

PROBLEM DEFINITION

Key lessons learnt	The problem definition/needs confirmation stage is critical to the success of a business case. It enables project proponents to establish the case for change and to articulate why intervention or investment by government is warranted. Where possible, the problem should be quantified in monetary terms to enable decision makers to understand the magnitude, importance and urgency of the problem. A good problem assessment will outline the costs to the community and the economy if the problem is left unchecked.
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Why Define the Problem or Need?

Defining the problem or need is a vital aspect of any business case development process, providing the necessary foundations upon which to build a case for change. A well-considered problem statement or needs confirmation identifies if intervention or investment by government is needed. The efforts are targeted at the root cause(s) and works in tandem with other government policies and programs. Of course, not all business cases need to concern themselves with “problems”. It is also worth considering what “opportunities” may be realised by taking action today. The problem definition can also assist with the identification and development of options to consider during the development of the business case.

Problem definitions or needs confirmation are an interactive process

It is important to note that NSW Government business cases start with a problem definition or needs confirmation stage to identify the need for government intervention or investment. This does not mean that the problem definition is not considered at later stages. In practice, as the business case proceeds from Strategic to Final the project proponent must continue to reassess and confirm the problem. This may be in the form of more detailed analysis and quantification of the problem or need.

Start by describing the status quo – the world without any intervention or major investment

While many aspects of a business case provide opportunities to think creatively or design better outcomes for the future, it is critical to first describe a world where no action is taken. This is typically known as the “base case”. In most business cases the base case and problem definition are intrinsically linked. In other words, by understanding and measuring the problem, a proponent can develop the base case for subsequent analysis in the business case (such as the cost-benefit analysis or financial analysis).

Quantifying the problem or need to justify the case for change and support option development

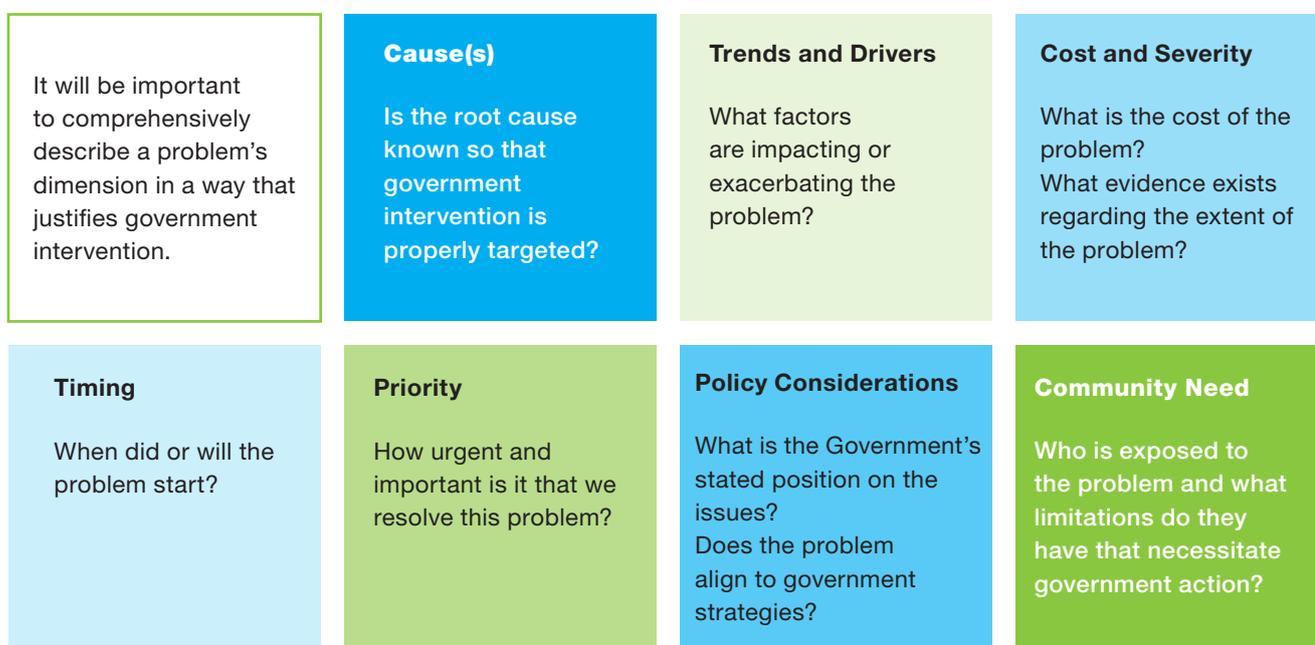
Developing an evidence base to substantiate the problem or need should be a key part of a proponent’s business case. The evidence base can be qualitative, quantitative or based on monetary values. Where possible the impact of the problem should be monetised. There are two important reasons for the monetisation of the problem:

1. to ensure decision makers can understand the significance of the proposal under consideration
2. to assist with the development of options to solve the problem or address the need.

For example, consider a road corridor that is currently and will in the future experience excessive congestion. Proponents should estimate the “cost” of congestion on the community and economy. After the “cost” of the problem has been estimated, this can be used as a key narrative for the business case, i.e. the cost of congestion is \$100m to the community and economy. It can also be used to help guide the development of options, in particular the scale and size of the options. i.e. proponents would not necessarily consider options that would cost \$200m to solve a problem of \$100m. Of course, this should not exclude options that have a higher capital cost than the problem, as long as the option results in a net benefit, i.e. a positive net present value (NPV) or benefit-cost ratio (BCR) above 1.

Describe the problem’s or need’s multiple dimensions

Problems or needs can be multifaceted and it is important to comprehensively describe a problem’s dimensions to ensure the problem is fully understood. Some examples are shown in the figure below.



Identify relevant stakeholders for consultation

It is important to gather different perspectives on the nature of a problem. Not all stakeholders may believe there is a problem or need, and some may be influenced in their views of the problem based on their professional background or training. For example, a congested road may be regarded by a traffic engineer as a capacity problem, a scientist may consider problems of air quality

and health, while an economist may see it as a pricing or ‘market failure’ problem. Key focus areas for consultation include assessing levels of support, identifying potential issues and ensuring that the objectives selected are sufficiently broad to encompass the concerns and issues of key stakeholders, beneficiaries and the community.

Conclusion

Ultimately, good problem definitions or need confirmation are evidence-based and align to established government policy outcomes. They seek to inspire interest in solutions (without necessarily leaping to conclusions on the details) and lay the groundwork for more detailed study.

Source material

Infrastructure Australia (2018) Assessment Framework: For initiatives and projects to be included in the Infrastructure Priority List. March.

NSW Treasury (2018) NSW Government Business Case Guidelines, Policy and Guidelines Paper TPP 18-06. NSW Government, August.

NSW Treasury (2017) NSW Government Guide to Cost-Benefit Analysis, Policy and Guidelines Paper TPP 17-03. NSW Government, March.

NSW Department of Industry (2017) Market failure guide – A guide to categorising market failures for government policy development and evaluation. Program Evaluation Unit, December.

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