

ACCESSIBILITY FOR ALL: EFFECTS OF MEASURES IN THE PUBLIC TRANSPORT FIELD

*Senior Advisor Trine Hagen, Norwegian Public Roads Administration
Researcher Katrine Næss Kjørstad, Urbanet Research*

INTRODUCTION

The Public Roads Administration (PRA) has a principal responsibility for public transport in Norway, and is responsible for all government procedures concerning an accessibility subsidy scheme. An annual €4,000,000 is granted for local public transport accessibility measures.

In order to find out whether the sponsored accessibility measures actually provide better accessibility, a questionnaire has been developed and distributed to all communities receiving grants from the scheme.

Approach

In this paper we will discuss the importance and results of the national accessibility scheme on the following issues:

- In what way did local authorities spend their share of the €6,000,000? Was the money spent according to local and national plans for accessibility, or were there other important objectives?
- Did the measures sponsored by the subsidy scheme lead to better accessibility? Has the €4,000,000 contributed to enhanced accessibility in the communities?
- What other measures were used locally to enhance accessibility?
- Was the money from the national scheme spent as part of a holistic approach where local funds was also included, or were projects financed by the national subsidy scheme separated from other measures to enhance accessibility?

BACKGROUND

According to health surveys in Norway, about 19 % of the population is defined as having a disability (SSB 1995). Disabilities are often split in three sub groups:

1. Physical handicaps
 2. Mental handicaps
 3. Environmental handicaps (allergies, asthma)
- (Bringa 1998)

A handicap can be either permanent or temporary.

The Norwegian national travel survey show that people who experience problems when travelling, due to health or handicap, travel far less than others (Berge 1999).

According to Madre, Axhausen and Brög (2007) immobility in European countries varies from 5 to 25 percent of the population. The numbers varies greatly between the countries. France has the highest level of immobility. When comparing immobility between the sexes, immobility is higher among men than among women. This is valid for all countries

in the study. Immobility is here defined as the proportion of people staying at home during a certain period, usually one day (Axhausen 2003). Madre, Axhausen and Brög identify the three main determinants of immobility as

- Old age, retirement and disability
- Living in a low density area
- Working at home, being unemployed or having a non-fixed workplace.

Immobility is potentially an important democratic issue. If the last quart of the population has no other means of transport, the possibilities for participation in social life are reduced for this group. This is especially the case in rural communities such as the Norwegian countryside, where the settlement pattern is scattered and transportation is necessary in order to meet others. Poor accessibility to transport, and public transport in particular, is considered a democratic issue: Some citizens are denied the right to fully participate in certain aspects of social life, due to reduced mobility.

Definitions

The Public Roads Administration uses the following definitions which are central to this paper:

1. **Reduced mobility:** In our work we include all kind and all degrees of reduced operability – any kind of permanent or temporary illness, disability, allergy or handicap, both physical and cognitive problems that reduces the individual possibility to travel. Reduced mobility can also originate in the individuals perception of its own ability to navigate in a transport system (Stangeby and Nossun 2004). Travellers pushing prams or carrying large quantities of luggage or goods also have reduced mobility.
2. **Universal design:** The design of infrastructure, transportation or surroundings makes them usable for everyone, regardless of operability, to as large extent as possible, without any need for adjustment or special designs.
3. **Accessibility for all:** Infrastructure, transportation or surroundings are designed in a way so that as many travellers as possible can use them, but special designs, technical aids or escort may be necessary in order for people to travel.

THE NATIONAL TRANSPORT PLAN

The Transportation Plan is a strategic document prepared by the National Public Roads Administration, the Norwegian Maritime Directorate, Norwegian Air Traffic and Airport Management (called Avinor AS) and the National Rail Administration. The plan has a ten year time frame and covers all plans for government investments in transport infrastructure in this period. The plan is presented to the Parliament by the Government and handled by the Parliament every five years. The Transport Plan is the superior plan for the transport sector.

In 2005 the Norwegian parliament treated the National Transport Plan (the NTP) for the period 2006-2015. The plan includes five goals for transport for the next ten year period:

1. Fewer fatalities and serious injuries on the roads
2. More environmentally sound urban transport

3. Improved traffic flow in and between regions
4. A more efficient transport system
5. A transportation system that is accessible for all, regardless of operability, in order for all citizens to live active lives.

Achieving the fifth goal

The fifth goal is considered an instrument for obtaining equal opportunities for all, and is expected to lead to a more even distribution of welfare, regardless of disabilities.

In recent year, universal design and accessibility for all have become an increasingly important issue in Norwegian politics. Pressure groups have been growing stronger and more articulate and are important parliamentary agents who meet government representatives, at the highest level, regularly.

In order to implement the fifth goal, an action plan was made by the Ministry of Transport and Communication and the Ministry of Health and Care Services.

An action plan for all transport services

The main strategy for achieving the fifth goal was established through an action plan. The action plan had three main focus areas:

1. **Better infrastructure**
2. **Rolling stock**
3. **Active logistic reform**

The PRA is responsible for coordinating the public transport authorities' common efforts in fulfilling their tasks given through the BRA action plan.

The action plan identifies three main areas that should be given special priority when improving transport accessibility:

1. Drammen – Oslo Airport. This is the area with the highest transport density in the country. Drammen is situated to the south-west of Oslo, and there is an express train service from Drammen to Oslo Airport. Drammen has about 80,000 inhabitants and is a medium size city in Norway.
2. The Trondheim area: Trondheim is the largest city in mid-Norway. The city has about 150,000 inhabitants.
3. The Stavanger area: Stavanger is, after Bergen, the second largest city in western Norway. The city and its surrounding country have about 100,000 inhabitants, and both the number of workplaces, population and transport has been growing in the last few years. Stavanger is the capital for Norwegian oil production.

The subsidy scheme

Among the tools in the action plan is an annual €4,000,000 subsidy scheme for accessibility measures in local public transport. The PRA administers the scheme.

Urban municipalities and counties are invited to apply for grants. An important condition for applications is that the measures in question need to be a municipal or county

administrational responsibility, not a governmental responsibility. The applicant need to acquire a political approval of the 25 % local financing before sending off the application, something that has proved rather difficult as the local political processes move slower than the subsidy application process.

In 2006, the first year of the scheme, the process proved to have too short deadlines. The fact that the scheme was previously unknown also contributed to limiting the number of applications – all in all 70 applications were received and evaluated. 36 more or less urban municipalities and 10 (out of 19 possible) counties received grants from the scheme. The figure below shows the distribution of grants on different types of measures. The applications varied greatly in quality and relevance, and there was a wide range of measures. However, infrastructure measures turned out to be the dominant measure, to no surprise.

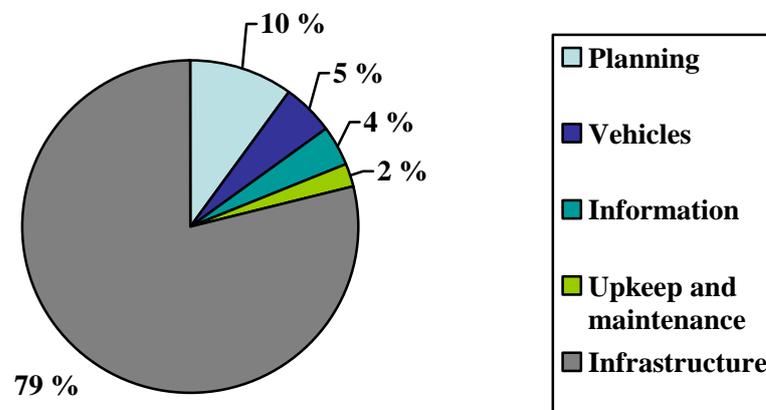


Fig. 1: Distribution of measures in the 2006 grants from the subsidy scheme

In 2007, 22 urban municipalities and 8 counties received grants. In sum, each grant was larger in 2007 compared to 2006. The three main geographical areas given priority in the action plan for improved accessibility were strongly represented among the applicants, and a large part of the total amount was placed here. There was not allocated grants to any projects applying for means to fund vehicles and/or upkeep and maintenance, as opposed to the previous year.

The application schedule was better planned and the subsidy scheme was better known in 2007, all of which lead to more applications being approved politically by local authorities. This enhanced the process.

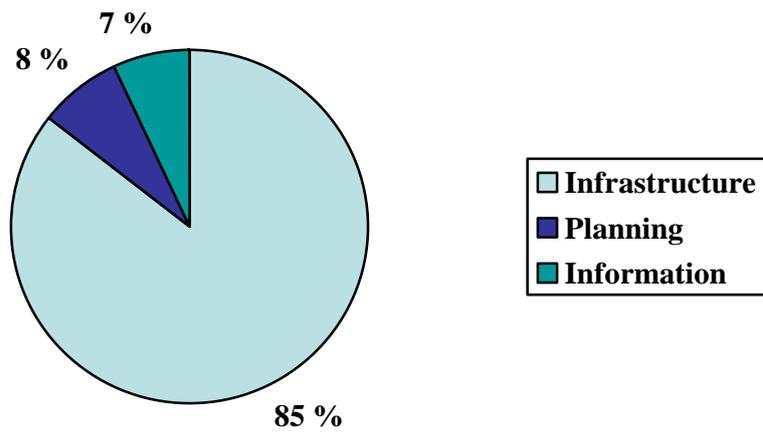


Fig 2: Distribution of measures in the 2007 grants from the subsidy scheme

METHOD

Questionnaire

As the first applications were received, a reporting system was structured. Every applicant was identified and every application was evaluated. The reporting system was very simple: Every applicant was given a unique ID. A simple two-side questionnaire was developed.

With every letter of approval, the questionnaire was attached. All municipalities/counties receiving grants were told to fill out the questionnaire and return it to the PRA by the end of January the following year.

The questionnaire was developed by the Institute of Transport Economics in Oslo.

Formal information, identification and addresses	Questions with tick-off-box	Questions where applicant must fill in verbal description
Unique ID number	Type of measure. 23 pre-defined measure types to chose from	Description of the project/measure
Case number for the PRA electronical archive system (identical with number on application)	Is it a single measure or part of a package of measures?	Description of situation before the project was implemented
Contact information for applying organisation and official in charge	If part of a package: Are the measures on a single route, or in a larger geographical area? 6 possible choices	Target group
Contact information for cooperating agencies/organisations	Is regulation or re-regulation necessary for the carrying out of the project? 4 possible choices	Expected effect(s)
How the project/measures is financed		Counts or other evaluations made before the project was carried out
Timeframe for implementation of the project		Counts or other evaluations made after the project was carried out
Costs: Budget, actual spendings		Did the measures reach the target group? Description of effects
		Evaluation of the process

Tab. 1: Information in questionnaire sent to all receivers of grants

Response rate

The questionnaires were distributed by e-mail, and were for the most part returned electronically.

About 60 % of the receivers of grants in 2006 have answered the questionnaire and returned it to us. This is not an impressive high number, but we judge the response rate to be sufficiently high in order for us to draw valid conclusions from the questionnaires returned.

For the municipalities and counties receiving grants in 2007, the deadline for returning the questionnaire is January 20th 2008. The conclusions based on information in questionnaires are thus based on data from the municipalities and counties receiving grants in 2008.

In order to have a higher response rate for the 2007 grants, a new clause has been added in the contracts: 80 % of the grant is disbursed upon request. The remaining 20 % will be disbursed when the project is documented completed and the questionnaire is received by the PRA. This is a method previously used by the Ministry of Transport when evaluating a public transport subsidy scheme, with good results for the response rate.

Other methods

The PRA is, on several issues, in consecutive contact with most Norwegian municipalities and counties. This is due to cooperation on various projects in the transport sector, where the PRA is both the government hand and an important technical authority. We base some of the conclusions on data gathered in other processes, such as the fiscal budget process and other parts of the National Transport Plan, in particular the transport corridor reviews.

FINDINGS

In the following paragraph we will present some of the main findings from the evaluation of the subsidy scheme.

Spending the money

As planned

According to the completed questionnaires, all but four grants were spent according to the plans in the applications. In the very few cases where money was spent otherwise, changes have been made after discussions and in accordance with the PRA. Reasons for changing the plan were for the most part changes in local regulations.

In one case only has the PRA been forced to revoke grants because the money was spent in another way than what was agreed.

Process

A common experience for many grant receivers has been that the time span for completing projects has been too short. Grants are not transferable from one year to the next, which

means that grants approved in June had to be spent by the end of November. This proved difficult for most receivers. Even rather small projects had to be put through a tendering process, which can last for more than a month. In some cases it turned out to be difficult to find entrepreneurs who could complete projects in such a short time span. Most municipalities and counties managed the tight deadlines. However, a majority of municipalities and counties point out that given a better time frame the projects might have been even better – both in terms of planning and implementation. The short time span also made it difficult to include all necessary stakeholders in the process. This turns out to be the case in particular for the handicap organisations. Both the PRA and local authorities have experienced that the involvement of user organisation can be of great value, and the local authorities are strongly requested to invite user representatives to take part in the planning, carrying out and evaluation of local projects.

Sadly, this has not been ensured as well as the PRA advice, partly due to short deadlines.

What is the function of the subsidy scheme?

As showed in figure 1 and 2, the dominant kind of projects carried out was infrastructure projects. A timely question here is whether these infrastructure upgrades would have been done anyway, regardless of the subsidy scheme. Was the subsidy scheme a mere economic bonus for projects planned anyway, or did the subsidy scheme in itself give a boost to local accessibility improvements?

When comparing applications for grants with local regulation plans, we see that to some extent many of the projects who received grants had been planned several years ahead of the introduction of the subsidy scheme. The importance of accessibility issues has been increasing, and this might have lead to the municipalities and counties prioritizing this aspect higher. The answer to the question was the subsidy scheme a mere economic bonus for projects that would have been carried out anyway, is in some cases yes.

However, counties and municipalities who received grants in 2006 have shown a remarkably higher accessibility activity level in 2007. The 2006 receivers have for the most part applied for grants in 2007, too. The applications and questionnaires returned show that the initial 2006 grant actually boosted the local focus on accessibility issues.

Did the measures work?

This question was addressed in the questionnaire and answered by all who has returned it so far. Indeed the project owners believe that the measures worked. However, it is difficult to isolate effects of how the measures have worked and whether the measures work for the target group in particular.

No receivers of grants have evaluated whether the measures have made more members of the target group travel by public transport, or to increase their number of travels or change their travel behaviour in any way.

Neither has no county or municipality carried out user surveys among public transport passengers before or after the measures, neither directed towards the target group or in general, in order to find out whether the measures worked or not. In the questionnaires we

find many verbal descriptions of how the measures are supposedly working for the disabled, old and least mobile passengers, but there are no hard facts that so is the case.

However, there is evidence that the measures have led to an increased quality in local public transport in many of the projects. Projects targeted at better information, more spacious vehicles, low floor entrance vehicles and real time information systems are all measures that the average public transport passenger value as improvements in transport quality (Norheim and Stangeby 1993, Nossum and Killi 2006, Sjøstrand 1999).

Following this logic, in the long run the accessibility measures will probably attract more passengers to public transport. This will not necessarily be passengers with reduced mobility, but a general passenger increase.

General approaches to enhancing local public transport accessibility

Applications and measures were politically approved before applications for grants were handed in. The applications from local authorities were rooted in local medium-level strategic area development plans for the municipalities. This makes the subsidised projects potentially parts of a whole. It is not given that the strategic area development plans are designed to give a holistic approach, even if that would be preferred. This is one of the great challenges in local planning (Strand et al 2000).

Accessibility issues may be handled in some parts of the plan, but not in other. Accessibility issues often seem to be added on “second thought” or after pressure from pressure groups (handicap organisations etc.). This is often the case when a new field of expertise is introduced (Lauridsen and Ravlum 2001, Stenstadvold 1996, Ravlum and Sager 2004).

The cases where applications were for isolated measures (as opposed to packages of measures or measures in a geographically defined area, such as a bus route) were more numerous in 2006 than in 2007. We interpret this as a result of accessibility having matured as an issue in local planning, growing more embedded in planning and development as the field of expertise has become more known among the planners.

CONCLUSIONS

In this paragraph we will summarize the main conclusions from the evaluation of the subsidy scheme so far.

Value for money?

The PRA has financed more than 200 measures over 2 years, using a total of €8,000,000 for local public transport accessibility measures. The subsidy scheme has not yet been sufficiently evaluated, but will be scrutinized by external researchers during 2008.

Evaluation so far shows that the subsidy scheme has led to an increasing interest in accessibility issues in local transport planning. The reason for this may be the need for “fresh money” in order to carry out measures already planned. It may also be caused by the new attention given to this field of expertise, from the government action plan and renewed

political interest. User organisation lobbyism is also increasing, and contribute to increased activity in the field.

So far it is difficult to say whether the €8,000,000 is well spent in a greater picture, but we do see local effects of these funds.

Successful cooperation between stakeholders give better results

One of the more noteworthy effects that we can trace in the questionnaires is the importance of powerful local teamwork and successful cooperation between the local stakeholders. In counties and municipalities where several of the local stakeholders have managed to coordinate work groups or project groups for the measures (or packages of measures) it seem like there is an increased possibility for actually managing to carry the measures through.

We find this result very interesting, and in line with studies of other local subsidy scheme cooperation evaluated in Norway (Hagen 1999, Hagen 2003). This issue will be further examined in an upcoming evaluation.

We conclude that the subsidy scheme has contributed to various aspects of cooperation among local public transport organisations and stakeholders, and this in itself has a value that must not be underestimated.

When will the transport system be accessible for all?

The Norwegian public transport system is by no means accessible for all, far less universally designed.

The Parliament will treat a bill on an antidiscrimination act in the fall of 2007. The PRA has estimated what a possible antidiscrimination act will mean in terms of need for investments in order to make the transport system accessible for all.

Unit	Price per unit	Total estimated cost
Upgrading of 380 ferry quays to an accessible standard	Approx. €50.000	€19 million
Building access to bus stops (pavements, bikeways in order to make a continuous net): 900 km pavements/bikeways	Approx. € 1 mill per km pavement/bikeway	€900 million
Upgrading 60.000 bus stops and junctions to an accessible standard	Approx. €13.000 per bus stop	€780 million
Total		€1.699 million

Tab. 2: Estimated costs, improving the transport system

It is clear that making the road transport system accessible for all will be expensive, but it depends on what standard for accessibility is chosen and where the work will commence. It is natural that the first steps are taken in densely populated areas where the public transport patronage is highest.

This kind of investment is too large to be taken all at once. A plan is currently structured to outline how investments must be made over a ten year period.

The good news is that action is actually taken, and that in time the transport system will work better for all kinds of people than it does today.

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www.regjeringen.no/english (the Government. Information in English on governmental accessibility work in public transport)

http://www.shdir.no/portal/page?_pageid=134,112387&_dad=portal&_schema=PORTAL&_language=english (Directorate for Health and Social Affairs)