



Develop (co-create) Your Program

As you define your scope of work, the program development process naturally begins to take shape. Program development here refers to building a set of activities or resources in order to achieve a desired outcome or goal. Ensuring that your program is developed in a way that is directly related to your desired outcome is best done through a *theory of change* or a *logic model*. While there is significant overlap between these two approaches, there are also subtle differences.

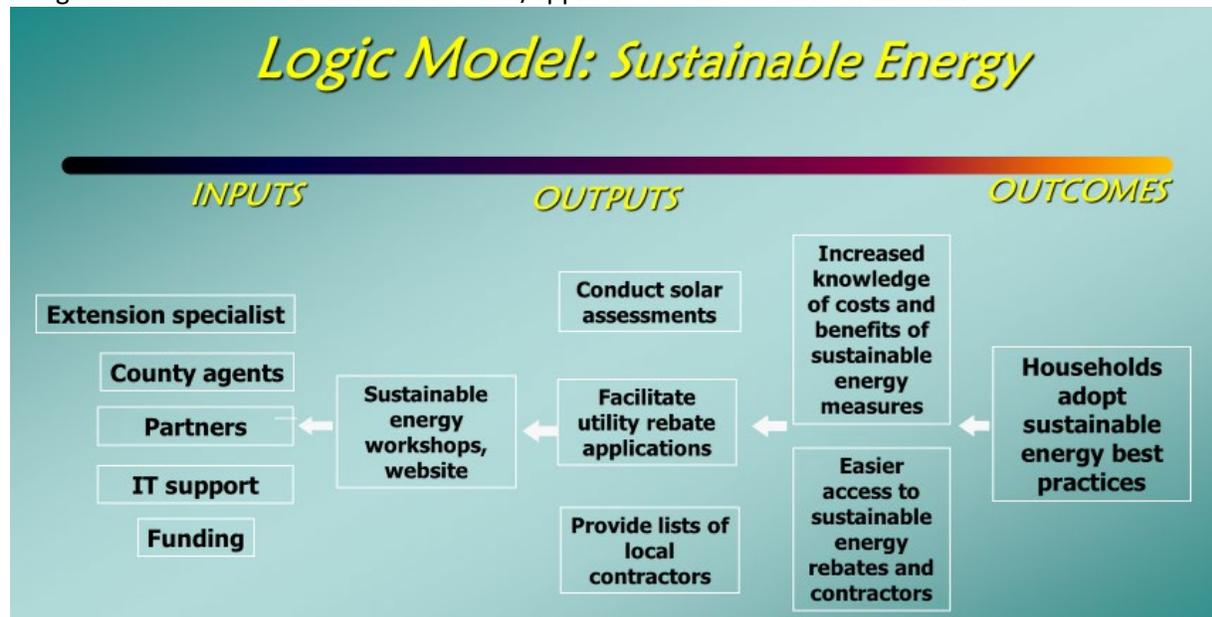
A theory of change here refers to a description of: 1) the way in which the desired change comes about; and 2) what actions need to happen for the program to reach its intended outcomes (sometimes referred to as a theory of *action*) (Funnell & Rodgers, 2011). Logic models have tended to focus solely on simply describing the actions that need to happen for the program to reach its intended outcomes (#2). Because theories of change more explicitly call for thinking through the evidence, research, or hypotheses (assumptions) that will lead to a desired change, it is wise to employ them when developing programs that require a significant investment of resources.

Logic models may suffice for developing programs that require a lesser investment of resources. *Both theories of change and logic models can be depicted visually or as text*, although many find visual displays easier to follow.

To illustrate, let's use an example scope of work on the issue of sustainable energy:

Households (target audience) adopt sustainable energy best practices (goal/outcome) in order to save energy and money (problem).

A logic model to achieve this medium-term/applied outcome could look like this:



The logic model starts with the medium-term goal/outcome on the right and “works backward” to short-term outcomes (changes in knowledge and awareness), outputs/activities, and inputs/resources needed to achieve this outcome. By working backwards, logic models can ensure a focus on outcomes rather than starting with the status quo of inputs and activities/outputs put forth by a program team in the past (McCawley). As suggested by the United Way in its description of a logic model, it’s “not how many worms the bird feeds its young, but how well the fledgling flies” (United Way of America, 1996).

In this case, the logic model illustrates the program team’s belief that in order for households to adopt sustainable energy best practices, they need more knowledge and easier access to resources. Solar assessments would provide some of that knowledge, and facilitating rebate applications and providing local lists of contractors would provide easier access to resources. People might attend workshops or visit a website to get educated about costs, benefits, and resources. In order to provide workshops, a website, and services, the team would need a specialist, agents, partners, technology support, and funding. Creating a logic model involves a process of deduction that should be easy to follow. And although it is created by working backwards, members of the team should still be able to be read forwards as a series of “if-then” statements. (IF a certain input is committed to the effort, THEN a certain output should be produced. IF that output is produced, THEN the result will be a certain outcome, etc.)

A theory of change related to this same scope of work would more explicitly cite the specific evidence, research, or hypotheses the team used connect its program outputs to the outcomes. For example, research from an Extension specialist or engaged faculty member may reveal that there is correlation or causation between solar assessments and solar installations. Thus the theory of change may be articulated in this table. (It could also be presented as a visual display like the logic model, with the arrows that connect outcomes to outputs filled in with citations of evidence, research, or hypotheses.)

Outcome	Output	Evidence/research/hypothesis
Households adopt sustainable energy best practices		
Increased knowledge of costs and benefits of sustainable energy measures	Conduct solar assessments Sustainable energy workshops Website	Link to study showing that solar assessments increase solar installations
Easier access to sustainable energy rebates and contractors	Facilitate utility rebate applications Provide local lists of contractors Website	Link to study showing easy access to resources increases solar adoption

The stronger the evidence, the more confidence the program team can have in achieving its outcomes through the program it develops. This is referred to as the “degree of belief” in a theory of change (Bennett & Miller, 2020).

Degree of Belief	Description
Very Strong	Evidence generated by the authoring team, presence in research literature or in practice elsewhere (with reference)
Strong	Locally generated evidence by the authoring team only. Often, this level of evidence is very good, but ideas may require adaptation elsewhere as the context shifts in a scaling effort
Weak	Present in the literature, but either untried locally by the authoring team or without demonstrable quantitative evidence of improvement in the local setting
Very Weak	Belief and anecdote, often a good starting place, based in clinical knowledge or experience but with a word of caution that is yet to be proven at all in practice (either locally or in the literature).

In the absence of a strong degree of belief in support of developing your specific program, referencing general behavior change literature is advisable. Rockwell and Bennett’s work on Targeting Outcomes of Programs, Rogers’ Diffusion of Innovations, Lindeman’s work on adult learning, Hiatt’s ADKAR model, and Prochaska’s Stages of Change may all have relevance to your programming. Key points from each of these general theories of change are summarized in the table below.

Theory	Synopsis
ADKAR model (Hiatt, 2006)	Change requires awareness, desire, knowledge, ability, and reinforcement
Adult learning theory (Lindeman E. , 1926)	<p>Adult learning should be based on the following assumptions:</p> <ol style="list-style-type: none"> 1. Adults are motivated to learn as they experience needs and interests that learning will satisfy. 2. Adults' orientation to learning is life-centered. 3. Experience is the richest source for adult learning. 4. Adults have a deep need to be self-directing. 5. Individual differences among people increase with age.
Diffusion of Innovations (Rogers, 2003)	<p>A proposed change needs to have five characteristics for adoption:</p> <ol style="list-style-type: none"> 1. Relative Advantage: Is it perceived as better? 2. Compatibility: Is it consistent with the needs of participants? 3. Complexity: Is it relatively easy to understand and use? 4. Trialability: Can they experiment with the change before commitment? 5. Observability: Are the benefits easily visible?
Stages of Change (Prochaska, 1979)	<p>A change is subject to five stages:</p> <ol style="list-style-type: none"> 1. Pre-contemplation - people have no intention to change their behavior in the foreseeable future. 2. Contemplation - people are aware that a problem exists and are seriously thinking about addressing it, but have not yet made a commitment to take action. 3. Preparation - individuals in this stage are intending to take action in the near future. 4. Action - individuals modify their behavior, experiences, or environment in order to overcome their problems. 5. Maintenance - people work to prevent relapse and consolidate the gains they made during the action phase.
Targeting Outcomes of Programs (Rockwell & Bennett, 2004)	Achieving medium-term outcomes like changing behavior, practices, or decisions requires short-term changes to knowledge, awareness, skills, and attitudes (KASA)

In all cases of program development, being able to [empathize with your target audience](#) can lead to insights into how best to develop a program that will achieve your intended outcome. This speaks to the importance of keeping a diverse network engaged with all aspects of the program planning process, including program development. **Co-creation** of programs alongside a diverse network is the pinnacle of true engagement because it can be so impactful. Key informant interviews can help with this, as can *observation of* and general *engagement with* your target audience. [Generating a "persona"](#) to represent a hypothetical person in your target audience is another tool to help you put your learnings into a form that you can reference as you develop your program.

A logic model or theory of change should go as deep as needed to help the individual or team think through the connections between its ultimate goal and its activities. In some cases, establishing a robust logic model or theory of change based on a strong degree of belief may be required or at least beneficial for grant applications. If you or your team go through the program development process and decide that the resources/inputs required to achieve your goal are too rich, revisit your scope of work.