

Hello and welcome to section 6 of the Food Systems Learning Guide. My name is Saher Hasnain. In this section, we will explore how we can bring about change in a complex system space using the back casting tool. By the end of the section, you will be able to identify the different types of change makers in complex systems and how to start planning backwards from the future instead of taking incremental steps into the future from the present. The section builds on the material from before in the guide on emphasising the value of a clearly laid out transformation statement and the insights from the analysing intervention section.

Here are a number of examples of how different types of change makers can bring about change. This can include mechanisms such as petitions, practice-based networks, informational guides, protests, interest groups, taxes, and laws and regulations. Different sectors and actors intervene in a system in different and specific ways. This is often related to their world views and their positions of power.

There are different types of change makers in this space. For example, people in industry who can represent agriculture, agribusiness manufacturing, food processing and marketing. Civil society such as non-governmental organizations, community groups, not for profit groups and organisations, and individuals. Government can include systems on the national, regional, and local levels, legislation and regulation, subsidies and agreements as their primary mechanisms of driving change, and academia through research and sharing knowledge. There are definitely other types of change makers that are not on this list and you are encouraged to think about those that you have encountered in your professional and personal contexts.

Here is an example of bringing about change through theories of change. This can include a description of the key types of project activities often discussed in terms like work packages and work streams, outputs that could include policy briefs and short films, and outcomes that can impact different types of stakeholders and impacts across a range of different activities.

This is a very busy slide which emphasises the value of thinking backwards instead of going from the beginning with the different types of activities that you would like to do and the resources available. Here is an example from an academic project that indicates the longer term impacts of a project across a range of different sustainable development goals. If you move on from this, you can see we can go backwards through a range of different outcomes and then the resources and research activities necessary to achieve the outcomes and outputs. The activities must be connected to different types of impacts and all of these are interrelated and deeply complex, representing the complexity of the change that is being sought.

However, theories of change like the ones shown before link, ultimate goals to what is done in an activity or a project. This can be a very linear way of thinking where we are encouraged to start from the present point in time and then to move forward into the future at an ideally stated and clear goal. But good and effective planning needs backwards planning or backcasting. Here is where we start at the end point in the future that we are trying to change and then work backwards to see what are the different types of activities that will be needed in contrast to the theory of change.

This example show us the value of taking a backwards planning or a backcasting approach. This process further reinforces the requirement of having a clearly described transformation statement that is specific, measurable, actionable, realistic and time-bound. The transformation statement in this example is focused on reducing childhood obesity through the mechanism of product formulation by 2035. In this exercise we will begin from 2035 and then

guide to stakeholders through an understanding of the necessary preconditions, policies, and practice for each of these things to take place and then the idea is to work backwards through time. The value here is that you are already beginning from a clear understanding of the type of future that will be created when the transformation is successfully achieved. In this example, the thing that is required to have happened by 2035 is a 25% reduction in sugar in food. Starting from the future allows us to think of what else needs to happen to support this. It is important to note that this might require things to happen that are not necessarily linked to sugar. So a key precondition to making this future take place is that children are happy to have less sweet foods and their parents and schools are keen to improve children's health. The policy required to make this happen is that a sugar tax is introduced and that vegetable-based snacks are subsidised, and the practise is that food processors reduce sugar in formulation.

All of this requires that by 2030, we have a 25% increase in vegetable-based snacking for which a key pre-condition is that retailers have appropriate systems in place to provide space for these new lines of vegetable-based snacks. Next, policies are that vegetable growers are provided with an appropriate subsidy. Then there's a school program of an education on diet and that sugary snack advertisements are banned on public transportation, New lines with the retailers, and that food processors are developing high production lines for vegetable-based snacks and finally working backwards through time, we now know that an appropriate step for the present is that there's a 70% increase in public awareness on the underlying concerns about dental and other health impacts and a public information campaign, and that advertisers are changing how they are advertising. Working backwards in time allows stakeholders to see what other seemingly unrelated activities might be needed as preconditions to enable the desired changes to take place. It allows us to bring in systems thinking and to refer back to the insights from the BATWOVE exercises. Are there any trade-offs that need to be accounted for in this planning that may be more visible now in practice or policy or preconditions that need to be done, and what are the assumptions of practise will be holistic and practical given the world views that are required? Backcasting allows for a further evaluation of the unintended consequences for trade-offs and planning in a bigger picture and a more comprehensive way. It allows us to see what the other activities are that need to take place to allow our transformation to be appropriately supported.

In the activity sheet provided, there is a grid for conducting your own backcasting exercise. It is recommended that before this has begun, that the transformation statement is clear and that the BATWOVE exercise has resulted in a clearly identified worldview that has then shaped the identification of the beneficiaries, actors, owners, victims, and environmental constraints. All of these will be necessary in populating the backcasting exercise to develop a clear plan to achieve the complex change we are trying to achieve