

# Mérida, Circuito Sur Financing Sustainable Mobility as a Road to Urban Integration



TAPped Stories

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*Mérida thrives for a model of urban integration that generates awareness and sustainable habits in order to build a more inclusive and resilient city. Launched in 2017, Circuito Sur is a sustainable mobility project aiming to connect the Southern areas with the city center, representing the first step towards this urban model.*

## Foreword

State capital of Yucatan, Mérida has a long history. It was founded in 1542, over the ruins of an abandoned Mayan city. Nowadays, the Metropolitan Area or Mérida consists of five municipalities and is home to 921,771 people. The historical boundaries were absorbed by urban growth. However, the expansion of the city was not planned and resulted in urban fragmentation, with certain neighbourhoods being disconnected from the city center, exclusion remaining a key issue for a part of Mérida's population.

Particularly, this issue affected the Southern neighbourhoods of Mérida. Two big land lots - the penitentiary and the airport - stand between the city center and the South. These acted like a barrier, interrupting traffic flows. Until a few years ago, there were not any roads that would connect and integrate the different areas of the city. As a result, commuting from the South towards the city center and towards the Industrial City - where job opportunities are- was long and expensive.

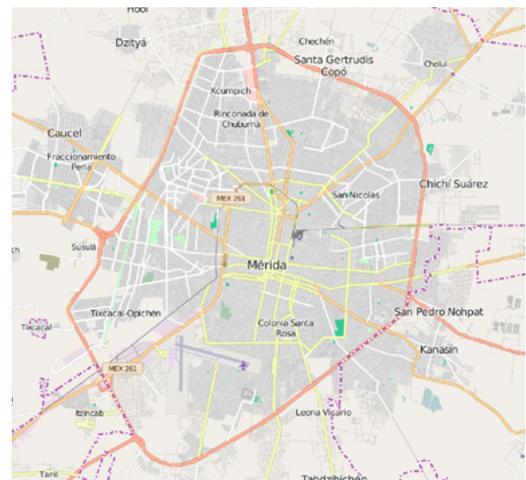


Figure 1 – Map of Mérida ©Diario de Yucatán, 2018

### MÉRIDA Facts & Figures

**Population**  
921,771

**Land Area**  
858.41 km<sup>2</sup>

**Emission reduction target**  
25% by 2030



The vulnerability of Southern residents was worsened by the lack of basic infrastructure such as sewage and water drainage, paved streets and sidewalks, and public lighting.

Long commuting hours towards the city center and fossil-fuel based transport also resulted in high CO<sub>2</sub> emissions. In fact, 69% of GHG emissions are related to the transport sector (Mérida, 2017). Hence, when the city committed to reduce 25% of emissions by 2030, sustainable mobility was the evident choice.

To overcome the above described challenges, Mérida designed the **Circuito Sur** project that would integrate the Southern neighbourhoods while reducing CO<sub>2</sub> emissions and promoting sustainable habits. Launched in 2017 and concluded in 2018 by the Public Works Management (PWM), the project represents the first step towards a model of urban integration with resilience and sustainability at its core. Building on its success, the municipality is now seeking to expand the project and work towards a more comprehensive plan on sustainable mobility.

### Sustainable mobility for integrating the South

The Circuito Sur consists mainly of a new, 13,42 km long road, connecting Mérida's center and the Industrial City with the Southern periphery. The project implied both the recovery and upgrade of existing roads and the construction of new axes. When the daily commute used to rely on at least two buses or up to an hour drive, it is now possible to reach the center in less than 20 minutes, or 25 minutes by bicycle.



Figure 1 – Start-flag ceremony initiating the works in the South, 2017. ©Informacióndelonuevo.com, 2017

CIRCUITO SUR Project details	
Focus	Mitigation
Sector	Mobility
SDGs addressed	<p><b>SDG 9:</b> Industry, innovation and infrastructure</p> <p><b>SDG 10:</b> Reduced inequalities</p> <p><b>SDG 11:</b> Sustainable cities and communities</p> <p><b>SDG 13:</b> Climate action</p>
Stage of development	Completed - Scaling up
Estimated total cost of project (in €)	1,078,844.40€

The project is part of a wider effort for the urban integration of the South, together with the Cultural Center of the South, the Southern Community Center, and the Municipal Housing Plan. The goal is to work on the reduction of the inequalities between the North and the South that have been reproduced for decades, fostering social well-being and economic development in an area that used to be isolated. In this sense, the Circuito Sur is a project that is **ambitious, cross-cutting, and inclusive**.

### Towards ambitious mitigation and resilience goals

In order to achieve the 25% emission reduction goal by 2030, the Circuito Sur was a capstone for promoting sustainable mobility in Mérida. The project comprises bicycle lanes and improvement of sidewalks ensuring the safety and comfort of non-motorized forms of mobility. It also dedicates space for public transport stops, envisioning the creation of new bus routes approaching residents from the city center more straightforwardly. This way, the city expects to promote sustainable habits amongst the population, which, together with cutting



commuting distance shorter, implies a reduction of emissions. Simultaneously, ensuring safe, affordable and sustainable mobility is a step towards urban resilience, diminishing road fatalities, air-pollution related diseases, and building preparedness to crises (ICLEI, 2020), which are amidst the objectives of Mérida’s Master Plan for Sustainable Mobility 2015.

### A cross-cutting project integrating multiple challenges

Besides transport infrastructure, the Circuito Sur project incorporated preliminary initiatives for testing new sustainable drainage infrastructure opportunities. In fact, Mérida faces a problem of groundwater contamination due to the use of unfiltered wells as drainage systems. The city partnered with the World Resource Institute (WRI) through the CityFix Labs initiative for developing a nature-based solution to this problem (WRI, 2019). The Sustainable Drainage Systems project consists in building rain collectors that filter water through rain gardens and cleansing it before it reaches groundwater. This system is currently being evaluated before scaling it to the city level.

Another challenge was the city’s archeological heritage. While building the new sections of the Circuito Sur, a new set of Mayan ruins was discovered, which obliged project leaders to rapidly adapt the design in order to respect these. Indeed, Mérida is a city that carries layers of history, and it is necessary to work with this heritage in a way that residents can take appropriation of their cultural identity.

In this sense, the Circuito Sur’s objective was to coordinate growth in a way that is respectful to both the natural and built heritage.

### A participatory approach for ensuring sustainability

When Mérida launched this project something was clear: to be sustainable over the long term it had to be designed by its users. The city engaged with the Southern residents and designed a new participatory process that was tested for the first time with the Circuito Sur. They hosted periodic meetings with the local community, including neighbours and local organizations, where they would discuss the design, the needs and the technical details with the IMPLAN’s architects and urbanists. As the



director of IMPLAN explains, “We understand that the people are experts in living the city and in expressing their concerns and problems; on the other hand, designers are experts in interpreting peoples’ needs and translating them into forms and spaces of quality”. Working with this approach, the Circuito Sur launched a new era of participation in Mérida.

Moreover, participation allowed for the project to cater to the multiple needs residents had.

Improved walkability is accessible for people with disabilities and families carrying strollers and, in particular, public lighting and the increased flow of commuters makes walking safer for women. Also, opening new roads implied enabling new commercial areas where small businesses can grow and develop, which was considered and targeted in the project’s design. By consequence, the participatory approach enhanced the Circuito Sur’s inclusivity.



Figure 2 – Plan of axis of the Circuito Sur ©IMPLAN, 2017

## Costs and funding

The total cost of the project was 27,000,000 MXN (1,078,844€). This cost comprises the reconstruction and repavement of roads, the construction of new sections, innovative drainage systems, cable infrastructure and new street lighting poles.

The project was funded with municipal budget, as part of an historical investment plan of 1,000,000,000 MXN (41,053,880€) for the improvement of urban infrastructure.

Although the project does not generate direct revenues, municipal authorities consider it as an investment for economic development in the South. Some economic co-benefits are the progressive increase of land prices in the improved areas, as well as the incentive for businesses to be installed in the new sections, which will progressively translate into tax returns.

## Results

Eight months after the launching ceremony, the Circuito Sur was completed in March 2018. It integrates 20 neighbourhoods and directly benefits 60,250 people who live and transit the South. Results were quickly revealed.

### Mérida is now internally connected

Neighbours highlighted how their daily commute is much more direct and quicker, breaking with years of isolation. Formerly, residents employed in the Industrial City had to commute to the city center and back to their workspaces. With direct access to the Industrial city, commuters save significantly in money and time. This connection was one of the residents’ main requests. Public transport providers are beginning to adapt their routes passing through the Circuito Sur, which is a huge benefit for commuters. Moreover, extra works are being done in the South to connect the Circuito Sur with the Yucatan state ([Diario de Yucatán, 2018](#)).



## Promoting active mobility

Where sidewalks used to be narrow and private vehicles would pass by at raging speeds, there is now infrastructure for pedestrians and cyclists. Neighbours compared the deteriorated sidewalks covered with tall grasses and little illumination, and expressed how they feel safer walking through the renewed streets of the Circuito Sur. Sidewalks count with wheelchair accessibility and streets are equipped with metal grids for reducing car speed in pedestrian areas. Moreover, cycling is not only more secure, but it became a real option for a rapid commute, since it only takes 20 to 25 minutes to the city center now ([Diario de Yucatán, 2018](#)). Indeed, the Circuito Sur succeeded in promoting low-carbon mobility, encouraging walking and cycling.

## Increased quality of life

The Circuito Sur was designed with a comprehensive sense of development at its core, considering and working towards increasing the well-being of beneficiaries. Besides ameliorating air quality and reducing emissions, improving households' economies through reducing commuting costs and increasing access to employment, and increasing the time residents get to spend with their families or in leisure activities are highlighted by the IMPLAN as key co-benefits of the project. These are accentuated by the complementary projects for the redevelopment of the South, which increase job opportunities, access to education, cultural activities and sports, and upgrading of housing and basic infrastructure. Furthermore, these actions contribute to making the South less neglected and more appealing to its residents.

More broadly, the project served to untap sustainable development in previously unserved areas, improving the sense of inclusion across Mérida's neighbourhoods.

*"Building a road is no longer just about building a road. It is about designing an urban model and working towards it".*

Edgardo Bolio, Director of the Mérida Municipal Institute of Planning



Figure 3 - Inauguration of the Circuito Sur, 2018.  
©Ayuntamiento de Mérida, 2018

## Lessons learned/Success factors

Mérida considered the Circuito Sur a valuable experience that resulted in important learnings for the city's future planning.

- First, Mérida recognizes the **value of integrated planning and holistic thinking**. Integrating economic development, urban planning and environmental action in one same project is key for projects to have meaningful effects that are sustainable in the long term. This means designing projects that align to a broader urban vision.
- Second, **successful urban projects require effective governance structures that allow different municipal and national agencies to cooperate and work together**. In this case, the Mayor commanded the project as part of the action plan for Mérida 2015-2018. The IMPLAN designed the strategy and worked together with the PWD, the department that counted with sufficient funds for developing the project. For this, the city had to make the legal, institutional and instrumental changes that allowed for a comprehensive, timely and efficient approach.
- Finally, ensuring an **effective communication with residents** constituted a main success factor. Adopting a participatory approach is key for understanding and addressing needs; clearly stating how will the project achieve those development goals derives in the project being meaningful for its beneficiaries; and acting quickly between the communication of the initiative, the design and the first results is decisive for maintaining the residents' trust.

## Next steps

**The Circuito Sur incorporated sustainable mobility in the public agenda.** Immediately after the success of the project, the city began to expand the bike lanes throughout the city, working to connect the different sections with one another and further expanding the scope of the Circuito Sur. In the South, another 20 km of bike lanes are being constructed, connecting with a total of 71 km in the entire city. The goal is to move away from the idea of a *circuit* (Circuito) towards networked communication throughout Mérida.

Furthermore, Mérida's authorities with support from the European Union began to design the [Sustainable Urban Mobility Plan \(SUMP\)](#) - an update of the Master Plan for Sustainable Mobility 2015. Here, the city adopted the same participatory approach that proved resourceful in the Circuito Sur and worked for 18 months with different sectors to propose a vision for the next 20 years. Continuing in the same line as the Circuito Sur, the plan proposes a strategic vision for 2040 and aims at creating an integrated mobility system guaranteeing the right to the city for all.



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*The [Transformative Actions Program \(TAP\)](#) is a global initiative to support local and regional governments transform their low-emission and resilient development infrastructure concepts into mature, robust and bankable projects ready for financing and implementation.*

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