**Purpose**

This tool is intended to help NGOs develop a theory of change in collaboration with a community planning committee. Supplemental to the Co-designing Activities section in the framework (page 40), this tool provides additional information on the process of backwards mapping, which creates a logic model. There are many software packages available that can be used to design the theory of change graphically, once the model has been developed. When completed, the model can be shared externally and should be reviewed in accordance with a monitoring plan. Of course, this should be a living tool and projects should expect changes over time.

**How to use this tool**   
This tool should be completed with a project planning committee, before an NGO begins implementing activities. Ideally, it will foster innovation and creativity, leading to the development of activities and their underlying logic. As this exercise will result in designing the activities an NGO and community partners will implement, it is crucial that it be completed with NGO and community leadership present. Backwards mapping exercises are often most successful when done with certain materials and roles assigned:

* A facilitator (see Tips and Tools: The Role of the Facilitator on page 44 of the framework)
* A skeptic (see Tips and Tools: The Role of the Skeptic on page 45 of the framework)
* A whiteboard, flipchart, or other means of visual mapping
* The results from previous capacity analyses (**Tool 4: STEP** **Analysis for Internal Capacity** and **Tool 6: SWOT Analysis for External Capacity**)

Begin by stating the shared goals of the NGO and community that were defined in a visioning workshop. They should be written for all participants to see. These goals will likely form the impact level of your theory of change, as shown in the example below.

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Next, the facilitator leads a discussion on the outcomes that will lead to these goals or impacts. Through targeted questioning, the facilitator should lead the participants through a problem orientation exercise in which participants are asked to define the root causes of the problems they face and design solutions. Though there are many ways to frame a theory of change, many NGOs choose to phrase each outcome as an expected result, or intermediate solution, thus creating a **results framework**. Work backwards through outcomes until you reach output-level activities that can be implemented by the NGO and community partners. When discussing outputs, be sure to consult the results from your previously completed STEP and SWOT analyses to ensure that activities are feasible.

Some examples of questions a facilitator and skeptic might ask to guide participants in understanding chains of logic include the following:

* What factors would create stable wildlife populations?
* What is the root cause of overgrazing in this area?
* What can the women’s association do to bring more girls and youth to events?
* How is the rangeland management training leading to healthier pasture?
* Is beekeeping technical training enough to ensure women’s ownership of the enterprise?
* Have we thought about how this location for the well will affect girls’ ability to attend school?

At this stage, you can include arrows to define logic in your model. The arrows in a theory of change allow a project planning committee to demonstrate complex, nonlinear relationships between outputs, outcomes, and impacts. The arrows also encompass the assumptions inherent in a theory of change. Creativity in the use of arrows is highly encouraged as a way to characterize the relationships between various pieces of a logic model. The figure below shows some regularly used arrow types and the relationships they represent.

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After you have mapped your logic from impacts back to outputs (activities), the facilitator can move on to determining necessary inputs (e.g., financial, material, and human resources) to implement those activities. These inputs can often be translated directly into budget line items for labor, materials, and other equipment or supplies (**Tool 2.1: Budget Template With Scenario Analysis**).

**Tips for backwards mapping**

* Avoid making logical leaps by thinking through the direct causes of each expected result, even if this means having multiple levels of outcomes.
* Challenge your assumptions! Allow the skeptic to question every part of your theory and think through the dependencies inherent in your logic between outputs and outcomes (intended and unintended).
* Avoid phrasing your outcomes as indicators or targets. The process of developing indicators and setting targets will come later in a monitoring plan. Rather, phrase your outcomes in general terms (e.g., increased income retention, decreased livestock depredation, improved understanding of conservation values, decreased habitat fragmentation).

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* Take time to think of outcomes beyond the expected direct causal relationships. The facilitator can assist by prompting participants to think of social, ecological, and economic outcomes. Color coding items by their respective fields is a simple way to visually demonstrate the balance (or lack thereof) between your social, ecological, and economic outputs and outcomes.
* Remember that theories of change may look complicated during development. An external-facing version can be designed later, but it is crucial to retain the detail and nuance of your program logic in your internal model. Allow for this complexity and debate in your discussion.
* Remember that you do not need to have the same number of items in each column (inputs, outputs, outcomes, and impacts). Most complex theories of change have significantly more outcomes than any other level in the model.

