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# Promoting soft mobility for all: Support for the design of bike lanes in Oujda

#### Climate and environment

Climate and environment have become global issues as the impacts of climate change and ecosystem degradation intensify. International agreements, such as the Paris Agreement, witness the efforts to attenuate these problems and to encourage the transition to more environmentally friendly practices. In Morocco, environment is an important and complex subject, involving multifaceted aspects of sustainability, of natural resource management and of ecosystem protection. The mobility and public transport sector holds significant importance, prompting the development of a National Urban Mobility Strategy in 2008. This strategy aims to enhance mobility safety, improve quality, reduce costs and address the priority needs of citizens while respecting the environment. Vulnerable road users, including pedestrians, cyclists and motorcyclists, are disproportionately affected by traffic accidents, with a fatality rate of 58%, of which 31% are two-wheel users, according to data from the Ministry of Public Works, Transport and Logistics in 2014. To mitigate these consequences, a new National Road Safety Strategy for 2016-2025 has been implemented to reduce the number of road deaths by 2025.

The regional project "City-to-City Cooperation Maghreb-Germany" (KWT II), commissioned by the Federal Ministry for Economic Cooperation and Development (BMZ), was implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in cooperation with the Service Agency Communities in One World (SKEW) of Engagement Global gGmbH, from March 2020 to February 2024. Among other activities, the regional project supported partnerships between German and Maghreb cities. The good practices highlighted in this fact sheet have been developed by the city of Oujda in partnership with the district of Böblingen. These practices will be scaled up as a part of the follow-up regional project "Urban Adaptation to Climate Change in the Maghreb", running from March 2024 to February 2027.



## Study on the implementation of biycle paths or lanes in Oujda

In Morocco, the regional project KWT II was implemented in collaboration with the Directorate-General of Territorial Communities (DGCT) of the Ministry of the Interior. One of the project's partner cities was the urban municipality of Agadir in the west of the country.

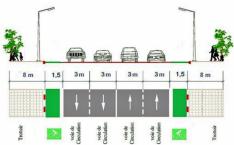
With the support of the regional project KWT during its first phase and in collaboration with its German partner, the district of Böblingen, the city of Oujda has carried out a preliminary study on the creation of 4 km of bicycle paths or lanes on the Boulevard M'Barek Bekkay Lahbil as a first experiment for the city of Oujda. The study marks a prerequisite for the project to integrate bicycle lanes and paths in the city of Oujda, as part of a sustainability perspective, promoting soft mobility and the practice of urban cycling. The aim is to offer for the most vulnerable road users a safer and more secure travel option.



#### **Approaches and actions**

Due to the lack of dedicated infrastructure for cyclists, the modal share of two-wheeled vehicles, particularly bicycles, is estimated at 2% at the city level. However, the city's flat topography makes cycling easy. To increase this modal share, Oujda's Master Plan for Urban Mobility (PDMU) includes the implementation of a comprehensive plan for bicycle lanes and paths. The 4 km section of Boulevard M'barek Bekkay Lahbil (see photo 1) has been prioritised as a pilot area. It is located in a popular district with a significant flow of cyclists. This unfortunately leads to serious accidents also involving cyclists. The project followed the approach shown in diagram 01 below:





Left: Overview of the priority route for the bicycle path on the Boulevard M'barek Bekkay Lahbil.

Right: Overview of preferred scenario 2: The creation of lateral bicycle lanes to replace the parking area for 4-wheeled vehicles, with a width of 2 m in each direction, extended over a length of 1.900 m.



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#### SITUATION ANALYSIS AND NEEDS ASSESSMENT

This phase was conducted using various tools, such as documentary research, cartographic and topographic analysis mainly primarily of the pilot section, the collection of road traffic data as well as the analysis of the proposals of the city's Urban Mobility Plan. The focus was on the following aspects:

- Initial situation of use of bicycle in Oujda: Assessment of needs, potential and dysfunctions.
- Goals to be achieved, constraints faced and available room for manoeuvre.
- Analysis of the possible types of cycle facilities (lanes or paths) and the possibilities of insertion according to context and constraints.

#### PRELIMINARY PROJECT SUMMARY (PPS)

- Presentation of the technical design criteria for bicycle paths.
- Delimitation of the extent of the bicycle path.
- Presentation of four scenarios or variants of types and shapes of bicycle path ensuring a safety vision:
  - Scenario 1: Creation of bicycle lanes adjacent to the roadway.
- Scénario 2 : Creation of bicycle lanes in place of the parking of four-wheeled vehicles.
- Scénario 3: Creation of separate lateral bicycle paths within the pedestrian area.
- Scénario 4: A mixed solution between scenario 2 and scenario 3, integrating the bicycle path into a
  pedestrian part and into a part of the parking of four-wheeled vehicles.
- Summary of the estimated costs.
- Initial assessment of the suitability of the route to be chosen.





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#### **DETAILED PRELIMINARY PROJECT (DPP)**

The aim was to develop the chosen scenario 2 (see photo 2, p 1), which entails removing parking spaces for four-wheeled vehicles and replacing it with bicycle lanes. A socio-economic study was also conducted to analyse the potential consequences and solutions resulting from the removal of parking spaces.

#### STRENGTHENING ROAD TRAFFIC MANAGEMENT SKILLS

Training courses have been provided for local stakeholders to enhance their technical expertise in road traffic management and road safety. Furthermore, technical support has been developed to assist in formulating strategies for managing intersections (crossroads) crossed by bicycle lanes.



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Diagram 01: Methodological approaches. © GIZ



#### **Achievements**

The project has achieved the following results (diagram 02):

#### Acquisition of skills in sustainable mobility:



Training was provided to municipal staff on a variety of topics such as traffic management, parking for two-wheeler and instructions on urban signage in accordance with national standards. Moreover, capacity development on the planning process of bicycle lanes and paths was complemented by the exchange of experiences, recommendations and five study visits organised between the city of Oujda and its German partner, the district of Böblingen.

#### Comprehensive study on the installation of bicycle lanes and paths in Oujda:



This study outlined the methodologies and tools required for implementing bicycle lanes and paths. The planning gave absolute priority to safety in the design of these facilities, particularly bicycle lanes and cycle parking areas. The study also highlighted the importance of connecting areas with high cycling potential, such as universities (for students), schools (for pupils) and offices (for workers).

Diagram 02: Achievements. © GIZ



#### Challenges

Several challenges were encountered, necessitating tailored solutions. These challenges are detailed in diagram 03:



#### A planning challenge:

The city has faced strategic decisions regarding the allocation of road space in order to prioritise cycling infrastructure. Nevertheless, the concept has garnered interest from various partners and requires support from funding bodies.

# Stagnation during the pandemic period of COVID-19: This led to significant delays and shifts in the completion of mis-

sions planned in the

project schedule.



#### Lack of cycling culture:

Establishing a cycling culture within the local authority is challenging, particularly for motorized citizens accustomed to more comfortable forms of transport. The environmental aspect and public health must therefore be taken into consideration in any awareness-raising action.

### Budgetary requirements:

The estimate for the construction of the 4 km of bicycle lanes was evaluated in 2018 at 2,216,400 MAD (approximately 203,000 EUR), with an increase of 25 % to take account of inflation. The municipality is currently seeking third-party funding for the project.



Diagram 03: Challenges encountered. © GIZ



#### Innovative aspects and potential

The bicycle lane design study project shows a number of strengths, targeting a commitment to the environment and climate (diagram 04):

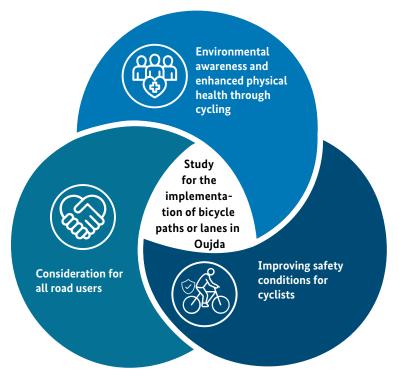


Diagram 04: Innovative aspects and potential. © GIZ





Left: Field visit to an example of accessibility works for people with reduced mobility at Lala Aicha Park during a study trip from Böblingen to Oujda..

Right: Analysing urban mobility plans and consultation between representatives of the city of Oujda and the district of Böblingen.

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#### Best practices, lessons learnt and advice

Several important lessons have been learnt and best practices identified from the experience in Oujda, which should be considered when scaling-up (diagram 05):

#### **BUILDING ON EXISTING EXPERIENCES**

German expertise in mobility and soft modes of transport has helped to avoid common mistakes, such as errors in lane marking, separating lanes or integration at intersections. This knowledge has provided the city of Oujda with valuable insights, particularly when planning and designing bicycle lanes, as well as looking for funding opportunities.



### EMPHASISING CONNECTIONS BETWEEN AREAS WITH HIGH POTENTIAL FOR CYCLING



Areas such as universities, schools and offices experience high traffic throughout the day and their populations are generally sensitive and receptive to the benefits of bicycle use.

#### RAISING AWARENESS OF BICYCLING CULTURE

It is necessary to raise awareness among the citizens about cycling culture and the benefits of its use for physical health and the environment. It is also advisable for the municipal mobility service to take into consideration cycling facilities from the initial technical planning phase of urban mobility projects.



Diagram 05: Best practices, lessons learnt and advice. © GIZ

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