

XXIIInd WORLD ROAD CONGRESS
DURBAN 2003

SWEDEN - NATIONAL REPORT

STRATEGIC DIRECTION SESSION ST5 *Access to mobility: a basic social service*

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Vägverket

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Summary of the “dialogue project” for the Sikeå-Robertsfors-Bygdsiljum stretch of road. Final follow-up report.

Summary

To meet the criticism the Swedish National Road Administration (SNRA) has received for its winter road maintenance, a project involving extended dialogue between the SNRA, road users, commercial traffic and other stakeholders was conducted in the Northern Road Administration Region of the SNRA. Criticism had been voiced via direct contact, in the media, by the police and was also revealed in the market surveys conducted by the regional road authorities. The standard of winter road maintenance prior to the project followed the general technical specifications contained in DRIFT96 [Maintenance Specifications 1996].

The aim of the project was to determine the views and needs of road users and different stakeholders as well as find out what they wanted as far as winter road maintenance is concerned through conducting an open dialogue. This pilot project was initiated in 1999.

The trial was carried out on County Roads 651 and 726 from Sikeå to Bygdsiljum over Robertsfors, a total of 33 km. The traffic volume is between AADT 700 – 1500 and the proportion of heavy traffic is considerably above normal for this type of road.

The project team began by determining the different categories of road user that were affected by any kind of winter road maintenance along the roads concerned. Once the various stakeholders had been ascertained, representatives for the different groups were invited to become part of a target group for the proposed dialogue on the standard of winter road maintenance.

The external part of the project was launched by a market survey comprising some 500 people.

The market survey and the target group meetings basically gave the same message:

- current snow plough stretches are too long and take too long to plough
- what is done today in the case of ”extreme snowfall” is beneath all contempt
- sanding takes too long
- all too much rutting on winter roads
- very poor route guidance signs, causing dangerous close calls in the winter.
- too low a standard with respect to the removal of snow to improve sight conditions, snow removal and the care and maintenance on walkways as well as other works in urban areas.

Once all the viewpoints had been collected, the SNRA presented a proposal for the target groups to approve. Great importance was then attached to ensuring that the works executed complied with what had been approved. The different stakeholder groups, which sometimes had conflicting needs, learned to understand one another better as well as the position of the SNRA.

Very good results were achieved by the SNRA that test year, which was also seen in the commentaries in the local press. The number of complaints on the test stretch decreased radically. The target groups have said that they would like the standard offered to continue to apply this winter as well, with certain adjustments.

The 20% increase in cost for winter maintenance compared to previous winters can probably be compensated through changes in future contracts. The project results clearly show that the SNRA receives considerably greater understanding and acceptance for its activities if winter road maintenance is carried out in dialogue with stakeholders.

Aim, method and response frequency

The aim of the survey was to study how drivers (both private and commercial) experience winter road maintenance along the Sikeå-Robertsfors-Bygdsiljum road stretch. The survey was conducted through telephone interviews from the Nordiska Undersökningsgruppens [Nordic Survey Group] premises in Jönköping in April/May 2000. This survey was a follow-up of the measures that had been implemented ahead of that year's winter season. This was the project's final follow-up; interim follow-ups had been conducted in December and February as well. As part of the input for making decisions on the measures that should be implemented, a more extensive survey had been conducted in April and May 1999, the results of which are also included to a certain extent in this summary. A total of 350 private individuals of the 500 in the survey sample replied to the questions (a response frequency of 70%). A sample of 125 people was randomly selected in the Bygdsiljum, Åkullsjön, Överklinten and Robertsfors postal code areas. Forty-seven of a possible 61 commercial drivers replied, which is a response frequency of 77%. In other words, the base for all the questions was 350 replies for private individuals and 47 for commercial drivers.

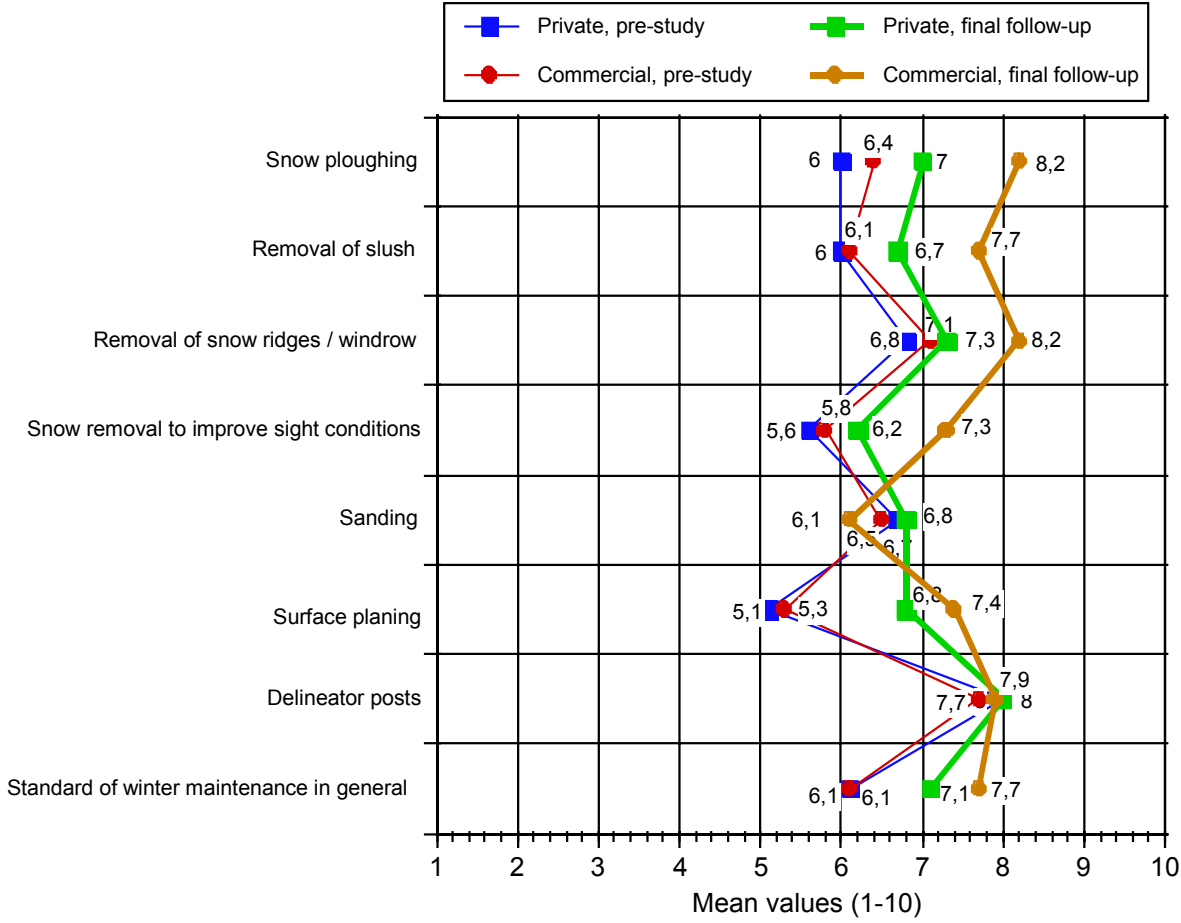
How fast do you expect skid control and snow removal measures to be undertaken after a normal snowfall?

	<u>Roadway</u>							
	Skid control				Snow removal			
	Private individuals		Commercial drivers		Private individuals		Commercial drivers	
Survey year:	1999	2000	1999	2000	1999	2000	1999	2000
Mean	3.3 h	2.5 h	1.6 h	1.4 h	2.6 h	2.6 h	1.6 h	1.8 h
Quartile (25%)	1.0 h	2.0 h	1.0 h	1.0 h	1.0 h	2.0 h	1.0 h	1.0 h
Median (50%)	2.0 h	2.0 h	1.0 h	1.0 h	2.0 h	2.0 h	1.0 h	1.0 h
Quartile (75%)	3.0 h	3.0 h	2.0 h	2.0 h	3.0 h	3.0 h	2.0 h	2.0 h

	<u>Walkways and pedestrian/cycle paths</u>							
	Skid control				Snow removal			
	Private individuals		Commercial drivers		Private individuals		Commercial drivers	
Survey year:	1999	2000	1999	2000	1999	2000	1999	2000
Mean	4.2 h	2.8 h	2.1 h	2.2 h	4.3 h	3.1 h	2.3 h	2.7 h
Quartile (25%)	2.0 h	2.0 h	1.0 h	1.0 h	2.0 h	2.0 h	1.0 h	1.0 h
Median (50%)	2.0 h	2.0 h	2.0 h	2.0 h	3.0 h	2.0 h	2.0 h	2.0 h
Quartile (75%)	4.0 h	3.0 h	3.0 h	3.0 h	4.0 h	4.0 h	3.0 h	4.0 h

As seen in these tables, the majority (see median value) of private individuals expect that, with respect to both ice and snow on the roadway, normal conditions are restored within two hours after a normal snowfall. The corresponding figure for commercial drivers is 1 hour, in other words, their expectations are higher. As far as walkways and pedestrian/cycle paths are concerned, both groups give the maintenance contractor an additional hour.

What is your opinion on how winter maintenance is carried out with respect to snow ploughing, sanding, surface planing and skid control?

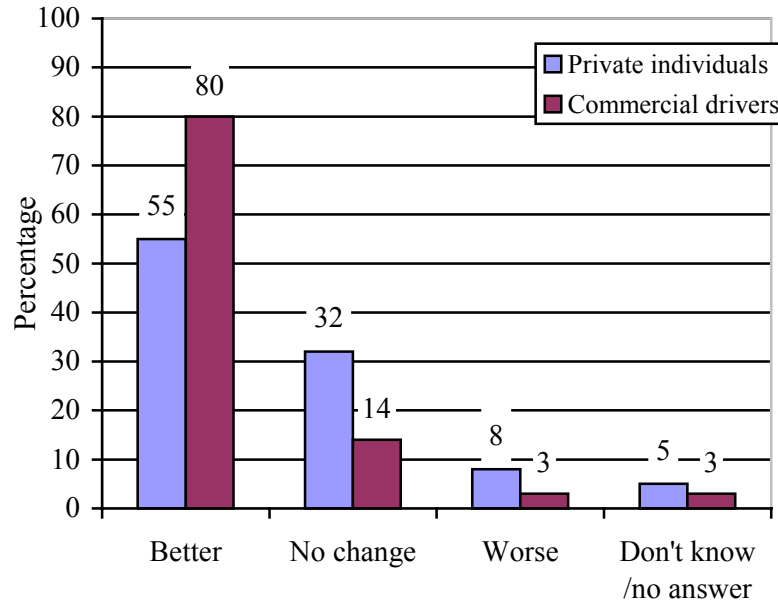


On the scale, 1= very poor and 10=very good. Both groups are generally positive. On the other hand, the change in the composition of the sand used (less salt and no small grain particle sizes) during the year as a whole did not give a more positive picture of the sanding. Many people are naturally in favour of less salt in the sand, but according to many of those interviewed, the sand blew away and the larger particles caused stone chipping. This could also be inferred from a question concerning situations encountered during the winter, to which many spontaneously mentioned stone chips.

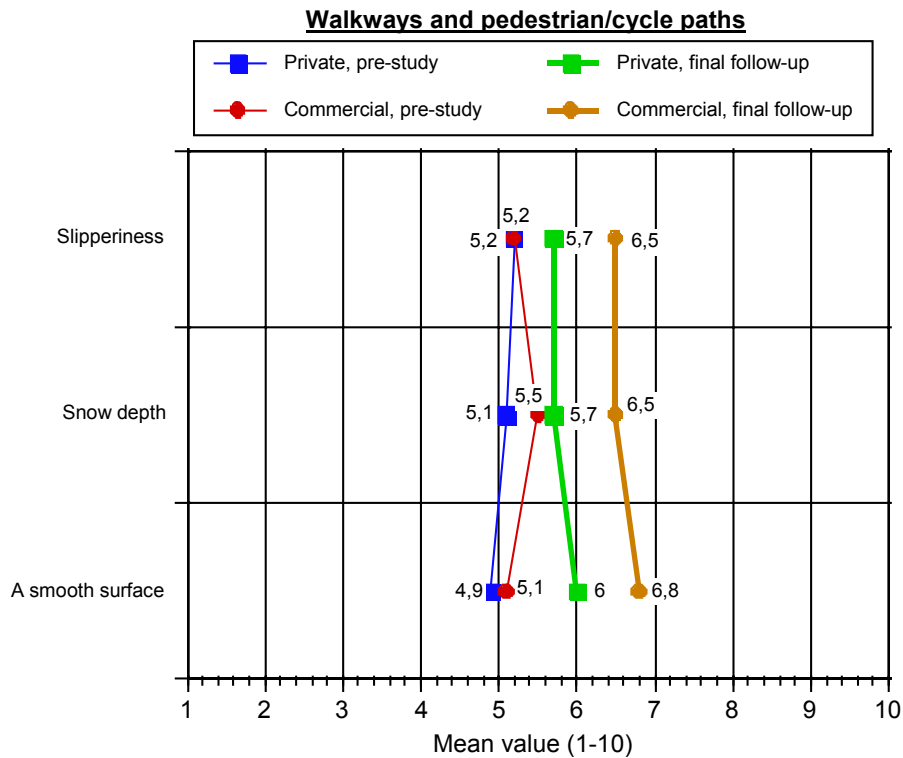
Weather conditions in the area that winter were such that November was abnormally mild with little snow, and the first half of December offered varied winter weather conditions. During the interval between the first and second interviews, from the middle of December until the middle of February there were highly variable temperatures and relatively large amounts of alternating rain and snow. The weather was particularly unstable in February and the winter ended with a lot of snow.

Has winter maintenance become better or worse than last year?

On the whole, the following figure shows that a large proportion of both groups feel that winter road maintenance generally had improved.



Winter maintenance for vulnerable road users



The standard of snow ploughing and skid control on walkways and pedestrian/cycle paths is somewhat lower than for other winter maintenance. Despite this, the interviewees felt that the standard was somewhat higher than in the pre-study. However, relatively many (about 3-4 of 10) did not think that they could have an opinion on these two questions due to a lack of first-hand experience. This means that the mean values studied are based on relatively small groups, particularly in the case of commercial drivers (about 25 people). There were also questions about what it is like to be a vulnerable road user in general where the values are considerably lower (see table on the next page). This is largely due to the fact that there is no space on the road for this category of road user.

Change in attitude to winter road maintenance during the year

Presentation of the mean values based on a scale of 1-10, where 1 = very poor and 10 = very good	Pre-study in April/May 1999		Survey in December 1999		Survey in February 2000		Final follow-up in April/May 2000	
	Private persons	Comm. drivers	Private person	Comm. drivers	Private persons	Comm. drivers	Private persons	Comm. drivers
Snow ploughing	6.0	6.4	7.6	8.0	7.6	8.4	7.0	8.2
Snow removal to improve sight conditions	5.6	5.8	7.4	7.9	6.9	7.6	6.2	7.3
Sanding	6.5	6.5	7.4	6.5	6.4	6.5	6.8	6.1
Surface planning	5.1	5.3	6.6	6.9	6.7	7.6	6.8	7.4
Skid control in general	Not included	Not included	7.4	6.6	6.9	7.1	6.9	7.0
Snow ploughing on walkways / pedestrian and cycle paths	Not included	Not included	7.5	7.0	7.5	7.3	6.7	6.9
Skid control on walkways / pedestrian and cycle paths	Not included	Not included	7.5	7.0	7.1	7.2	6.7	6.9
What it is like in general to be a vulnerable road user along the stretch in question	Not included	Not included	4.9	3.5	5.2	4.4	5.1	3.9
Change in sanding (less salt and sieving out the smallest grain particle sizes)	Not included	Not included	7.1	5.7	7.2	5.9	6.6	5.7
Standard of winter road maintenance in general	6.1	6.1	7.3	7.2	8.2	7.9	7.1	7.7

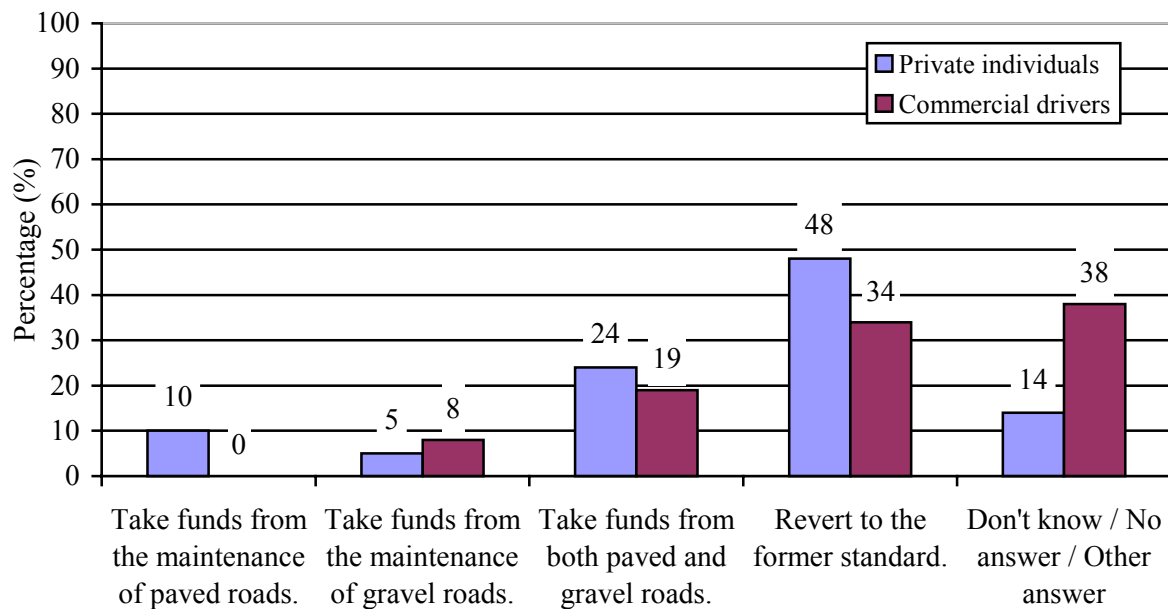
The most positive results were obtained in the December survey, but even if the values decreased somewhat after that, on most points they were substantially higher than in the pre-study and show statistically significant improvements, with the exception of sanding and the change in grain particle size. Many, not least of which private drivers, were positive to less salt in the sand mixture. On the other hand they thought that this new method caused stone chipping and that the aggregate blew away. This meant that even private drivers gradually became less positive. Another aspect to consider was the varying winter weather conditions and how the snowfall at the end could have influenced the figures. One example of a measure that is affected by a lot of snow is its removal to improve sight conditions. If there is heavy snowfall at the time of the interviews, there is reason to believe that it is more difficult to get good results than if it had snowed only slightly.

Other questions asked

One measure that also was undertaken ahead of this winter season was the improvement of the road signing, both at Överklinten and at the so-called "Lia Intersection" at Södra Stortjärn. Both these measures were considered positive, or very positive by a great majority of those interviewed.

There was also a question concerning information, i.e., whether they had been informed about the changes carried out by the SNRA on the road stretch in question, and if so, how. To this 3 of 10 commercial drivers and about every sixth private individual said that they had received information. Eight of ten commercial drivers had heard about the "dialogue project" and about every third private person. Amongst those who knew about the project, nearly everyone had a positive or very positive attitude towards it.

Finally, a question was asked about the standard achieved through the initiatives taken that year. In order to maintain this, it had been necessary to take funds from other measures. The question was then whether they thought funds should be taken from other measures, and if so, which ones or did they think it was better to revert to the former standard.



Conclusions

In short, it could be concluded that most of those interviewed felt that winter road maintenance had on the whole improved after implementing the measures. What was thought to be particularly better was snow ploughing and surface planning, and some were very much in favour of less salt in the sand mixture. The road signing initiatives also met with high approval.

The problem revealed through this survey was, however, that many felt that the removal of the smaller particle sizes not only resulted in stone chips but also in worse skid control protection since the particles had blown off the roadway faster. Another problem that was emphasized was the general situation for vulnerable road users along the particular road stretch at hand.