

## The Problem Tree

In the project cycle, situation assessment and analysis are crucial steps that move us from reflection into planning. Usually, a project focuses on one or a few core problems. Understanding the core problem and its causes is important if the project is to effectively address the effects of that problem on the community. The problem tree is one method of mapping out core problems, along with their causes and effects, helping project planners to identify clear and manageable objectives.

Like any other tree, the problem tree has three parts: a trunk, roots, and branches. The trunk is the core problem. The roots represent the causes of the core problem and the branches represent its effects. Like the roots of a tree, the causes of the core problem are not always immediately apparent, but if we do not understand the causes there is little we can do to address the problem.

Think of a farmer having trouble with her corn. The plants are stunted and yellow. Painting the plants green will make them the right colour, but will do nothing to make them healthier – in fact it will probably finish them off! Instead, by identifying the real problem (nitrogen deficiency) and its causes (poor soil, excess moisture), the farmer will be able to use more appropriate methods – like adding fertilizer,

improving soil drainage, or using a crop rotation that includes legumes.

### A Group Exercise

Problem trees should be developed as a group exercise to help project planners discuss how various issues in the community are linked together. It may be useful for a variety of stakeholders to participate in the exercise so that the problem tree represents a negotiated and shared view of the situation. Or, it may be more helpful for various stakeholders to produce their own trees as a starting point for discussing differing perspectives.

The exercise requires some cards, pens, and sticky tape.

### Identify the Core Problem(s)

The exercise begins with the group listing negative statements that describe the situation being analyzed.

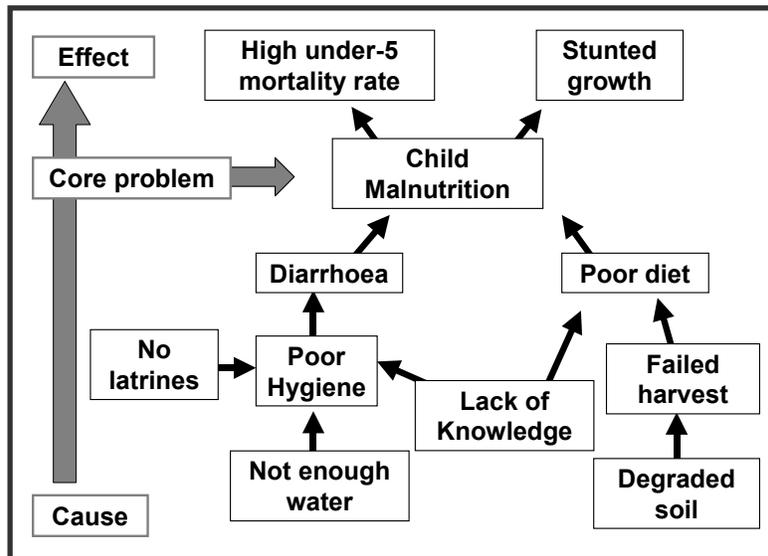
These statements should be written down on cards and posted so that everyone can see them (on a wall or on the floor). Once people agree that most of the important issues have been identified, group the negative statements that have some similarities or common links. Looking for similarities and links among the statements should help you to identify a core problem (or problems).

Once the group agrees on the core problem, write it clearly on a card and post it where everyone can see it.

### Identify Causes and Effects

Examine the other negative statements that the group has posted. How are they related to the core problem? Some may be *causes* – they lead to the core problem. Place these cards below the core problem. Others are *effects* – they stem from the core problem.

Place these cards above the core problem. Others may be more general problems that could be classified as *overall constraints* – for example, poor governance, insecurity, or national debt. It is most likely that your project will not be able to address these broader concerns directly, even though they are affecting the community. Place these cards off to the side. Clarify or discard any statements that are unclear.



A Simple Problem Tree

Continue to arrange the causes and effects, noting their

relationships to each other. Remember that one thing leads to another. The goal here is to provide a relatively simple road map of how one problem leads to another, which leads to another, and how these problems are related to the core problem that you have identified.

In most cases, the group will note that reality is very complicated. Relationships between causes and effects often go both ways. Most problems do not follow a simple, linear progression. It is important to identify these interactions, but try to stick to the most important links. If the problem tree becomes too cluttered, it will not be a useful tool. You are seeking a balance: enough detail to provide useful information, but simple enough that you can clearly see the main links between problems.

Once you have arranged the cards in a way that best shows the links between problems, ask whether any important causes are missing. If so, add them in on separate cards. Likewise, ask whether any important effects of the core problem are missing and add these in.

### Check your Logic

Check the logic of the problem tree by starting at the causes and working up to the effects. Each problem or group of problems should logically lead to the next.

Copy the problem tree onto a sheet of paper, using lines and arrows to show the links between causes and effects.

### The Solution Tree

When the group is satisfied that the problem tree provides a good overview of the main challenges facing the community, it is time to identify how a project might make a difference. In other words, it is time to turn the problem tree into a *solution* tree (also known as an *objectives* tree).

Keeping in mind the likely *stakeholders* (beneficiaries, project staff, donors, local government, etc.) and constraints of the project, identify which of the causes might be realistically addressed by the project. For each negative statement, come up with a positive statement that describes a solution to the problem. For example, "People lack access to clean drinking water" could be turned into, "Provide people with access to clean drinking water". These positive statements provide a basis for selecting project *objectives* – the specific goals that your project will aim to achieve. Again, focus only on those objectives that the project will realistically address, given the constraints of budget, time frame, and staff.

By turning the core problem into a positive statement, you can identify the project's *purpose* – the broader goal to which the project will contribute.

Identifying the objectives will help project planners to come up with activities – concrete actions that will achieve those objectives.

While the problem tree identified *causes* and *effects*, the solution tree describes *means* (activities) and *ends* (the results that the project plans to achieve). Again, one thing leads to another – activities to *outputs* (immediate results like roads built and trees planted) to *outcomes* (changes in people's lives like increased income and improved diet) to *impact* (long-term changes like decreased infant mortality and food security).

Once you have identified the purpose, objectives, activities, and results in this way, you can easily construct a logical framework (tips 102) that illustrates how the project will achieve its goals and how the results will be measured. The overall constraints identified in the problem tree will help you identify the *risks and assumptions* that will affect project success.

There is no magic in the problem tree. It is simply a way of mapping out how one thing leads to another – problems and solutions. As you become more familiar with this approach to planning, you may find ways to make it more appropriate to your own situation. If it gets people talking and helps you to see the big picture, it is working.

### Resources

The Australian Agency for International Development (AusAID) has a useful step-by-step guide to developing a problem tree, with examples:

<http://www.aid.gov.au/ausguide/ausguidelines/1.html>

An FAO-supported project in Eritrea used the problem tree as one way of engaging farmers in a situation analysis. You can read the article at:

[http://www.fao.org/sd/2001/KN1001a\\_en.htm](http://www.fao.org/sd/2001/KN1001a_en.htm)

For more information on problem trees, or other issues related to planning, monitoring, and evaluation, contact Stuart Taylor at the Canadian Foodgrains Bank ([s\\_taylor@foodgrainsbank.ca](mailto:s_taylor@foodgrainsbank.ca)).