

## Summary

# New Rural Public Transport Solutions

## Background and objectives

*New Rural Public Transport Solutions* is a project under the Department of Transport's Trial Scheme for Public Transport, which promotes efficient and environmentally friendly transport solutions. The scheme *New Rural Public Transport Solutions*, which is a package of measures, has been carried out by Vest-Agder County Council in the southern part of Norway. The aim was to make radical changes to those rural public transport services that are not parts of the local school bus services.

The County Council has been responsible for running the scheme and for the reporting of results. This report by the Institute of Transport Economics (TØI) summarises these results and compares them with experience from similar schemes elsewhere, primarily in Norway.

The scheme is based on common features of rural public transport services, such as:

- a comprehensive network of school buses;
- some extra services, which are usually mere extensions of school bus routes, in order to make better use of the drivers;
- a minimum level of service provision to local centres, but with no evening or weekend services; and
- a high level of subsidy per passenger.

A main objective has been the development of customer-oriented public transport services, with the view that public transport is a welfare good. The scheme has thus focused on the needs of young people and the elderly, as this is believed to promote equality.

## The areas

The scheme was initiated October 6<sup>th</sup>, 1997 and comprised 3 municipalities. This report primarily presents the results from these areas. The scheme should originally be running till the end of 1998, but was extended by one year. In 1999 the scheme was implemented in four additional municipalities.

The scheme was carried out in some of the most sparsely populated areas in Norway. The population in the three municipalities where the scheme started, is between 1,500 and 2,200, and has a population density of around 5 people per square kilometre. A municipality that was added in 1999 had a population density

of only one person per square kilometre. Many people in these areas must travel far in order to get to the local and regional centres.

On this background the volume of travel is generally low. This makes it particularly difficult to co-ordinate and run public transport services in the area. The following examples illustrate this: Ignoring travel to schools, the average number of public transport trips per person per year is 6, i.e., one return journey every four months. Regarding public transport travel demand by size of the area, it has been estimated that 5 journeys are being made every week per square kilometre. This ignores children under 13, but includes travel to schools. Old age pensioners (aged 67+) represent 0.6 trips and the age group 13–19 years represents 2.4 trips.

Before the scheme was implemented the service level in most areas was between one and two buses per day in each direction, and there were no weekend services.

## The measures

The study area went through a thorough pilot study and an elaborated planning process. This facilitated,

- a comprehensive understanding of travel needs and traffic flows;
- local participation and local initiative;
- measures targeted at various demand segments.

Weekend bus operation was introduced. This provided access to local centres, to selected train services, and to major local weekend activities. Further, emphasis was put on the development of tailor-made bus services, for example bus services that corresponded with leisure activities for children. The elderly were provided with bus services to pensioners' societies and other pensioner activities organised by local authorities. An important feature was *feeder service*. All new bus services were *dial-a-bus* services that as far as possible took people to their destination point, i.e., there was no rigid route structure. High quality, low-floored buses adapted for wheelchairs were put into operation. The new service was branded the *Favourite Rural Service (Bygderuta Favoritten)*; this name won a local competition for the best name to the new service. The operators were chosen among local taxi licence holders and the local bus operator. The latter did not bid for the service.

## The experiences

The results from the Package of Measures are mainly promising. Passengers were in general very satisfied with the new services. Services that were targeted at specific market segments were the most heavily used services.

It seems that the decision to place priority on welfare aspects of the public transport services was appropriate. The younger age group (aged 13–19) made 2/3 of all trips, and concessionary fare travellers (mainly OAPs) represented 1/5 of the users.

The adjustments that were made to the routes and to the way the services were run led to large increases in vehicle-kilometres and passenger numbers, and to large

reductions in subsidies per passenger. See Table S.1. In other words there were large efficiency gains in the provision of services. As a result of the tailor-made services the estimated elasticity of demand w.r.t. the service level was 1.67. This is three to four times higher than elasticities reported elsewhere in Norway.

*Table S.1: Key figures after one year of operation. Before and after scheme implementation*

	BEFORE	AFTER	CHANGE
Vehicle-kilometres	239,380	343,000	43 %
Passengers	18,150	31,209	72 %
Costs, NOK*	4,277,125	3,792,400	-11 %
Cost per vehicle-km, NOK*	17.85	11.00	-38 %
Cost per passenger, NOK*	235.50	121.50	-48 %
Estimated subsidy, NOK*	2,750,000	3,010,000	9%
Estimated subsidy per passenger, NOK*	152	96	-36 %

\* Exchange rate 25 April 2000: £1 = 13.63 NOK

Three important conclusions that emerged from the pilot study were,

- young people have the greatest travel need and should therefore be given priority through services that are tailor-made to their leisure activities. The elderly travel less often and are therefore more difficult to serve by conventional bus services. Exemptions to this are the door-to-door services. A “taxi travelcard” may be equally appropriate for the elderly.
- To combine freight traffic with passenger services is not a suitable solution in this particular trial area. In order to provide a minimum level of service it is important to clarify the responsibility for handling goods in accordance with public transport services. It is, however, important to stress the fact that combined goods and passenger transport must be developed in line with passengers’ needs. Passengers’ needs should not be compromised.
- The service should be flexible in order to meet people’s needs both in the short and in the longer run. The operators should therefore be given incentives to develop a market-oriented way of operation.

## Challenges ahead

The experience from Vest-Agder illustrates some of the challenges that are specific to sparsely populated areas. In many respects it is more difficult to develop a public transport service in these areas than in urban areas, despite the fact that travel patterns probably are less complex in rural areas. The project has also identified institutional and organisational barriers to the development of new public transport solutions. A main reason for this is the fact that the solutions are close to

being ordinary taxi/car services. This necessitates new requirements for the organisational structures. Therefore, the experience from Vest-Agder identifies several problems and challenges that should be taken seriously if these solutions are to be taken forward in the future. In particular,

- the development of *market efficient transport solutions*, focusing on tailor-made services to meet the travel needs of different passenger groups;
- the development of *cost efficient transport solutions*, focusing on vehicle size and load factors;
- a *flexible operation*, which continuously adjusts to changes in travel needs; and
- to clarify the *allocation of responsibility* between taxis and bus operators, between authorities and local operators, between school buses and scheduled traffic; and between freight and passenger transport.