

Urban Sustainability and Sustainable Mobility, Lessons Learned from the Case of Chile

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Abstract : We assessed the state of progress in terms of urban sustainability indicators and studied the impact of current land use conditions and the level of spatial accessibility to basic urban amenities on travel patterns and sustainable mobility in Santiago de Chile. We determined the spatial impact of urban facilities on sustainable travel patterns through the statistical analysis, data visualisation, and weighted regression models. The results show a need to diversify land use in more than 60% of the communes, although in 85% of the communes, accessibility to public spaces is guaranteed. The findings also suggest improving access to early education facilities, as only 26% of the communes meet the sustainability standard, negatively impacting travel in sustainable modes. It is also observed that the level of access to urban facilities generates spatial heterogeneity in the city, which negatively affects travel patterns in terms of time over 60 minutes and modes of travel in private vehicles. The results obtained allow us to identify opportunities for public policy intervention to promote and adopt sustainable mobility.

Keywords : land use, urban sustainability, travel patterns, spatial heterogeneity, GWR model, sustainable mobility

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