University of Groningen

Understanding mobility inequality

Hidayati, Isti

DOI:
[10.33612/diss.146785021](https://doi.org/10.33612/diss.146785021)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2020

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Hidayati, I. (2020). *Understanding mobility inequality: A socio-spatial approach to analyse transport and land use in Southeast Asian metropolitan cities*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.146785021>

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Understanding mobility inequality

A socio-spatial approach to analyse
transport and land use in Southeast
Asian metropolitan cities

Isti Hidayati

Understanding mobility inequality

A socio-spatial approach to analyse transport and land use in
Southeast Asian metropolitan cities

PhD thesis

to obtain the degree of PhD at the
University of Groningen
on the authority of the
Rector Magnificus Prof. C. Wijmenga
and in accordance with
the decision by the College of Deans.

This thesis will be defended in public on
Thursday 10 December 2020 at 09.00 hours

by

Isti Hidayati

born on 17 September 1986
in Padang, Indonesia

The research described in this thesis was supported by LPDP Scholarship from the
Ministry of Finance, Indonesia

Cover design: I. Hidayati

Layout design: Lovebird design
www.lovebird-design.com

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Supervisors
Prof. C.H. Yamu
Prof. R.L. Holzhacker

Co-supervisor
Dr. W.G.Z. Tan

Assessment Committee
Prof. K. Pfeffer
Prof. E.J.M.M. Arts
Prof. J. Woltjer

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Preface

Preface

Are you familiar with or have you experienced the effects of mobility inequality? Most of us would hesitate in affirming such inequalities but they are pervasive and at times explicit. People in general experience difficulties in their daily mobility but might not be aware of it. Examples can range from acute situations such as having to change train platforms in three minutes across two flights of stairs while you are physically impaired, to milder forms such as not knowing how the local transport system works in a foreign country and not having enough financial resources to choose travel modes (e.g. taking a cab). In these examples, an individual's limited mobility is likely to be temporary and incidental. However, in most parts of the world, we see population groups who are chronically and structurally disadvantaged and limited in their mobility. This in turn results in a significant and long-term impact that influences their ability to participate in socio-economic activities. In spatial planning, these can include the lack of economic mobility and job opportunities for low income groups as evidenced in various contexts, for instance in North America (see Grengs, 2010 using the case study for the United States), in Latin America (see Hernandez, 2018 for Uruguay case), in Scandinavia (see Uteng, 2009 for Norway case with specific reference to immigrants), and in Southeast Asia (see Turner, 2012 for Indonesia case).

In Southeast Asia, such conditions are common and contribute to the long-term socio-economic decline of the socially marginalised who are usually the most vulnerable members of society (United Nations-ESCAP, 2018; United Nations, 2020). Here, those with extreme poverty, those with disabilities and women in a household with single-vehicle ownership are often more vulnerable to differences in mobility. These population segments have been marginalised by the current mobility system that inadvertently provides them with limited travel options (e.g. cannot afford to pay transport cost, inability to access public transit stations with stairs, women's avoidance of certain routes and time of travel due to personal safety concerns). Difficulties experienced by these groups are quite apparent during the Covid-19 crisis. The restricted movement order in Jakarta and Kuala Lumpur has significantly reduced travel options for those who are heavily dependent on public transport but offer more mobility options and safety for those who have cars and motorcycles. Although this dissertation will not focus on the unequal mobilities in relation to the pandemic, it will highlight the importance of understanding how differences in mobility have far reaching impacts, notably for the socially disadvantaged and/or marginalised.

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This dissertation therefore **provides insights into *mobility inequality*, manifesting as the marginalisation of pedestrians and neglect of the transport mobility needs of socially disadvantaged groups. Adopting a socio-spatial approach, this dissertation analyses transport and land use in a given socio-spatial contexts that influencing mobility inequality in Jakarta (Indonesia) and Kuala Lumpur (Malaysia).** This dissertation seeks to answer:

- (1) *How can mobility inequality be understood given the socio-spatial contexts of Southeast Asian metropolitan cities (i.e. Jakarta and Kuala Lumpur)?*
- (2) *To what extent does the socio-spatial contexts influence the emergence and manifestation of mobility inequality, in relation to transport and land use, across scales (i.e. metropolitan and neighbourhood scale)?*

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