

Developing conceptual models

What are Conceptual Models?

Restoration is a dynamic intervention that take place in complex situations. The context within which they occur usually involves an intricate interaction of social, political, economic, cultural, and environmental factors. Moreover, conservation project managers are forced to learn more about and adjust to the constantly changing context within which their projects take place. Given these complexities, it is particularly important for conservation practitioners to carefully consider the situation in their project sites when they plan their interventions. Unfortunately, practitioners rarely have the time or resources to conduct this level of project planning. A conceptual model, however, is an easy-to-use tool that can help a project team understand and logically illustrate the circumstances occurring within their project site.

Conceptual models – or variations of them – have been used in fields like international development and public health for at least two decades. Recently, this tool has been utilized in the project planning processes of major conservation organization across the world. Similar tools that have historically been used for the same function are decision trees, concept maps, and logic models. Among these tools, conceptual models do the best job of explicitly depicting the interrelatedness among the factors affecting the biodiversity of a given site (Margoluis et al. 2009).

A conceptual model is a tool for visually depicting the context within which a project is operating and, in particular, the major forces that are influencing the biodiversity of concern at the site. A conceptual model is a diagram that uses a series of boxes and arrows to succinctly represent a set of causal relationships among factors that are believed to impact one or more opportunities. A well-developed model explicitly shows the relationships among the main contributing factors that impact the opportunities.

Why Conceptual Models Are Useful

A conceptual model is an illustrative yet succinct way of documenting the textual results of your situation analysis. Ideally, you will have already completed a situation analysis that details your team's understanding of the project site – including the biological environment and the social, economic, political, and institutional systems that affect the conservation targets you want to conserve. Your conceptual model can then serve as a tool for documenting the results of your situation analysis in a clear and concise manner. You and your project team can also develop a conceptual model based on your collective, existing knowledge, regardless of whether you have completed a formal situation analysis. Either way, a conceptual model cannot replace a situation analysis, and must be based on sound information and data. Conceptual models can further be used to identify which factors at your site (indirect or direct threats, opportunities, or conservation targets) are the most strategic factors for you to try to influence, and what type of strategies would be most appropriate for doing so.

A conceptual model is one of the most helpful and versatile tools you will use for your project planning. The process of building a conceptual model with your project team helps all team members

explicitly state their assumptions about what is happening at your site and collectively come to an understanding about your site and what you need to do as a team. The model itself is a useful communications tool for your project team, as well as for people outside of your project. It provides a quick, easy-to-understand overview of your project site and the rationale for your project's goals, objectives, and strategies. Ideally, your conceptual model should reflect information from your situation analysis, as well as input from key stakeholders. At a minimum, your project team should consult with stakeholders and other experts and then reconvene to discuss how you might change your model based on this outside input. Additionally, you should revisit your conceptual model at least once a year to determine if there are any new threats or factors (or ones that you may have missed in your earlier model) that are now affecting your targets. If so, you will need to make decisions about if and how you will address them.

Components of a Conceptual Model

Opportunity sought: An element of biodiversity at a project site, which can be a species, ecological community, or habitat/ecological system on which a project has chosen to focus.

Impact: A factor that positively or negatively influence one or more opportunities sought

Cause: The activity or action that whanau believe is impacting the extent to which the aspirations of whanau will be realised.

Building a concept model

The conceptual model is essentially made up of three parts—

1. the opportunity sought buy whanau (at the top);
2. the causes of potential problems (at the bottom);
3. and the impacts of the causes (or the steps/relationships between the cause and opportunities (in the middle).

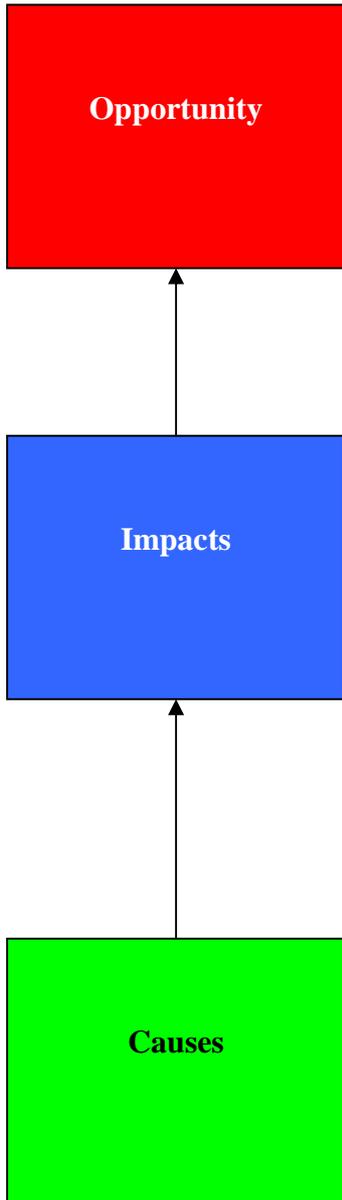
1. Aspirations of whanau

Go to the top Start listing the opportunities sought. List the opportunities in boxes at the top of the next page.

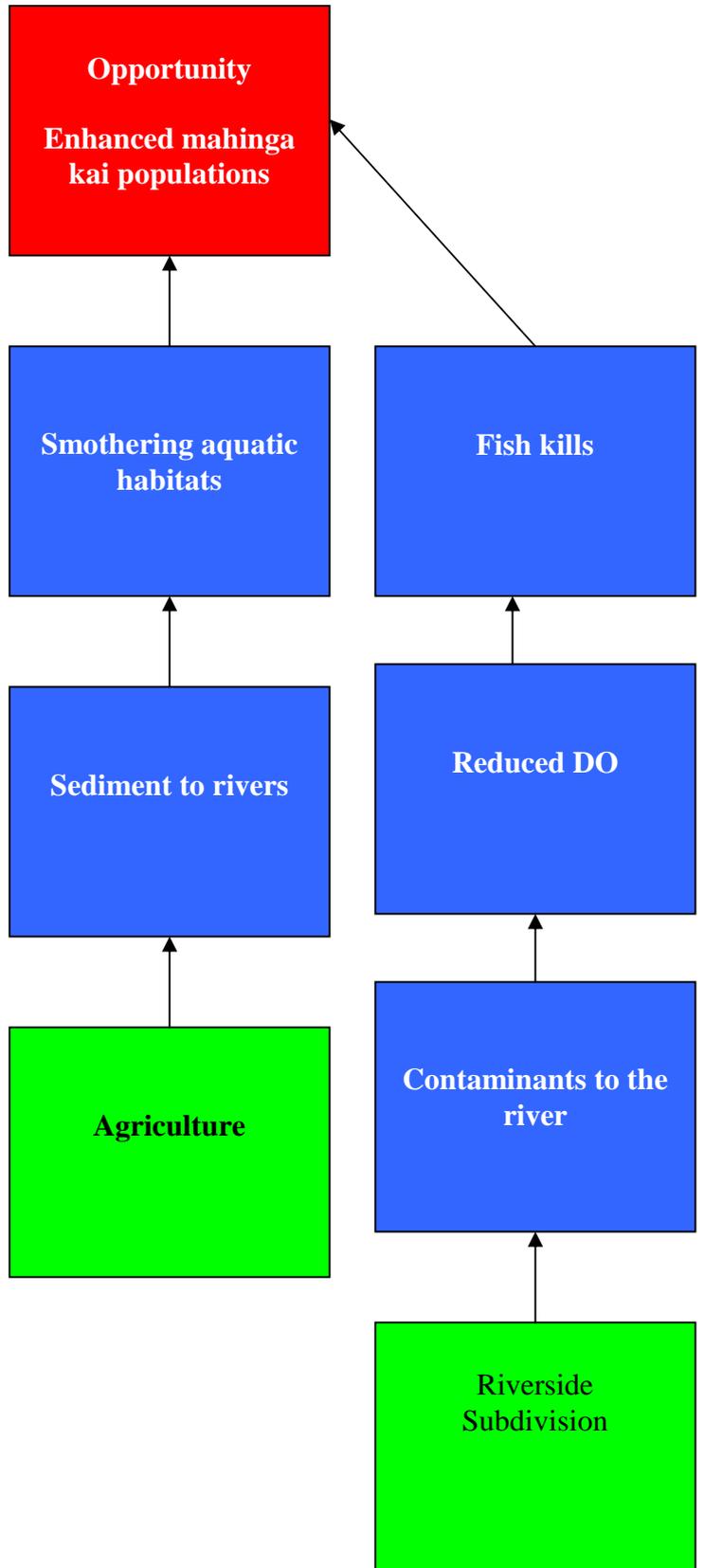
2. Start at the end: Define the causes as perceived by whanau

The causes are the endpoints for the conceptual model. Add the causes in boxes at the bottom of the next page. Put each cause in its own box on the worksheet. Be as specific as possible. Keep the causes on the same sheet (don't make a separate model for each cause). You might find that the causes are linked in unexpected ways.

Components of the model



Example



3. Identify the impacts that link opportunities to causes

These boxes provide the links between the cause and the opportunity.. Draw in as few or as many impacts as are needed to show cause and effect so that you can see what causes the impacts that will determine whether or not the opportunities sought are going to be realised. .

4. Connect the opportunities, impacts, and causes

Start drawing arrows between the opportunities , impacts and causes

The purpose is to record the perceptions of whanau. Some of the causes, impacts or relationships – when investigated may prove to be incorrect. However it is important to understand how whanau see the issue.