Attachment A: CBAx tool

CBAx is a tool developed by the Treasury of New Zealand to assist the public sector to make investment decisions informed by cost benefit analysis (CBA). It has several benefits:

- It allows different forms of impact to be considered and measured with a standardised template, which includes information on non-quantified and unmonetised impacts and evidence base
- It allows the impact of investment to be recorded and measured in a consistent format, based on a common set of assumptions to allow assessments and comparisons across investment programmes
- It allows comparisons of different options, for example, between current policy and counterfactual (if the policy didn't exist)
- Where evidence is lacking to conduct a full cost benefit analysis, the tool allows evaluation to identify information gaps and test current assumptions.
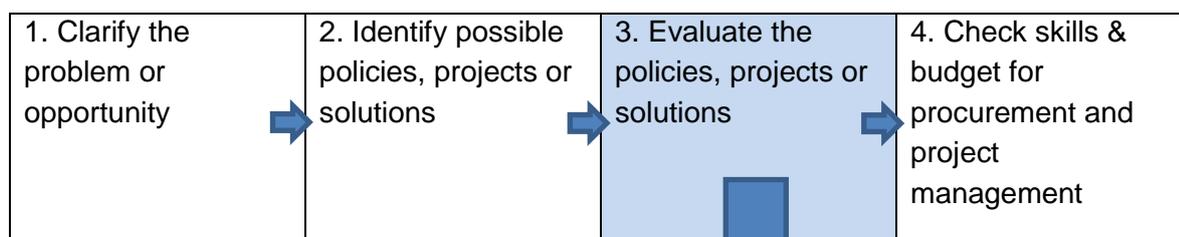
Limitations

The tool requires the organisations to have comprehensive knowledge and data to quantify impacts and success rates. Such information is not always available or would require significant cost to collect.

One of the advantages of CBAx is that it makes assumptions explicit and values different types of costs and benefits in a consistent way. So even if evidence is incomplete, the analysis can account for that and provide the basis for a more informed discussion between different options.

Summary of steps

CBA fits under the evaluation stage of the policy development process.

1. Clarify the problem or opportunity	2. Identify possible policies, projects or solutions	3. Evaluate the policies, projects or solutions	4. Check skills & budget for procurement and project management

Undertake cost benefit analysis on each of the feasible policy options	
Inputs to CBAx	Step 1: Define policy and counterfactual
	Step 2: Identify the people who gain and those who lose
	Step 3: Identify the benefits and costs; allocate to time periods
Analysis in CBAx	Step 4: Quantify the benefits and costs within ranges
	Step 5: Discount to a common period, compare benefits and costs
Outputs from CBAx	Step 6: Is the result clear enough? If not, consider whether it is worth investing in more research, and repeat above steps
	Step 7: Test assumptions and report results

The diagram below provides an example of the analysis when using the CBAx tool.

Intervention

Exemplar: A free sport programme targeting Māori youth in the southern areas

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The target group – age (e.g. 12-25 years old), number (e.g. 5,000 people in total), duration of the impact (e.g. 3 years)

The actual cost (e.g. $100 per person)
Estimated NPV cost

Outputs

Percentage of people who took part in the intervention (e.g. 30% of 12-25 years old)

Percentage of people didn't take part (e.g. 70% of 12-25 years old)

Outcomes

Outcome 1

Group demographic (e.g. 12-18 years old only), duration of impact (e.g. 1 year), successful rate (e.g. 80%), level of evidence (high,

Outcome 2

Group demographic (e.g. 18-25 years old only), duration of impact (e.g. 2 year), successful rate (e.g. 30%), level of evidence (high, medium, low)

Impacts

(value relative to counterfactuals)

Impact 1

e.g. reduced hospital visits (reduced health costs) due to high blood pressure

Visits reduced by 10%

Compare pre- and post-intervention data

Impact 2

e.g. improved educational performance

Tertiary education completion rate increased by 5%

Compare pre- and post-intervention data