

Summary:

Benefit-cost analysis of a road improvement project in North Norway

The report describes the analysis of the socio-economic impacts of improving the main roads between the urban areas of Mosjøen/Sandnessjøen and Mo (i Rana) in North Norway. The proposed road projects which include tunnels on the national roads E6 through Korgfjellet and RV79 through Toven are estimated to require total investment of about NOK 1.200 million (1998). The national model for benefit-cost analysis developed and used by the Norwegian Public Roads Administration, indicates that the return on the investments will be 0,42.

The model does not take into consideration the adverse weather and driving situations in this area. A large number of businesses in the region are burdened with extra costs caused by uncertainty as to the dependability of the transport system.

Transport operators and forwarding agents in the area were interviewed in order to help define the extra costs caused by delays. The road office in the county provided information about the frequency and duration of road closure and other periods of travel restrictions (accidents, driving in convoys). We have also received information from the Norwegian Meteorological Institute about the frequency and duration of the occurrence of rain and snowfall, periods with temperatures around 0°C. During winter the driving conditions have been especially challenging on RV78.

Based on such studies we have found that the users of transport (businesses in the region) on the existing roads are clearly burdened with extra costs by the added wear and maintenance on the vehicles, periods with delays and accidents. A comparison of costs between the existing and the improved road systems indicate a possible saving of NOK 43 million per year. Improved roads would also lead to the generation of new traffic. All together, the benefits of the improved roads would improve the benefit-cost ratio to somewhere in the range of 0,91 to 0,96.