ENGLISH **Summary**

Social Sustainability and Mobility

Work done for The Norwegian National Road Administration and former Viken County Counsil

TØI Report 2124/2025 • Authors: Guro Berge (red), Susanne Nordbakke, Erik Bjørnson Lunke, Lars Even Egner, Torstein S. Trondsen, Ingunn Ellis, Askill Harkjerr Halse, Tonje Lysø• Oslo 2025 • 70 pages

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In this context, mobility is defined as the movement of goods, services, and people. This movement is typically captured through records of freight and goods flows, population travel surveys, and the use of various services. The use of the term "mobility" is intended to see these aspects in connection. In other words, it is the mobility system in a society that is assessed in terms of sustainability.

A sustainable mobility system means that today's movement of goods, services, and people can take place without compromising the ability of future generations to meet their needs. A socially sustainable mobility system means that mobility solutions are adapted for everyone. This implies that we must have tailored solutions that are acceptable for those who work with, use, or are affected by systems related to the movement of goods, services, and people. In other words, the goal is that people within the mobility system, people who use the system, and those who live around it, all should be able to lead good lives. Here, the focus is on the people who use the mobility system.

For the mobility system to be socially sustainable for the population using it, there must be a certain balance between environmental factors (such as land use and transport system) and mobility capability (transport modes, time, money, and health) within the population. This is what creates the possibility for mobility in society. The sum of these factors can be referred to as mobility capital. The projects summarized in this report study these aspects in different ways.

Quality of Life and Mobility

The social dimension of sustainability is about ensuring everyone a fair foundation for a good life, but what this entails can be understood in different ways. Psychological approaches emphasize either happiness and pleasure (hedonistic) or meaning, self-realization, and relationships (eudaimonic). In economics, welfare is often understood as the satisfaction of preferences, measured through income, consumption, or mobility, but this approach is criticized for overlooking that more does not always mean better quality of life. Nordic welfare research has placed greater emphasis on resources and living conditions, such as health,

education, work, and social relationships, while the need-based approach defines welfare through having (material resources), loving (social relationships), and being (self-realization).

A more recent perspective views welfare as the freedom to live the life one desires, where the ability to use resources varies between individuals and contexts. From a mobility perspective, this means that people have different needs and prerequisites, and that a socially sustainable transport system must consider resources, framework conditions, and individual preferences.

Urban structure and land use

Urban structure and land use play an important role in how daily travel is conducted in Norway. Which transport modes are used, how far we travel, and how often we make trips vary across different urban areas. However, the relationship between urban structure and travel behavior is not the same in all of Norway. The findings in this report show that high densities have a stronger relationship with transport mode use in large cities than in smaller cities and towns. This can indicate that densification as a means to reduce car use will be less efficient in smaller places. The analyses in this report also show that other factors influence people's travel behavior: Access to workplaces, the public transport service, and whether one conducts different chores, such as shopping and chauffeuring children.

Social sustainability, accessibility and mobility in smaller places

The purpose of this project has been to gain more knowledge on the relationship between social sustainability, accessibility and mobility outside the large city regions in Norway. We have used data from the National Travel Survey (NTS) and Viken and Oslo counties as a case. The results show that the population outside of the large cities are prone to a double vulnerability related to accessibility and mobility. First, accessibility to the labor market and other services is lower in these places. Second, a relatively higher share of the population (outside of the cities) has lower income and lacks flexible working hours. Because of this, we see a slightly higher chance of transport poverty, i.e., less opportunity to participate in society due to fewer mobility options.

Acceptance of restrictive transport policy measures

The support among the population for limiting the number of cars in central areas, and the recognition that the car could also be a problem, is much greater than the support for concrete measures to reduce car use, such as limiting parking spaces. Education and how centrally one lives have a clear correlation with how positive people are towards restrictive transport policy measures, especially political orientation and attitudes towards climate. However, we find no clear connection related to gender, income, age, and parental responsibility if we control for education and how centrally one lives.

Fornebu Line

Areas in western Oslo and Bærum are experiencing an increase in public transport accessibility because of Fornebubanen. Certain neighborhoods near the city center ring on the metro network, such as Grønland/Tøyen, Sinsen, and Nydalen, are also seeing improved accessibility. All income groups in Oslo and Bærum are experiencing an increase in public transport accessibility due to the Fornebu Line. However, households with the highest incomes are seeing a greater increase in accessibility than others. At the same time, those with the lowest incomes are experiencing slightly higher growth than those with medium incomes. All housing price groups (price per square meter) are experiencing an increase in public transport accessibility. Homes with the highest square meter prices are seeing a significantly larger increase than those with lower price levels. This is particularly evident in Bærum due to the extensive development of new housing in Fornebu.

Ringerike Line

The development of the Ringerike Line (Ringeriksbanen) and a four-lane highway on E16 between Hønefoss and Sandvika could affect access to attractive destinations in the Ringerike region. Today, most people in the region think the transport system provides good access to various activities and supports a satisfying quality of life, particularly those living in Hønefoss and along main roads. However, low-income groups, younger people, and those without a driver's license experience lower accessibility than others. The new infrastructure will improve access via both public transport and cars across the region. Public transport will become more competitive in Hønefoss, Sundvollen, and areas toward Sokna and Jevnaker, potentially encouraging more people to choose public transport over driving. But still, cars will remain the preferred option for most. This could make certain groups, such as low-income families and those without a car, more vulnerable, as they continue to face limited access to attractive destinations.

Study of Social Sustainability – Appendix 1

To be able to analyze social sustainability, we need some simple indicators for both individual mobility capacity and changes in environmental factors (mobility capital) that can be applied at the area level. Using indicators is always a challenge, and there is a real risk that we lose some details and important information, which makes us unable to capture all aspects that are and may be important for social sustainability. The proposed method is part of a development process and can be further refined with more indicators and more types of analyses over time.

The most important indicator for studying changes in accessibility for different population groups as a result of the policy packages is user benefit (trafikantnytte).