bajaj users about the quality-to-cost ratio, household surveys reveal that contract Bajaj is perceived as very expensive. However, 98% of users are willing to pay a slightly higher fare for improved service. Focus group participants highlight the issue of unregulated pricing, as drivers often set their own prices. Consequently, there is a call for more regulated pricing to address this concern.

Institutional and financial situation

Management of urban and road transport is a shared responsibility between federal and local authorities. While responsibilities and perimeters are well-defined, certain interfaces related to road or urban transport can be challenging to navigate. Both the city and the region fall under the authority of the mayor, with the city administration overseeing the nine urban Kebeles and managing various transport-related duties, including city bus services, road authority, and traffic police. The Federal Transport Authority (FTA) plays a crucial role in regulating the transport sector

and serves as the primary contact for Bajaj drivers' associations. Additionally, the Ethiopian Road Authority (ERA) manages the interurban road network and national interest road projects within the city, particularly in the industrial park.

The Dire Dawa Administration bears the mandate and responsibility for financing mass public transport infrastructure. The running costs of public transport are included in the public authority's budget, with the urban transport sector budget ranging from 480 to 655 million BRR (USD 14–19 million) in recent years.

The regional budget of Dire Dawa relies on various sources, including funds generated through tax and charge collections and contributions from Federal bodies, notably the Ministry of Works and Urban Development and the Ethiopian Road Authority. In 2018, the planned three-year budget showed an increase from 2,400 to approximately 3,000 million BRR (69 to 85 million USD) for the current fiscal year, with half of the revenues coming from proper funds. This share was expected to remain consistent over time.

Dire Dawa has established a robust partnership with the World Bank, engaging in five-year investment programs, including the Urban Integrated Infrastructure Development Program (UIIDP). UIIDP II, with an annual investment of about 500–650 million BRR (USD 14–18 million), has been completed, and UIIDP III is currently underway, focusing on funding public facilities such as schools, health centres, and roads.

In terms of expenses, there were deliberate efforts to increase capital investment, with a 40% and 54% increase in 2019 and 2020, respectively, compared with 2018. Regular expenses were expected to remain relatively stable, suggesting no foreseeable impact on operations and maintenance due to the increased investments.

In recent years, the budget for the urban transport sector has ranged from 480 to 655 million BRR (USD 14–19 million). Predominantly, the city has been the primary contributor, accounting for 70% to 80% of the sector budget. However, the Urban Integrated Infrastructure Development Program (UIIDP) has progressively increased its share in capital investment, surpassing 50%. There appears to be a disconnect between recurrent expenses (20% of expenditures) and capital expenses (80%), indicating a lack of integration between development planning and operation. The absence of upfront assessment for maintenance costs may pose future financial challenges.

Overall, capital investment declined by 20% from 2017 to 2019, attributed to the UIIDP's incremental annual budget, which accounted for over half of total capital investment in 2019. In 2017, a substantial investment of 324 million BRR (USD 9 million) was directed to the road network and related facilities, accounting for half of the total capital investment for that year. This effort resulted in the construction of 190 km of roads in 2018, a notable increase from the 20 km realised in the preceding and subsequent years. The City's reduced budget for road development contributed to the overall decline in capital investment.

Public transport, primarily supplied by Bajaj, is entirely funded by private and independent actors. Although operating Bajaj is lucrative, it is not highly profitable, with a daily net benefit of approximately USD 3. High vehicle costs, attributed to taxes and market organisation, make vehicle renting less profitable.

Urban transport sources of funding		
	Investment	Operation & Maintenance
Road	City of Dire Dawa (own resources + Federal dotation)	Federal government (Road Fund)
Public bus	World Bank	City of Dire Dawa
	City of Dire Dawa	City of Dire Dawa

Table 1 Scope of responsibilities in transport funding. Source: Dire Dawa SUMP.

We are considering outsourcing bus operations to private operators and supplementing it with the city's subsidy. This approach, previously successful with the water company, has the potential to enhance service quality and profitability without significantly affecting fares. However, introducing the private sector into a structurally loss-making business is seen as a challenge, particularly amid rising demand and the need for service upgrades.

SUMP visions and goals

The 2040 mobility vision considers:

- A strong economic development, both industrial and commercial, makes Dire Dawa the eastern metropole of Ethiopia between Addis Ababa and Djibouti, and a significant mobility driver.
- A strong choice to keep and develop NMT mobility habits while developing public transport, with a similar distribution of modal shares between the two (about 45% each).
- More intensive mobility for all inhabitants, while maintaining time and distance in a polycentric city.
- A mobility for all, allowing all kinds of publics to move around with an affordable mobility system as a condition for a harmonious development: + 1.5 BRR per day on average while distance/time doubles.
- A connected and integrated mobility system based on a combination of transport modes articulated together to deliver an efficient, qualitative, and user-centred service (more than one connection on average).

Test scenarios and Selected scenario

Scenario 1 - Scattered City - Business-as-Usual (BAU) Scenario:

In this future scenario, urban growth in Dire Dawa is robust, and the population has surged from 320,000 in 2020 to 835,000 in 2040. This growth is attributed to both the city's natural expansion and the continuous influx of rural migrants seeking improved income and living conditions. Some migrants leave impoverished rural areas, drawn by the prospect of a better life in the city. Dire Dawa is recognised as Ethiopia's eastern metropolis, playing a significant regional role and serving as a crucial transit point between Addis Ababa and the Djibouti port.

Scenario 2 - Two Cities:

The evolution of Dire Dawa is closely tied to railway development. The original city emerged in the early 20th century around the first railway station, while a new city was established in the early 21st century around a second railway station. The growth of the new city, centred around the New Industrial Park (NIP), has been remarkable, starting from scratch in 2020 and housing approximately 180,000 residents and 70,000 jobs two decades later. The old city has also expanded, but to a lesser extent, accommodating 655,000 inhabitants.

Scenario 3 - Polycentric City (Selected scenario):

By 2040, Dire Dawa will be transformed into a "many cities all in one" model. The overall metropolis stretches nearly 30 km and is organised around several distinct urban centres along the city's east-west axis. These centres vary in size, shape, and function, but they operate cohesively, interconnected to form a polycentric structure. This organisation has been achieved through a well-thought-out polycentric development strategy, initiated at the local level, and supported by federal authorities. The strategy integrates urban, economic, and mobility development in carefully targeted areas. It has been successful over the years by facilitating gradual urbanisation and directing resource-efficient investments to meet the diverse needs of different urban centres.

SUMP key measures

The following table presents the measures for the sump in Dire Dawa, including the CAPEX for each measure.

Cluster	Measure	Cost estimate (EUR)	Proposed financing source	Implementation schedule
Road networks	Main road projects	94,635,000	City of Dire Dawa; Federal Government (Road Fund); IFIs (World Bank)	2030-2039
Road networks	Micro road projects	15,000,000	City of Dire Dawa; Federal Government (Road Fund)	2025-2034
Road networks	Road design guidelines	312,458	City of Dire Dawa; IFIs (technical assistance)	2023-2029
Road networks	Road maintenance plan	312,458	City of Dire Dawa; Federal Government	2023-2029
Road networks	Target road and crossroad network	312,458	City of Dire Dawa; IFIs	2023-2029
Road management	Road axis upgrade projects	6,014,120	City of Dire Dawa; Federal Government; IFIs	2025-2034
Road management	Traffic and mobility management	14,120	City of Dire Dawa	2023-2029
Road management	Circulation plan	387,458	City of Dire Dawa; IFIs	2023-2029
Road management	Mobility management integrated taskforce / Traffic management unit	28,239	City of Dire Dawa	2023-2024
Paratransit	Paratransit structuration and development	6,034,053	City of Dire Dawa; IFIs; Private operators	2025-2034
Paratransit	Quality of service targets charter commitment	234,136	City of Dire Dawa; IFIs	2023-2029
Mass transit	Target local transit network	387,458	City of Dire Dawa; IFIs	2023-2029
Mass transit	Paratransit sector capacity reinforcement	900,000	IFIs; City of Dire Dawa	2025-2029
Mass transit	Bus network development	27,080,457	City of Dire Dawa; IFIs (World Bank, AFD)	2025-2034
Mass transit	BRT development	157,659,204	IFIs (World Bank, AFD); Federal Government	2030-2034
Mass transit	Mass transit development plan	612,458	City of Dire Dawa; IFIs	2023-2029
Mass transit	Mass transit fare integration	600,000	City of Dire Dawa; IFIs	2025-2034
NMT	Main NMT projects	3,000,000	City of Dire Dawa; IFIs	2025-2034
NMT	NMT micro projects	6,624,450	City of Dire Dawa; IFIs	2025-2034
NMT	Bikes for all	150,000	City of Dire Dawa; IFIs	2025-2029
NMT	NMT integration in transport and mobility projects	24,917	City of Dire Dawa	2023-2029
NMT	NMT development plan	609,136	City of Dire Dawa; IFIs	2023-2029
NMT	Pedestrian-centred approach	300,000	City of Dire Dawa; IFIs	2025-2029
NMT	Walking in Dire Dawa	300,000	City of Dire Dawa; IFIs	2025-2029
Urban logistics	Freight terminals	-	Federal Government; IFIs; Private sector	2030-2039

Cluster	Measure	Cost estimate (EUR)	Proposed financing source	Implementation schedule
Urban logistics	Urban logistics projects	9,000,000	City of Dire Dawa; IFIs; Private sector	2030–2034
Urban logistics	Urban logistics development plan	450,000	City of Dire Dawa; IFIs	2023–2029
Urban logistics	Logistic pilot	24,917	City of Dire Dawa; IFIs	2025–2029
Integrated transport	Transport hubs reorganization	3,593,750	IFIs (World Bank, AFD); City of Dire Dawa	2030–2034
Integrated transport	Sustainable mobility planning process	3,322	City of Dire Dawa	2023–2024
Integrated transport	Mobility data management	150,000	City of Dire Dawa; IFIs	2023–2029
Integrated transport	SUMP evaluation	9,967	City of Dire Dawa	2025–2039
Integrated transport	Multimodality strategy	600,000	City of Dire Dawa; IFIs	2023–2029
Integrated transport	Energy-wise mobility development	450,000	City of Dire Dawa; IFIs	2025–2034
Integrated transport	Demand management	300,000	City of Dire Dawa	2025–2034
Integrated transport	Integrated Transport Authority	28,239	City of Dire Dawa; Federal Government	2023–2024
Integrated transport	Integrated Mobility financing	28,239	City of Dire Dawa; IFIs	2023–2024
Integrated transport	Sustainable mobility project management	450,000	City of Dire Dawa; IFIs	2023–2029
Integrated transport	Inclusive, green and gender-aware mobility	300,000	City of Dire Dawa; IFIs	2025–2029
Integrated transport	Inclusive, green and gender-aware mobility	28,239	City of Dire Dawa	2025–2029
Sustainable integration	TOD projects opportunities	6,016,611	IFIs; City of Dire Dawa; Private sector	2030–2039
Sustainable integration	TOD guidelines	230,814	City of Dire Dawa; IFIs	2023–2029
Sustainable integration	TOD development plan	225,000	City of Dire Dawa; IFIs	2023–2029
Sustainable integration	TOD funding opportunities	-	IFIs; Private sector	2030–2039

Table 2 SUMP measures CAPEX—source: Dire Dawa SUMP.

The measures with the highest budgets are the implementation of a new BRT system and the construction of main roads and micro roads, accounting for more than EUR 260 million of the EUR 343 million expected CAPEX investments.

Action Name	Administration (EUR)	Capex (EUR)	Consultancy (EUR)	Total (EUR)
Road Network	37,375	109,635,000	900,000	110,572,375
Road Axis Management	68,937	6,000,000	375,000	6,443,937
Paratransit	55,648	6,000,000	1,500,000	7,555,648
Mass transit	103,821	184,648,298	1,200,000	185,952,119
NMT	34,053	9,774,450	1,200,000	11,008,503
Urban Logistics	24,917	9,000,000	450,000	9,474,917
Integrated Transport	98,007	3,593,750	2,250,000	5,941,757
Sustainable Integration	22,425	6,000,000	450,000	6,472,425
Total	445,183	334,651,498	8,325,000	343,421,681

Table 3. SUMP measures CAPEX per objective. Source: Dire Dawa SUMP.

Consistent with the previous table, the objectives with the highest levels of investment are the road network (EUR 110 million) and mass transit (EUR 185 million), which are the focus of the plan, accounting for nearly EUR 300 million of the EUR 343 million. Accordingly, the following figure shows the sources expected for implementing the SUMP, including OPEX and CAPEX.

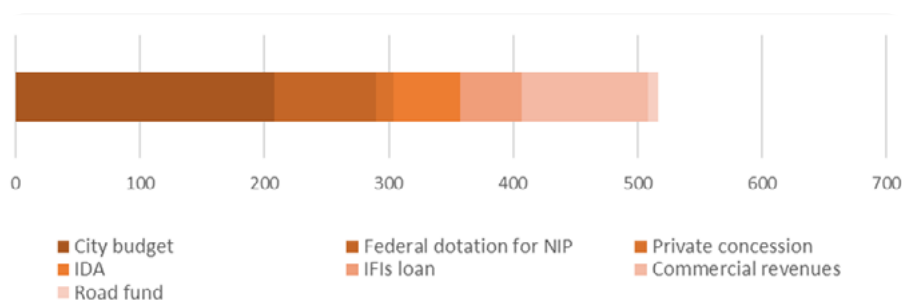


Figure 5. CAPEX and OPEX per source for SUMP implementation. Source > Dire Dawa SUMP.

The amount identified as potentially allocated to IFI loans is nearly EUR 50 million.

Investment indicators

Indicator	Baseline 2020	BAU scenario 2040	SUMP target 2040
km of roads	697	915	834
Km of Primary Roads	81	106	113
Km of Secondary Roads	18	81	88
Km of Tertiary Roads	18	187	118
Additional Km of Primary Roads	0	25	32
Km of Secondary Roads (DOW)	0	63	70
Additional Km of Tertiary Roads (DDW)	0	169	100
% of Primary Roads (DDW)	12%	12%	14%
% of Secondary Roads (DOW)	3%	9%	11%
% of Tertiary Roads (DOW)	3%	20%	14%

Indicator	Baseline 2020	BAU scenario 2040	SUMP target 2040
Km of BRT Lines (DDW)	0	0	30
Km of Bus Lines (DDW)	0	44	76
Km of Local Lines (DDW)	70	62	34
Total Km of PT Lines (DDW)	70	106	140
Average Travel Time per Trip (minutes)	25	39	36

SUMP expected results and impact

The implementation of the measures identified in the SUMP is expected to have a significant impact on GHG emissions reduction, the modal share of sustainable transport modes, and more. The following table presents the expected results and impact.

Impact area	Expected impact
GHG emission (SDG 11)	<p>Projected emissions in absolute value:</p> <p>Baseline 2020:</p> <ul style="list-style-type: none"> Per capita (kg CO₂eq): 27 Total (Mt CO₂eq): 0,011 <p>BAU 2040:</p> <ul style="list-style-type: none"> Per capita (kg CO₂eq): 27 Total (Mt CO₂eq): 0,011 <p>SUMP 2040:</p> <ul style="list-style-type: none"> Per capita (kg CO₂eq): 28 Total (Mt CO₂eq): 0,018 <p>SUMP vs BAU 2040:</p> <ul style="list-style-type: none"> Per capita (kg CO₂eq): -19 Total (Mt CO₂eq): -0,011
Accessibility (SDG 11)	<p>Population at 500m or less of public transport stops:</p> <p>Baseline 2020:</p> <ul style="list-style-type: none"> 84% <p>BAU 2040:</p> <ul style="list-style-type: none"> 58% <p>SUMP 2040:</p> <ul style="list-style-type: none"> 86% <p>SUMP vs BAU 2040:</p> <ul style="list-style-type: none"> +28%
Air pollution (SDG 11)	Improved but not quantified
Modal share	<p>Percentage of total trips being realized with Public Transport</p> <p>Baseline 2020:</p> <ul style="list-style-type: none"> Modal share of Public Transport: 42% Modal share of walking and cycling: 46% Total: 88% <p>BAU 2040:</p> <ul style="list-style-type: none"> Modal share of Public Transport: 43% Modal share of walking and cycling: 40% Total: 83% <p>SUMP 2040:</p> <ul style="list-style-type: none"> Modal share of Public Transport: 44% Modal share of walking and cycling: 44% Total: 88% <p>SUMP vs BAU 2040:</p> <ul style="list-style-type: none"> Modal share of Public Transport: +1% Modal share of walking and cycling: +4% Total: +5%

Impact area	Expected impact																									
Road safety (SDG 3)	<p>Baseline 2020:</p> <ul style="list-style-type: none"> Deaths: 31 <p>BAU 2040:</p> <ul style="list-style-type: none"> Deaths: N/A <p>SUMP 2040:</p> <ul style="list-style-type: none"> Deaths: N/A <p>SUMP vs BAU 2040:</p> <ul style="list-style-type: none"> Deaths: N/A <p>The SUMP does not identify a method to quantify the BAU scenario target. However, it targets to go to 0 fatalities per year according to vision 0.</p>																									
Expected institutional impact	<p>The SUMP taskforce is structured around three management levels:</p> <ul style="list-style-type: none"> The top management, who is accountable for the SUMP progress, the sound management of SUMP resources and the compliance to the SUMP principles, as for social inclusion and environment. It is set right after the SUMP adoption. The middle management, composed of technical specialist of the relevant areas of the SUMP. They are here represented as per SUMP objectives. These technical experts oversee the actions related to their field. They also bring technical assistance to the operational team and are responsible for knowledge management. This team should develop between the preparation phase and the first programming period, in relation with the action plan schedule. The operational level, that cares for the operational projects on a daily basis. The corresponding workforce thus varies according to the number of projects to be implemented over one programming period, considering that one person can follow-up a limited number of projects at a time. <p>As for the SUMP taskforce, manpower needs can be detailed as follow, considering:</p> <ul style="list-style-type: none"> Up to 4 operational project followed-up by one project manager, except from the BRT that require different profiles rather than one person per line. In the present estimate, three profiles have been assumed to cover three different topics: infrastructure, systems and operation design. Synergies between areas to optimize the workforce. Typically, personnel assigned to road network and road traffic management could form one pool of resource. The same goes for integrated transport and sustainable integration. Involvement of the SUMP management team into actions falling into objective 7, Integrated transport. Especially, the following actions are assumed to be directly handled by the SUMP management team: Sustainable mobility planning process, Mobility data management, SUMP evaluation, Integrated Transport Authority, Integrated mobility financing, and Inclusive, green and gender aware mobility. <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #D3D3D3;"> <th>Team</th> <th>Preparation</th> <th>short term</th> <th>mid term</th> <th>long term</th> </tr> </thead> <tbody> <tr> <td>SUMP management</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td>Objective management</td> <td>7</td> <td>10</td> <td>13</td> <td>14</td> </tr> <tr> <td>Project management</td> <td>7</td> <td>11</td> <td>11</td> <td>12</td> </tr> <tr style="background-color: #D3D3D3;"> <td>Total</td> <td>18</td> <td>25</td> <td>28</td> <td>30</td> </tr> </tbody> </table> <p>Estimate of SUMP taskforce personnel per horizon (full time position per year)</p>	Team	Preparation	short term	mid term	long term	SUMP management	4	4	4	4	Objective management	7	10	13	14	Project management	7	11	11	12	Total	18	25	28	30
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Insights from practice: lessons learned from the SUMP development process

Integrated urban planning drives a polycentric and mobility-wise city structure

Dire Dawa's SUMP shows that mobility planning must be conceived as a structuring component of urban development rather than a corrective response to congestion. By promoting a polycentric, compact and mobility-wise city, the plan integrates transport and land-use planning to anticipate future expansion, particularly in relation to the New Industrial Park and emerging peripheral districts. The key lesson is that embedding mobility corridors, service hierarchies and coordinated land-use planning at an early stage strengthens territorial integration, limits the long-term costs of sprawl, and ensures that infrastructure investments support a coherent urban form.

Strong mobility governance ensures inclusive and coordinated transport services

The SUMP underlines that sustainable mobility transformation depends as much on governance reform as on infrastructure delivery. By seeking to build a connected and integrated city serving all citizens and districts, the plan addresses both social and territorial inequalities in access to mobility. This requires stronger coordination between local and federal actors, progressive institutional consolidation through a structured transport authority, and the establishment of publicly regulated services with clear coverage and affordability objectives. The lesson learned is that inclusive mobility outcomes emerge from regulatory frameworks, institutional capacity and stakeholder alignment, not solely from physical investments.

Sustainable mobility investment supports climate action and economic competitiveness

Dire Dawa's strategy demonstrates that environmental ambition and economic development can be mutually reinforcing. By committing to carbon-wise mobility solutions while positioning the city as a regional economic hub connected to national and international corridors, the SUMP integrates climate mitigation with competitiveness. The structured framework of ambitions and objectives ensures that mass transit development, logistics improvements and service efficiency contribute simultaneously to emissions reduction and economic attractiveness. The lesson is that mobility planning can serve as a strategic lever for both climate resilience and long-term economic growth when guided by a coherent and integrated roadmap.

SUMP finance leverage

Leveraged financing (resulting from or enabled by the SUMP preparation process)

Description	Source of financing	Type	Status	Amount (EUR) ¹
Urban Corridor Development ²	City & federal budget	Domestic allocation	Secured	Not specified

Associated finance

Description	Source of financing	Type	Status	Amount (EUR) ³
Mieso-Dire Dawa Expressway ⁴	World Bank/IDA	Loan	Secured	443,000,000

¹ Exchange rate (USD→EUR): 1 USD = 0.85 EUR

² https://www.ena.et/web/eng/w/eng_7674805

³ Exchange rate (USD→EUR): 1 USD = 0.85 EUR

⁴ <https://documents1.worldbank.org/curated/en/099635312232236188/pdf/P17448503c672a08509b1f0ba2180287178.pdf>

Perspectives for implementation

Institutional coordination and phased financing enable the transition from SUMP preparation to implementation

The Dire Dawa SUMP is entering the critical phase of formal approval and operational rollout, underpinned by close collaboration between the City Administration, the Federal Transport Authority and the Ethiopian Roads Authority. Final approval lies with the Dire Dawa City Administration, with expected endorsement at both municipal and federal levels, particularly as governance reforms—starting with the establishment of a Mobility Committee and evolving into a fully-fledged Transport Authority—are essential for coordinated implementation. To ensure financial feasibility, the city intends to combine local revenues, federal transfers, Road Fund allocations and substantial support from International Financial Institutions, guided by balanced and conservative financing scenarios. This phased approach allows time to consolidate institutional capacity, improve revenue mobilisation and secure external funding before launching major capital-intensive projects such as the BRT.

Last updated December 2025