

A10 National strategic factors

A10.1 Introduction

Introduction

This appendix details the procedures to use when considering national strategic factors. The appendix:

- sets out criteria that must be met for the inclusion of national strategic factors in the evaluation of a project
- describes national strategic factors that may be included in an evaluation.

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A10.2 Defining national strategic factors

National strategic factors

National strategic factors are defined as national benefits that are valued by road users or communities, but which are not captured elsewhere in the project evaluation.

When considering large infrastructure investments, particularly land transport investments, it is often difficult to capture in an evaluation process all the benefits (positive or negative). Road investments have impacts over long timeframes, and over large areas. These wider impacts are taken into account in robust strategic planning processes, but it can be difficult to include such considerations in project evaluation procedures.

It is important that rigorous analysis be applied to national strategic factors that are to be included in an evaluation. Roading projects, particularly large ones, are sometimes inappropriately described as 'strategic' if they cannot be justified by the road user benefits and intangible effects described elsewhere in this manual.

National strategic factors should only be included in the evaluation of a project where it can be shown that they are national benefits and not transfers and that the factors have not already been counted in the economic analysis. To be included in the analysis, national strategic factors will need to meet the criteria set out below.

National strategic factors may be incorporated as benefits in the evaluation of a project where they:

- have a material impact on a project's importance (given the time and costs associated with identifying, quantifying and where appropriate valuing national strategic factors, they should only be considered where they are likely to have a significant impact on the benefits of a project)
- comprise national economic benefits (not transfers of benefits between different localities)
- have not been counted in the core analysis (many benefits called 'strategic' can be shown to be included in Land Transport NZ's current procedures, and are already taken into account through growth in traffic volumes, etc)
- would be valued by land transport users and the wider community (that is, road users and the community would be willing to pay for them, were they able to do so, for example, insure against earthquake damage).

Two categories of national strategic factors that meet these criteria have been identified:

- providing for security of access
- providing for investment option values – including building in extra capacity or flexibility today to enable easier expansion in the future.

Additional national strategic factors

National strategic factors other than security of access and investment option values may be accepted, provided the project promoters can clearly show that the national strategic factors claimed meet the criteria set out above.

A10.3 Security of access

Security of access

Security of access is an important consideration where there are few (or no) reasonable alternatives to a particular route. There are benefits in providing a greater assurance to road users and communities that they will be able to depend on a particular route (such benefits can be expressed in a survey of road users' willingness to pay).

In other sectors, through insurance markets, people are willing to pay to insure against loss and/or disruption (eg, holiday insurance). Incorporating security of access as a national strategic factor enables the willingness of road users to pay to avoid disruption to be incorporated, where appropriate, for road investments.

Examples of this factor include:

- earthquake strengthening of a vulnerable bridge on an important route
- slip prevention work on a busy inter-regional highway
- improvement of alternatives to a busy route that is prone to closure.

Appendix A13.10 outlines a procedure for calculating the benefits associated with reducing risk of loss of access by, for instance, replacing a bridge that would be destroyed by an earthquake. That procedure takes account of the probable road user costs if the bridge was to be destroyed, but not the willingness of road users to pay to avoid the disruption. In assessing the value of the national strategic factor benefit associated with providing greater security of access, the value ascribed to road users' willingness to pay to retain access should be compared to the analysis of the disruption costs, as a benchmark. Care will need to be taken to avoid any double counting. A unit cost (eg, dollars per vehicle trip) should be calculated.

A10.4 Investment option values

Investment option values

Land transport investments are often characterised by a difficulty (and usually inability) to easily increase capacity or change routes if circumstances (such as general traffic demand, or the location of a traffic generator) change. They are also characterised by uncertainty in estimating capacity requirements for the long term (10 years or more). For these reasons, in certain situations there may be benefits in spending more on a project now, to provide the option, ability and/or flexibility to easily increase capacity in the future. This becomes particularly important where there may be additional constraints on adding capacity in the future (eg, because of planning constraints or significant increases in the cost of land).

Examples of providing for the future in this way include:

- new road construction in an important corridor could include allowance for wide medians – this would potentially facilitate the widening of the road at a later date to accommodate traffic growth, or the introduction of demand management options in the corridor (eg, bus priority lanes)
- bridge design enabling the easy addition of extra lanes in the future (eg, the Auckland Harbour Bridge)
- when undertaking major earthworks for a two lane highway (eg, when cutting through a steep hillside) providing for a wider corridor (for four lanes) if there is sufficient uncertainty surrounding traffic forecasts or the future availability of land to warrant 'hedging' against having to undertake expensive retro-construction costs.

In cases where project promoters have reasonable confidence in their traffic growth forecasts (and are certain about land use and other relevant trends) it will be relatively straightforward to assess the value of providing for greater capacity or flexibility now, rather than in the future.

In many instances traffic growth, land use and other trends are likely to be uncertain. In these cases, assessment of investment option values will be more subjective, and the assessment of unit cost (eg, dollars per vehicle) of the additional expenditure will assume greater importance as a benchmark of the appropriateness of the value ascribed to the national strategic factors. Also, valuation of the benefits of providing flexibility for future investments should be predicated on robust strategic planning processes. Clearly, the greater the quality of strategic planning processes, the greater the confidence in the value ascribed to providing for ease of expansion in the future.

A10.5 Procedures for national strategic factors

Procedures

The analysis of national strategic factors involves, where practical, estimating monetary values for each national strategic factor and including these as benefits (or in unusual circumstances disbenefits) in the benefit cost ratio. The monetary values of national strategic factors are often estimates of society's willingness to pay for these factors (such as, certainty of access).

Given the uncertain nature of national strategic factors, it is likely there may be a number of different valuation procedures that are appropriate. It is recommended that advice be sought from Land Transport NZ before embarking on any significant exercise to value these factors.

Additional information on the strategic context of projects is provided in chapter 3. If information on strategic context for the project in question is not robust, do not include national strategic factors in the evaluation of the project.
