

Summary:

The potential for reducing the number of killed or seriously injured road users. Preliminary estimates

TØI Report 1417/2015 Authors: Rune Elvik, Alena Høye Oslo 2015, 41 pages Norwegian language

It is possible to reduce the number of traffic fatalities in Norway by more than 50 %. The number of seriously injured road users can be reduced by about 40 %. These reductions are possible by implementing all currently used road safety measures to the maximum conceivable extent. If measures based on new technology which is mature for large scale implementation are used in addition to the current road safety measures, fatalities can be reduced by about 60 % and serious injuries by about 45 %.

The main problem discussed in this report is: What is the maximum possible reduction in the number of killed or seriously injured road users that can be accomplished by implementing road safety measures to the maximum conceivable extent?

To answer this question, estimates have been made of the contributions that 24 currently used road safety measures can make to reducing road accident fatalities and serious injuries. All these measures will continue to be used in the coming years.

Maximum use means, for example that all roads with traffic volume above a certain value are replaced by motorways, that all motor vehicles have a certain safety feature and that police enforcement is increased by a factor of ten. If all measures are implemented to the maximum possible extent, the number of traffic fatalities can be reduced by about 55 % and the number of seriously injured road users by about 40 %. These reductions come on top of the decline in fatalities and serious injuries that has taken place in recent years. Three new measures were assessed: Mandatory intelligent speed adaptation, alcohol ignition lock, and seat belt ignition lock. If all motor vehicles have these measures, in addition to the currently used road safety measures, the number of fatalities can be reduced by about 60 % and the number of seriously injured road users by about 45 %.

A target has been set for the number of killed or seriously injured road users not to exceed 500 in 2024. If current policies are continued, this target is unlikely to be realised. Estimates indicate close to 110 fatalities and 500 serious injuries in 2024. Stronger action needs to be taken to realise the target for 2024.

Another policy objective in Norway is that all traffic growth in major cities should be by walking, cycling or public transport. If there is an increase in walking or cycling, estimates show that the number of injured road users will increase. The estimated increase is, however, quite small, in the order of 10 %. It ought to be possible to counteract this increase by means of safety measures for pedestrians and cyclists.