Lebu-Jemo Interim Cycling Corridor

Safe Cycling Program, Addis Ababa

Bloomberg Philanthropies

Bloomberg Philanthropies
INITIATIVE FOR GLOBAL ROAD SAFETY

NACTO

Global Designing Cities Initiative

ITDP

TUMI
Transformative Urban Mobility Initiative

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

WORLD RESOURCES INSTITUTE

PROJECT SNAPSHOT

Lebu-Jemo Cycling Corridor

Under the Non-Motorized Transport (NMT) Strategy for Addis Ababa, the City has committed to building 100 km of cycle lanes over the next three years, through the Safe Cycling Program. The three kilometer long Lebu-Jemo Cycle Corridor was the inaugural first step in this program.

PROJECT GOAL

The cycle lane was designed as a demonstration project to kickstart investments in safer and more sustainable transportation in Addis Ababa. The City has the opportunity to provide all citizens with multi-modal mobility options and the Lebu-Jemo corridor has been designed to show that it's possible. The location of the corridor builds off the learning from past attempts in the city and connects many trip origins and destinations. This site selection process has proved the need to study and carefully select future investments in the cycling network. Building a connected network will enable ridership rates to rise even higher than they have during this interim implementation. This design has already helped promote a stronger cycling culture in Addis Ababa, and with a connected network it can make an even larger, safer impact.

DESIGN STRATEGIES

The three-lane street in either direction was redesigned to accommodate a curb-side bi-directional cycle facility on one side, limiting on-street parking to the other side. The wide travel lanes on this street allowed for plenty of existing space to create this dedicated cycling facility. The Traffic Management Agency and the AARTB led the transformation with their engineers and ground staff working for 4 days and nights to complete the project. Thermoplastic lane markings along the entire length were complimented with green markings at all intersections, and curb-cuts to indicate where there were conflict zones. On-ground and cub-side signs were painted and installed to inform the citizens about the new infrastructure on their street.

*The following data has been aggregated from a series of surveys conducted on site, courtesy of the Addis Ababa Transport Bureau

95% want the cycling corridor to become **permanent**

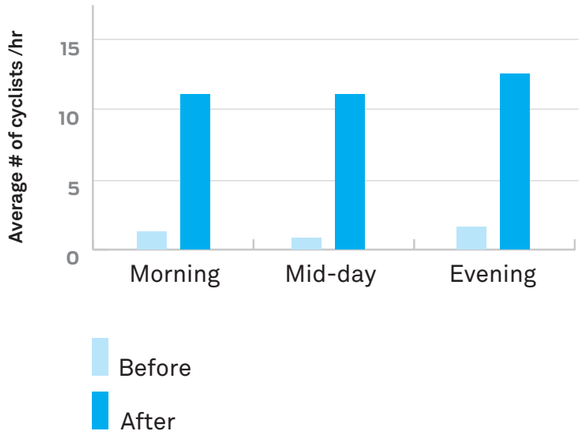
96% of cyclists felt **some degree of safety** while riding on the interim infrastructure

65% of those who feel safe on the infrastructure attribute that feeling to the physical presence of **delineators from traffic**

PROJECT SNAPSHOT — LEBU-JEMO CYCLE CORRIDOR

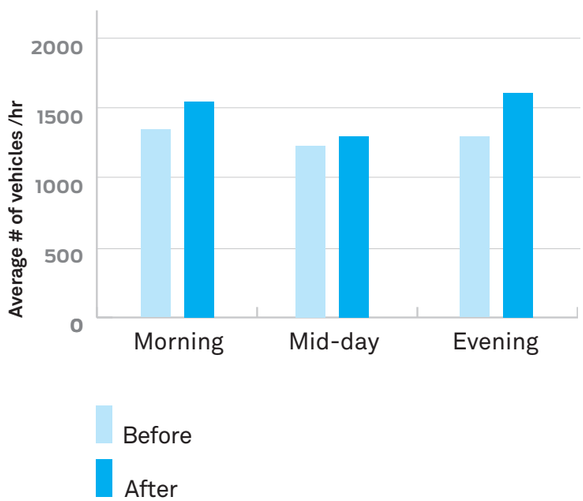
Building on a path to success

Extensive data collection was conducted before the commencement of the corridor transformation in February 2020. Since then, four rounds of 'after' data have been collected across three selected times of the day, tracking the cyclist and vehicular counts along the entire corridor. The data from these four rounds has been consolidated into averages in the charts below. Apart from the quantitative data, qualitative feedback has also been received through hundreds of user surveys by people using the corridor each day. The following statistics have been aggregated from those data sets, courtesy of the Addis Ababa Transport Bureau.



The number of cyclists increased after the interim bi-directional cycling infrastructure was added to the corridor.

7.5X increase in the number of cyclists



Vehicular travel times did not increase along the corridor despite the allocation of space to the cycle lane. In certain cases the capacity of vehicular volumes on the street increased because of the alignment/reduction of the travel lane widths. This proves that efforts to create dedicated space for cyclists can also effectively improve vehicular movement.

3 km bi-directional cycle lanes with painted buffers and delineators

PROJECT SNAPSHOT — LEBU-JEMO CYCLE CORRIDOR

Examination of Current Conditions, Learnings and Opportunities

Parking

Apart from on-street parking along one side of the 3 km stretch, a mapping exercise has revealed ample parking spots available on all side streets, as well as at the base of several buildings on the corridor. The cycle corridor design has maintained all entry and exit points for cars to enter these premises and side streets. Additionally, a large number of parking spaces are available at the Lebu-Jemo Condominium site. The reduction in parking spots is not drastic, but the mode share reallocation provides an opportunity for people to shift their mobility choices in this neighborhood.

Traffic Management

The 'before' and 'after' data has revealed that there has not been a significant change in traffic flow. This indicates that although space was taken away from the vehicular lanes, this narrowing has not significantly slowed down traffic movement, and may have even made it smoother. The bottlenecks that have occured at several locations are recorded as a result of illegal, double parking, which can be dealt with through increased enforcement and more effective signage on site.

Protection/Delineation

The project was initially implemented with 1,400 flexible delineators, which were durable and highly-visibile. Over time, some of the delineators, namely those placed near u-turns, saw severe damage from being hit by vehicles. These have been replaced with robust concrete barriers, that are colored for increased visibility, to better protect the vulnerable cyclists barriers.

Cycling Culture

Although the City is starting the Safe Cycling Program from a small existing cycling culture, the data collection from this project has shown a steady increase in daily cyclists along this corridor. Training grounds are being set up at community centers and schools nearby to further encourage children and their families to cycle. Efforts to scale up this corridor into a network are essential, as is complimenting design investments with affordable access to bikes, training, and safe cycling communication materials.

Enforcement

Despite the best efforts from city agencies, there has not been enough continuous enforcement to prohibit the illegal encroachment by cars onto the cycle lanes, which are often parked for an extended period of time. The Traffic Police and TMA have been engaged to train and deploy more enforcement professionals for enhanced efforts to mitigate this vehicular behavior across all locations on the corridor.

Curbside Management

Given the mixed-use nature of the establishments along the corridor, and data from past studies about behavioral patterns at Lebu-Jemo, the cycle lane was designed to accommodate the need for various curbside uses. Green dashed lines, like those shown above, were painted to indicate conflict areas. These are spaces that allow for delivery vehicles and passenger vehicles to cut across the cycle lane in order to access a building. It is critical that it is a maintained priority for enforcement officials to see that these spaces on the infrastructure are navigated safely by everyone.

Low Bike Ownership Rates

Due to socio-economic reasons and a history of low cycling culture, Addis Ababa has low bike ownership rates, despite neighboring cities having made more progress in recent years. Lack of local bicycle manufacturers and high-import duties have resulted in cycles being unaffordable to the masses in the city. Efforts need to be made to lower taxes and incentivize cycling, in order to ensure that this active and low-cost mobility option can be made accessible to all.

Need for a Network

As the number of cyclists increases along Lebu-Jemo, there is going to be an increased need for the corridor to be extended to other destinations and neighborhoods. Simultaneously, an opportunity emerges to build similar facilities in other parts of the city to leverage this momentum. Investments need to be prioritized towards building a safe and continuous network for cycling across the city through using various design strategies and adapting them to fit the needs of each context.

LEBU-JEMO INTERIM IN NUMBERS

Implementation took

96 hrs
(+ design time)

Number of people involved

100+

1400
delineators used to protect cyclists from vehicular traffic

10,000m²
of space reclaimed for cyclists

Bloomberg Philanthropies