Summary:

Social trends – impact on mobility and transport in an urban area

What is sustainable urban development when related to transport and land use? What trends are important if we are to understand the directions land-use and transport development will take?

The point of departure of this report is societal trends that may be significant in the development of transport and environment -- these seen in relation to development in the Oslo region. The theoretical basis for the presentation and discussion is the relation between modernity and mobility.

Modernity and mobility

Modern society is characterised by speed, a hectic pace of life and mobility. The development of urban areas since the middle of the 19th century has largely been characterised by massive projects of transport infrastructure aimed at increasing mobility and accessibility. Modern industrial production has demanded a transport system efficient enough to handle the materials needed for production and for getting the goods to the market. Transport companies and later the car industry have been important actors in this process.

The fact that mobility is embedded in everyday life, and is one of the most important conditions for modern society, makes it necessary that we have a good understanding of the social processes that create and maintain the paradoxes, e.g. when change is wanted, a reduction in the environmental problems of road traffic when the car is the main tool in everyday life.

Urbanisation-reurbanisation

In 1950, approximately half the population lived in urban areas and by 2000 this share had increased to 77 percent. During the post-war era, the development in Norway has been characterised by urban sprawl, but at the beginning of the 1990s development seemed to change direction, with the older central parts of towns and cities witnessing a population increase. The trend seemed to change from suburbanisation to reurbanisation, and with it a change in the social composition of parts of the inner cities. In Norway, as in many Western societies, a process of "gentrification" was taking place, where traditional working class areas in the inner cities were being "invaded" by people from the middle classes.

The debate about gentrification, which has been long and extensive, can be divided roughly into three perspectives, i.e. explanations related to economy and production, consumption and lifestyle and feminisation of the labour market.

A comparative study from Oslo, Bergen and Trondheim showed that women with high education emphasise urban qualities more so than other social groups do. Results from the same study indicate that the motives for moving to the inner parts of cities are more related to practicalities than to "cafe and culture". Short distances and the possibility of being able to walk or cycle to everyday activities are emphasised.

Identity, individuality and lifestyle

Individuality is typical of late modern society. Individuality related to both working life and everyday life is characterised by fewer collective arrangements and traditional activities. Specialisation of activities for both children and adults is typical of this individuality. People today are active in different social arenas and mobility is a sign of success. Time-use surveys show that time spent at home is decreasing. People now spend more of their time outside the home, which can mean more travel. People are engaged in social networks chosen less on the basis of nearness in space and more on the basis of common interests.

The development or building of identity is to a very little extent related to traditions. According to some theorists, people "shop" their identity from different "markets", which means that it is more difficult to predict how people will act and react in different situations. This has an impact on the choices people make on the housing and labour markets – and also on form of transport. It can be said that people have different lifestyles.

'Lifestyle' is a concept often used to describe the variations in ways of living, i.e. from variations based on traditions to individually oriented ways. Lifestyle can be defined as a series of routinised practices incorporated within habits of dress, eating, modes of acting and favoured milieu for encountering others. Mobility and transport are routines that constitute lifestyle.

One interesting aspect of the relation between lifestyles as routines and mobility in a car-oriented society is how routines are changed. This is important for transport planning. A relevant example is keeping or changing mobility habits between generations and during a life cycle.

Risk society and expert systems

The risk society is a society characterised by the global economy creating profit and wealth but also unintended consequences such as environmental problems. While the distribution of growth and wealth was in focus at the beginning of the industrial phase, a preoccupation with risks has high actuality in late modernity. The new types of risk factors and threats can cause irreversible damage; they are mostly invisible -- radioactive fallout, the concentration of CO_2 and holes in the ozone layers -- and are all created by human activity. Modern society has produced uncontrollable and global threats that nobody can be protected from socially, temporally or spatially.

Knowledge is needed if we are to be cognizant of the risks. Knowledge provides the possibility for reflection and change on both an institutional and an individual level, and in relation to mobility and transport has an impact on political discourse and rhetoric. Reduction of car use and an increase in more environmentally friendly transport is called for repeatedly, but it is difficult to change political direction and/or everyday practise. Individual comfort seems to have priority over collective consideration.

Network society and flexibility

The concept 'network society' is used to characterise the structure of production, consumption and social interaction. Network refers to nodes and to the flows of information between nodes. The Internet has increased the flow of information enormously. The convergence between technologies and between ICT and transport is changing the meaning of time and space. New conditions for organising everyday life are being produced. Working time is having an impact on "social time", which implies that tasks in everyday life are being adjusted to fixed time schedules (e.g. opening hours in kindergartens and schools). The result could be that the flexibility of paid work, both temporally and spatially, might very easily penetrate the "family or free time". A dispersion of activities in time is complicating the use of public transport because the supply varies during the day. The result will probably be more car use.

Urban development and transport

The Oslo region has experienced population growth of 50 percent in the past 50 years. When the restriction on car import was abolished in 1960, car ownership and use increased, and in some periods there was a time-lag in the building of infrastructure in the region.

In 1990 a toll cordon was implemented to finance a main road network and partially on investments in public transport. The situation today is a reasonable good road network, but a relatively worn-down rail network (train and underground system).

Improvements in the road system and increased urbanisation have at the same time increased urban sprawl. Workplaces have been dispersed and relocated to outer parts of the urban area and commuting takes place over increasingly longer distances.

A similar development has taken place in the metropolitan areas of other Scandinavian countries during the past 30 years. Since 1990 the urban municipalities have been revitalised, and have a growth rate on the same level as the surrounding municipalities.

An important driving force has been the increase in employment opportunities. Service industries constitute 85 percent of the total industries in the Oslo region. Finance and business services have increased most during recent years. Most workplaces are situated within the city boundaries, despite the trend of more jobs in the outer areas. Oslo has about 360 000 workplaces, Akershus

180 000. The growth in employment in Akershus is a result of both relocation from the inner parts of the urban area and new establishments. The reasons for relocation relate to lower prices on site, demand for space and better accessibility to the main road network. The effect is more transport by car.

The increase in road traffic has been high since 1970. While population growth has been 30 percent and employment 50 percent, road traffic has increased by more than 200 percent. At the same time the increase in the Oslo region has been lower than for the country generally in spite of strong growth in population, employment and investments in road infrastructure.

Demography and lifestyle

Young people, driving licence and car

Analyses of the national travel surveys of Norway indicate that young people are now less interested in obtaining a driving licence and buying a car than they were 10-20 years ago. The groups who have best access to a car live in sparsely populated areas; they are men, have paid work, live in a relationship and may have children. Those with least access are living in urban areas, are students, women, live on their own or with other grown-ups.

The indication is a change of attitude to car use among young people in urban areas. In a transport policy perspective this is positive in relation to the environment. In discussion of the public transport supply in the greater cities this trend among youth is important to bear in mind. The provision of a good public transport system can delay the purchase of a car, while the reverse may hasten it.

Elderly people and transport in the future

By 2030, most of the population over 65 years will have a driving licence. In 1998, 95 percent of people in the age group 35--55 years had a licence, more men than women. This group will be old age pensioners in 2030.

For many older people, better health condition, increased access to a car, more leisure time and a relatively good income, make possible a greater variety of activities and travelling in the future. The older groups of tomorrow will be people who during their working career have had good access to a car and have developed habits for car use which they will not want to lose.

In the future, a greater proportion of old age groups will be people over 80 years of age. Today, many have reduced mobility due to health problems. The transport system will have to satisfy the demand from this group by providing special transport services, by adjusting the public transport and road systems, because many of them will probably use the car as long as they can.

In Oslo and Akershus, the prognoses indicate that it is the young group of elderly people that will increase. The elderly of the future will probably have a high level of activity.

Gender and transport

Traditionally, men have more readily had better access to a car than women. In 1991, about 70 percent of all men had always access to a car, i.e. they had both a driving licence and could use the car when wanted. Among women, the share was 55 percent. By 2001, the proportions were almost the same, but the variations among age groups were bigger for women than for men. During this decade, access to a car for women over 45 years increased significantly, but the potential for still better access is high.

In addition to an average higher income than women, men have fringe benefits which make it more convenient for use of the car to the workplace. About 20 percent of men have some sort of car allowance or a company car, while only 5 percent of women have these fringe benefits.

Men have more work- and business trips than women. They go on more trips related to their own leisure activities than women. Women for their part do more escorting (children) and trips related to family shopping. In other words, they carry out trips that others in the household could do. The differences between men and women have not disappeared. The situation is rather the other way around, especially in the case of escorting trips. Better access to the car has increased women's chauffeuring role in the family.

Urban versus suburban lifestyle

People living in the inner and outer parts of the three biggest cities in Norway have different motives for choice of residential area. A safe environment for children is the most frequently stated reason for settling in the outer areas of the cities. Protection from traffic noise and pollution and size of housing come next. A frequent reason that people give for settling in inner parts of the city is that they can walk or cycle to their daily activities, but almost the same proportion emphasise the short distance to the city centre.

The "activity profile" of people living in the inner parts of the city is characterised by more individually oriented activities than that of people in the outer parts. Visiting cinemas and theatres, eating out and walking in the parks are aspects related to inner parts of the city.

Inhabitants of the inner parts of the cities carry out 70 percent of their activities locally. In the outer areas the percentage is just below 50, even though these areas are significantly larger.

One of the most important reasons for living in the inner parts of cities is as mentioned above the possibility to walk or cycle to daily activities, and the analysis shows that people act in accordance with what they say. Inner city inhabitants walk to more than half of their activities, while they use their car for about 20 percent. The corresponding figures for inhabitants in the outer city are the reverse.

The attraction of the inner city as a residential area has positive traffic and environmental consequences. Earlier, the tendency was that people left the central parts of the city when they had children. Renewals of the inner parts, along with traffic schemes, have rendered these areas more attractive for families with

children. To keep them as inner city residents the areas have to provide good conditions for children by improving the quality of kindergartens and schools and by offering a variety of leisure activities for children.

The leisure society and environmental attitudes

The use of green areas (parks, etc.) is to a large degree dependent on distance. If a park is more than 10 minutes' walk from home, about half of residents will not use it. Children and elderly people are particularly sensitive to distance.

Interest and involvement in environmental issues flattened out during the 1990s. Structural conditions seem to play an important part as far as environmental engagement is concerned in relation to both consumption and participation in activities. Increased source separation in households reflects a better organisation of waste management. Structural conditions also have negative environmental effects. Increased access to cars and better road systems increase car use.

Housing preferences are related to where people live. While less than half of the population in cities of 100 000 inhabitants or more want to live in a single-family dwelling, in sparsely populated areas the share is 87 percent. More than one in four wants to live in a block of flats in the bigger cities.

The housing market in Oslo and Akershus is different. In Oslo, 73 percent of housing consists of blocks of flats, in Akershus 17 percent.

Maintenance of attractive "green" neighbourhoods is important in the urban area for keeping families with children within the city and for increasing the use of local areas for leisure activities, Attractrative local activities can reduce the frequency of regionally based activities.

Interaction between transport and information and communication technology

Ever since the telephone was introduced 120 years ago, the interaction between travelling and telecommunications technology has been the subject of much debate. Throughout time, the potential of saving both time and money by using the telephone instead of travelling has been emphasised. In this report, teleworking, videoconferences and e-shopping are discussed.

Reviews of the literature on teleworking indicate that the reduction in travel is not substantial. The main effect is in the flexibility in time and space that ICT gives. It seems that there will be more alternation between home and work and more local trips by car.

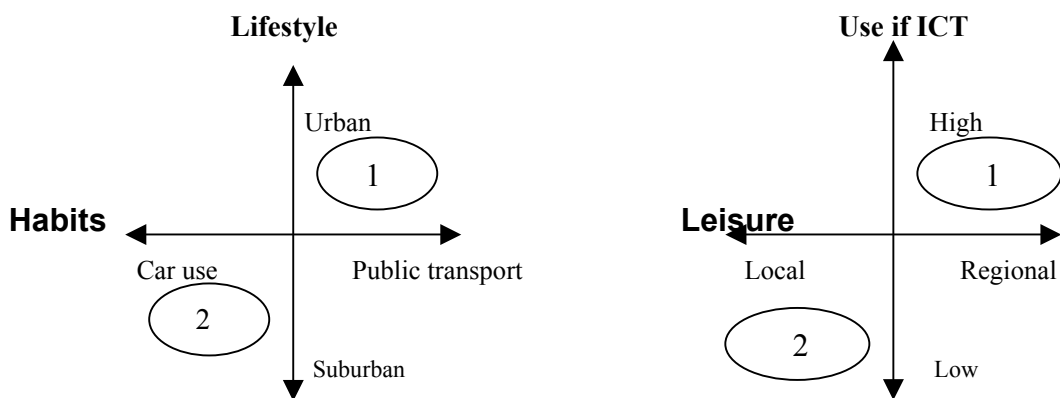Video-conferencing has increased during the past ten years, but has had little effect on business trips.

E-shopping has also increased, but the little research that has been done so far does not reflect the effects on transport. A reduction in private shopping trips might lead to more deliveries of goods in housing areas.

To a minor degree, studies have been occupied with effects on land-use and localization. Assumptions point towards more urban sprawl and longer trips, but studies verifying these assumptions have still to be done.

Four dimensions – several ways of urban development

In this report we have discussed four dimensions related to societal trends; lifestyle, leisure/recreation, maintenance or changing travel habits and the interaction between transport and ICT. Each of these dimensions can develop in different directions. We have dichotomized each trend; lifestyle into urban and suburban orientation, transport habits into car users and public transport users, leisure into local and regional orientation and ICT into high and low degree of teleworking.

Any combination of two or more of these dimensions can constitute the basis for urban scenarios, as exemplified in the accompanying figure.

Lifestyle and transport habits are combined to the left in the figure. In cell 1, we have a situation with preferences for urban lifestyle and a domination of public transport. In cell 2, suburban lifestyle and car use are dominant.

Use of ICT and leisure orientation is combined to the right in the figure. In the situation marked 1 there is a considerable share who telework and a regional orientation of leisure activities is established. In the situation marked 2 the leisure activities take place in the local area and the number who telework is low.

The scenarios are developed on the basis of these. Other combinations. Dimensions not used in the figures are used in the discussion when the scenarios are evaluated in relation to the goal of sustainability.