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Transport Infrastructure Ireland

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Project Appraisal Guidelines for National Roads Unit 6.7 - CBA Report

PE-PAG-02026

October 2016

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TII Publication Title	<i>Project Appraisal Guidelines for National Roads Unit 6.7 - CBA Report</i>
TII Publication Number	<i>PE-PAG-02026</i>

Activity	<i>Planning & Evaluation (PE)</i>		Document Set	<i>Technical</i>
Stream	<i>Project Appraisal Guidelines (PAG)</i>		Publication Date	<i>October 2016</i>
Document Number	<i>02026</i>		Historical Reference	PAG Unit 6.7

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1. Introduction

After completion of a CBA, it is necessary to submit a full report to Transport Infrastructure Ireland (TII). The structure and content of the CBA Report are outlined in this PAG Unit, and apply equally to CBA using TUBA and COBALT or other manual methods.

A sample CBA report is available for download from the “Downloads” section of the TII Publications website under section PE-PAG-02026_Unit 6.7.

2. Responsibilities

Having carried out a cost benefit analysis, a formal CBA Report should be produced. The purpose of the report is to detail and justify the methodology, provide detailed information on the data inputs and to present the results of the economic appraisal.

The CBA Report is the primary output from the CBA process, and will contain all the information required by TII to perform a full audit of the results.

A CBA Report will normally be required at Phase 2 Option Selection, Phase 3 Design and Environmental Evaluation, Phase 5 Enabling and Procurement and Phase 7 Closeout and Review¹. The level of detail included in the report may reflect the phase at which it is prepared. For example, if default parameter values have been used during Phase 2 Option Selection, Section 5 of the report (as detailed below) will only need to state that default values have been used, with reference to the National Parameter Value Sheet (see PAG Unit 6.11: National Parameter Values Sheet). Conversely, a report produced at Phase 3 Design and Environmental Evaluation, will have to contain full documentation on the derivation of local parameter values where appropriate. At Closeout and Review the report should compare the results with the Phase 3 Design and Environmental Evaluation CBA results.

¹ In some instances a high level CBA may be required at Phase 1, see PAG Unit 6.1 for details.

3. Structure of CBA Report

The CBA report shall contain a main report detailing the methodology and assumptions of the CBA process, and a set of appendices containing supporting information. The main report shall be structured as follows:

3.1 Section 1 – Introduction

An introductory section should set the scene for the report, identifying at what stage the assessment is being undertaken (option selection, design and environmental evaluation or closeout and review) and broadly describing the nature of the scheme(s) being appraised. A map of the geographical extents of the scheme appraisal, showing the proposed scheme should also be included.

3.2 Section 2 – Software Specification

The section of the report should confirm the version of the CBA software that has been used in the assessment and which version of the National Parameter Values Sheet was used.

3.3 Section 3 – Transport Modelling

The rationale behind the extent of the area modelled will be set out. In undertaking the CBA reference can be made to the Transport Modelling Report on the basis that the modelled areas for the transport modelling and the CBA are identical.

3.4 Section 4 – Data Collection

Details on data collection for the purpose of CBA model development should be outlined. Normally, this will comprise outlining of the source of the trip and travel cost matrices used in TUBA/COBALT-Ireland. The compilation, checking and use of this data should be described.

3.5 Section 5 – CBA Input Assumptions

All data input assumptions should be described, with specific reference to the treatment of the CBA parameters. Significantly, where TII default values have not been used in the assessment, the derivation of these values should be presented.

Information relating to the calculation of the scheme costs is also required, describing the approach taken. Completed spreadsheets as provided in PAG Unit 6.2: Preparation of Scheme Costs should be included.

The approach taken regarding the treatment of residual value should also be outlined in this section.

3.6 Section 6 – Annualisation

The development of the annualisation factors used to convert the benefits from the modelled time periods to annual benefits should be explained in this section. Reference can be made to the Transport Modelling Report should information be contained in that report, however care should be taken in differentiating between annualisation factors for transport demand forecasting purposes and economic purposes.

3.7 Section 7 – Safety CBA Results

The safety impacts results section will contain the summary of results of the COBALT-Ireland assessment for all scenarios (Opening Year, Design Year and Forecast year as appropriate for Low, Central and High growth scenarios. This section should outline the approach taken and any assumptions made regarding the link characteristics, collision rates etc. of the proposed scheme.

3.8 Section 8 – Transport CBA Results

This section will contain the summary of results of the assessment for all scenarios as appropriate for all Low/Central/High growth scenarios. This section should also include reports of any sensitivity tests that may be necessary and an incremental analysis of link and junction standards if required.

The report should contain a separate section on the Impact on the Public Accounts summary table, which fulfils the requirements of the exchequer cash flow analysis. For a Closeout and Review CBA, Section 7 should also contain a discussion of how the results compare with the CBA from previous project phases.


3.9 Appendices

The appendices provide all the supporting documentation that accompanies the CBA appraisal report. The appendices should include:


- Cost calculation spreadsheet (e.g. Total Scheme Budget and Target Cost);
- The TUBA/COBALT input files;
- The TUBA/COBALT output summaries; and

A copy of the above information in digital form, including a full copy of the CBA output files and the scheme drawings.




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