

## **INTRODUCTION**

A common problem with some traditional development projects is that they are driven by top-down, centrally-determined directives that are not reflective of the situation that needs to be addressed. A weakness of this approach is that it reflects the technical mandate of the agencies involved, which can lead to narrowly-focused strategies. In other words, these projects do not address the actual problem. This generally leads to suboptimal, and in some cases, negative outcomes. As we have discussed in previous modules, the impacts of climate change are shaped by local factors and processes. Thus local information, needs, and perceptions of the problem are critical elements for designing effective adaptation projects. This information is critical for identifying the most urgent adaptation needs as well as the groups that stand to suffer the most from climate change impacts. Importantly, this is a central concern of adaptation financiers, as reflected in multilateral agency priorities as well as funding proposal applications. For example:

UNDP promotes pro-poor and pro-growth adaptation that encourages climate-resilient economic development and sustainable livelihoods.

Describe the scale and intensity of the vulnerability of the country and beneficiary groups, and elaborate how the project/program addresses the issue (GCF Item E.4.1).

Describe how the project/program provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations (Adaptation Fund Item II.B).

It is clear that in order to access external support for adaptation activities, attention to local needs and by extension the incorporation of “bottom-up” information is necessary. This calls for an approach to project design that is able to leverage local knowledge and experience, and reconcile it with national priorities and strategies. One such approach that has been used to effectively identify targets for adaptation projects is **problem/objectives tree analysis**. Problem/objectives tree analysis is an inclusive methodology that, like impact web analysis, facilitates identification of the root drivers of a particular problem, as well as direct and indirect impacts. Once core problems, drivers, and impacts are identified (the problem tree), pathways to improvement can be imagined (the objectives tree). This information can then inform a **design and management framework** or **logistical framework** for a project that includes **goals, outcomes, outputs, activities, and inputs**.

In this module we will practice creating both a problem and objectives tree. You will work collaboratively in your group using the provided meta-cards. This guide will serve as reference as you step through the process. Later, you will use the outcome of these activities to develop a draft design and management framework for your project.

## **ACTIVITY 1: THE PROBLEM TREE**

Our first activity is to develop a problem tree. The problem tree provides an overview of the causes and effects (including indirect or second-order causes and effects) and helps stakeholders and project designers understand the full context of a problem. It can also reveal lines of intervention that can be addressed by complementary projects.

### **Step 1: Define the “Core Problem”**

The first step of problem tree analysis is arguably the most important: defining the problem that needs to be addressed. This is not as simple as it seems at first glance. The problem you identify should be something that can be addressed. In other words, your problem should be a climate change impact, rather than a physical process. For example, “Sea Level Rise” or “Increased Rainfall” are not issues that can realistically be addressed. Rather, your core problem should be an impact of some physical process your country, city, or region is experiencing. Make sure to focus on an urgent impact that has been identified in existing climate change strategy documents. In actual practice, you should seek broad stakeholder agreement in deciding the core problem, as some groups may have different perceptions of what the core problem really is!

#### **“Bad” core problems**

Sea level rise  
Heat waves  
Flooding

#### **“Good” core problems**

Damage to coastal infrastructure  
Heat-induced mortality  
Economic loss due to flooding

### **Step 2: Identify direct causes and effects**

The second step is relatively straightforward: identify the direct causes and effects of the core problem. However, as in the first step, stakeholder engagement is necessary in this step to ensure that all causes and effects are identified.

### **Step 3: Identify indirect effects and driving causes**

The last step of the problem tree is potentially the difficult, time-consuming and contentious. This involves identifying indirect and cascading impacts as well as the root drivers of the problem. Root causes are generally broader scale processes that are influencing the immediate causes, which means that different stakeholders will have different, and sometimes contradictory, perspectives. Indirect effects are also difficult to identify, because sometimes they are temporally removed from the more immediate direct effects. Therefore in practice stakeholder participation is key to accurately characterizing root causes and indirect effects.

Several examples of problem trees are included on the following pages.

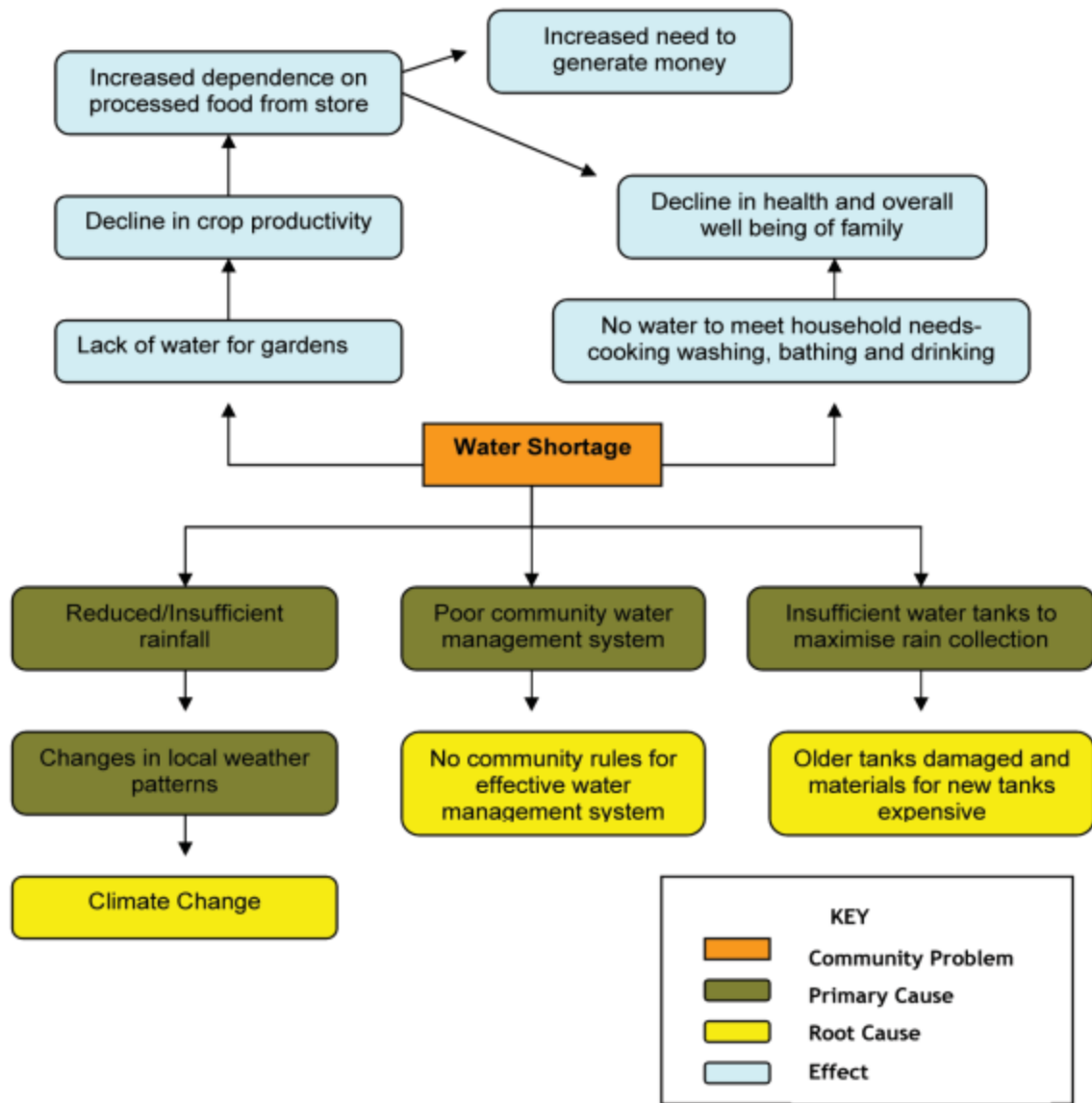


Figure 1: Problem tree for water shortage. Source: *Training Module on Community Climate Change Adaptation*. Caribbean Disaster Emergency Management Agency

In practice, the problem tree might need to be revised a number of times. This is natural; as noted in earlier activities, defining cause-effect relationships and direct and indirect drivers of problems is sometimes a contentious process. However, in most cases you can achieve broad stakeholder agreement and a common understanding of the problem. Bear in mind that the better and more representative your problem tree is, the better the subsequent steps will be.

When you finish your problem tree, the top level of the tree should indicate broader development challenges.

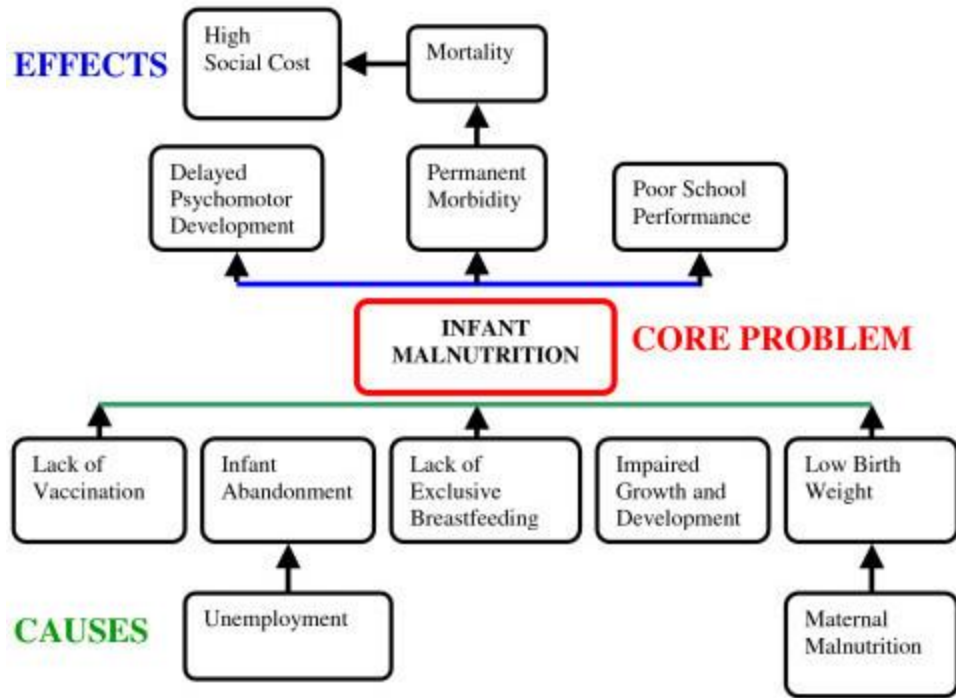


Figure 2: Problem tree for infant mortality. Source: Casapia et al 2007. See references for complete citation

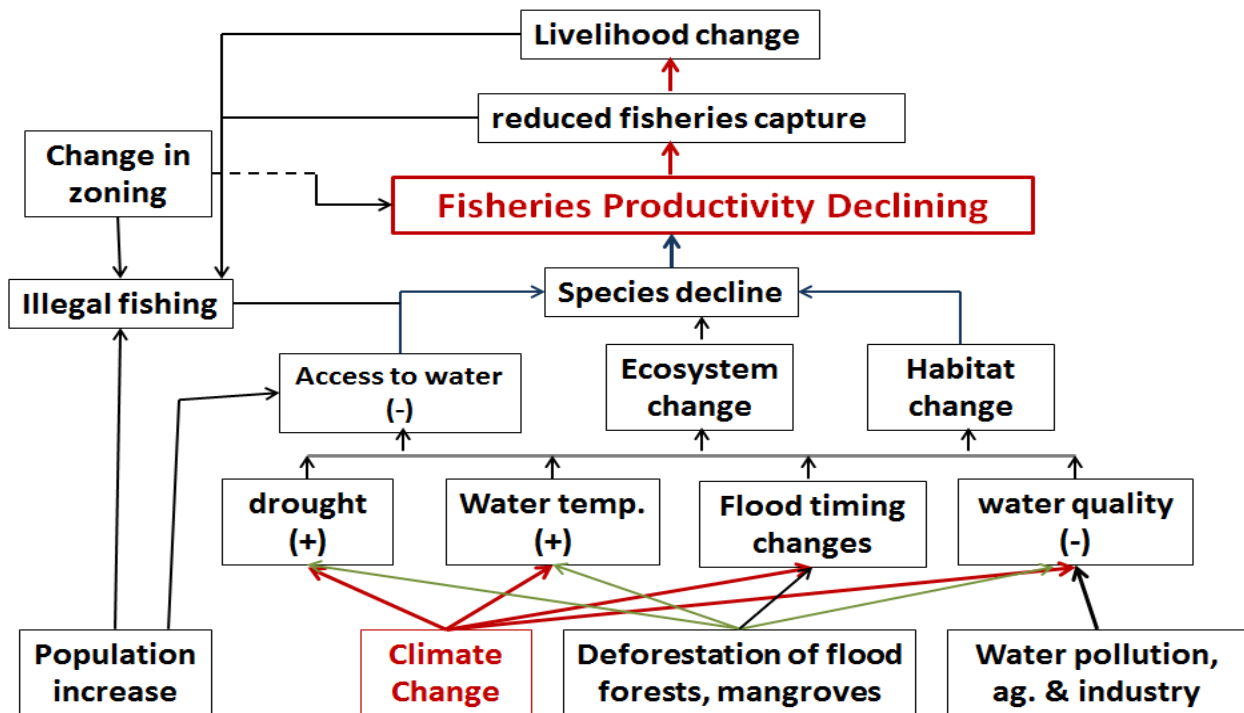


Figure 3: Problem tree for declining fisheries productivity

Guidelines for problem trees include

- Evidence based. The problems that are identified should be based on experience and evidence
- Participatory. Core problems, direct effects and impacts, and indirect impacts and root causes should be determined by consensus to as great an extent as possible
- Cause and Effect. The tree should clearly show cause and effect links.

## **ACTIVITY 2: THE OBJECTIVES TREE**

Once the problem has been discussed and mapped out, the next step is to convert the problem tree to an **objectives tree**. The objectives tree describes the desired future situation, and is a step towards project identification. It can help you determine the **outputs, outcome, and impact** of your project. The concept behind the objectives tree is simple: convert the problems you identified in your problem tree into objectives. To grow your objectives tree, follow these steps:

### **Step 1: Development problems to desirable conditions.**

First, start at the top of your problem tree, where you have already identified broader development challenges associated with your core problem. Turn these into desirable conditions. Think carefully about how you phrase your desirable conditions; these new statements should be realistic and achievable.

### **Step 2: Identify the factors contributing to the desirable conditions.**

On the next level below your new desirable conditions statements, rephrase the direct and indirect effects you have identified into factors that can lead to the desirable conditions. You might need to add new statements if they are necessary to achieve the desirable conditions.

### **Step 3: Identify the development objective**

The development objective comes from the core problem you identified in your problem tree.

### **Step 4: Identify the enabling conditions for the development objective.**

Next move to what you have determined to be the direct and indirect drivers of the core problem, and rephrase them so that they are now enabling conditions for the development objective.

In some cases, you will find that while working on your objectives tree, you need to go back to the problem tree and revise it.

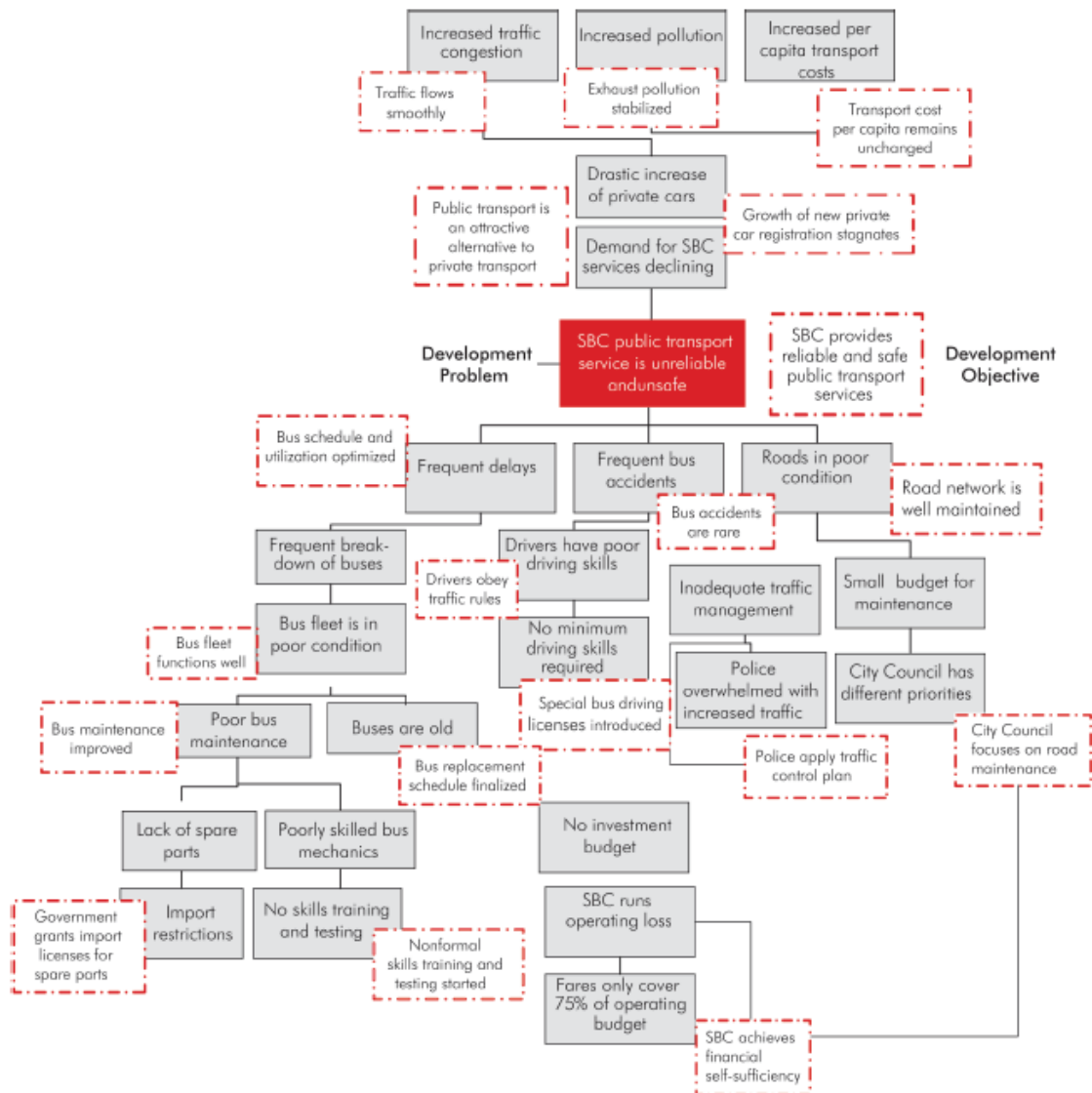


Figure 4: Problem/Objectives Tree for Public Transport. Source: ADB 2007

**References and for further reading**

Asian Development Bank. 2016. Guidelines for Preparing a Design and Monitoring Framework. Manila: Asian Development Bank. 54pp.

Casapia, M., S. Joseph, and T. Gyorkos. 2007. Multidisciplinary and participatory workshops with stakeholders in a community of extreme poverty in the Peruvian Amazon: development of priority concerns and potential health, nutrition and education interventions. International Journal of Equity in Health 6, p6.