



# problem and solution trees

Creating Change in Your  
School or Community



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Problem and Solution Trees: Tools for Creating Change in Your School or Community  
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# Why Use Problem Trees and Solution Trees?

Problem trees and solution trees have been used frequently by international development organizations as project planning tools to help groups and communities address problems and make positive change.

When planning a project, the first step is to assess and analyze the situation before planning how to respond. A project usually focuses on one or a small number of core problems. To address the effects of a problem, it is important to identify and address its root causes. Projects that skip that step might only address the symptoms and not make a real or lasting difference. Individuals carrying out these projects might end up effectively blaming the victims of the stated problems if causes are not identified, making victims responsible for issues they did not cause.



# Imagine...

Imagine, for example, that you have a headache. You could address the headache as a symptom and take medicine to stop the pain. You might even be upset with your body for causing you pain! Or, you could ask yourself why you have the headache. Are you perhaps dehydrated, overtired, or hungry? If so, you might instead respond to the headache by drinking water, taking a nap, or eating a meal before taking medicine. Looking deeper in this way might help you take better care of your body and prevent headaches in the future.



## Step 1:

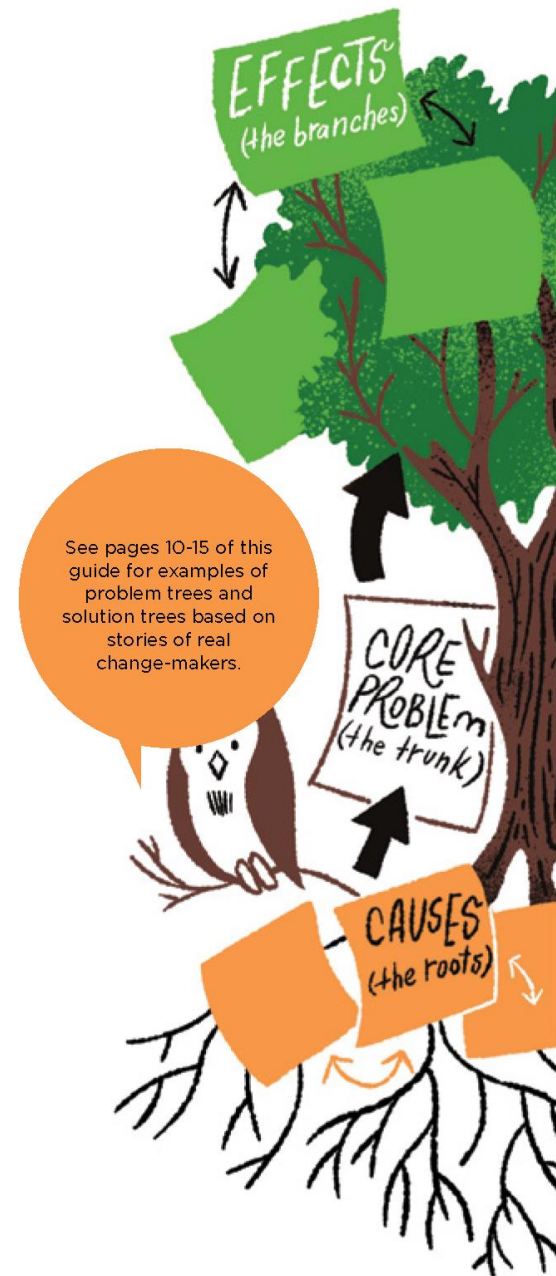
# The Problem Tree: Analyzing the Problem

## WHAT IS A PROBLEM TREE?

A **problem tree** is a visual tool to help people think together about a problem, its effects, and its causes.

## HOW DOES IT WORK?

Like any other tree, the problem tree has three parts: a trunk, roots, and branches. The trunk represents the **core problem**. Like a trunk, you can perceive the problem with your five senses, no matter the season. The roots represent the **causes** of the core problem. Like the roots of a tree, the causes of the core problem are not always easy to see. But if we do not understand the causes, it will be hard to effectively address the problem. The branches represent the **effects** that grow out of the problem in the way that branches grow from the trunk.





## Step 2:

# The Solution Tree: Developing a Solution

## HOW DOES IT WORK?

For each negative statement, we come up with a positive statement that describes a solution to the problem and the result we hope to achieve. We turn causes into **outputs**—the community actions we will take. We turn problems into **outcomes**—the change our actions will bring about. And we turn effects into **impacts**—the long-term change we want to help create.

Regular Trees	Problem Trees	Solution Trees	Meaning
Branches	Effects	Impact	This is the long-term change we want to help create for people or the planet. It is the WHY of our project.
Trunk	Problem	Outcome	This is the change our actions will lead to. It is the WHAT we want to achieve.
Roots	Causes	Output	This is the community action we will take. It is HOW we will make a difference.

## Step 3:

# The Project Statement: Communicating Your Solution

### WHAT IS A PROJECT STATEMENT?

The project statement is a sentence that clearly connects our outputs and outcomes to the broader impact we are trying to achieve. Like an “elevator speech,” this brief project statement helps us describe our project and communicate what we are working toward so we can get more people on board.

### HOW DOES IT WORK?

Our project statement flips our solution tree. We share our output, then our outcome, then our impact.



**If...**

we produce our outputs,

**Then...**

our outcomes will occur

**So that...**

our impact will come to be.

## Step4:

# Measures of Success: Evaluating Your Work

### WHAT IS A MEASURE OF SUCCESS?

Measures of success are ways of measuring our outputs, outcomes, and impacts. They are also called “indicators” because the information we collect provides a clear indication that we have achieved something.

Solution Tree	Project Statement	Measures of Success
Output	<b>If</b> we show you how to develop problem and solution trees...	<ul style="list-style-type: none"><li>• The number of people we train (by gender and age group)</li><li>• The number of groups we train (by location and type)</li><li>• People’s views on the quality of our work</li></ul>
Outcome	<b>then</b> you will be able to analyze problems in your community...	<ul style="list-style-type: none"><li>• The number and type of community problems analyzed</li><li>• Our views on the quality of the analysis</li></ul>
Impact	<b>so that</b> you can take action and make a positive difference!	<ul style="list-style-type: none"><li>• The number and type of community projects carried out and <i>their</i> measures of success!</li></ul>

It is not enough to carry out a project and assume it will work! Are we actually doing what we planned? Are we actually helping to create the change we hoped for? Evaluating our success takes planning. Let’s think ahead about what evidence we will gather to know whether we made a difference.



# **Practice**

## **Problem and Solution Trees**

# Wangari Maathai, Kenya: Planting Trees of Peace

Adapted from: *Wangari's Trees of Peace: A True Story from Africa*  
by Jeanette Winter.

Wangari Maathai (1940-2011) grew up under the shadow of Mount Kenya in Africa, surrounded by trees. Wangari shines in school, and wins a scholarship to study in America. When she returned six years later, she was upset to see that the trees were gone and that women now had to haul firewood many miles from their homes. The soil was poor and the crops no longer grew. There was not enough clean water to drink, and the birds had disappeared. Developers had cut down trees to make room for cities, and no one had planted new trees to take their places.

She decided to save Kenya from becoming a desert. She started, in 1977, by planting seven trees in honour of community leaders. Then, she created a farm for baby trees, a nursery. Later, she gave women seedlings and told them, "We are planting the seeds of hope." She trained them in forestry and paid them for each seedling that survived. She protested the developers cutting down trees and was arrested. Word travelled, and soon, women were planting trees all over Kenya—and then all over Africa. By 2004, over 30 million trees had been planted, and there were 6,000 nurseries in Kenya. Over 80,000 people had increased their incomes, and Wangari's Green Belt Movement had spread to 30 African countries and beyond. That year, Wangari was awarded the Nobel Peace Prize.



**Note:** Wangari couldn't stop women from cutting down trees to get the firewood they needed to cook, but she had the **time, resources, and skills** to train them to plant new trees!

# 1 If Wangari had created a problem tree, what might it have looked like?

**EFFECTS**  
What are the main effects of this problem?



**PROBLEM**  
What is the main issue facing Wangari's community?

**CAUSES**  
What are the root causes of the problem?

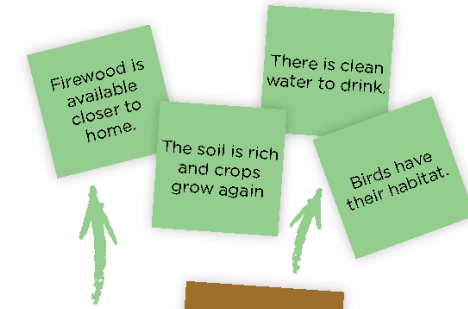


# 3 What might Wangari's project statement have been?

If we train and pay women to plant trees, **then** the community will have more trees **so that** the environment will be improved!

# 2 If Wangari had turned her problem tree into a solution tree, what might it have looked like?

**IMPACTS**  
What long-term change occurs?



**OUTCOME**  
What change do the actions lead to?

**OUTPUTS**  
What actions does the community or Wangari take to address the problem?



# 4 How might she have measured her success?

Solution Tree	Project Statement	Measures of Success
Output	If we train and pay women to plant trees...	<ul style="list-style-type: none"> <li>The number of women trained (over 80,000)</li> <li>The number of nurseries established (6,000 in Kenya)</li> </ul>
Outcome	then the community will have more trees...	<ul style="list-style-type: none"> <li>The number of trees planted (over 30 million!)</li> </ul>
Impact	so that the environment will be improved!	<ul style="list-style-type: none"> <li>The fertility of the soil</li> <li>The amount of clean drinking water</li> <li>The number of birds</li> </ul>

# Muhammad Yunus, Bangladesh: Lending Money to the People

Summary of *Twenty-Two Cents: Muhammad Yunus and the Village Bank* by Paula Yoo.

Muhammad Yunus (1940-) grew up in Bangladesh. He witnessed extreme poverty all around him and was determined to eradicate it. He studied economics, hoping to find a way to address poverty. In 1976, he met a young woman named Sufiya who wove bamboo into beautiful stools. She needed just five taka (about twenty-two cents) to buy materials to make more stools to sell to help feed her family, but the banks would not loan her money. The bank discriminated against her, believing that because she was poor and illiterate, she would not repay the loan. Sufiya borrowed from money lenders instead. They charged her interest rates so high that she did not have enough money left over to buy food for her children. Sufiya's situation troubled Muhammad.

Inspired to take action, Muhammad decided to launch his own bank, Grameen Bank, meaning "Village Bank." At Grameen Bank, craftspeople and women like Sufiya borrow very small amounts of money ("micro-loans") at low interest rates. To borrow money, customers form groups of five and participate in training to learn how to manage their money. Once they received their loans, groups were responsible for the success of each member. They met together weekly to help each other and to learn together. 97% of customers have paid back their loans. Poverty rates in Bangladesh have dropped as a result of this program. Inspired by the success of Grameen Bank, similar banks, called "micro-finance organizations," have opened up in over 100 countries. Together, these organizations have loaned more than 15 billion dollars to over 12 million people worldwide, 94% of them women. Muhammad and his bank won the Nobel Peace Prize in 2006.



**Note:** Muhammad couldn't directly address illiteracy rates, but he had the **time, resources, and skills** to create the Grameen Bank to help people access loans!

1

## If Muhammad had created a problem tree, what might it have looked like?

### EFFECTS

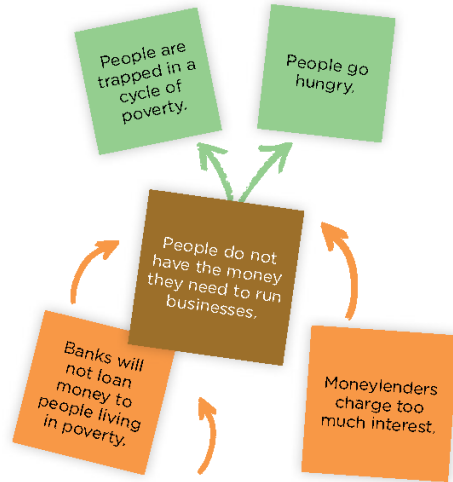
What are the main effects of this problem?

### PROBLEM

What is the main issue facing Muhammad's community?

### CAUSES

What are the root causes of the problem?



2

## If Muhammad had turned his problem tree into a solution tree, what might it have looked like?

### IMPACTS

What long-term change occurs?

### OUTCOME

What change do the actions lead to?

### OUTPUTS

What actions does the community or Muhammad take to address the problem?



3

## What might Muhammad's project statement have been?

If you provide micro-loans to people living in poverty, **then** they will have money to run their businesses, **so that** they can escape the cycle of poverty.

4

## How might he have measured his success?

Solution Tree	Project Statement	Measures of Success
Output	If you provide micro-loans to people living in poverty...	<ul style="list-style-type: none"> <li>Number of dollars loaned (over \$15 billion)</li> <li>Number of people (men/women) who have received loans (over 12 million)</li> </ul>
Outcome	<b>then</b> they will have money to run their businesses...	<ul style="list-style-type: none"> <li>Number of businesses created, sustained, or grown</li> <li>Number of people employed</li> </ul>
Impact	<b>so that</b> they can escape the cycle of poverty.	<ul style="list-style-type: none"> <li>Rate of poverty</li> <li>Rate of hunger</li> </ul>

# **Apply**

## **Problem and Solution Trees**

# Worksheet 1: Creating a Problem Tree and Turning It into a Solution Tree

NAME: \_\_\_\_\_

**STEP 1:** Start by analyzing your problem. Write the core problem next to the trunk. To analyze the problem, write its causes next to the roots and its effects next to the branches.

**STEP 2:** Now it is time to develop a solution. Change your negative statements into positive statements. Change the causes into outputs, the problem into an outcome, and the effect you circled into an impact. Now, circle the output that you will have the **time, resources, and skills** to achieve. **The problem now becomes the solution and the plan for your project!**

## EFFECTS

What are the effects of this problem? What do the effects lead to?

## PROBLEM

What is the main issue facing the community?

## CAUSES

What are the root causes of the problem? What led to it?

## Problem Tree

## Solution Tree



## IMPACTS

What long-term change do I want to help create? WHY do I want to do my project?

## OUTCOME

What change do I expect my action to lead to? WHAT do I want to achieve?

## OUTPUT

What action will I take to address the problem? HOW will I make a difference?

# Worksheet 2: Writing a Project Statement

NAME: \_\_\_\_\_

Now it is time to communicate your solution. Look at your solution tree and copy your output, outcome, and impact where indicated below. Now you have a project statement! It tells people in a sentence what your project will do and achieve.

**OUTPUT**  
*if...*

**OUTCOME**  
*then...*

**IMPACT**  
*so that...*



# Worksheet 3: Developing Measures of Success

Finally, plan how you will evaluate your project. Copy your project statement from worksheet 2 into the second column below. Now identify at least one way to measure the success of your project. How will you know that your solution made a difference? What will you measure, or what evidence will you use? Come up with ways to measure your output, outcome, and impact.

<b>Solution Tree</b>	<b>Project Statement</b>	<b>Measures of Success</b>
Output	If...	<ul style="list-style-type: none"><li>• I will measure...</li></ul>
Outcome	then...	<ul style="list-style-type: none"><li>• I will measure...</li></ul>
Impact	so that...	<ul style="list-style-type: none"><li>• I will measure...</li></ul>

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