

Prospective Analysis of Micromobility in the City of Medellín

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Abstract : Medellín is the Colombian city with the best public transport systems in the country, which is made up of two metro lines, five metrocables, two BRT-type bus lines, and a tram. But despite the above, the Aburrá Valley, the area in which the city is located, has about 3000 km of roads, which for the existing population of 3.2 million inhabitants, gives an indicator of 900 meters of road per 1000 inhabitants, which is lower than the country's average, which is approximately 3900 meters. In addition, given that in Medellín, there is approximately one vehicle for every three inhabitants, the problems of congestion and environmental pollution have worsened over the years. In this sense, due to the limitations of physical space, the low public investment in road infrastructure, it is necessary to opt for mobility alternatives according to the above. Among the options for the city, there is what is known as micromobility. Micromobility is understood to be those small and light means of transport that are used for short distances, that use electrical energy, such as skateboards and bicycles. Taking into account the above, in this work, the current state and future of micromobility in the city of Medellín were analyzed, carrying out a prospective analysis, supported by a PEST analysis, but also of the crossed impact matrices; of influence and dependence; and the technique of the actor's game. The analysis was carried out for two future scenarios: one normal and one optimistic. Result of the analysis, it was determined that micromobility as an alternative social practice to mobility in the city of Medellín has favorable conditions since the local government has adopted strategies such as the Metropolitan Bicycle Master Plan of Valle de Aburrá and the plan " Bicycle paths in the city: more public spaces for life," where a projection of 400 kilometers of bicycle paths was estimated by the year 2030, as for that same year it is expected that 10% of all trips in the region will be in bike mode. The total trip indicator is an achievable goal, while that of the number of kilometers of bike paths would be close to being met.

Keywords : electric vehicles, micromobility, public transport, sustainable transport

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