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Planning for climate-friendly transport in Norwegian rural areas

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ABSTRACT

This paper addresses how local land-use planning can facilitate climate-friendly transport in rural areas. Studies were conducted in four Norwegian municipalities with populations between 4400 and 10,600. 11% of the country's population live in municipalities in this range. Understanding transport and planning in such settings is essential to reach climate goals. We highlight challenges of changing the built environment to facilitate climate-friendly transport. The contestation involves actor interests relating to the preservation of parking regimes, to the sensitivity of strengthening of climate-friendly transport's competitiveness at the expense of car driving, and the difficulty of handling season-based variations in rural-centre management. The potential of rural policy packages to handle measures, actors and needs of different traveller groups in integration is crucial. We also argue that climate-friendly transport should not be based on a one-dimensional strategy of rural-centre densification but also consider how the built environment gives access for different transport modes.

1. Introduction

Changing travel behaviour towards more climate-friendly modes of transport is pivotal in achieving the Paris Agreement's goal to limit the current temperature rise, preferably keeping it to 1.5 degrees Celsius. In Norway, the national goal is to reduce climate emissions by up to 55% by 2030[1] (Ministry of Climate and Environment, 2021): To accomplish this, it is necessary to target road traffic—which accounts for almost 35% of the country's climate gas emissions in the non-quota sector. However, although cities have long been highlighted as important arenas for climate policy (Affolderbach and Schultz, 2018), there is a lack of research on transport change in smaller cities and agglomerations (Tennøy et al., 2017). This is also true of Norwegian authorities' policy orientation: Larger urban areas have been delegated the clearest responsibility to increase levels of walking, cycling and public transport, whereas smaller cities and centres have been made less accountable (Tønnesen, 2015a). This paper addresses this gap in research and practice, highlighting the role of planning to facilitate a transition to more climate-friendly transport in rural contexts. The main research question guiding this study is as follows: *How can local land-use planning facilitate climate-friendly transport in rural areas?*

It is well documented that the physical shape of agglomerations condition travel behaviour. Policy recommendations for transitions to the low-carbon society have been to increase urban densities, concentrate developments around city centres and public-transport nodes and restrict suburban developments (see e.g. Owens and Cowell, 2002; Næss, 2006; Banister, 2011; Hickman et al., 2013; Tønnesen et al., 2020). In this way, planning can facilitate the use of low carbon modes of transport, such as walking, cycling and public

Abbreviations: RM group, Group of resembling municipalities; RPP, Rural policy package; UGA, Urban Growth Agreement.

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[1] Compared with 1990 levels.

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