

Road safety management by objectives: A critical analysis of the Norwegian approach

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Received 23 April 2007; received in revised form 14 September 2007; accepted 5 December 2007

Abstract

The Norwegian Public Roads Administration has developed a comprehensive system of road safety management by objectives. A broad set of objectives regarding road user behaviour, vehicle safety standards and the safety of roads has been formulated as part of the National Transport Plan for the term 2010–2019. These objectives have been derived from an overall objective of reducing the number of killed or seriously injured road users by 50% before the year 2020. This paper describes the system and provides a critical analysis of it. Factors that influence the effectiveness of management by objectives are identified. It is concluded that while the system of management by objectives developed in Norway has a number of attractive characteristics it also has a number of weak points that may limit its effectiveness. It is therefore by no means certain that the objective of reducing fatalities and serious injuries by 50% will be realised.

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Keywords: Road safety; Quantified targets; Management by objectives; Effectiveness; Policy analysis

1. Introduction

The need for a road safety management system that ensures continuous improvement of road safety in a cost-effective manner is recognised by governments of most highly motorised countries. Incentives to implement cost-effective road safety measures are generally weak and therefore need to be created and stimulated. Developing a system of road safety management by objectives is one way of creating incentives to implement cost-effective road safety measures. In Norway, the Public Roads Administration (Vegdirektoratet) has developed an elaborate system of road safety management by objectives, designed to identify target areas for road safety interventions and ensure that effective measures are implemented. The system is part of the system of national transport planning. National transport plans, which include a long-term road safety programme, are prepared every 4 years in Norway. The national transport plan for the years 2010–2019 is currently in preparation.

This paper describes the system of road safety management by objectives developed in Norway and provides a critical analysis of the system. The main questions discussed in the paper

are: which factors influence the effectiveness of a system of management by objectives? To what extent does the current Norwegian system comprise elements that characterise successful management by objectives?

2. Road safety policy-making in Norway

Road safety policy development at the national level of government in Norway takes place within the framework of the national transport plan. This plan covers a period of 10 years and is developed by the Ministry of Transport, supported by its executive agencies, which include the Public Roads Administration, the Aviation Authority, the Railway Administration and the Coastal Administration (the latter agency is formally subordinate to the Ministry of Fisheries). The Public Roads Administration acts as secretariat on behalf of all agencies. It develops a draft plan, which is refined and approved by the Ministry of Transport. The final plan is presented to Parliament as a report.

As part of the national transport plan, a road safety programme is developed. In addition to the Public Roads Administration, work on the road safety programme involves the Police Directorate, the Health and Welfare Agency and the Norwegian Road Safety Council. The road safety pro-

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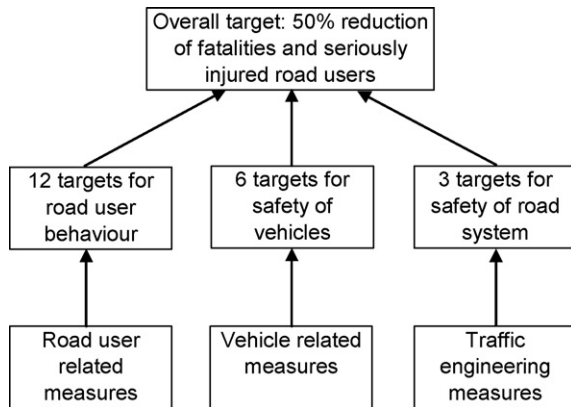


Fig. 1. System of road safety management by objectives in Norway as proposed by the Public Roads Administration.

programme covers the same 10-year period as the national transport plan.

To help develop an effective road safety programme, the Public Roads Administration has proposed a system of management by objectives. It has proposed an overall target for reducing the number of road accident fatalities and serious injuries by 50% by 2020. Based on this target, a set of targets has been developed for various road safety indicators, many of which are related to road user behaviour. The targets set for the road safety indicators are used as a basis for identifying road safety measures designed to realise the targets. Priority is given to cost-effective road safety measures, i.e. road safety measures that pass a benefit/cost test by providing benefits (in monetary terms) that are greater than the costs. Fig. 1 illustrates the system.

The targets set for the road safety indicators are intended to be logically consistent with the overall safety target in the sense that if all the targets set for the road safety indicators are realised, the overall safety target will be realised. Furthermore, at the next level of the hierarchy, road safety measures proposed on the basis of the safety indicator targets are, ideally speaking, intended to realise the targets set for all indicators.

A total of 21 targets for road safety indicators have been proposed. Table 1 lists these targets. A target has been set, for example, to reduce speeding from 47% of all kilometres driven at present to 25% of all kilometres driven in 2020. There are targets for increasing seat belt wearing, for improving the technical condition of heavy vehicles and for improving the safety standard of the road system.

The targets for improving the safety of roads have been formulated in terms of a targeted reduction of the number of road accident fatalities and seriously injured road users. All the other targets are stated in terms of the percentage of road users or vehicles fulfilling them.

3. Management by objectives: a theoretical perspective

Management by objectives is a common approach to management. As applied in business and government, it normally involves a relation between a body setting targets – often referred to as the principal – and an agency – often referred to as the

agent – charged with the task of realising the targets (Anderson and Vedung, 2005). In the field of policy-making, management by objectives embodies the old distinction between “politics” and “administration”, according to which the politics is about setting targets, whereas administration is about choosing the most effective means to realise the targets. Successful road safety management by objectives is facilitated if the following conditions are satisfied (Johansen, 1965; Elvik, 1993a,b, 2001; OECD, 1994; Broughton et al., 2000; Locke and Latham, 2002; Anderson and Vedung, 2005; Wong et al., 2006; Rosencrantz et al., 2007):

- (1) The top management of government strongly endorse the targets and make a firm commitment to realising them.
- (2) The targets set should be challenging, yet in principle achievable.
- (3) There should not be too many targets in view of the available policy instruments designed to realise them.
- (4) The agency or agencies given the task of choosing how best to realise the targets should have authority to determine the priority to be given to all available policy instruments.
- (5) Responsible agencies should be supplied with sufficient funding to implement all cost-effective road safety measures.
- (6) There should be a system for monitoring progress in realising targets and providing feedback to responsible agencies on their performance.
- (7) Incentives should exist to ensure commitment to targets from all agencies responsible for realising them.

The first of these conditions concerns the support given to targets by politicians. By supporting quantified road safety targets, politicians signal that road safety is a problem they are committed to reducing and that they are willing to be held accountable for the results. This serves as an instruction to executive agencies to give priority to effective road safety measures.

The second condition refers to the level of ambition of a target. It has been found (Elvik, 1993b, 2001; Locke and Latham, 2002) that targets that are ambitious are associated with better performance than less ambitious targets. An ambitious target is one that aims for a large reduction in the number of road accidents and accident victims, surpassing past trends. There is a danger, however, in setting targets that are perceived as too ambitious. Such targets may not have the motivating effects that challenging, yet achievable, targets often have (Anderson and Vedung, 2005).

The third and fourth conditions state that measures should exist to realise all targets, and that responsible executive agencies should have the power to introduce all the road safety measures that are needed to realise targets. There is, in other words, no point in setting a target for which no road safety measure exists to realise the target. Closely related to these conditions, is the condition that responsible agencies should not lack the resources needed to implement all cost-effective measures.

Road safety targets tend to be long-term, i.e. apply to a period of 10 years or more. There is therefore a need for monitoring progress and giving feedback during the period the targets

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