Theme 2: Transport and mobility

Potentials for sustainable transport and mobility in outdoor recreation and sports-event planning

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Learning group: Sustainable transport solutions (11 practitioners, 4 researchers).

> How can we create environmentally sustainable and attractive transport solutions that provide a fair and equal accessibility to sport and outdoor recreation for all groups in society?

Sports and outdoor recreation are established fields of research and the same can be said about transport and mobility studies, but in combination there is limited work to be found both nationally and internationally. To navigate this relatively unchartered territory, our research and co-creation work has been guided by the overarching question: *How can we create environmentally sustainable and attractive transport solutions that provide a fair and equal accessibility to sport and outdoor recreation for all groups in society?* The learning group has been a key environment for the development of the research through a series of 12 workshops in the period 2021–2023.

The first phase of the learning-group process resulted in the identification of four research projects based on the joint work of researchers and practitioners:

A. Develop a geographical index for sustainable travel to support the planning of sports and outdoor facilities.
B. Study the potential of the Swedish sports movement to engage in the transition to more sustainable travel practices.
C. Investigate the potential and limitations of public transport to provide sustainable access to outdoor recreation sites.
D. Understand the social catchment areas of venues for sports and leisure activities.

As indicated above, most of the activity is related to the work in the learning group with participants from Västtrafik public transport planning authority, municipal and regional outdoor recreation and sports planning authorities, Swedish National Sports Federation (RF) Swedish Transport Administration, Västkuststiftelsen, Swedish Tourist Association (STF), Swedish Association for Regions and Municipalities (SKR). Collaboration with other themes in Mistra Sport & Outdoors includes supporting theme 6 in their back-casting exercise with focus on transportation and working with theme 3 to produce a joint playbook on new methods in spatial planning for sports and outdoor recreation. Although academic publications are still in the pipeline and expected to be published in 2024, there are a large number of achievements and societal benefits that can be observed from research and learning group activities.

Study A is concerned with the development of an index of sustainable accessibility to everyday sports and outdoor activities, comparing various sustainable transport alternatives (i.e. walk, cycle, public transport) to the car. The expected outcome is a tool to support planning and management of sports and outdoor facilities from a sustainable travel perspective. A prototype tested in Lilla Edet and Uppsala municipalities will be available at the end of phase one. Along the research process, focus has been on the investigation and collection of the most adequate data sources and workflows to calculate multimodal accessibility at the national level, testing data and comparing openly available national data sources. This work has been performed in collaboration with the Swedish Sports Confederation (RF) and The Swedish Association of Local Authorities and Regions (SKR) in the development of a national database of sports facilities as well as with the abovementioned municipalities. It has become clear as this work has developed that there is a significant lack of structured geographical data on the location of facilities for sport and outdoors activities, especially on the municipal level. So, the impact of the work has gone beyond the creation of a support tool towards bringing forward a wider need for standardized national information for planning.

Study B engages specifically with the link between sport practices and travel. It employs a practice theory framework on the every-day activities and its relationship with mobility in four different sports (football, orienteering, equestrian sports and martial arts) in two Swedish locations with different geographical contexts. Data is collected via 40–50 interviews with different types of active members of clubs in the above sports. This is completed with document studies of policies and strategies from the local to the national level. Completed results are expected in spring 2024. The car is the dominant mode of transport and in many cases a prerequisite for the current way of organizing training and competitions. As a general rule, the longer the trip the more likely that travel is organized together by the club, often with bus. Using the traditional public transport network of buses and trains is an option used,

but it is considered complicated to book and unreliable for longer trips. Transition to more sustainable mobility solutions might include needs for relatively wide-ranging changes. However, the interviews indicate that each sport has very different and specific practices, requiring different measures to change travel behavior. This might include changes not only in travel but in the sport practices themselves. The research in this study is conducted in close collaboration with the Swedish Sports Confederation (RF).

During the co-creation process several members of the learning-group brought up aspects of how public transport can or should be able to support access to outdoor recreation as an alternative to the car. This became especially evident during Covid-19, when restrictions led to an unprecedented rise in visits to recreational areas. In study C we are looking closer at how visitors travel to places for outdoor recreation. A survey of local and regional travel to several outdoor recreational sites in south-west Sweden was conducted. The data is currently being analyzed, and we would like to point to some indicative results. The sites studied are natural reserves with organized trails. Some located close to a large conurbation, while others are found in more rural settings. The supply of public transport is usually very limited. On weekends, when most visits are made, many areas have no public transport access at all. As a result, almost two thirds of all trips were made by car. Even areas with several bus arrivals per hour saw the same levels of car transport. A shift away from the car is obviously problematic if there are no realistic alternative public transport options. However, this is not only a matter of geographical access. A vast majority of the respondents to the survey indicate that they never considered any alternative mode of transport for their trip. From a planning perspective transport and outdoor recreation need to be much more integrated already from early phases of new projects to provide more sustainable alternatives for everyone to be able to access nature.

Study D uses similar methodology and spatial data as study A. The aim is to understand travel and catchment areas of sports facilities. Both actual travel times as well as the handling of sport facilities and mobility in planning documents are studied and compared. Specific focus is on the relation between accessibility and socio-demographic conditions. The work is done in collaboration with the city of Uppsala and RF-SISU. Preliminary results of a case study of users of a facility for ice-sports indicate that the average distance between home location and the facility is 10 kilometers. Almost 75 percent of all members live more than 5 kilometers from the facility. This has clear implications for the possibility to access this facility with other modes of transport than the car. From a socioeconomic perspective it is possible to see how inhabitants in nearby less wealthy areas are not associated with the sports associations that are using the facility. Another important aspect of creating safe and attractive environments for sports is the design of the sport facilities. This is found to be poor in terms of supporting active transportation (biking and walking) which is discussed. Interviews are conducted with representatives from the city and SISU.

Theme 2 is also co-supervising a PhD study, carried out in collaboration with theme 3. The focus is on peri-urban outdoor recreation, addressing the environ-

mental paradox of outdoor recreation – situations when greenhouse gas generating and/or energy-intensive vehicles are used for reaching recreational landscapes for a desired nature-contact during one's leisure time. The results highlight that to find sustainable solutions, people's single-day recreational walks should be seen as one of many projects in everyday life, including preparation, planning and travelling. A monograph is in progress.

Social catchment areas of venues for sports and leisure activities in the city of Uppsala.