

Cities, Communities and Homes: Is the Urban Future Livable?

- **Paper / Proposal Title:**

Urban Form and socially sustainable cities: the New Zealand experience

- **Format:**

Verbal presentation

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- **University or Company Affiliation:**

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- **Abstract (300 words):**

Debates about sustainable development no longer consider it solely as an environmental concern, but also incorporate social and economic dimensions. While a social dimension of sustainability is extensively accepted, how design elements of an urban area meet the social needs of those residing in it is still unclear. This study argues that selected elements of urban form, density, land-use mix, street layout and building type have differing effects on dimensions of social sustainability and considers how the latter concept may be promoted or weakened by different elements of urban form. A multi-dimensional model is developed and statistically tested to explore the relationship between elements of urban form and social sustainability at neighbourhood scale. The empirical evidence is set out based on household questionnaires linked to physical elements and socio-demographic data of five neighbourhoods of Dunedin city, New Zealand. The validity and reliability of the model is tested using factor analysis and examining the application of the model in case study neighbourhoods is through the use of multiple regression analysis.

The results of this paper demonstrate a strong relationship between selected urban form elements and dimensions of social sustainability in both positive and negative ways. For example, outcomes relating to security, neighbourhood satisfaction and sense of place are all proven to be lower in higher density areas; whereas access to facilities and services is shown to favor denser urban forms. The main contribution of this study is to develop a comprehensive model that can be employed to measure the level of social sustainability in various urban contexts. The results of this study could help urban planners and policy makers in their future design of smarter and more sustainable cities.

Keywords: Social Sustainability, Urban Form, Sustainable Development, Neighbourhood Scale, New Zealand Cities, Factor Analysis

• **Author(s) Biography (200 words each):**

Taimaz Larimian is a PhD candidate in the Department of Geography at the University of Otago. Taimaz completed her master's studies in Urban and Regional Planning at University of Science and Research in Tehran, Iran. Her research interests lie in the area of, social sustainability, the relationship between urban form and social sustainability, and urban security (crime prevention through environmental design approach). Taimaz is in the final year of her PhD studies and will submit her thesis by the end of 2017. For her PhD studies she works on "Modelling the Relationship between Urban Form and Social Sustainability at neighbourhood scale in New Zealand cities".