

Summary:

Sustainable Utopia

This report is a result of project done for OECD. Institute of Transport Economics was in 1996 asked to do a review on literature to reveal:

- a) Trends in individual travel behaviour.
- b) Point out environmental and other problems associated with aggregate mobility trends.
- c) Present major factors linked to individual travel.
- d) Discuss effects of policies on individual travel behaviour.

Both c) and d) was extended into something more than just a presentation of relevant literature. Under c) we looked for alternatives to a simple and instrumental look at travelling as just a mean to an end. Under d) we focused on the problem of implementation and from that to questions related to conflict and power.

Trends in individual travel behaviour

Car ownership is increasing everywhere and follows a similar trend in almost all countries. Car ownership is higher in rural areas and small towns than in cities. When a car is acquired, members of households travel more than before and to new destinations.

Even over a short term almost every European country has a large reservoir of potential car owners. The number of driving licences exceeds the number of cars. Younger age groups show a much higher in acquiring a driving licence than the older ones. Assuming that these groups will keep their licence in the future, ageing creates a larger potential growth for owning a driving licence. The differences in licence rates between men and women is likely to diminish.

Due to measurement problems it is difficult to say that the number of trips per person per day is stable or increasing. However, the general trend is that the proportion of car trips per person is increasing, and the distance travelled per person is also increasing. Over time the registered increase in trips per day is first of all due to an increase in service trips. The explanation is related to the fact that more women are entering the labour market.

The variation between countries in distance travelled per day is about twice as large as that in number of trips and the time spent travelling. We might conclude from this type of data that (1) people travel to satisfy a certain number of access needs (for work, services, etc.) that do not vary significantly as the transport system changes, and (2) people operate with time budgets and will spend roughly the same amount of time travelling during each day, regardless of the average speed of the

transport system. This would imply that measures that make travel faster will tend to increase the distance travelled. (Michaelis, OECD)

In most countries, public transport is used for longer trips than cars: The public-transport share of trips is smaller than the share of distance. Walking, cycling and moped trips, not surprisingly, are shorter on average than public transport and car trips in all countries.

Men and women have different travel behaviour. Different social roles and/or different lifestyles may explain these differences.

Sustainability as a social possibility

Sustainability is defined, if possible, as handling resources, in a wide meaning, in such a way as not to destroy the possibilities for future generations. Within the field of transport, this is especially important concerning global energy resources, pollution, and locally, concerning pollution, noise and land resources. Our conclusion is that the global problems related to energy and CO₂ seem to develop in a more problematic manner than local emissions where new technology reduces some of the more critical emissions, but of course not noise. The increasing urban sprawl will also create significant problems for future generations in terms of land use.

Sustainability has also been connected to specific ways of life, as if some cultural forms should be more sustainable or have greater qualities than others. This is problematic. We have however tried to pinpoint some aspects of mobility that are social and may relate to sustainability.

- The car represents at present a very important symbol of what is meant by modern. And by many it represents the symbol of a new way of life where we get separated from each other. In opposition to this can be said that the car is first of all a practical means of transportation and we can not know for certain whether it actually creates a life in anomie or rather the opposite, a life filled with driving on visits. The car helps eliminate the problem of space rising from the separation of activities starting with the first separation of labour. The old neighbourhood is no longer the central sphere for social life. We have social contacts all over the city.
- The car represents a new division of classes, in the have and have not. This is true to the extent that a car is available for 80 per cent of the population in western societies. The group who doesn't have a car is mostly old people (but these are also the group with the strongest increase in car ownership), the young ones who just moved away from home and residents in inner city areas. To some extent car ownership is dependent on income, but not so much as the other reasons.

- The car is more of a class symbol when we compare rich and poor countries and the rich and the poor in the poor countries. The question is what is the worst case, being without a car when a strong majority has one or being without when the majority is in the same position.
- The car represents a new division of the active and the passive, in terms of different abilities to reach various arenas. This is true, but the division is not a new one and the groups without a car gets smaller and smaller. And not all those who are without are in a permanent and problematic situation. Mostly we are again talking about the elderly.
- The car represents in many ways the cause behind the deterioration of inner urban areas, partly directly with the construction of urban motorways through the inner city, and partly indirectly by making it possible for people to move to the suburbs (Jackson 1985)

Causes behind increased mobility

The main factors behind an increasing use of transport both for transport of persons and goods, over short as well as long distances are the following:

- Spatial structure is both a cause and an effect in that inhabitants in cities with a dense structure use less energy than those living in sparsely populated cities. And the development in general moves towards less and less density. People living in residential areas far from the city-centre use more energy compared to those living in central areas. The increase in city size and land use per capita gives more use of energy. People with a good supply of public transport close to where they work, spend less energy than those without such a supply. The supply of public transport where people live does not seem to have the same impact. But the tendency is towards a reduction in the supply of public transport, not an increase.
- The essential condition behind an increase in transport use, is the existence of new transport technology. But the main forms today existed also 50-70 years ago, with the jet plane as the exemption. The decrease in price for owning and using transport is probably a more important factor over the last years. So is also the enormous increase in transport capacity, in terms of vehicles and infrastructure. Especially in and around cities new road capacity creates more traffic. Technology that administers traffic in a more efficient way may also lead to an increase in traffic volume.
- The relatively steady increase in real economic wealth for consumers is probably the strongest force behind owning transport means and also of travelling. This works in several ways as more money gives capacity to purchase more goods and maybe more trips for leisure, and as economic growth means more people working and therefore more travelling.
- The car also represents cultural values. It is identified strongly with values of freedom, individuality, prosperity etc, and the use of a car is therefore in accordance with overall values. These are to some extent questioned in the richest parts of the world, but not so in Eastern Europe and in developing countries.

Travel behaviour as social acts

Human beings are conscious beings, which means that they reflect on the reasons for their acts as well as the consequences of these acts. This may seem as an obvious proposition, or even a statement. The main reason for stating this point is that travels are more than just simple means to an end. People travel and choose modes for their trips based on other reasons than just to minimise the costs of travelling.

One way to understand human acts is to apply the sociologist Max Webers different forms of rationality; instrumental, value oriented, actions based on affective drives and traditional acts, that may have originated from one of the three others. In transport planning and in models for predicting behaviour, one very often takes the first form of rationality as given. But people also act according to what they think is right or wrong and they act according to emotions of the moment, without long calculations. This implies that policies directed towards changing behaviour also could be based on different sets of values and not only towards changing the conditions for travelling or for the use of different modes. Traditional acts or acts based on habit may be changed by giving information and thereby raising the level of reflexivity.

Life style is connected to how we show off our values by how we act and by the things we own. This implies that behaviour is an image of who we want to be. The consequence here is that behaviour may not change with changing conditions because we put other values into our travelling than just time or cost.

There is no conclusion to be drawn from these points, but we argue for an opening for the importance of individual choice, not only structural necessity. An example can be drawn from the first use of cars where driving both was promoted by strong forces in society, but also was a very conscious decision by those obtaining a car and by decision-makers who provided the infrastructure.

Politics for sustainable transport

Over the last 10 years politics that can reduce environmental problems originated from transport has been sought for and discussed. There are mainly two points that need to be mentioned as a conclusion:

- Differences between different countries concerning what kind of overall policies they seem to choose.
- The fact that no country seems to have found the good solution that both have the wanted effect on environmental problems and at the same time are realistic as a political measure.

Some countries seem to focus more on traffic management and in increasing the capacity of the road-network. This is especially true for the US and Japan. In European countries there seem to be some agreement now, that new road-capacity and better management only leads to more traffic. A change in policies towards regulating demand for transport is therefore necessary if a better environment, a sustainable environment, is to be obtained.

It also seems to be an experience that positive measures, improved technology and a better supply of public transport, are the easiest measures to get a political backing for, but that restrictive measures are the only ones that really work.

We can therefore conclude that a combination of restrictive measures and a better supply is necessary to reduce the amount of travel and give a good service for those being priced out. The question of the effect of land-use policies is still an open one.

In an OECD-report (OECD 1995) a three-stage strategy is set up to reach the goal of sustainability, if possible, sometime in the future:

- Adoption of best practice policies. This means to apply already known measures from different parts of the world, especially cities in Norway, Sweden, Switzerland and Germany. Measures include limiting urban sprawl, location of activities near public transport facilities, limiting car parking at work, limiting road investments, providing better facilities for cyclists and pedestrians, increase fuel taxes and tighten regulations on emissions from vehicles, introduce urban tolls, as in Norwegian cities, but with the clear aim of reducing the amount of traffic in the city.
- These measures are not expected to have a great impact on the total amount of traffic, but will limit other environmental problems, such as noise, emissions of CO and Nox. The problems related to energy use and land-consumption will not be solved by such measures.
- OECD stresses the need for innovations. In "Strand 2" they list possible areas of new measures that opt for cities to be reconstructed back to the urban village, to work for better and faster public transport and to implement higher taxes on energy consumption.

This way of thinking meets with several problems; will the selected measures really work, can we live with the other consequences they will induce on people, and are they in any way possible to implemented. This turns our focus towards real conflicts concerning values and to the question of power, within politics and within markets where producers and consumers meet.

Sustainable cities as utopia

In international negotiations around environmental problems, experiences have been obtained that points towards the fact that any successful policy need to satisfy both goals related to growth, equity and the environment. In addition solutions need to be technically possible.

- Analysis's shows very clearly that a basic problem is connected to the political situation as being a triangular conflict rather than a simple left vs. right conflict.
- A great deal of environmental problems in the OED-countries is a direct consequence of trying to obtain equity; the spread of consumer goods (including cars) and the increase in housing standards for a majority of the population. It is not a conflict between the rich and the poor, but a conflict of interest between dominant values of a majority of the population.
- A proper analysis will reveal conflicts both between growth and a sustainable development and between a traditional equity ideology and the environment. In many European countries these conflicts are as marked as the conflict between the blue and the rest.
- A change in paradigm will have to build alliances both to the right and to the left. In some countries we can see examples of such when old liberal parties work together with New Leftist groups for environmental solutions. The resistance against EU in Norway and some other countries are typical of such alliances.

A discussion of the process around the Dennis-package in Stockholm may be a good description of different kinds of conflicts and how they can be solved. The same can be said about the process around the Oslo-package which is actually implemented.

In the Oslo case, the important thing is to understand why the toll-system was actually implemented. The main reasons for the success was:

- Agents interested in heavy road building got their money, even though some kept arguing against and wanted more government funds.
- Agents interested in alternatives to cars got promises that 20 per cent of the complete package should go to public transport infrastructure.
- Agents interested in restrictions on car use, hoped that the toll-system had future possibilities as a restrictive measure, even though the systems main purpose was to optimise income.

An important part of the discussion related to actors and power is whether one should apply a conspiratorial theory with enemies and friends or whether the conflicts are open and real and of a political nature. Our standpoint is that the latest version is the most correct. Increased mobility cannot be considered something impressed on the people against the will of the people. That is one more reason for searching after real compromises on real conflicts.

Maybe the problem will disappear

As little optimism can be drawn from present trends and possible counter measures one must look for other possibilities. Our conclusion focuses on the following:

- *The need to travel.* At present around 2 in 3 trips are basic trips related to work, shopping caring for others etc. An increasing number of trips are performed in relation to conspicuous activities, which means that we may be able to reduce travelling without really reducing peoples basic welfare. If we also include changes in values and life style, especially concerning the value placed on mobility, this reduction may be even more possible. But strong forces works towards an increase in trips, at least in the near future, especially if we include Eastern Europe and developing countries.
- *Alternatives to travelling.* Focus has been placed upon alternatives to physical movements, especially travelling in cyber space. As yet we do not know what the effects of IT is going to be. Some believe that computers and telecommunications will induce a revolution in communication which may change transport patterns completely. This is possible, but so far history has showed that new technology seldom replaces old, but rather comes in addition to the old ones.