



TfNSW has prepared answers to frequently asked questions (FAQ) relating to the completion of the *Fixing Country Roads Benefit-Cost Analysis Model*. Before reading these FAQ's, all project proponents should first read the "How to Guide" worksheet. This contains very important information that will greatly assist project proponents in completing the model.

For further assistance, please contact TfNSW on freight@transport.nsw.gov.au – we will be in contact to assist you with completing the benefit-cost analysis model.

General Questions

Q. Why do councils need to calculate benefit cost ratios?

A. A benefit-cost analysis is an appraisal tool used to determine the net economic worth of infrastructure projects. TfNSW has developed the benefit-cost analysis (BCA) model to assist councils in undertaking economic appraisals. The information will be used to evaluate and prioritise projects under the Fixing Country Roads Program.

Q. I do not have any data to populate the required fields in the benefit-cost analysis model – how do I get the data?

A. A benefit cost analysis is mandatory for applications to be considered under the Fixing Country Roads Program. To complete the model, project proponents should contact relevant industry authorities for the data. In the absence of industry data project proponents can:

- undertake surveys to gather the necessary data e.g. vehicle classification survey, or
- estimate data using a robust methodology. The methodology used must be clearly stated in the "Referencing and Assumptions" Worksheet e.g. a farm's production (in tonnes) may be estimated by identifying and profiling comparable farms.

Q. Are projects under this program going to be prioritised by benefit-cost ratios only?

A. Completion of the economic model is mandatory for all project submissions under Fixing Country Roads. However, the benefit cost ratio is only one indicator used to prioritise projects. All projects will be assessed against the following four un-weighted criteria:

- Improved Access and Productivity;
- Growth and Economic Benefits;
- Strategic Alignment and Partnership, and
- Deliverability and Project Readiness.

Q. What type of benefits does the model capture?

- A.** Broadly speaking, the model captures 5 types of benefits:
- Vehicle operating benefits e.g. fuel, maintenance;
 - Value of time benefits e.g. drivers wages;
 - Environmental Externalities (noise, amenity, pollution etc.);
 - Safety benefits; and
 - Recurrent cost savings e.g. maintenance cost savings.

Q. How do I include benefits that the model does not capture?

- A.** The FCR Full Application Form provides an opportunity for project proponents to provide a description of benefits that may not be captured in the model. These benefits will be considered when assessing the FCR application.

Technical Questions

Q. What is the current scenario?

A. The current scenario refers to the most likely scenario if no capital investment is made. Depending on the type of project this could be a number of things: For example, if a bridge is not upgraded, then a load limit would apply. The current scenario would describe the traffic, commodity movements, vehicle and maintenance cost profile using the load limited bridge. The “How to Guide” in the economic model contains further examples relating to bypass routes and pavement resealing.

Councils are encouraged to liaise with TfNSW in developing their current and project scenarios.

Q. Is the current scenario the same as a “do nothing” scenario?

A. No. It is generally what must be done to maintain the status quo level of service.

Q. How can risk-events such as flooding or asset-failure be captured in the model?

A. Risk-events such as flooding may result in diversions or delays. The impact of flooding can be captured in the model by estimating the number of vehicles affected by the event and entering the relevant data as a separate line item in Section 5 of the model. The data entered for these impacted vehicles may include longer travel distances, travel times etc. These vehicles, however, should not be double counted in other line items of Section 5. Should the risk-event damage an asset, the additional maintenance can be entered into the cash flow worksheet of the model.

Q. The model does not capture all types of trucks – which vehicle do I select?

A. The vehicle classifications included in the model are based on TfNSW’s standardised vehicle operating cost parameters. In the event that the exact vehicle classification is not available, please select the “best-fit” vehicle from the options available.

Q. Which movements should I include in the model?

All movements that are impacted by the problem are to be included in the current and project scenario. This includes diverted demand.

Q. The benefit cost ratio does not change when I enter different safety values under Section 5 of the model. Why?

The model does not automatically calculate safety benefits using the data entered in Section 5 of the model. It captures safety benefits on the basis of distance travelled by multiplying a safety risk factor by standardised safety cost parameters. If however, councils have substantiated safety data please include this into Section 5 of the model. TfNSW will review this data and quantify the benefit, if appropriate.

Q. Do we include empty running in total no. of trips?

Yes. All transportation movements that will benefit or that are impacted by the problem/constraint should be included.

Q. Do I calculate total or marginal maintenance costs?

Total maintenance costs are suitable for this model. It can be difficult to attribute the exact damage that freight (vs. passenger) vehicles are imposing on the roads. For the purposes of the model, it doesn’t matter if marginal or total maintenance costs are used because the benefit cost analysis is an incremental analysis i.e. project scenario compared against the current scenario.

Q. The commodities are seasonal and fluctuate year by year - how do I capture this in the model?

All growth rates entered into the model should be annualised normalised averages. The methodology and assumptions used should be outlined in the “*Referencing and Assumptions*” Worksheet.

Q. There are different growth rates for each commodity. How do I account for this in the model?

All growth rates entered into the model should be a weighted average. The methodology and assumptions used should be outlined in the “*Referencing and Assumptions*” worksheet.

Q. How do we deal with multiple origins and destinations?

Multiple origin and destinations with varying distances can be entered into the model as either weighted averages or as separate line items.

Q. The benefit cost ratio does not change when passenger data is entered.

The Fixing Country Roads Program is an initiative to eliminate freight connectivity constraints on local roads in regional NSW. However, if the project delivers substantiated passenger benefits, TfNSW will review the data provided and quantify, where relevant.