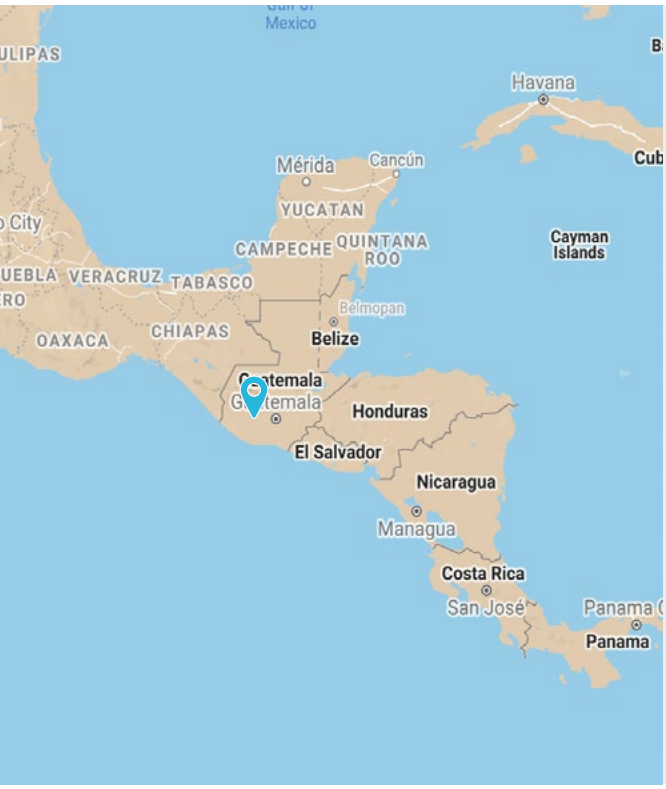
San Juan Comalapa, Guatemala

Partner city

Status of the project: ongoing technical assistance



Basic Information

Urban area: 76 km^2

Population: 48,597 | Growth rate: 2.4%

GDP per capita: USD 1,158

Modal Share

- Formal public transport: 10%
- Tuk Tuks: 14%
- Walking: 42%
- Cycling: 12%
- Private cars: 7%
- Private motorbikes or 2-wheelers: 9%
- Other: 6%

National GHG emissions per capita: 2.40 (tCO_2eq)

Exposure to climate change: MEDIUM

Context

San Juan Comalapa is an administrative department of Chimaltenango, Guatemala, with a total population of 48,597 inhabitants. The majority (94%) of the population belongs to the indigenous group of Kaqchikel Maya, with Kaqchikel as the official language. San Juan Comalapa is a rural and low-income area of Guatemala. The municipality includes the city of San Juan Comalapa and 20 surrounding villages. On average, 639 people per km^2 inhabit the region. It is a compact municipality with many slopes, therefore transport modes are oftentimes difficult to access and tuk tuks have emerged as a feasible transport solution for the community.

Traditionally, family roles are highly genderized; therefore, women mostly fulfil household and care activities. This implies different mobility solutions for women and men, as women tend to take several trips per day to complete various caretaking and housekeeping activities. For example, women travel significantly more often by tuk-tuk (25%) than men (6%). In contrast, men use bicycles for 20% of their trips. Moreover, 11% of the population has difficulties accessing urban mobility services.

The contracting agreement between tuk-tuk providers and the local authorities allows transport services in the municipality for a fare of GTQ 3.00 (~USD 0.39). Currently, there are 200 tuk-tuks registered (each half of the tuk-tuk fleet operate every other day). Most of the fleet is in poor condition and has already exceeded its life cycle. Public transport is hence operating informally through tuk-tuks providing services similar to that of taxis and no formal stops. Buses only exist in the outskirts of the municipality. Currently, there is no existing transport authority or mobility secretariat in San Juan Comalapa.

The Electric Tricycle Pilot project, which is part of the EUROCLIMA+ programme, seeks to introduce electric transport to boost the renewal of old petrol-powered tuk-tuks and increase the accessibility of public transport.

In Guatemala, there are regulations regarding the importation of electric vehicles, and several incentives to reduce the cost for their implementation are in place. However, most of these incentives apply in only three regions in Guatemala. Two regulations in progress, the Law on Incentives for the Import of Non-Conventional Energy Automobiles, presented in 2018, and the Law on Electromobility, presented in 2019, have not been approved yet.

In the first implementation phase of the municipal pilot project, a total of nine electric tricycles and their charging stations will be implemented. Two units will be used for public transport, four for waste collection, and three for social transport (transport of people with mobility limitations or disabled).

Support from the Partnership

Technical Assistance: Pilot Project development

Funded by: European Union

Funding amount: EUR 500,000

Implemented by: GIZ through the Program EUROCLIMA+ Program

Local counterpart: Municipality of San Juan Comalapa, Commission for Urbanity, Security and Infrastructure

Supported activities:

- Implement two electric tuk-tuks to increase sustainable public transport options for the municipality
- Increase accessibility by implementing three tuk-tuks for people with mobility difficulties
- Provide rubbish collection in areas that are difficult to access by implementing four electric tricycles
- Empower women through their participation in tuk-tuk owners meetings
- Provide technical training on maintenance, operation and management of tuk-tuks

Status of implementation

Project start: 2018 Q3

Expected project completion: 2022 Q3

Completed outputs:

- Analysis of the current mobility situation, state of the art and market survey
- Procurement of units: launch of tender and procurement of nine electric tuk-tuks

Next expected outputs

- Implementation of nine electric tuk-tuks and start of the project test phase

Core impact indicators baselines

Indicator	Baseline - 2016
Total annual transport-related GHG emissions (Mt CO_2eq)	9,234.15 Kt CO_2 eq
Annual transport related GHG emissions per capita (kg CO_2eq)	0.01191 kg CO_2eq / capita
Air pollution Mean urban air pollution of particulate matter (in µg PM2.5) at road-based monitoring stations	36-43 µg/m³ of PM2.5
Road safety Annual traffic fatalities in the urban area, per 100,000 inhabitants	19 fatalities / 100,000 hab (data of 2013)

Highlights

The project integrated a gender perspective to empower women and ensure their participation

The project intends to address the greenhouse and local emissions in San Juan Comalapa coming from the operation of tuk-tuks powered by fossil fuels while empowering women and strengthening their participation in transport services. The inclusion of the gender component in the project seeks to improve the perception of security and safety among women when using the new electric units. The project also aims at increasing the influence of women in the decision-making processes in the city and putting in the spotlight the need of considering gender balance in any policy, programme or project, the definition of its objectives and activities.

Early interinstitutional coordination and capacity development is crucial for project completion

Interinstitutional coordination needs to be enhanced when implementing this type of project, as many actors are involved, and they are not necessarily trained in mobility projects. Other dependencies of the municipality and the national government had to be involved in earlier stages of the project to obtain required endorsements or approvals. Education, waste collection, and other sectors are linked to the project execution, which adds complexity to its management. Capacities in the management and execution of mobility projects have to be increased to enable the full involvement of some local authorities that might not have sufficient staff or experience.

Legal limitations were an opportunity to support national industry

To overcome regulatory limitations related to the importation of the tuk-tuk units, it was decided to purchase vehicles manufactured in Guatemala, thus supporting the national industry and showcasing the multiple benefits of the project. Although the units are completely produced, some adjustments need to be done and some administrative procedures must be completed to make the units 100% functional.