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URBAN MOBILITY IN ARAB CITIES

THE INTERVIEW
Dr. Nabila Rmili, Mayor of Casablanca speaks about Casablanca's experience in Sustainable Urban Transportation

URBAN INSIGHTS
Experts' insights on Urban Mobility and Public Transportation
Toolkits on Urban Mobility and Safe Streets

CITIES IN ACTION
Projects and Initiatives in Arab Cities for Sustainable Urban Transportation

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SIXTH ISSUE

URBAN MOBILITY IN ARAB CITIES

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Front Cover

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1

EDITORIAL

6 Tell me what mobility you have and I'll tell you what city you are

2

INTERVIEW

9 Dr. Nabila Rmili, Mayor of Casablanca speaks about Casablanca's experience in sustainable urban transportation

3

URBAN INSIGHTS

14 Urban Mobility: Not just an Engineering Challenge

17 Urban Planning and Public Transit: Building Sustainable and Livable Cities

19 Oman and the Transition to Sustainable Transportation

21 Toolkits for Mobility Planning and Safe Streets

4

CITIES IN ACTION

26 The Riyadh and Cairo Model: Planning Public Transport in Megacities

29 Cases from Dubai: Sustainable Mobility in the Age of the Digital Economy

31 Tunis, Alexandria, and Lusail: Light Rail Systems across Arab Cities

33 Micromobility in Cairo and Kuwait: Enabling Participation and Enhancing Connectivity

36 Initiatives in Sidon, Dubai and Jazan: Preparing the Infrastructure for Walkable Cities

39 The Experience of Amman and Marrakech: Developing Public Transport through Bus Rapid Transit (BRT) Systems

5

OUR NEWS

43 AUDI Participates in the Summit of the Future 2024 and Strengthens Partnership with New York City and Bloomberg Institute for Cities and Government Innovation

46 AUDI launches its Executive Program in Innovation and Urban Management for Riyadh Municipality Leaders

48 AUDI conducts Specialized Training Programs in Muscat and Najran

50 AUDI is an Organizer at the World Urban Forum (WUF) Sessions

51 AUDI is a Partner in the Liveable CitiesX Summit in Dubai

52 Cities in Action: Webinars 4 and 5

EDITORIAL

TELL ME WHAT MOBILITY YOU HAVE AND I'LL TELL YOU WHAT CITY YOU ARE

By Dr. Jihad Farah - Editor in Chief

One would not be amiss to say that mobility makes the city. How people and goods move within urban areas defines a city's form and influences the daily life experiences of its residents. Transforming cities and achieving urban sustainability, resilience, and livability, requires rethinking urban mobility.

With the democratization of the automobile industry, modernist planning prioritized road infrastructure development to ensure rapid urban mobility. Large roads enabled more people to commute between central urban areas for work and the suburbs for residence, where the land was cheaper and the environment greener. However, this expansion of roads contributed significantly to urban sprawl, which came at considerable expense to the economy, the environment, and quality of life. Many cities found themselves trapped in a vicious cycle: on the one hand, there is a need to expand roads continuously; on the other hand, roads become the generators of traffic, thus congested with cars. Transitioning away from this situation is not simple and requires considerable political will and imagination. Fortunately, cities today can count on the experiences and lessons learned from numerous other cities worldwide over the last decades.

Public transport systems play a crucial role in urban mobility. Since the introduction of the first tramway system in the 19th century, people have been able to count on public transportation for affordable large-scale mobility in growing metropolises. By going underground, the metro lines bypassed the increasing traffic. However, the exaggerated cost of infrastructure restricted the presence of the metro service, primarily in more prosperous cities. Alternatively, with its dedicated lanes and stops, the Bus Rapid Transit (BRT) system became a more attractive solution in the last decades, as it is seen as a cheaper alternative to metros. It is to be noted that all these different public transport systems have their strengths and limitations, and none represent a miraculous solution to urban mobility challenges.

It is crucial to establish an integrated intramodal mobility system that provides different transportation alternatives, such as cars, cycling, and walking, and allows people to switch comfortably between them. Achieving efficient intramodal mobility relies on commuters having clear visibility of available transportation offers and access to simple and efficient modes of payment. It also requires strong coordination between the agencies, companies, and municipalities in charge of different public transportation systems. The ubiquitous spread of smartphones has allowed many cities to deal with visibility and payment challenges. Additionally, innovative governance structures have allowed other cities to ensure a clear vision and strategy to guide transport development.

More importantly, such governance structures ensure that transport sector strategies are aligned with the city's overall development strategies. As a matter of fact, urban mobility cannot be conceived independently from urban planning, development, and design. One evident example is the "first and last mile" (FLM) challenge that often remains a major obstacle to developing public transport systems. FLM trips are usually made on foot or through soft mobility modes (cycling, scooter, etc.) and necessitate urban space to be adapted accordingly. Urban design concepts such as "Complete Streets" and others guide achieving this type of mobility. More broadly, "Transit-Oriented Development" seeks to make public transport stations and integrated mobility boulevards and avenues the backbone of an urban renewal and development strategy. In short, introducing urban mobility in a city is one of the most impactful ways to transform the city.

The situation of mobility in the Arab cities is diverse. However, the modernist car-centric urban development model is still largely dominant. Consciousness of the limits of this model is growing, with some cities starting to seek alternatives. In the last decades, cities have invested heavily in renewing their public transport systems – from metro to tramway, monorail, and BRT – and established dedicated agencies and authorities to guide the development of their transportation sector. In some cities, considerable efforts have been made to organize existing affordable informal transport services (taxis, mini-buses, tuk-tuks, etc.) by specifying routes or imposing minimum safety considerations. On the other hand, efforts to improve soft mobility are lacking, and much at this level still needs to be done.

This issue of MUDUNUNA looks into how Arab cities deal with mobility challenges. In an interview with the Mayor of Casablanca, we read about the considerable efforts the city has taken since 2007 to leverage the multifaceted renewal of public transportation in its pursuit of becoming a leading regional metropolis. This issue also features an insightful article by Enrique Peñalosa, former Mayor of Bogotá, who is lauded for his tireless efforts to counter inequality in his city through a range of urban mobility interventions, the most notable being the TransMileno. He discusses urban mobility as a phenomenon that is not purely an engineering challenge but rather an approach that relies on social factors that vary from city to city. Dr. Lina Shbeeb, former Minister of Transport of the Jordanian Government, writes about the relationship between urban planning and public transit, focusing on the Jordanian experience in addressing urban mobility challenges. Engineer Salah Al-Shkaili of the Ministry of Transport, Communications, and Information Technology in Oman shares lessons learned by Oman in developing public transportation systems, particularly in light of the dominant paradigm that prioritizes automobiles over other modes of transport.

In Cities in Action, we look at various cases of cities around the region, including Cairo, Lusail, Tunis, Kuwait, Amman, and Marrakech, and their respective experiences with mass transit, pedestrianization, cycling, and digital mobility infrastructure. Our news features the successful launching of AUDI's "Executive Program in Innovation and Urban Management" at the University of California, Berkeley, in August 2024, as well as the execution of a workshop in Oman on "Cities' Humanization" in September 2024. Also, in September 2024, AUDI actively engaged in the "United Nations Summit of the Future" in New York City. In the coming months, AUDI is participating in a number of events, including "the World Urban Forum" in Cairo and the "Liveable CitiesX Summit" in Dubai.

INTERVIEW

MAYOR OF CASABLANCA
NABILA RMILI

In dialogue about Casablanca's experience with sustainable transport systems

A physician by profession, Dr. Nabila Rmili has been a political activist with the National Rally of Independents (RNI) party for over 20 years. She is a member of the party's political bureau and serves as the Regional Coordinator for the Anfa district. Additionally, she is the President of the RNI's Health Professionals Association.

From 2002 to 2005, Dr. Rmili was the Head of the Emergency Department at the provincial hospital in Ouezzane. From 2006 to 2010, she was the lead physician responsible for youth health in the Casablanca Anfa district. Between 2010 and 2014, she served as the Regional Delegate of the Ministry of Health in Ben M'sik. From 2015 to 2021, she was the Deputy Mayor of Casablanca, responsible for the health sector.



Photo: Mayor of Casablanca, Nabila Rmili

Casablanca's experience in sustainable urban transportation represents an important model in urban infrastructure development and improving residents' quality of life. In recent years, Casablanca has implemented several initiatives to enhance sustainable urban transportation. In this issue of MUDUNUNA we interview the Honorable Mayor of Casablanca to learn more about the city's experience in this field.

"We have developed 97 km of public transport networks in dedicated lanes"

Casablanca holds a prestigious position among Arab cities. Can you share the city's aspirations and plans for achieving sustainable urban development?

Casablanca aspires to become a smart city with global standards, comparable to major international capitals. The city is working on enhancing various sectors, whether by providing eco-friendly urban transportation that ensures quality and smooth mobility or by enhancing the road network that connects different city entrances and shortens distances between neighborhoods. It also focuses on social, cultural, and sports facilities.

The city aims to make these sectors that ensure quality of life—such as public transportation, cleanliness, and public services—part of its sustainability efforts. Many economic facilities and major establishments are being transformed into large integrated professional platforms (such as the logistics platform and the marketing platform for agricultural and food products of the Casablanca-Settat Region),

offering sustainable development opportunities and greater competitiveness for economic actors while also reducing pressure on the urban center.

In line with this vision, Casablanca is also improving public spaces and increasing plantation to make the city greener. Every year, Casablanca hosts the international exhibition "Casablanca Smart City," which serves as a platform for exchanging expertise, comparing experiences, and staying open to the latest innovations and development models from different countries.

What are the main challenges of urban transportation in the city, and what are the key solutions implemented?

Casablanca has faced some delays in developing a comprehensive urban mobility plan, which itself became a significant challenge. The city had to address the situation in a short time to maintain its competitiveness, retain its place among the cities of the Kingdom, and continue to provide a high quality of life for residents. Additionally, it had to respond to the increasing mobility needs amidst a growing population.

This led to the 2007 Urban Mobility Plan, which primarily aims to modernize the entire transportation sector. It includes implementing a high-capacity public transportation network, restructuring the bus transport sector, developing dedicated lanes for public transport, and upgrading road axes and infrastructure to improve traffic flow. The plan also introduced tram and Bus Rapid Transit (Busway – BRT) networks.

How is coordination between the authorities responsible for managing urban transportation in Casablanca carried out, and is there any monitoring of residents' feedback on transport services?

The city of Casablanca has established the local development company "Casablanca Transport" to implement, monitor, and manage various public transportation projects. The company's board of directors includes all government institutions involved in public transportation, from ministries to state agencies, ensuring strategic management of the organization and building a vision for the future.

One of the company's tasks is to monitor residents' expectations through all available communication channels. A special citizen service department has



Busway
©2024 Municipality of Casablanca



Casabus
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been created, and the company maintains a presence on various social media platforms to stay in constant contact with Casablanca's residents.

How is financial sustainability for the operation of public transport in the city being managed?

The public transport fares in Casablanca are highly social in nature, aiming to ensure that every resident, regardless of their starting point, can reach their destination via public transport at the lowest possible cost. The Casablanca City Council bears 40% of the cost of each trip and has committed to not increasing this cost despite expanding the network and increasing the number of lines from one to four. This step aligns with our vision of achieving sustainable economic competitiveness for the city.

Globally, urban transportation has inevitable effects on environmental sustainability and climate change. How is Casablanca addressing these issues?

Casablanca has chosen environmentally friendly modes of transportation. The tramway, which operates on electric power, is eco-friendly, as is the Busway, which uses a Euro 6 engine, and the entire bus fleet has been updated with the same technology.

For ticketing, we are promoting the sustainable card, a non-paper card that lasts five years and can be recharged for every trip.

Additionally, multi-level parking facilities are being developed at key points in the city to encourage the transition to public transport and promote multimodality. Public transport is given priority in dedicated lanes in most major corridors, resulting in high service efficiency, with vehicles running at five-minute intervals during peak hours.

How has the city developed public transport networks to ensure ease of access and provide affordable services to beneficiaries?

We have developed 97 km of public transport networks in dedicated lanes, comprising four tramway lines and two Busway lines. We have also completely restructured the bus transport sector, now serving 18 municipalities within the geographical scope of the Intercommunal Cooperation Institution – Casablanca. We have ensured the development of transport hubs to facilitate access to all parts of the city.

Furthermore, all public transport modes in the city operate on the same ticketing system, which allows users to travel on six lines with a single ticket/card at no extra cost.

What measures is the city taking to encourage community members to adopt "soft mobility" options (walking, cycling, etc.)?

The latest mobility study in Casablanca, conducted in 2018, showed that 65% of daily trips by residents are made on foot, often for essential purposes over long distances.

Through the dedicated public transport lanes program, the development of transport hubs, and the urban planning projects that accompanied the transport program and the general reorganization of the sector, we aim to reduce the rate of walking to 55% while improving the associated conditions in terms of safety, comfort, distances, and necessity.

Beyond that, our goal is to increase public transport usage from 13% to 20% once the planned network is completed and gradually introduce other sustainable transport modes.

How do you see the role of technology in improving the performance of urban transport systems and mobility in Casablanca, and what are the key technologies used?

The operation assistance system is one of the key elements that ensures the quality of urban transport systems. Linked to modern technologies, this system helps manage operations and traffic, as it is connected to the largest operations management center, which organizes traffic flow and ensures adherence to scheduled departure and arrival times to provide more efficient services. The system also guarantees immediate intervention in case of any network disruption by coordinating with specialized teams.

Additionally, the operation assistance system helps ensure safe journeys for passengers by transmitting camera footage from stations and vehicles to the operations management center. This center also analyzes data and reports to improve service quality continuously.

Moreover, passenger information is a key advantage of this system. It provides real-time access to important travel information, such as schedules, vehicle frequencies, trip duration, routes, and the timing of the next trip, allowing passengers to plan their journeys in advance and organize their daily mobility with ease.

At the same time, passengers can pay for public transport using a bank card and travel with a contactless transit card. We continue to work on integrating new technologies for smarter and more flexible travel options.

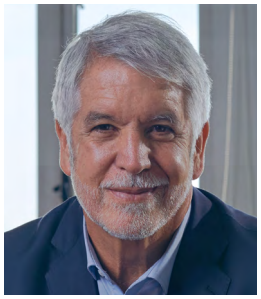


Tramway
©2024 Municipality of Casablanca

URBAN INSIGHTS

External Article

URBAN MOBILITY: NOT JUST AN ENGINEERING CHALLENGE



Enrique Peñalosa

Enrique Peñalosa is an innovative urban thinker who, as Mayor of Bogotá in two non-consecutive terms, profoundly transformed the city. He has spoken in many of the world's most important universities and influenced policies in cities throughout the world. He created the world's best bus-based mass-transit (BRT), an extensive bikeway network years before Paris or New York and contracted Bogotá's first Metro line. He recently published a book titled 'Equality and the City' (Penn Press 2024).

Before proposing transport solutions, we need to know what kind of city we want. This is because solutions differ, depending on if we prefer a city like Houston or one like Amsterdam. However, even before we choose a city model, what we really need to know is how do we want to live, because a city is only a means to a way of life. Mobility is thus not simply an engineering challenge, but also a social one.

It is widely agreed today that a good city is, before anything else, one that is safe and pleasant for walking. However there are conflicts between a city model that is very friendly to car mobility and one that is very friendly to pedestrians.

Mobility is a peculiar challenge because it is counterintuitive. While most problems faced by society, such as health, housing or education tend to be resolved as income grows, mobility may actually worsen with increasing incomes.

It is also counterintuitive that traffic is not solved by making bigger roads, and even more so, that mass transit, while it solves mobility, does not solve traffic. Some cities with extensive metro networks endure some of the world's worst traffic problems. This is the case of Delhi, Mexico City and even New York. Indeed mobility and traffic are two different problems that are solved by different means.

Mobility is solved with mass transit. Traffic is only solved by restricting car use. There are many ways to restrict car use, but the most obvious one is parking restrictions in both public and private spaces. For decades office buildings in central London have not been allowed to have parking.

Urban highways are like poisonous rivers: people cannot walk or bike next to them, much less walk across them. Rarely do these highways have public transport buses, and they divide the city like fences, as well as lower property values all around them.

Boulevards, often with up to ten motor-vehicle lanes, have a radically different relationship with the city. They have frequent traffic lights, buses and even BRT and bikeways. And above all, they have wide tree-lined sidewalks where it is a pleasure to walk, with abundant shops and cafes in the buildings alongside them. In theory the vehicle carrying capacities of boulevards are less than those of those of highways with the same amount of lanes. But actual carrying capacities are similar, if, as it frequently happens, urban highways are jammed.

"Mobility is solved with mass transit. Traffic is only solved by restricting car use"

If mobility is solved with mass transport, which mass transport should be chosen? Good mass transport is low-cost and high-frequency. To achieve both, more important than choosing between rail, BRT, or anything else, is to have relatively high densities, for example, above 100 inhabitants per hectare. In high densities, all sustainable transport works well, from walking and bicycling to subways. In low densities, no sustainable transport works well.

Today, rail is in vogue. Everybody wants metros and trams, and buses are looked upon as inferior. In 1940, it was the opposite. Almost every city in the world with more than 100,000 inhabitants had trams, which were considered obsolete, uncomfortable, and befitting only the poor. For technical reasons buses appeared decades after cars did, in the late 1930's. Once buses appeared, cities all over the world ran to scrap their trams and replace them with buses.

Trams are beautiful, but they cost more and do less than buses. As J. Kay said in the Financial Times "Trams were phased out because they were inferior to buses as a means of public transport. They still are."[1]

Rail is wonderful. But it is expensive to build and to operate. Everywhere buses are a necessary complement to rail and in most cities in the world most public transport passengers use buses. Even in London, buses carry 50% more passengers than the subway.

BRT is a way to operate buses that is more akin to a metro as compared to a traditional bus service. When developed well, operating in the central lanes against road medians, with overpass lanes at stations to allow the passing of buses on express routes, it can reach very high capacities. Our TransMilenio BRT is moving up to 72,000 passengers/hour/direction, more than almost all subways in the world and at a fraction of the cost of a metro. With underpasses or overpasses rather than traffic lights, BRT urban commercial speeds can also be similar to those of subways.

However, more important than vehicle speeds are travel times. Here BRT can have several advantages. Subways cost between 5 to 25 times more per kilometer than a BRT. Let's assume they cost 10 times more; then, with the same amount of money, it is possible to do ten times more kilometers of BRT than of the subway. A majority of citizens can then find a BRT closer to the origin and destination of their trip, thus having shorter travel times. And of course, a greater number of citizens will be served by a BRT than by a subway, for the same amount of investment.

BRTs can do things metros can't. They can change lines without passengers having to alight, walk to the other line's platform and wait for the next train. They can even go on regular streets where passengers board the bus through right-side doors from the sidewalk as in ordinary buses, and when on the BRT trunk-ways they alight and board the bus at stations with floors at the same level as the bus high-floor.

As buses have smaller capacities than subway trains, during off-peak times buses can have higher frequencies than subways, making passenger waiting times shorter. Again, this reduces travel times. Buses can also reach lower density areas where it is otherwise economically unfeasible to extend subway lines.

Even in the wealthiest cities some areas can only be served by buses. However, in developing cities, such as many large and fast-growing African cities, BRT is the only possible means to provide ample coverage with mass transit that will allow citizens to reach their workplaces, and enable the city to function efficiently.

Our TransMilenio BRT has 114 kilometer network and moves nearly 2.5 million passengers daily. During my time as mayor, my team and I created the system and built the first two lines. Each one of the six mayors that has held office since then, regardless of political affiliation, has extended the system. Currently there are new lines under construction as well as extensions to existing lines, that will increase the system's length by 47%.

Although it is not easy to have BRTs going across dense historic city centers that do not have relatively large roads, and although underground subways are the best solution there, surface transport, allowing passengers to enjoy natural light and views of the city is far more pleasant. This is important if we are to spend thousands of hours of our lives in it.

BRT is based on the premise that a bus with 150 passengers has a right to 150 times more road space than a car with 1 passenger. Each citizen's right to the same amount of road space also supported our battle to construct an extensive bike network, years before the same was done in Paris, New York, or London. A citizen on a $100 bicycle has a right to the same amount of road space as one in a luxury car. Today the 8 million inhabitants of Bogotá have more than 700 kilometers of protected bikeways, 10% of them use bicycles for their daily mobility and there are over 800,000 bicycle trips daily.

"Infrastructure that differentiates an advanced city from a backward one is not metros or highways but rather quality sidewalks in every street"

A pedestrian also has a right to the same amount of road space as someone in a car, even if we are far from making that right effective. I venture further to say that the infrastructure that differentiates an advanced city from a backward one is not metros or highways but rather quality sidewalks in every street, including those at the neighborhood level.

Upper income citizens in developing cities fervently demand metros they have no intention of using. They may be deft at using the Paris or New York metros, which they ride along with low-income citizens in those cities. But rarely, if ever, do they use public transport in their own cities next to their fellow countrymen of lower income groups. That is why I believe that in terms of transport, an advanced city is not where even the poor have cars, but rather one where even the wealthy use public transport.

Endnote

1. Kay, J. (2011, August 31). "Why trams belong in museums and not on city streets." Financial Times.

External Article

URBAN PLANNING AND PUBLIC TRANSIT: BUILDING SUSTAINABLE AND LIVABLE CITIES



Lina Shbeeb

Born in Nablus, Palestine, Dr. Lina Shbeeb is a Senior Traffic and Transport engineer with over 38 years of experience. She served as Minister of Transport (2013-2015) in the Jordan government. She is an Associate Professor in the Civil Engineering Department at Hussein Technical University and has a Ph.D. in traffic planning and engineering from Lund University, Sweden (2000).

The relationship between urban planning and public transit is crucial for the development, growth, and sustainability of cities. Effective urban planning can enhance the efficiency and accessibility of transit systems, while well-designed transit infrastructure shapes the development of vibrant, compact, and environmentally friendly urban spaces. This interplay helps create livable cities resilient to environmental and economic challenges.

Integrating urban planning with public transit in growing cities is crucial to ensure efficient transportation, reduce reliance on private vehicles, and promote sustainable development. One of the most significant ways urban planning affects transit is through land use and population density. Cities with higher population densities tend to have more efficient transit systems because the demand for public transportation is concentrated in a smaller area. This makes public transit more feasible and allows for higher-frequency services. Conversely, sprawling, low-density development poses challenges for public transit.

Transit systems influence the development of cities, and in turn, urban planning impacts transit. Public transportation significantly impacts land values, settlement patterns, and economic growth. Transit-oriented development (TOD) is a prime example of this influence, which refers to the creation of vibrant, pedestrian-friendly communities centered around public transit hubs. TOD also leads to higher property values and increased economic activity, further contributing to sustainable development.

In the case of Jordan, the public transportation system faces several challenges that hinder its efficiency and sustainability. These include fragmented regulatory frameworks, inadequate infrastructure, and limited funding. Private companies primarily operate the system with minimal coordination, resulting in inefficiencies. Issues with fare systems, route planning, and service frequency make it difficult for residents to rely on public transportation.

The success of public transportation systems depends on three key factors: availability, productivity, and customer satisfaction. Availability refers to route coverage and operating hours, influencing whether people use public transit. Productivity focuses on transporting passengers efficiently while managing operational costs and influencing service frequency and route optimization factors. Customer satisfaction, driven by reliability, comfort, and safety, is crucial for ensuring continued ridership and the financial sustainability of the transit system.

In Jordan, the public transit system struggles with availability and productivity. Outdated vehicles, irregular schedules, and insufficient infrastructure contribute to low productivity. These issues reduce the system's efficiency and negatively impact customer satisfaction, particularly in rural areas with limited coverage and inconsistent services.

Policymakers should focus on enhancing the availability and productivity of Jordan's public transit system. This can be achieved through investments in transit infrastructure, such as expanding routes to underserved areas and increasing service frequency during peak hours. Additionally, using data analytics to optimize operations, adjust schedules, and improve route planning can enhance the system's efficiency. Investments in vehicle maintenance, staff training, and infrastructure modernization will also improve customer satisfaction. Introducing new technologies like real-time tracking applications and incorporating electric buses can create a more sustainable and user-friendly transit network. Opportunities for improvement exist, including leveraging government-led initiatives and international aid to develop mass transit systems like the Bus Rapid Transit (BRT) in Amman.

Amman, the capital of Jordan, is experiencing significant traffic congestion due to rapid urbanization, population growth, and increasing private vehicles. The current public transportation infrastructure struggles to keep up with the city's growing needs, leading to inefficient networks and worsening environmental conditions. Local authorities have proposed the BRT system as a more efficient, reliable, and eco-friendly transportation option to address these issues.

Since its implementation, noticeable traffic improvements have been observed. The dedicated BRT lanes have allowed buses to operate more efficiently, reducing congestion during peak times and improving travel times for public transportation users. By providing a reliable alternative to private vehicles, the BRT system has relieved pressure on Amman's road network and is expected to bring long-term environmental benefits. The BRT system also offers social and economic benefits, improving accessibility for low-income residents and reducing losses associated with traffic congestion while creating job opportunities in the transportation sector. However, challenges such as integrating the BRT system with other modes of transport, infrastructure maintenance and upgrades, and public awareness campaigns need to be addressed to maximize its effectiveness.

Further, the Greater Amman Municipality (GAM) demonstrates its dedication to tackling urban mobility challenges by actively implementing a comprehensive Smart City strategy. Using artificial intelligence (AI), big data, and digital technologies, GAM improves urban planning, controls traffic congestion, and prioritizes transportation access for underserved populations. This proactive approach aims to promote economic growth and ensure environmental efficiency while addressing the city's growing needs.

Thoughtful urban planning can enhance transit systems by promoting density, mixed-use development, and integration with other modes of transportation. Efficient public transit systems shape urban development by influencing land use, economic growth, and sustainability. By focusing on this dynamic relationship, cities like Amman can improve their transit systems and create more sustainable, accessible urban environments for their residents.

External Article

OMAN AND THE TRANSITION TO SUSTAINABLE TRANSPORTATION

Salah bin Khalifa Al-Shkaili
Civil Engineer and Transportation Planner
Ministry of Transport, Communications, and Information Technology - Sultanate of Oman

Facilitating networks between Omani cities and ensuring access to services for citizens, wherever they may be, has been one of the key priorities of state policies since 1970. Hence, it was only obvious to expand the road networks between cities and within them, a policy that has continued over the past five decades.

It is worth noting that encouraging residents to settle in cities and villages significantly contributed to the expansion of this policy. Over fifty years, the population has witnessed a significant increase, rising from around 600,000 people in 1970, with about 15% living in urban communities, to about 5 million today, with 80% living in urban areas. This population growth naturally led to the expansion of road networks. With the absence of adequate urban planning strategies to guide growth, most Omani cities have seen widespread low-density urban sprawl. This, in turn, increased the demand for road networks and the need for constant expansion. With a lack of alternatives, the reliance on private cars as the primary mode of urban transportation in Oman became nearly absolute. This pattern of urbanization has put pressure on natural resources, leading to expansion into ecologically sensitive areas and continuously threatening wildlife.

The rise in revenues from the oil and gas sector in the Sultanate significantly helped finance this large-scale road network expansion, and relatively low fuel prices further encouraged heavy reliance on private cars. However, the increasing costs of investment and maintenance have posed growing challenges, prompting the authorities in Oman to realize early on that this path is unsustainable, necessitating the search for alternatives.

As a result, the Omani transport authorities began working to establish efficient public transportation systems to help reduce transportation costs by offering alternatives. Around 50 years ago, the state established the Omani Transport Company and granted it the exclusive right to operate and manage public transport in Oman in 1984, a progressive step at the time. However, due to widespread car ownership, the company faced difficulties attracting public transport users, with cars being perceived as a faster, safer, and more comfortable means of transport. Moreover, the sprawling nature of cities made it difficult to cover all neighborhoods with bus stations and pedestrian pathways necessary for access to public transport.

In this context, traffic congestion in the major cities appeared unsolvable despite the continuous investment in road networks and bridges. Even though

highways outside the cities have sufficient capacity for years to come, the urban expansion within cities has increased the need for mobility, leading to continuous pressure on the existing road networks and rendering many expansion efforts ineffective in meeting the ever-growing demand for transportation.

In 2016, the government embarked on developing a Spatial Strategy for the entire Sultanate of Oman, aiming to regulate urban expansion and address the shortcomings in existing policies. Transportation was one of the main pillars of this strategy, with several key objectives including:

- Identifying strategic road links that connect cities with major attractions such as airports, ports, and border points to meet the demand for transporting people and goods on a national level.
- Developing multimodal transport by enhancing the primary land and sea freight transport infrastructure.
- Establishing a national railway network, focusing on freight transport at the national level, and encouraging the study and establishment of light rail (LRT) lines for passenger transport in Muscat and major cities.
- Expanding investment in urban public transport to modernize existing infrastructure, add new facilities, and develop the administrative and regulatory framework for public transport to attract new users and increase public confidence in the system.
- Implementing measures and policies to manage transport demand by encouraging a shift from private car use to public transportation and promoting carpooling and easier access to public transport facilities.
- Adopting environmental preservation policies and encouraging the use of non-mechanical means of transport, promoting the health benefits of walking and cycling.
- Developing intelligent transportation systems and improving first and last-mile alternatives.

The National Urban Development Strategy was completed in 2020, and it includes policies promoting public transport use. The strategy set a goal to increase the share of public transportation to 16% of daily trips by 2040, up from 5% in 2020, through infrastructure development and legislative measures. Additionally, policies aim to increase urban density in existing cities and guide land use at both the national and provincial levels.

The government has already begun implementing the technical studies recommended in the strategy. It has initiated technical studies for the light rail system for Greater Muscat in conjunction with ongoing studies to develop the structural plan for Greater Muscat, which specifies the land uses in detail, taking into account the requirements of public transportation. Similar studies have started in other major cities like Nizwa, Salalah, and Sohar, alongside studies to determine the detailed requirements for existing public transport lines and direct government support to attract new users to public transport. Additionally, the government is restructuring the logistics sector, including governance for last-mile services, currently overseen by multiple entities, including the Ministry of Transport, Communications, and Information Technology and the Telecommunications Regulatory Authority.

It has become evident that shifting from a society heavily reliant on cars to one that views public transport as a primary mode of transportation is no easy task. This challenge is even more significant in the face of political pressures to encourage such a shift, as altering development trends requires difficult decisions, such as directing capital towards projects that serve public transport and long-term policies to change land use in ways that increase urban density. Policies that increase the cost of private car use, such as road tolls, higher parking fees, and limits on parking spaces, will undoubtedly face societal resistance, especially given the public's skepticism about the effectiveness of public transport. Therefore, these policies must be accompanied by awareness campaigns highlighting the importance and efficiency of public transport systems. Policy-makers must recognize that such policies require patience and ongoing engagement with the public, alongside wise investments in road networks to ensure they do not become a cheaper alternative to public transport.

Urban planning and public transport authorities will know they have succeeded in making public transport the backbone of their cities when individuals no longer depend on private cars to reach destination.

TOOLKITS FOR MOBILITY PLANNING AND SAFE STREETS

Rapid urbanization across major cities in the world has induced undue pressure on mobility infrastructure, and in the process of doing so, it has given rise to a plethora of issues. Dependency on private motor vehicles is impacting the air quality in cities, limited soft mobility infrastructure is increasing the divide between socioeconomic population groups, and inadequate mass transit systems are affecting the long-term development of cities.

This issue of Mudununa provides a comprehensive overview of toolkits developed by various international organizations to help municipalities better understand the processes required for successful development and management of urban mobility infrastructure. The toolkits below display a wide range of characteristics associated with sustainable urban mobility plans, transportation models, cycling infrastructure, tactical urbanism for safe streets, and bus rapid transit systems.

1

Toolkit 1:
Developing Sustainable Urban Mobility Plans

2

Toolkit 2:
Modelling Tools for Sustainable Urban Mobility Plans in the New Mobility Era

3

Toolkit 3:
NACTO Urban Street Design Guide

4

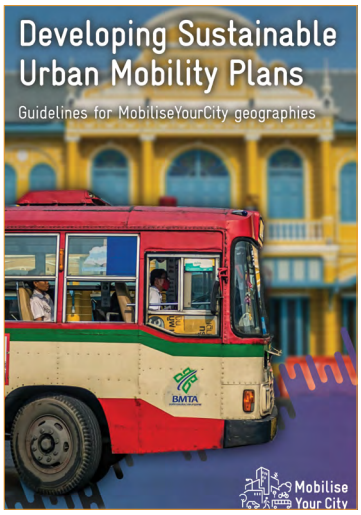
Toolkit 4:
Tactical Urbanist's Guide to Materials and Design

5

Toolkit 5:
The BRT Standard

6

Toolkit 6:
The Grow Cycling Toolkit



Mobilise your City, ©2023

https://changing-transport.org/publications/developing-sustainable-urban-mobility-plans-sumps/

Toolkit 1:
Developing Sustainable Urban Mobility Plans

The 'Developing Sustainable Urban Mobility Plans' toolkit targets urban transport and mobility practitioners and other relevant stakeholders, covering multiple aspects of developing and implementing urban mobility plans. It defines Sustainable Urban Mobility as a strategic and integrated approach to deal with the complexities of urban transport effectively. This approach advocates fact-based decision-making processes, relying on comprehensive assessments and the integration of regulatory, promotional, financial, technical, and infrastructural measures to deliver the plan's objectives.

The toolkit describes the process of planning and implementing Sustainable Urban Mobility Plans (SUMP) through 4 key stages: preparation and analysis, strategy development, measurement of planning, and implementation and monitoring. Each stage consists of multiple steps supported by a list of recommended activities, relevant tools, methods, and expected outputs.

Throughout the document, various case studies are also highlighted to showcase how certain aspects of the toolkit have been implemented across projects. In terms of stakeholder consultation, for example, the toolkit discusses the case of Yaounde, Cameroon, where the municipality held an Air Quality Awareness Week to raise awareness regarding the environmental benefits of sustainable mobility.



TRT TRASPORTI E TERRITORIO ©2023

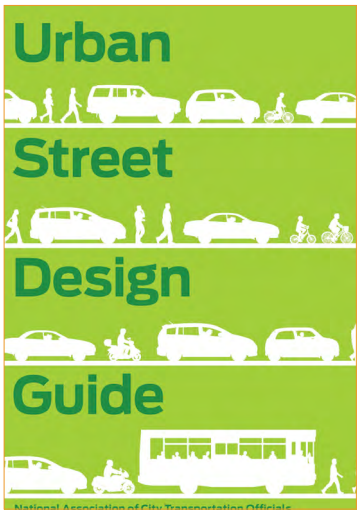
https://civitas.eu/resources/harmony-guidelines-on-modelling-tools-for-sumps-in-the-new-mobility-era

Toolkit 2:
Modelling Tools for Sustainable Urban Mobility Plans in the New Mobility Era

The Modelling Tools for Sustainable Urban Mobility Plans (SUMP) toolkit aims to answer vital questions regarding transportation models, such as the extent to which they are effective, the kinds of models that ought to be adopted in the planning process, the steps required to develop a model, and the necessary institutional responsibilities to implement one effectively. The guidelines in this document are targeted towards local planning authorities and practitioners across various levels of government to facilitate them with their urban mobility plan implementation process.

Initially, the document provides a comprehensive overview of transport models, defining them as a 'stylized representation of the interaction between mobility demand and mobility supply.' It then narrates the potential of such models and their ability to allow experimentation to anticipate the effects of plans and policy measures. The crux of the toolkit focuses on the process by which a transport model is developed, following 5 key stages: design, data collection, implementation, calibration, and application.

The document also highlights the role of transport modelling in developing a SUMP and provides a glossary of commonly used terms to clarify key concepts for the reader.



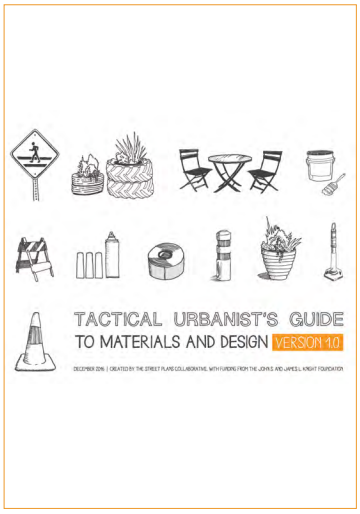
National Association of City Transportation Officials, ©2013

https://nacto.org/publication/urban-street-design-guide/

Toolkit 3:
NACTO Urban Street Design Guide

The Urban Street Design Guide by the National Association of City Transportation Officials (NACTO) is part of a movement spearheaded in large American cities that aims to develop a new set of standards to meet the complex needs of modern city streets. Targeted at city officials, designers, and other entities working in this domain, the guide is designed to facilitate organizations with the development of local design standards for their city streets.

The document provides an overview of principles to make city streets safe, inviting, and conducive to local economic activities in the process of doing so. The content has been developed to engage the reader, providing visual materials that highlight the physical implications of the respective standards. The guide introduces streets, which are the 'lifeblood of our communities and the foundation of our urban economies.' It then addresses each street typology, such as downtown streets, thoroughfares, neighborhood streets, and transit corridors, and details the main design features necessary to ensure their safety and legibility. Each guideline is supported by a case study where the principle can be seen in action.



The Street Plans Collaborative, ©2016

https://tacticalurbanismguide.com/

Toolkit 4:
Tactical Urbanist's Guide to Materials and Design

The Tactical Urbanist's Guide to Materials and Design is an engaging toolkit that guides design and materials for tactical street-level initiatives. Targeted at both city practitioners and citizen groups, the purpose of the guide is to encourage the development of projects that focus on placemaking and enhancing street safety.

The toolkit contains 132 pages and is structured along three key sections that detail various aspects of tactical urbanism projects. It addresses the micro-details of pop-urbanism through a 'flexible palette of materials' for various project typologies. A comprehensive number of material specification sheets are provided for elements such as street furniture, street programming, and surface treatments. The toolkit provides standard dimensions, estimated costs, recommended applications, tips and considerations, and potential resources for each material.

The toolkit also consists of various case studies that illustrate the application of these materials. Following the launch of the toolkit, The Street Plans Collaborative led a series of workshops to familiarize public entities and communities with the process of tactical urbanism projects and, in doing so, inspire the execution of such initiatives.



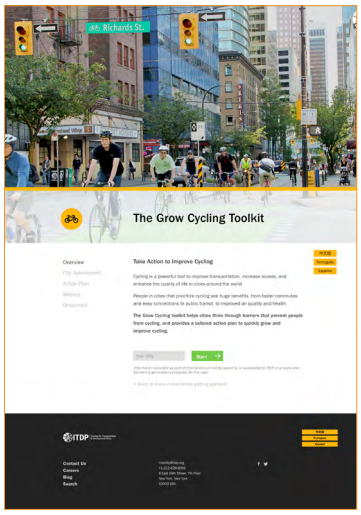
Institute for Transportation and Development Policy, ©2024

https://itdp.org/publication/the-brt-standard/

Toolkit 5:
The BRT Standard

The BRT Standard Toolkit, targeted at decision-making entities and other stakeholders of transportation systems, serves two primary purposes for the development of Bus Rapid Transit (BRT) in a city. It provides a framework for understanding BRT systems and functions as an evaluation tool for them, borrowing from international best practices. First launched in 2012, the latest version, the fifth edition, has been revised in light of the changing nature of urban mobility in modern cities, with this particular edition having an additional focus on accessibility for all.

The toolkit outlines the BRT ranking process as a Gold, Silver, or Bronze standard system. These are based on both the design and operational mechanism of the BRT six months after its initial launch in a city. Points are granted for meeting the basic elements required from a BRT for effective service planning and for strong communication, and elements that enhance accessibility are deducted in the case of poorly maintained infrastructure, low peak frequency, and pedestrian and cyclist fatalities along the corridor. The toolkit also provides infographics to effectively convey the elements that lead to developing a better BRT system.



Institute for Transportation and Development Policy, ©2020

https://growcycling.itdp.org

Toolkit 6:
The Grow Cycling Toolkit

The Grow Cycling Toolkit is an interactive digital toolkit that helps cities grow and improve their cycling infrastructure. The toolkit is tailored based on the users' responses to a survey, consisting of questions related to access, security, safety, awareness, physical conditions, and capacity of cycling infrastructure in the users' respective cities. It then generates a response to help city officials and other relevant entities think through barriers that prevent people from cycling in their city. The response is structured as an action plan that addresses three key categories: infrastructure, policies and education, and awareness-building.

The plan estimates each action's expected impact, time, and cost and provides recommendations to enhance aspects of the cycling experience identified as weak through the assessment. For each proposed action, the toolkit also provides a list of external resources, such as guides and manuals, to facilitate the implementation of said action. The toolkit is also supported by various case studies, indicating the success of recommended actions in various cities, such as Bogotá's Ciclova, which has incentivized the development of more bicycle lanes in the city, or the separation of bicycle lanes in Portland that has improved cycling safety in the city.

CITIES IN ACTION

Project 1



Cairo Metro
©2019 World Architecture

The Riyadh and Cairo Model
Planning Public Transport in Megacities

Mass transport systems are vital for cities as they reduce traffic congestion, minimize pollution levels, and provide efficient, affordable mobility solutions for a large population. By connecting different parts of a city, they enhance accessibility, boost economic activity, and improve the quality of life, contributing to sustainable urban development. The following cases from Riyadh and Cairo showcase ambitious city-wide projects to achieve efficient urban mobility.

The King Abdulaziz Project for Riyadh Public Transport, led by the Royal Commission for Riyadh City, is an initiative that aims to contribute to the transformation of the city and equip it with a world-class public transportation network. This ambitious project is designed to meet the existing and future mobility needs of all population groups, and significantly enhance the city's connectivity and quality of life.

This initiative seeks to establish a comprehensive transport system, including six metro lines spanning 176 km with 84 stations and a vast bus network comprising 80 routes, 2,860 stops, and 842 buses. The metro is designed to accommodate up to 1.2 million passengers daily in its initial phase, with the potential to reach 3.6 million at full capacity.

This metro network will serve as the backbone of Riyadh's public transport system. It connects major



Riyadh Metro: Western Station
©2024 RCRC

points of interest such as King Khalid International Airport, King Abdullah Financial District, universities, hospitals, and commercial centers. The metro stations and trains are equipped with advanced passenger information systems, air conditioning, and internet access. They are designed to meet high energy efficiency and safety standards, with comprehensive security systems, including CCTV, firefighting mechanisms and early warning systems. Supporting infrastructure includes 21 park-and-ride locations, maintenance centers, and control centers, in order to ensure seamless operation and easy access for commuters.

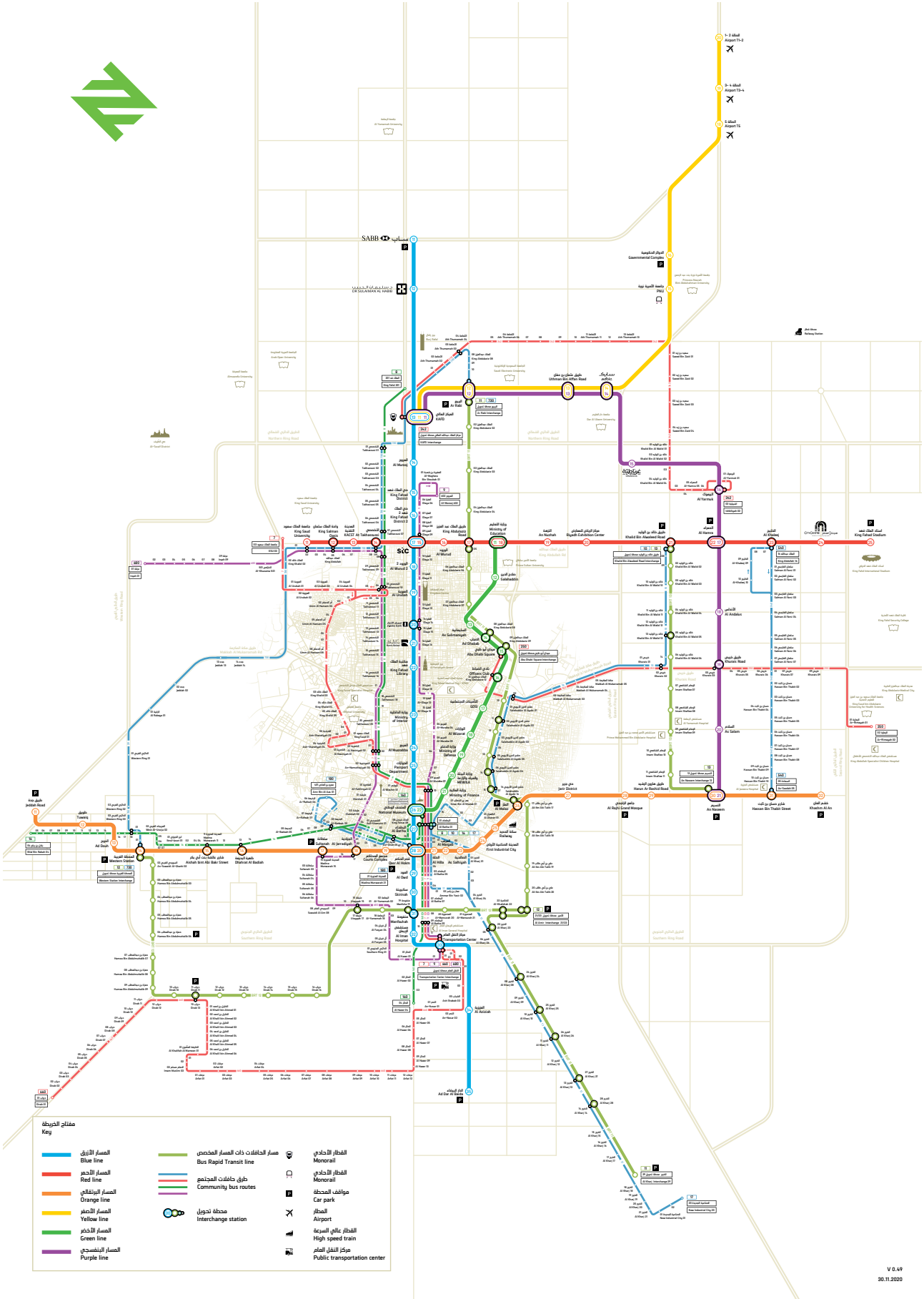
The Riyadh Bus Project complements the metro, offering integrated services that connect residential districts with business and commercial centers. The bus network is planned to accommodate over 500,000 passengers daily, reducing traffic congestion and environmental impacts. Key features include Bus Rapid Transit (BRT) routes for high-capacity corridors, 19 community lines connecting major attractions, 58 feeder lines ensuring smooth transfers to metro and BRT systems, and Demand Responsive Transit (DRT) services for the "first or last mile" of journeys.

The fifth stage of the project was launched in December 2023, consisting of 54 routes served by 672 buses covering 2145 stations and stops, with the metro still in testing phase. On completion, the King Abdulaziz Project for Riyadh Public Transport, will represent a significant leap toward a more connected, sustainable, and efficient mobility system, contributing to the transformation of the urban landscape in Riyadh.

Greater Cairo, the economic heart of Egypt and the largest Arab city, continues to experience an annual population growth of nearly 2%. This growth has made the Egyptian capital the sixth most populous city in the world in 2024. To address the city's growing transportation needs, the Egyptian government has prioritized the development of its public transit systems. The Cairo Metro, which began operations in 1987, now includes three operational lines, with one under construction and two more planned, aiming for a total of six lines. This network will eventually span 94 kilometers with 89 stations, serving millions of passengers daily. Operated by Egyptian National Railways (ENR), the Cairo Metro transported up to 3.5 million passengers per day in 2019, making it one of the largest public transit systems in Africa and the Middle East.

Another key mode of transportation is the Cairo Monorail, one of the three full-fledged metro systems in Africa and the first in the Middle East. In August 2019, a consortium including Bombardier Transportation, Orascom Construction and Arab Contractors was mandated by Egypt's National Authority for Tunnels (NAT) to design, construct and provide operational and maintenance services for 30 years. The first line, stretching 54 kilometers, is expected to be completed by the end of 2024, while the second line, 42 kilometers long, is scheduled for completion in 2025. With a total of 35 stations, these lines will offer vital connections between the New Administrative Capital and other key areas of Greater Cairo.

The Cairo Monorail project, set to become the longest driverless monorail system in the world, includes two lines designed to connect the New Administrative Capital and 6th of October City with Greater Cairo. The system can handle up to 45,000 passengers per hour in each direction during peak times. This elevated transit system aims to ease traffic congestion, improve air quality, and reduce reliance on private cars, by providing a fast, safe, and environmentally friendly transportation alternative.



King Abdulaziz Project for Riyadh Public Transport
©2024 RCRC

Project 2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of solutions to make electric vehicle ownership more accessible and affordable. By offering peer-to-peer renting, sales of secondhand vehicles, and leasing of electric vehicles, the Lab makes it easier for more and more people to enter the electric vehicle market. Another urban mobility solution company, by the name of 'E-Daddy', plans to launch purely electric motorcycles in the first quarter of 2025. It is estimated that these vehicles will save 0.6 million tons of carbon emissions annually. To incentivize such businesses as well as the use of these vehicles, the city has instituted various policy measures. These include free parking and reduced toll fees for electric vehicles. On an institutional level, it has also launched the Dubai Future Foundation (DFF), a think tank organization that consists of a transportation and mobility program focusing on innovative solutions and technologies.

In Dubai, electric vehicles are not limited only to private use, but also public transport. In 2017, the city launched testing phases for its first electric powered school buses, along with two dedicated charging stations. By 2024, the Roads and Transport Authority plans to deploy 30 electric buses within the city, in line with its zero-emission public transport strategy. To further its efforts towards sustainable public transport, the city has pioneered the Dubai Autonomous Transportation Strategy. This aims to make 25% of all trips driverless and introduce 4,000 autonomous vehicles for taxi services by 2030. It targets this intervention across multiple modes of public transport, of which the metro is already a self-driving system serving approximately 9% of all individual trips in Dubai. In line with the strategy, robo-taxis were piloted in 2023 in Yas and Sadiyat Island for public use. Supported by geospatial technology and Artificial Intelligence systems, the taxi fleet consists of both electric and hybrid vehicles. The intent of this initiative is to significantly reduce mobility costs, enhance environmental benefits, and improve citizens' quality of life. The process of implementing this strategy is supported by a robust regulatory framework to facilitate public private partnerships and ensure public safety and accessibility.

While the transition to electric vehicles and automated transportation systems is essential towards reducing the environmental impacts of urban mobility, another significant factor is controlling the number of private vehicles in the city. To address this, Dubai hosts a variety of car-sharing services, reducing the need for independent vehicle ownership. Launched in 2016, U-Drive is an on-demand car rental service, offered through a mobile application with a pay-per-minute system. It consists of a fleet of vehicles located and various spots in the city, prioritizing areas with high demand. Users are able to view the location of cars as well as book and unlock the vehicle through their mobile application. The use of digital tools to streamline the process in a quick and efficient manner is what has led to the growing popularity of this application.

The various examples discussed above indicate the potential of urban mobility in a growing digital economy. As technology continues to evolve, there is room for greater innovation in how we envision cities and the concept of movement within them.



Self Driving Transport in Dubai
©2024 Roads and Transport Authority, Government of Dubai

Project 3



Tunis electric tram
©2019 Alex Cimbal | Shutterstock

Tunis, Alexandria, and Lusail
Light Rail Systems across Arab Cities

Light rail and tramway systems are increasingly vital in the Arab region's public transportation systems. Notable examples include the Metro light rail in Tunis, the upgraded Raml Tramway in Alexandria, and the newly operational Lusail Tram in Qatar. These projects aim to enhance urban mobility, offering sustainable and efficient transit solutions across the region.

In Tunis, the original electric tram system was abandoned in 1960. However, by the 1980s, the city's population exceeded one million, and the growing traffic congestion demanded the need for an upgraded commuter transportation system. With the aim of connecting suburbs to the city center, and to ensure that the developed transportation mode would be cost-effective as well as swift to implement, a light rail network system was selected. Following preliminary studies, the light rail system returned to Tunis in 1985.

The Tunis Metro's light rail system was initially unique in Africa, operating mostly at surface level and going underground at key intersections to reduce traffic congestion. Managed by the Société du Métro Léger de Tunis (SMLT), the light rail system effectively alleviated traffic and overcrowding, particularly as it runs on its exclusive railway network.

The network currently extends 61 kilometers across six lines that connect various parts of the Tunisian capital, with plans for an additional 18-kilometer line to link the city center with the northern suburbs. The

Tunis Metro light rail transports approximately 350,000 passengers daily, accounting for 30% of the total trips managed by the Tunis Transportation Company.

Another city that has benefitted from an upgraded transportation system is Alexandria. As one of Egypt's key cities after Greater Cairo, it plays a crucial role as a commercial, industrial, and tourist hub. Its existing tram system, in operation since 1863, was outdated and weak in service capacity with a 13km journey taking over an hour due to heavy traffic and lack of priority lanes for trams. In the city, traffic congestion is a persistent issue, exacerbated by driving habits, auto rickshaws, and reliance on manual control of traffic flow despite the availability of traffic lights. To identify a resolution for these challenges, a transportation study recommended four high-priority transportation projects, including the rehabilitation of the Raml Tram from Victoria to El Raml, with a possible extension to El Manshia. In May 2017, Egypt's Ministry of Investment and International Cooperation signed a €100m loan agreement with the French Development Agency to finance part of the project.

The Raml Tram Rehabilitation Project began in October 2019 with the initial timeframe of 3-years. It aims to transform the tram into a modern, efficient system, increasing its capacity from 47,000 to 138,000 passengers per day by 2032. The project includes a 0.9 km extension and a reduction in travel time from 60 to 31 minutes. Environmental benefits include reduced air pollution, noise, and vibration, along with improved traffic flow and enhancement of the surrounding tourist areas.

In the case of Lusail city in Qatar, the light trail transportation system was introduced for the new Lusail City development project and to enhance connectivity for the 2022 World Cup. The Lusail Tram project, an internal transit system within Lusail City, features four lines and 25 stations, with two stations connecting to the Doha Metro. Spanning 19 kilometers, including 9 kilometers of tunnels, it runs throughout Lusail City, 15 km north of Doha. The system is designed to handle 1,250 passengers per hour per direction. While construction began in 2007, its first phase was launched in January 2022. Further extension of the tram, on its Orange line, was completed in 2024. This eco-friendly network aims to not only facilitate transportation within Lusail but also connect the city to Doha via the Doha Metro.

These projects indicate the growing need for cost effective solutions to urban mobility in the face of rapid population growth. Whereas Tunis and Alexandria were compelled to rehabilitate their existing infrastructure to address this growth, Lusail invested in new infrastructure in order to enhance its connectivity and offer affordable, reliable, and efficient transportation, reshaping daily commutes and supporting economic growth in the city.



Lusail tram
©2024 The Peninsula Qatar | Rajan Vadakkemuriyil

Project 4



E-fly Scooters
©2023 Efly.co

Micromobility in Cairo and Kuwait:
Enabling Participation and Enhancing Connectivity

Micromobility solutions such as bike and scooter-sharing programs are increasingly recognized as environmentally friendly and cost-effective transport options for both urban residents and tourists. As fuel prices and greenhouse gas emissions become pressing global concerns, city governments are embracing policies that integrate these services into the urban transport infrastructure. This shift is particularly evident in cities like Cairo and Kuwait.

Greater Cairo, home to an estimated 20 million people, is a vast metropolis dealing with significant vehicle congestion and poor air quality. The lack of accessible and sufficient rapid transit options has led to a rise in private car and two-wheeler ownership, resulting in daily traffic jams, hazardous street conditions, and increasing vehicle emissions. As fuel and energy prices soar across the region, many commuters are seeking more affordable and flexible alternatives. Cycling is emerging as a popular, efficient, and sustainable mode of transport, driving the demand for improved cycling infrastructure across Africa.

In response to this growing need, the Cairo Governorate launched the Cairo Bike project in 2016 with support from the Institute for Transportation and Development Policy (ITDP) Africa, UN-Habitat, and the Swiss Drosos Foundation. The project partners conducted thorough planning for the bikeshare

system, including station locations, demand assessments, financial analyses, and the selection of a bikeshare operator. Following a competitive bidding process, the Rascom-Donkey consortium, a collaboration between Egyptian and Danish entities, was awarded the contract to operate Cairo's bikeshare system.

The first phase of Cairo Bike launched in October 2022, featuring 250 bicycles across 26 stations. The project aims to expand to 500 bicycles at 45 stations in its second phase, with all stations powered by solar energy and equipped with surveillance cameras. The system will cover over 6 sqkm, including downtown Cairo, El-Sayeda Zainab, Garden City, and Al Attaba. Bicycles can be rented for 1 Egyptian pound per hour via a mobile app or prepaid card, with payment options including credit cards and cash; these multiple payment modes are expected to promote inclusivity among diverse income groups, allowing for more equity and accessibility for residents and visitors alike.

Bikeshare stations are strategically located near metro stations, bus terminals, and public spaces to facilitate multi-modal travel. The system is in a position to enhance accessibility in central Cairo by offering first- and last-mile connections, extending the reach of the metro and bus networks. To promote inclusivity, the city has launched a public campaign to highlight the economic, environmental, and health benefits of cycling, with a focus on addressing gender barriers. Cairo Bike aims to expand commuting options for women, who often have fewer independent travel means and different mobility needs. The city also plans to construct 17 kilometers of protected bike lanes, two of which have already been completed, to support cyclists. An ongoing priority will be to develop more comprehensive policies and interventions to ensure that drivers and other motorists recognize and share the road with cyclists.

The Cairo Bike initiative is particularly timely, coinciding with Egypt's hosting of the 27th United Nations Climate Change Conference (COP27) in Sharm el-Sheikh in 2022, underscoring the importance of investing in cycling as a low-carbon transport solution.

In various Arab cities, local companies are increasingly integrating bike-sharing options around key attractions to enhance urban mobility. For instance, BYKY Bike Sharing operates across several cities in the UAE, providing convenient access to bicycles near popular destinations. In Saudi Arabia, Go2 offers a similar service, making cycling a viable option in urban areas. Meanwhile, in Amman, Jordan, ERIDE Jo is promoting bike-sharing as a sustainable transport



Cairo Bike Share project
©2022 ITDP Africa

alternative, particularly around major points of interest. These initiatives reflect a growing regional trend towards eco-friendly and efficient transportation solutions in urban settings.

Launched in December 2022, E-Fly is Kuwait's first eco-friendly e-scooter sharing application, introducing an affordable, carbon-free 5G micromobility solution. Designed to tackle modern urban challenges, E-Fly offers a significant reduction in emissions compared to traditional fuel-powered vehicles. Strategically placed across various locations in Kuwait, these electric scooters provide an ideal solution to traffic congestion, particularly in urban areas and universities.

With a fleet of over 350 vehicles, E-Fly is especially beneficial for university students, offering a practical, time-saving transportation option that eases the pressure on energy resources. The service is easy to use, allowing users to locate, unlock, and ride the scooters via a user-friendly mobile app. This makes E-Fly perfect for last-mile connectivity and quick trips around the city.

E-Fly's commitment to safety and sustainability is evident in its design. The scooters are equipped with energy-efficient batteries and modern safety features, including LED lights and durable tires, ensuring stability and balance even in varying environmental conditions like rain, sun, and humidity. Built from high-quality, recyclable materials, the scooters can be recharged at the end of each day, reinforcing their eco-friendly credentials.

With over 100,000 rides to date, E-Fly has quickly become a popular choice for urban commuters. The scooters can be easily located using the app's map feature, and are accessible to users aged 18 and over who have received professional training. By offering a safe, advanced, and convenient mode of transport, E-Fly is helping to reshape urban mobility in Kuwait.



Location of E-fly Scooters in Kuwait
©2024 Eflyscooter

Project 5



Cat Walk 2022 Initiative Activities at the Northern Corniche Walkway in Jazan City
©2022 Al-Shaamal Electronic Newspaper Saudi

Initiatives in Sidon, Dubai, and Jazan

Preparing the Infrastructure for Walkable Cities

Walkability is seen today as a highly valued characteristic of urban spaces. It has considerable impacts on the livability of neighborhoods and streets. Pedestrianization of certain streets and areas in a city, where the presence of cars is considerably reduced, is one impactful way to enhance walkability. However, sometimes such strong measures can invite controversy and resistance, especially in the case of commercial streets. This article explores the case of three cities that have effectively invested in enhancing the pedestrian experience.

Lebanese cities are often known for being notoriously unsafe for pedestrians, characterized by obstructed sidewalks, poor public space management, and vehicle-centric development. This neglect became more pronounced during the rapid urban sprawl after the civil war, where sidewalks and pedestrian amenities were sacrificed for parking and wider streets.

In 2014, Saida's Association of Merchants, in collaboration with local authorities and private stakeholders, initiated the pedestrianization of the city's commercial souk. The project, part of the broader Infrastructure Development Project in Saida (IDPS), was funded by an $18 million grant from the Islamic Development Bank (IsDB). IDPS encompassed key commercial zones, with the souk being a central focus.

Located in Saida's heart, the commercial souk has significant potential due to its strategic position near historical sites, the fisherman port, Nejmeh Square,

and Riad el-Solh Street. Despite its advantageous location, the area suffered from poor management and heavy traffic, detracting from its commercial and touristic appeal.

Before IDPS, the souk was dominated by vehicular traffic, leading to congestion and diminishing its urban fabric. With the rise of sustainable urban planning concepts, local authorities proposed converting the souk into a pedestrian-friendly zone to enhance user experience and reduce traffic.

The vision for the project dates back to 2006, initially aimed at converting just four streets, inspired by the Beirut Souks development. However, the 2006 war delayed progress. By 2014-2015, with funds from the IsDB, the project expanded to pedestrianize the entire souk area and improve its infrastructure. The transformation included paving inner routes with basalt, removing sidewalks, adding trees, benches, and retractable bollards to control vehicle access.

Despite these improvements, shop owners opposed full pedestrianization, citing inadequate parking. As a compromise, the main street was designated one-way, with limited vehicle access on secondary streets. Additional parking spaces were provided near Nejmeh Square to address concerns.

Ultimately, the project aimed to balance pedestrian accessibility with the needs of businesses, enhancing Saida's commercial souk as a vibrant, walkable urban space.

Dubai's rapid growth has often overshadowed its deep-rooted cultural heritage, especially around the Creek area, which once buzzed with the activity of fishermen, merchants, and pearl traders. Over time, the connection between this historic area and its surrounding souks, markets, and landmarks faded, leaving Old Dubai's legacy underappreciated and difficult to explore.

Al Seef Heritage Waterfront, a 1.8 km development along the Creek, was designed to bring this history back to life. The project aimed to restore the connection between Dubai's past and present, linking the historic Al Bastakiya district with a newly designed public space that honors Dubai's maritime roots. Al Bastakiya, a village dating back to the 1890s, originally comprised a maze of narrow streets and traditional homes, faced demolition in the 1980s to make way for modern development. Fortunately, a preservation effort saved the remaining structures, though they remained somewhat isolated, with no clear way to experience the area's rich history captured in the souks, Fort, and City Wall.

Al Seef project (2016-2018), developed by Meraas and designed by a group of architectural firms, set out to change that. The idea was to create a space where people could easily walk through and connect with key historical sites, blending old and new Dubai. By making the area more pedestrian-friendly, the project aimed to breathe new life into Old Dubai and encourage more foot traffic between its historic landmarks.



Al Seef walkway Dubai
©2022 RPSkokie | Wikimedia commons



Old City Saida
©2024 Moovtoo

The design focused on recreating the look and feel of Dubai's architectural heritage. Every detail was carefully considered to make it seem as if the area had evolved naturally over time. Materials and techniques from different eras were used, elements like in-situ concrete, with traditional wind towers "barjeels" and palm-leaf structures "barasti" adding to the authenticity. Shaded areas, rustic lighting, and fruit trees further enhanced the atmosphere, making it feel like a step back in time.

Al Seef is a culturally rich, pedestrian-friendly space that seeks to re-energize Old Dubai, offering both locals and visitors an immersive walkable journey through the city's storied past. Al Seef aims not only celebrates Dubai's heritage but also ensures its legacy remains a vibrant part of the city's future.

The Jazan Municipality has intensified its efforts to "humanize the city" by implementing several projects aimed at enhancing walkability and improving its quality of life, in line with Saudi Arabia's Vision 2030. These initiatives include the maintenance of the northern Corniche walking track, which spans 2 kilometers and features two lanes, each 5 meters wide, providing ample space for walkers and athletes to enjoy their activities in a comfortable environment. The track is designed with 12mm-thick acrylic rubber material to ensure both comfort and flexibility.

Additionally, a new walking path project has been developed in the northern part of the city, stretching 6 kilometers on both its eastern and western sides. This project includes a dedicated bicycle lane, green spaces, bicycle and car parking, and various service facilities.

Furthermore, the municipality has begun work on the renovation of the Old Darb Walkway in the Darb Governorate, which is 750 meters long and 9 meters wide. The walkway's aesthetic design features landscaped areas, a bicycle lane, seating areas overlooking the Atoud Valley, and stone-paved paths illuminated by decorative lighting.

This project is one of several Jazan Municipality, such as the development of multiple waterfronts, public parks, sports fields, and walkways, to promote public health and provide a conducive environment for physical activity, contributing to the overall enhancement of quality of life for the community.

Project 6



Marrakech BRT
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The Experience of Amman and Marrakech

Developing Public Transport through Bus Rapid Transit (BRT) Systems

A Bus Rapid Transit (BRT) system is a high-quality, bus-based public transportation system designed to deliver fast, efficient, and cost-effective transit services. Its main attribute is that it offers a more affordable alternative to metro and tram systems while maintaining efficiency through dedicated lanes. The integrated urban transport systems in Amman and Marrakech, centered around Bus Rapid Transit (BRT), exemplify sustainable mobility solutions. Amman's BRT reduces traffic congestion by providing efficient public transit, while Marrakech's solar-powered BRT enhances eco-friendly travel, showcasing the potential of BRT in addressing urban transport challenges in growing cities.

The Greater Amman Municipality (GAM) is implementing a Bus Rapid Transit (BRT) system as part of a comprehensive transport plan to address the city's growing traffic issues, which have been exacerbated by rapid population growth in the capital, now home to 4.5 million people. This integrated and modern transportation network is tailored to Amman's unique economic, social, and topographical

characteristics, aiming to create a sustainable, organized, and viable city.

A key element of the Amman Comprehensive Plan, which includes the City Growth Plan, is the development of an effective, integrated transportation system. The plan emphasizes the need for a fully integrated, hierarchical public transport network to meet the city's demands, particularly in light of the growing reliance on private vehicles in recent years, which has exacerbated traffic problems. One of the primary objectives of the transport plan for 2025 is to increase public transportation usage from 14% to 40%. The project also aims to provide safe, efficient, and eco-friendly public transport, reduce traffic congestion and accidents, and lower fuel consumption.

Launched in mid-2021, the BRT system within Amman features two main lines stretching 32 kilometers. The BRT also extends to connect Amman with nearby Zarqa city, covering a distance of approximately 20 kilometers. This expansion includes the construction of exclusive BRT lanes, traffic improvements, and the operation of 183 high-frequency buses. with each bus capable of accommodating 150 passengers—equivalent to 110 private vehicles. The buses are equipped with modern amenities and are accessible to people with special needs.

The BRT system serves both Amman and Zarqa residents, including university students, offering them a reliable and comfortable transportation option while also creating job opportunities and promoting environmental sustainability.

The introduction of the Bus Rapid Transit (BRT) system in Amman has made significant progress in addressing some of the key transportation challenges, but not all issues have been fully resolved. challenges such as complete fare integration across different services, and further reducing long commuting times still require attention. The public transport system in Amman remains somewhat fragmented, though the BRT is a strong step toward better integration and service quality.



Amman BRT
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In line with the National Strategy for Sustainable Development in Morocco, particularly pillar 8 on "Promoting Sustainable Mobility," Marrakech has launched a modernization of its urban transport system to accommodate its growing population and tourist influx. The Bus Rapid Transit (BRT) system, utilizing high-capacity electric buses in dedicated lanes, marks Marrakech as the first city in Africa to introduce such a network. The project, announced during the COP22 summit in 2016, aims to enhance residents' quality of life by offering a sustainable public transport solution.

The BRT project is initiated by Bus City Motajadida, a local development company affiliated to the Marrakech municipality, in charge of delivering a clean urban transport system, and operated by ALSA Marrakech, which has been the city's urban transport provider since 1999. The BRT is powered by a solar energy plant built as part of the project, showcasing an integrated low-carbon transportation model that could be replicated across Morocco.

The first BRT line, connecting Bab Doukala and Iziki along an eight-kilometer route, provides easy access to major urban connection points. Expected to serve 60,000 passengers daily by its third year, the line is operated by 10 fully electric buses, highlighting Marrakech's commitment to sustainable mobility and climate change mitigation following COP22.

The multi-modal approach is a cornerstone of Marrakech's transportation strategy, integrating the BRT system with various modes such as trams, taxis, bicycles, and walking paths. This integration aims to enhance overall transportation efficiency and accessibility in the city.

The city's future vision includes expanding the BRT network to connect peripheral neighborhoods with downtown hubs through four lines and key interchanges. Since September 2017, ALSA Marrakech has been operating this pioneering BRT service, which combines the environmental benefits of trams or subways with the cost efficiency of bus transit. This project not only improves local transport but also underscores Morocco's contribution to global environmental efforts.

OUR NEWS

AUDI PARTICIPATES IN THE SUMMIT OF THE FUTURE 2024 AND STRENGTHENS PARTNERSHIPS WITH NEW YORK CITY AND BLOOMBERG PHILANTHROPIES

A delegation from the Arab Urban Development Institute (AUDI), led by Director General Dr. Anas AlMughairy and accompanied by Internationalization and Cities' Relations Manager Ms. Alba Fernández, actively participated in the United Nations Summit of the Future in New York City. The delegation engaged in the Action Days, which focused on critical global challenges such as digital technology, peace and security, sustainable development, and financing. Special attention was given to amplifying the voices of youth and future generations. The Summit of the Future brought together high-level global leaders and key stakeholders to redefine international cooperation in response to today's pressing challenges and those of the future, with a strong emphasis on civil society's role in shaping these solutions.

During their visit, the AUDI delegation engaged in productive discussions with Bloomberg Philanthropies. In meetings with Mrs. Brooke Smith, Deputy Director for Government Innovation, and Mr. Art Martinez, Director of Strategy and Operations, Dr. AlMughayri highlighted AUDI's pivotal role in supporting Arab municipalities. The talks explored potential collaborations in areas such as government innovation, leadership development programs for Arab mayors, and cities knowledge exchanges, aiming to foster innovative practices across Arab municipalities.

The delegation also met with high-level officials at the NYC Mayor's Office for International Affairs, including Commissioner Edward Mermelstein and Deputy Commissioner Dilip Chauhan. Discussions centered on strengthening city-to-city cooperation between New York City and Arab municipalities, particularly in the fields of economic development, transportation, and climate technology. Both parties explored the potential for mutual exchange of best practices and long-term collaboration on urban development initiatives.

The visit aimed to enhance AUDI's international presence, expand its network of global partners, and act as a catalyst for advancing the interests and development of Arab cities on the world stage.



Left to Right: Ms. Fernanda Pérez Villarreal (Special Assistant and Strategic Liason to the Commissioner), Mr. Dilip Chauhan (Deputy Commissioner), and Mr. Edward Mermelstein (Commissioner) of the Mayor's Office for International Affairs
Right to Left: Ms. Alba Fernández Collado (Internationalization and Cities' Relations Manager), and Dr. Anas AlMughairy (Director General) of the Arab Urban Development Institute
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UN Summit of the Future, New York City
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AUDI LAUNCHES ITS EXECUTIVE PROGRAM IN INNOVATION AND URBAN MANAGEMENT FOR RIYADH MUNICIPALITY LEADERS

In partnership with the University of California, Berkeley/ Department of City and Regional Planning and SALAR International, AUDI is excited to announce the launch of its Executive Program in Innovation and Urban Management (EPIUM)last August, with the participation of 30 Arab Municipal Leaders. This program is designed to empower municipal professionals with cutting-edge knowledge and skills to navigate the evolving urban development challenges.



Executive Program in Innovation and Urban Management at University of California, Berkeley
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Executive Program in Innovation and Urban Management at University of California, Berkeley
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EPIUM offers participants a unique opportunity to delve into cutting-edge urban solutions, explore global best practices, and gain hands-on experience through a blend of training sessions, tours, and workshops. The Program aims to:

- Familiarize participants with mechanisms for developing innovative solutions in urban development management.
- Train participants on advanced management methodologies and work practices in municipalities, and discussions with officials.
- Develop the participants' effective municipal leadership and negotiation skills.

EPIUM offers a comprehensive curriculum that combines theoretical instruction with practical experience. The program is divided into two phases:

- **Phase 01: The Avant-Garde (Global Urban Innovation)** This 2-week training workshop focuses on theoretical knowledge that dives into the advanced urban solutions that will shape cities beyond 2030. It took place at the UC Berkeley Campus in August 2024.
- **Phase 02: The Mastery (Global Municipal Visits)**, Scheduled for October 2024, this phase will provide participants with practical experience through a two-week study tour in Stockholm, Sweden. Participants will delve into the methodologies of municipal management, explore the workings of Stockholm's municipal departments, and engage with city officials to discuss urban challenges, applications, and thriving urban solutions.

With the EPIUM program, Arab municipal professionals will gain the knowledge, skills, and exposure needed to lead their municipality toward a more sustainable and innovative future.

AUDI CONDUCTS SPECIALIZED TRAINING PROGRAMS IN MUSCAT AND NAJRAN

At the heart of AUDI's Mission lies a commitment to enhancing municipal services. This dedication is firmly reflected in our 2025 Strategic Plan, which prioritizes implementing specialized training programs. Through these programs, AUDI aims to provide technical support, foster municipal capacity development, enable knowledge sharing, and contribute to impactful urban policies. One of AUDI's key initiatives is delivering specialized training programs tailored to the needs of Arab municipal professionals. Recent courses included:

[ON-LINE] PMP Online Training Workshop for Najran Municipality, Saudi Arabia

As an Authorized Training Partner (ATP) for the Project Management Institute (PMI), AUDI has recently delivered an intensive 10-day online training course focused on the globally recognized Project Management Professional (PMP) certification.

Tailored specifically for municipal project management, PMP methodologies, project initiation, RFP drafting, and risk management. This workshop empowered participants from Najran Municipality with the essential skills, knowledge, and tools to lead successful municipal projects, enhance project efficiency, and drive sustainable results within their municipality.



Cities Humanization Training Workshop in Muscat, Oman
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Municipal Investment and Privatization of Services Training Workshop in Muscat, Oman
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[In-Person] Cities Humanization Training Workshop in Muscat, Oman

Last September, AUDI hosted a two-day training workshop in Muscat, Oman, focused on urban humanization. The workshop provided a deep dive into the principles of human-centered urban design, emphasizing the importance of creating cities that prioritize the needs and experiences of their residents.

Participants explored the main concepts of human-centered design, understanding why cities focused on human well-being are essential for improving quality of life. The workshop also addressed emerging trends in urban design, including challenges and future directions.

Attendees gained practical knowledge on measuring the success of urban design projects, the impact of aesthetic elements and public art, and using analytical tools to improve urban environments. Through expert-led sessions, case studies, and interactive exercises, participants learned how to design inclusive, accessible, and vibrant urban spaces.

[In-person] Municipal Investment and Privatization of Services Training Workshop in Muscat, Oman

A 3-day immersive training workshop delivered by AUDI in Muscat delves into the intricate world of municipal investment strategies and the privatization of public services. The workshop is designed to equip municipal leaders and decision-makers in Muscat Municipality with advanced tools and methodologies to optimize asset management, enhance service delivery, and explore sustainable revenue generation models. Participants gained insights into critical areas such as municipal asset valuation in service delivery, service portfolio classification, and investment analysis, identifying optimal investment return strategies, developing strategic transformation plans for service delivery, aligning privatization plans with institutional frameworks, marketing services, and creating compelling business cases.

Through case studies, expert-led sessions, and practical exercises, attendees learned how to align privatization efforts with institutional frameworks, foster public-private partnerships, and navigate the challenges and opportunities of municipal investments in a rapidly evolving urban landscape.

AUDI IS AN ORGANIZER AT THE WORLD URBAN FORUM (WUF) SESSIONS

AUDI is excited to announce its upcoming participation in the 12th World Urban Forum (WUF) in Cairo, Egypt. As a leading network of cities dedicated to advancing sustainable urban development in the Arab Region, AUDI will play a pivotal role in shaping the conversation on urban sustainability at this prestigious global event.

AUDI's participation will include:

- **Partner-Led Events:** AUDI will organize and co-organize three events with global partner organizations;

Event 01: AI for People-Powered Cities: Transforming the Future with Data-driven Precision

Tuesday, Nov. 5, 2024, 13:00 – 14:30

Lead Organizer: Al Riyadh Region Municipality

Co-Organizers: AUDI, Secretaria Distrital de Planeacion/ Bogotá, Secretaria Distrital del Habitat/Bogotá

Event 02: Connective Theo-Practical Approach For A Better Urban Future

Wednesday, Nov. 6, 2024, 13:00 – 14:30

Lead Organizer: AUDI

Co-Organizer: UN-Habitat, Jordan office

Event 03: Reimagining Urban Development through Collaboration

Thursday, Nov. 7, 2024, 13:00 – 14:30

Lead Organizer: Metropolis

Co-Organizer: AUDI

- **Urban Expo:** A Regional Network for Global Impact: The Arab Urban Development Institute

AUDI will have a prominent booth at the Urban Expo, showcasing its initiatives, partnerships, efforts and 2024 impact.

WUF, organized by the United Nations Human Settlements Programme (UN-Habitat), is the largest bien-nial conference on sustainable urbanization. It brings together urban leaders, experts, and policymak-ers from around the worldwide to address the challenges and opportunities facing cities today. With over 25,000 expected attendees, WUF 12 will take placeoccur from the 4th until the 8th of November 2024 4-8. The theme for this year's event This year's event theme is "It All Starts at Home: Local Actions for Sustainable Cities and Communities."

By actively engaging in WUF 12, AUDI reaffirms its position as a regional leader in driving posi-tive change in urban development and shaping a more sustainable future for Arab Cities.

WORLD URBAN FORUM
TWELFTH SESSION

AUDI IS A PARTNER IN THE LIVEABLE CITIESX SUMMIT IN DUBAI

AUDI is honoured to partner with dmg events and participate in the upcoming Liveable CitiesX event in Dubai, UAE, from 26th to 28th November. Dr. Anas AlMughairy, Director General of AUDI, will speak in the panel session **'Evolving Cities: How changing population dynamics are shaping how we live and work in urban environments.'**

This impactful event is centered around Driving Urban Transformation and is co-located with Big 5 Global 2024. It will convene various stakeholders, including governmental bodies, urban planners, financiers, designers, and technology innovators. In addition, it will explore thought leadership and solutions crucial for shaping future masterplans and fostering investment opportunities that pave the way for a brighter tomorrow.

The LiveableCitiesX Summit will be a 2-day programme of real-life city use cases, themed networking sessions, lightning talks, and conversations from a global perspective. Delegates will forge valuable connections, share knowledge, and contribute to cross-city partnerships. Focused on four key themes: Urban Investment, Resilient Cities, Citizen Engagement, and Future Mobility, the community of speakers and delegates will inspire change and tackle city challenges from across the globe. Strengthened with profound knowledge and new connections, delegates will take away actionable insights and solutions to inspire their work, teams, and communities to develop liveable cities of the future.



Poster for the Liveable CitiesX event
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CITIES IN ACTION: WEBINAR ON THE PUBLIC TRANSPORTATION DEVELOPMENT PROGRAM IN CASABLANCA

The Arab Institute for Urban Development organized its fifth meeting within the series of monthly meetings "Cities Movement" on the evening of Tuesday, Safar 23, 1446 AH, corresponding to August 27, 2024 AD, in the presence of a number of specialists and those interested in urban development affairs and the fields of urban transport. Dr. Abdullah Dhaifallah, Director of the Meeting and Professor of Urban Planning, began the meeting with an introductory overview of the series of meetings of the "Cities Movement", and pointed to its importance in enriching the discussion between specialists and those interested in urban development affairs from all Arab countries. He also stressed that the desired benefit of these meetings lies in identifying pioneering urban development projects and exchanging ideas on work mechanisms and the elements of success.

The meeting opened by talking about the city of Esna and the rehabilitation of urban heritage in the development of medium cities, presented by M. Karim Ibrahim, co-founder of Takween for Integrated Communities Development, pointed out that the city of Esna is the third historical city in Egypt that extends from the history of ancient Egypt through the Greek and Roman era and Islamic eras until the modern era, and the city's main economy depends on agricultural activity followed by trade activity, as the city is a commercial center for the surrounding areas.

He pointed out that the development plan "Investment in sustainable and integrated tourism in the city of Esna" was assigned to them by the State of Egypt, a project funded by the United States Agency for International Development and implemented by Takween for the development of integrated communities in partnership with the Ministry of Tourism and Antiquities, Luxor Governorate and the Ministry of International Cooperation.

Eng. Karim reviewed the objectives of the project to invest in sustainable and integrated tourism in the city of Esna, starting with the preservation of a group of tangible and intangible cultural heritage assets in and around the city of Esna, the development of high-return tourism products and services that increase the economic benefits to society, enhancing the marketing image of the city of Esna, and also included a study of cultural tourism value chains.

Eng. Karim discussed urban development programs, starting with the restoration of the Jeddawi Archaeological Agency, the rehabilitation of the Caesarea market, the renovation of the facades of architecturally distinguished buildings, the



Poster for the 'Cities in Action' Webinar session on the public transportation development program in Casablanca
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development of the visiting area of the Khnum Temple, the rehabilitation of Bazaarat Street, the reuse of the royal private rest house and its transformation into a tourist hotel, and the construction of a detailed plan for the city of Esna. It achieved success by tripling the number of visitors from 2017-2019, the largest growth rate in Egypt's history. It also received global attention as the city of Esna won the UNWTO Award for promoting the best sustainable tourism experience in 2023.

He stressed that cultural tourism is booming and based on archaeological monuments, pointing out that the importance of continuing efforts by the state to preserve this heritage, will enhance the city's position, attract tourists and encourage residents to return to live in those buildings after their rehabilitation.

At the end of the meeting, Dr. Abdullah Dhaifallah thanked the attendees for their interaction and valuable participation, praising the prominent role of Engineer Karim Ibrahim in participating in the rehabilitation of urban heritage in the development of medium cities. He stressed the importance of continuing these meetings to enhance cooperation and knowledge exchange among specialists in urban development.

CITIES IN ACTION: WEBINAR ON UNLEASHING PROVINCIAL CITIES' URBAN HERITAGE POTENTIALS: ESNA EXPERIMENT

The Arab Urban Development Institute organized the fifth webinar in its monthly series, "Cities in Action," on Tuesday evening, 23 Safar 1446 AH, corresponding to August 27, 2024. The event was attended by several specialists and those interested in urban development and urban transportation issues.

Dr. Abdullah Dhifallah, Professor of Urban Planning and the meeting's moderator, began the session by providing an overview of the "Cities in Action" webinar series. He highlighted the importance of enriching the discussion among experts and stakeholders in urban development across Arab countries. He also stressed that the desired benefit of these meetings lies in identifying pioneering urban development projects and exchanging ideas on success mechanisms and factors.

The discussion started by addressing Esna City and the rehabilitation of urban heritage in developing medium cities. M. Karim Ibrahim, co-founder of "Takween for Integrated Communities Development," pointed out that the city of Esna is the third historical city in Egypt that extends from the history of ancient Egypt through the Greek, Roman, and Islamic eras until the modern era. The city's leading economy depends on agricultural activity followed by trade activity, as the city is a commercial center for the surrounding regions.

Eng. Karim pointed out that the development plan "Investment in Sustainable and Integrated Tourism in the City of Esna" was assigned to "Takween for the Development of Integrated Communities" by Egypt's Government, a project funded by the United States Agency for International Development and implemented by his company in partnership with the Ministry of Tourism and Antiquities, Luxor Governorate and the Ministry of International Cooperation.

He reviewed the objectives of Esna City's sustainable and integrated tourism investment project, starting with the preservation of a group of tangible and intangible cultural heritage assets in and around the city, the development of high-return tourism products and services that increase the economic benefits to society, enhancing the marketing image of Esna City, and also included a study of cultural tourism value chains.

Eng. Karim discussed urban development programs, starting with the restoration of the Jeddawi Archaeological Agency, the rehabilitation of the Caesarea market, the renovation of the facades of architecturally distinguished buildings, the development of the visiting area of the Khnum Temple, the rehabilitation of Bazaarat Street, the reuse of the royal private rest house and its transformation into a



Poster for the 'Cities in Action' Webinar session on the public transportation development program in Casablanca
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tourist hotel, and the preparation of a detailed plan for Esna City. Through these programs, the city has achieved significant success, with the number of visitors tripling between 2017 and 2019 2017-2019, the most significant growth rate in Egypt's history. It also received global attention as Esna City won the UNWTO Award for promoting the best sustainable tourism experience in 2023.

He stressed that cultural tourism is thriving based on archaeological monuments, pointing out the importance of continued efforts by the government to preserve this heritage, which will enhance the city's position, attract tourists, and encourage inhabitants to dwell in those buildings after their rehabilitation.

At the end of the meeting, Dr. Abdullah Dhifallah thanked the attendees for their valuable interaction and participation, praising Eng. Karim Ibrahim for his prominent role in participating in the rehabilitation of urban heritage in developing medium cities. He stressed the importance of continuing these webinars to enhance cooperation and knowledge exchange among experts in urban development.

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