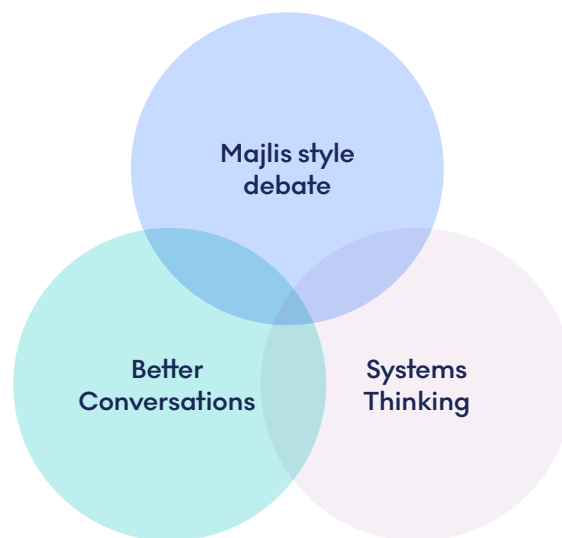


# Understanding the World Through Systems Thinking

Systems thinking offers a guided approach to building the knowledge and skills necessary to analyze, understand, and address complex global challenges. The activities in this module are designed to support participants in understanding how systems work and the essential role of diverse worldviews in seeking solutions to complex problems.

Taking a systems thinking approach is one of three interdependent components of the Deep Dive Guide for addressing complex global issues:



1. The Majlis style of debate offers an opportunity to openly discuss ideas and to map out where there is agreement and difference on key issues that we all face, identifying common interests, rather than amplifying the differences.
2. Better Conversations provides an opportunity to learn and practice the skills necessary to conduct difficult conversations about potentially sensitive local and global challenges.
3. Systems Thinking provides a framework for understanding that complex global challenges require an ability to value and embrace diverse worldviews, to see interconnections and analyze complex dynamics.



# Wicked Problems and Systems Thinking

When we think about some of the world's greatest challenges (see [United Nations Sustainable Development Goals](#)) it helps to think of them not just as complicated, but as complex. Consider problems such as loss of biodiversity, the global refugee crisis, water scarcity, climate change, and so on. Complex issues are nearly impossible to fully define and they never have one perfect solution. Systems thinkers often refer to complex issues as "wicked problems". Even when we think about tackling these problems, it's hard to even know where to begin. Why is that? Systems thinking offers a path forward.

## WICKED PROBLEMS

Wicked problems are characterized by their many interdependencies, their many stakeholders, and their resistance to being broken down into pieces and "solved". Instead, they require a collaborative and deeper understanding of the problem itself before any interventions to improve on the systems involved in the problem can be planned and implemented. While there is typically consensus around the existence of these complex problems, the path towards solutions is often fraught with multiple, colliding and contradictory perspectives and opinions. Systems thinking makes a strong case for why listening to and making space for other points of view isn't just nice, but necessary to create systemic change.

This is why Doha Debates engages a Majlis-style of debate in which several diverse viewpoints are represented, and utilizes the skills of a "Connector" (Dr. Govinda Clayton) to help participants see common ground within the system as well as practice the Better Conversation skills to facilitate respectful, productive dialogue.

## HOW TO USE THIS MODULE

Systems thinking concepts and activities are embedded throughout our Deep Dive educational materials, however this module is specifically designed to help educators lead their students into deeper systems thinking analysis of the global issues raised in Doha Debates productions, be they live debates, podcasts, films or interactive tools.

We suggest that educators select a debate/podcast topic that is of interest to students or relevant to their course of study, and then select at least one activity per stage in our four-stage PERA process (Prepare + Engage + Reflect + Act).



## Wicked Problems and Systems Thinking

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In this module students will:

- understand the Systems Thinking Approach and how solutions can be developed for addressing complex (or wicked) problems,
- practice deep listening, a Better Conversation skill,
- develop a sense of their own worldview and their role in social change.

**Pro- Tip 1:** We suggest that educators complete the activity [Mapping Your Worldview](#) in preparation for teaching this module. The activity will serve as a primer on systems thinking, as well as an opportunity to further understand their “Facilitator Stance” on the topic under discussion.

**Pro-tip 2:** For more information on facilitation, please see our [Deep Dive Guide: Welcome to the Majlis](#).

**Pro-tip 3:** Group activities with discussion will take between 30-45 minutes to complete. These can be done in a video conference, using breakout rooms and Jamboard, or in a classroom face-to-face. Other activities are for individual reflection and can be done as homework, as well as used for assessment.



# Take the Systems Thinking Approach

## PREPARE

In this first stage of the PERA process, students gather background information on the issues, establish common understandings and practice Better Conversation skills.

Choose a Doha Debate and/or Course Correction podcast topic to explore. Gather your group and explain to them that they will be engaging in a different style of debate, and explain the majlis. Participants should understand:

1. The majlis is a safe place to have open dialogue and to learn from diverse worldviews.
2. The group will be exploring a complex global issue, or wicked problem, with the purpose of considering multiple world views, taking a systems thinking approach.
3. How participants communicate and practice social emotional skills will be the key to their success.

**Activity:** [Read and Discuss](#) (15 min)

Read the Five Facts about Systems Thinking to better understand why it is helpful to distinguish between "complicated" problems and "complex" problems, and how this approach helps minimize the distorted thinking that comes when we're entrenched in our worldviews and helps us see the world more accurately.

**Activity:** [What is a System?](#) (45 mins)

Introduce the concept of a system using simple feedback loops between factors. This fun activity also develops rapport and builds a sense of community within your group.

**Activity:** [Watch and practice: Improve Your Listening Skills Video](#) (20-25 mins)

Dialogue is one of the most important skills in systems thinking. Prepare participants to listen to one another with this activity by practicing what it means to listen and understanding how active listening can contribute to having better conversations

As a group, watch Improve Your Listening Skills and follow the discussion guide to integrate the knowledge.

## Take the Systems Thinking Approach

### Activity: [Mapping Your Worldview](#) (30-40 mins)

Get ready to build systems thinking skills! Challenge participants to systemically map their own worldview of a complex challenge. Before engaging in a conversation or majlis-style debate about a complex global challenge, it is helpful for participants to first consider their own worldview or perspective about the issue. In this activity, participants will work individually to construct and reflect on a systems map for a complex challenge according to their worldview.

\*This can be done as homework.

### EXTENDED LEARNING – CONSIDER A REAL EXAMPLE

Have more time? Want to look at a real world example? These activities will walk you through an example of using the systems thinking approach when looking at plastics pollution.

### Activity: [Read and discuss](#) (20 mins)

Consider this example of systems thinking applied to Plastics Pollution Example.

### Activity: [Consider Systemic Solutions](#) (25-30 mins)

Walk through an example of developing systemic solutions by examining the global challenge of single-use plastic pollution. Participants engage in an analysis of a systems map, identifying gaps and possible systemic solutions.

\*This can be done as homework.

### ENGAGE

In this second stage of the PERA process, participants explore the the issue, key concepts, looking for gaps in the conversation, filling them in with informed questions and active listening to broaden the discussion.

### Activity: Engage with Doha Debates Productions (30-90 mins)

In this activity, participants watch a [Doha Debate](#), listen to the [Course Correction](#) podcast, or engage with the other Doha Debates digital material.

Facilitators may want to watch the digital asset in advance and prepare comprehension questions or other materials to check participant understanding.

Watch the chosen digital production and then discuss the content using the following prompts:

- What surprised you about this? What stood out to you?
- What did you learn from this video/podcast?
- How did watching this change what you already thought about the issue?



## Take the Systems Thinking Approach

**Pro-tip 1:** This is a good opportunity to watch one of the live Doha Debates. If you do so, consider posing your questions on Twitter using an episode of #DearWorld.

**Pro-tip 2:** Participants can watch debate, and or listen to podcasts as homework, leaving discussion for classtime and/or journaling.

**Pro-tip 3:** Consider asking participants to write a short paragraph reflecting on what they learned from the digital asset about the issue, documenting the different perspectives presented and how they might respond to each perspective.

**Activity: Stakeholder Mapping** (45 mins)

Participants consider the various perspectives and voices in the challenge by mapping the roles and powers of influence of the different stakeholders. In this activity, participants work together to identify the major stakeholders in an issue. They also consider the role and level of influence the various stakeholders have on the issue and on each other.

### REFLECT

This Reflect stage of the PERA process provides opportunities for integrating personal connections and applying social emotional skills to reflect on issues and identify emotions.

**Activity: Map Your Social Change Role** (30 mins)

Tackling issues systemically can feel like daunting and challenging work. Have participants reflect on and identify their role in bettering social issues. Participants will reflect on their values and align them to roles in social change movements, giving them insight into how they can best contribute to the betterment of a social issue.

\*This can be done as homework.

**Activity: New Lenses on Our Worldview** (45 mins)

As a group, participants reflect on how systems thinking skills have broadened their participants' knowledge and skills about the issue. In this exercise, participants use three lenses to reflect on how systems thinking and engaging with others has helped them learn about themselves, broadened their own worldview, shifted their understanding of the complex challenge.



## Take the Systems Thinking Approach

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### ACT

In this Act stage of the PERA process, participants take concrete action through better conversations, social involvement or personal commitment related to issues discussed.

**Activity: Proposing Systemic Solutions** (45 mins)

This activity brings participants full circle in their exploration of systems thinking. Participants analyse their systems map from the Engage phase and work together to identify possible systemic solutions.

**Activity: Taking Action Towards Social Change: #SolvingIt** (60 mins)

Who are some changemakers in local communities working on shifting inequities within systems? Have participants do some research to nominate and honor local community members who are working towards social justice, equity and #SolvingIt.

\*This can be done as homework.



# Read and Discuss

## Five Facts about Systems Thinking

(Time: 15 mins)

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1. Complex problems have a wide range of stakeholders and issues involved, from private citizens, to small businesses, corporations, government policies, educational systems, and so on. And each of these stakeholders holds a unique worldview of the problem and differing value judgements. Some may have similar views on the problem, but often the actual formulation of the problem is drastically different.
2. Each element of the problem is connected to other elements in different ways. This looks more like a web or a system than a long complicated list.
3. Because the elements are interconnected with one another, addressing one element will likely cause unexpected consequences in another. The interconnections between all the stakeholders and issues means that there is no one single solution or any one organization that can just eliminate the problem. But having a systemic understanding of the problem helps us consider where we might make the most impact.
4. Instead of coming up with one quick-fix solution, we can start to see how pulling or impacting on one area of the system might affect other places in the system, because it's all interconnected.
5. Not all stakeholders have the same power within the system to make change; consider, for example, how government policies or strong industry lobbies might shift the resources dedicated to tackling climate changes, while indigenous voices on climate change have been historically marginalized in the system. To reduce conflict and marginalization, those boundary judgements must be exposed and discussed with special attention to making all stakeholder voices heard. Through dialogue about the beliefs and boundary judgements, a much deeper understanding of the problem emerges.





## Read and Discuss

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So how do we address such complex problems? Before jumping to any solution, we have to look at the whole system. And that requires us to ask some important and difficult questions, especially when we're used to seeing things from our corner of the system:

- Who else is involved in this system?
- What are the multiple perspectives for all those who have a "stake" in the problem?
- How are the specific elements of the problem connected? And connected to me?
- How would a change in one part of the system impact the other parts?

In short, systems thinking - or thinking systemically - helps minimize the distorted thinking that comes when we're entrenched in our worldviews and helps us see the world more accurately. If we can listen to each other's perspectives and find connections, we'll be better equipped to understand the scope of the challenge and develop a systemic response together.

# What is a System?

(Adapted from [Institute of Play Q Design Pack](#))

(Time: 45 mins)

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## PURPOSE

Participants are introduced to the concept of a system using simple feedback loops between factors.

## SKILLS

- Responsible decision making
- Systems thinking

## INSTRUCTIONS

1. Ask participants to think about 1 - 2 issues they are facing either personally or at work/school. Examples might include:
  - Not getting enough sleep at night.
  - Trying to change one's diet.
  - Attempting to work with a team to complete a project on time.
  - Struggling to carve out time for personal needs (e.g. working out, spending quality time with family, pursuing a hobby, etc.)
2. Ask participants to choose one of these problems and then to list 4 - 6 parts associated with this problem. Have participants arrange these parts in a feedback loop to show how they are related to one another. Use the following terms to explain the concept of feedback loops. Feedback loops show causality, how one part of a system is influenced by another. Two types of feedback loops exist that control the behavior of a system: reinforcing and balancing.
  - A reinforcing feedback loop amplifies change. When one part of the system increases or decreases, it causes another part of the system to do the same thing. An example is a leaking dam, causing water to overflow and erode the wall, which causes even more water to leak.
  - A balancing feedback loop will encourage the system to stay in balance. When one part of the system increases or decreases, it causes the opposite reaction in another part of the system. An example is hunger; as one increases their eating, their hunger subsides.
3. Use page 29 of the Institute of Play Q Design Pack for an example with the problem: Why am I tired all the time? Have participants create arrows that show the relationship between the parts.



## What is a System?

4. To understand how this problem can be understood as a system, ask participants the following question:
  - When one factor increases or decreases, how does it impact another related factor? Repeat for all questions in the loop. If there is a relationship between factors, participants have discovered a feedback loop within their system. For example: When I go to sleep later, I am more tired in the morning. When I'm more tired, I get to school late because I sleep past my alarm. When I get to school late, I get tired and have more to do after school that I didn't do in class. When I have more to do after school, I have to do it at home and I stay up late.
5. Lead participants through a discussion of balancing and reinforcing loops within systems.
  - If both factors decrease or increase at the same time, put a + along the arrow connecting the arrows. The + means the relationship is reinforcing; it either amplifies or reduces indefinitely.
  - When one factor increases, and the other factor decreases or vice versa, put a "-" along the arrow connecting the arrows. This means the relationship is balancing; it will try to maintain stability.
  - The feedback loop is reinforcing if all the relationships show "+" or "-." If there are an equal number of "+" and "-", the feedback loop is balancing.
6. Ask participants to share their system drawing with their peers. Develop a common definition for a system. The definition should reflect that a system is an interconnected set of elements that is coherently organized in a way that achieves a function.

### DEBRIEF

7. Use the following questions to debrief after the activity:
  - How does drawing our problem as a system with interrelationships between factors a more accurate way of looking at the issue?
  - Consider a complex global problem such as food insecurity or climate change. Why is a systems approach a more accurate way of understanding the issue than a simple cause and effect?
  - How does your system map allow you to test assumptions?
  - How does your system map allow you to find leverage points?
  - Are there pieces of your system map that are missing? How could you broaden your map? Narrow it? What benefits would broadening or narrowing your map hold for understanding the issue?



## What is a System?

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**Pro-tip 1:** Use the Appendix of the Institute of Play Q Design Pack to generate examples of feedback loops. Ask students to pair two ideas together from the Feedback Loop Generator list. Add "+" and "-" symbols to determine if the relationship between the two terms is reinforcing or balancing.

**Pro-tip 2:** Share the well known parable of "The Blind Men and the Elephant" as an illustration of systems thinking. It tells the story of a group of blind men (or people who are in a dark room) who encounter an elephant. Each person touches a different part of the elephant, attempting to determine what it is. For example, the person touching the trunk thinks it is a snake, the one touching a leg is convinced it is a tree, and the one touching the tail is sure that it is a dangling rope. As each person becomes entrenched in their worldview and experiential reality, arguments ensue. The fable teaches an important lesson about systems thinking: the behavior of a system is known by its interdependencies and cannot be known by just identifying the elements.

**Optional:** Connect to art by using this [article](#) to incorporate and introduce various cultural and artistic interpretations of "The Blind Men and the Elephant" parable.



# Watch and discuss

## Improve Your Listening Skills

(Time: 20-25 mins)

### PURPOSE

In this activity, participants will understand what it means to listen and how active listening can contribute to having better conversations.

### SKILLS

- Relationship Skills

### INSTRUCTIONS

1. Begin a discussion with participants by asking the following:
  - What makes a conversation go really well?
  - What does it mean to listen?
  - What is the difference between hearing and listening?
  - What does it mean to be heard?
2. Show the video Improve Your Listening Skills.
3. After watching the video, ask participants to reflect on the video. Consider the following prompts for the reflection:
  - What did you like about the video?
  - What stood out to you?
  - What surprised you?
4. Ask the following questions to review the video and more deeply understand the value and skills of listening:
  - In the video, Dr. Govinda Clayton says: "Don't say you understand. Say you WANT to understand and ask questions to prove it."
    - What is the difference between saying you understand and saying you WANT to understand?
    - What kind of questions can you ask to show that you want to understand someone's perspective?
  - Govinda encourages us to use our active listening skills to "imagine a world where both your stories can exist together."
    - What do you think that means?
    - What are the challenges of imagining a world where conflicting stories can exist together? What are the benefits?



## Watch and discuss Improve Your Listening Skills

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5. Reflection and Pair-Share: First, ask students to reflect in their journals about the following questions. Next, they can pair up with one classmate and share their thoughts:
  - Has there been a time when you felt your conversation or perspective was misunderstood? If you could go back to that time, how might you incorporate some of Govinda's advice to change the way you communicated?
  - Would you be willing to try the listening activity Dr. Govinda Clayton recommends towards the end of the video with the "worst listener you know?" How might you prepare for this challenge?

### DEBRIEF

Ask each pair to share one specific behavior that would improve the way they communicate with others.



# Mapping Your Worldview

(Adapted from Sydelko, P., Midgely, G., and Espinosa, A. (2018). *A Systemic Integration Approach to Designing Interagency Responses to Wicked Problems.*)

(Time: 30-40 mins)

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## PURPOSE

Before engaging in a conversation or majlis-style debate about a complex global challenge, it is helpful for participants to first consider their own worldview or perspective about the issue. In this activity, participants will work individually to construct and reflect on a systems map for a complex challenge according to their worldview.

## SKILLS

- Systems thinking

## INSTRUCTIONS

1. Introduce the activity by reminding participants that the complex global issue has many factors or elements involved. Before developing any sort of solutions, we need to understand how the complex challenge functions as a system. We may not know all the parts of the system, but we definitely have a perspective or worldview based on our knowledge, experience, and understanding of the issue.
2. The activity will move participants through a series of systems thinking steps, helping them visualize their personal worldviews within a larger system. Facilitators may choose to focus on the first two steps of the process, which will generate a systems map. The weighting steps allows participants the opportunity to consider the influence of elements within that system.
  - Identifying the elements.
  - Identifying the interdependencies between the elements.
  - Weighting the elements.
  - Weighting the interdependencies.
  - Brainstorming systemic interventions.
3. Review two key terms with participants:
  - *Elements*: These are the discrete parts or factors of a system. In other words, they are the persons, places, and things that comprise the system at large. In a system that is looking at a social problem, the elements might include different types of organizations, public and private institutions, products, currencies, technologies, policies, and of course - people. To help participants understand elements within a system, provide the example of a physical system, such as a food web or a body system (e.g. digestive, circulatory, etc.) and discuss the various elements in each.



## Mapping Your Worldview

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- *Interdependencies*: There are the relationships that connect the elements. In systems thinking, these interdependencies help tell the story of what is happening inside the system and how the system can adapt to changes. In social systems, interdependencies might reflect funding patterns, supply and distribution chains, service relationships, education, advocacy, and many other types of interconnections.
4. Provide each participant with sticky notes or index cards, a sharpie or marker, and large sheets of paper to construct their map.
  5. Identifying the Elements:
    - Tell participants: When you think about this complex problem, what are the factors or elements that are associated with this issue? These can be people, places, ideas, things, policies, etc.
    - Encourage participants to generate at least twenty elements of the system. Remind participants that this brainstorm should produce elements only, not any solutions. For example, if the complex problem is “school bullying,” the elements should only relate to this topic (e.g. students, social media, friends/peers, teachers, school discipline policies, etc.). An example of a solution is “developing an anti-bully campaign;” this would not be included as we first begin to map what the system looks like.
    - The exercise does not need to produce an exhaustive list of every possible element. What will become important in the next step is identifying the interdependencies between the elements to understand how the system is structured.
    - Have participants arrange their index cards or sticky notes on a large sheet of paper with enough space between them to eventually draw connecting lines.
    - It is helpful to have elements that are closely related to one another to be clustered near each other.
    - Once the index cards or sticky notes are arranged on the sheet of paper, keep them in place for the rest of the activity.
  6. Identifying the Interdependencies Between the Elements:
    - Tell participants: Now that you have identified the elements associated with this complex challenge, what are the relationships between them? None of these elements exists in isolation, they function in relation to each other.
    - Using a marker or pen, have participants draw lines connecting the elements. It is helpful to talk through this process to ensure that elements are being connected to all the other elements they are related to. For example, in the school bullying example, there might be a line connecting social media to peers.





## Mapping Your Worldview

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- Ensure that all elements have lines connecting them to other elements.
  - At this point, participants should have developed a systems map of the complex problem from their worldview. Facilitators may choose to move to the debrief or continue with the following steps.
7. Weighting the Elements:
    - Ask participants to consider that not every element has the same power or influence on the system as others.
    - To model this power differential, ask participants to rank or weight each element with a 1, 3, or 5, with 1 representing the least influence on the system, 3 as intermediate, and 5 with the greatest influence on the system.
    - To ensure that participants do not weigh all of the elements as a 5, ask them to limit the number of 5s. For example, facilitators might ask participants to only have 3 - 4 elements ranked as a 5.
    - Participants should indicate the weighting on the index card or sticky note.
  8. Weighting the Interdependencies:
    - Tell participants that in addition to the elements, there are some interdependencies in the system that are more influential than others.
    - Ask participants to rank the interdependencies (i.e. the connecting lines they drew between the elements) with the 1, 3, 5 system with 5 being the most influential.
    - Participants should restrict the number of 5s. In other words, not all interdependencies are the same level of influence in the system.
  9. Brainstorming Systemic Interventions:
    - Now that participants have generated a systems map of the complex challenge according to their worldview, they can begin to brainstorm interventions or possible solutions that are systemic.
    - Ask participants: If you had restricted resources and capacity, and could only act on 1 - 2 areas of the system to create a shift or change in this system, what elements and interdependencies would you focus on?
  10. Have participants share their maps and systemic interventions through a gallery walk or presentations with their peers.



## Mapping Your Worldview

### DEBRIEF

11. Use the following questions to debrief after the systems mapping exercise:
- In relation to the systems maps constructed by others, what did this activity reveal about your own perceptions and values of the complex problem?
  - Are there elements and/or interdependencies that you had not considered, but are present on others' maps? How does that help you see your map as only part of a larger system?
  - How do you think your own life experiences influenced your map making?
  - How did the process help visualize your understanding of a complex global challenge?
  - How does systems mapping challenge a traditional linear approach to cause-and-effect problem solving?
  - What was challenging about this activity? What was eye-opening?
  - How did the systems mapping allow us to develop possible systemic interventions?
  - How would systems thinking help us make better decisions in life and work? How might it help us have better conversations with those who disagree with our perspective?

**Pro-tip 1:** Have sample maps about different complex issues available as inspiration and examples for participants.

**Pro-tip 2:** When facilitating the element brainstorm, it is critical to provide a trusting and judgement-free environment for participants. Be mindful of biasing the brainstorm by suggesting possible elements or dismissing others. Encourage participants to draw from their life experiences and perspectives during this brainstorm process.

**Pro-tip 3:** The dialogue and conversation between participants as they map the system is the most important part of this process. As needed, remind participants of their better conversation skills, such as body language, emotions, and listening.

Pro-tip 4: The participants can construct these maps in small groups of 3 - 4 individuals. This video [Practice Systems Mapping](#) shows the systems mapping process in practice with small groups.

**Pro-tip 5:** For a simple illustration of a systems thinking approach – in other words, breaking a system down into its component parts and steps and then reassembling that information into a coherent model – watch the TEDGlobal talk by Tom Wujec on [How to Make Toast](#).



# Stakeholder Mapping

(Time: 45 mins)

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## PURPOSE

In this activity, participants identify the major stakeholders in an issue. They also consider the role and level of influence the various stakeholders have on the issue and on each other.

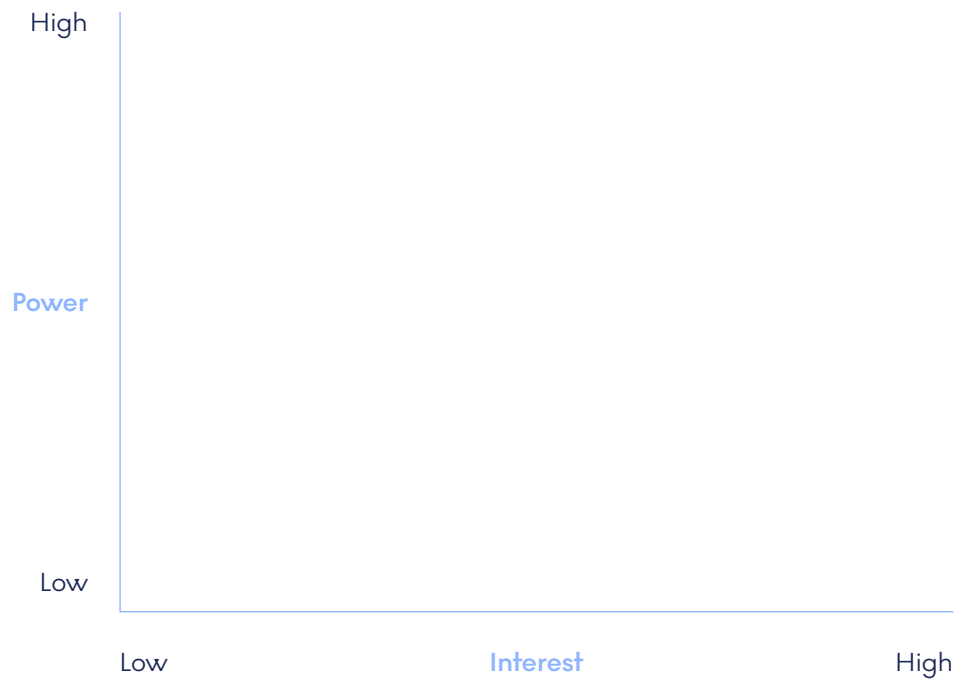
## SKILLS

- Systems thinking

## INSTRUCTIONS

1. Provide participants with the following definition of stakeholder:
  - Stakeholders are those people, groups, or individuals who either have the power to affect, or are affected by, the issue at hand.
2. In small groups or as a full group, brainstorm a list of the stakeholders involved in the issue. Write each stakeholder on a sticky note. Use the following questions to help generate your stakeholders:
  - Who is impacted by the issue at hand?
  - Who influences the issue at hand?
  - Who is responsible for creating the issue at hand? Who is responsible for fixing it?
  - Who might support a solution for the issue? Who might obstruct a solution for the issue?
  - Who has been involved in supporting this issue in the past?
3. Once you have a full list of stakeholders, rearrange the sticky notes and categorize them into groups. This may include: government, donor, individuals, media, etc.
4. Map the stakeholders on an interest/power matrix. When placing stakeholders on the matrix, pay attention to their position relative to other stakeholders.
  - Interest: What degree are the stakeholders likely to be affected by the issue? What is their level of interest in this issue? (High/low)
  - Power: How much influence do the stakeholders have over the project? To what extent can they help support or obstruct a solution to the issue? (High/low)

## Stakeholder Mapping



### DEBRIEF

5. Draw links between the stakeholders according to the type and strength of their relationships:
  - Are they formally or informally connected, or not connected at all?
  - Are the relationships strong or weak?
  
6. Use the following questions to debrief the activity:
  - Why is it important to determine the various categories of stakeholders, their level of power and interest, and the relationships between them?
  - How might this analysis inform how we discuss and debate the issue?
  - How will this information help us in determining solutions to the issue?



# Map Your Social Change Role

(This activity is adapted from [Deepa Iyer, SolidarityIs, and Building Movement Project](#))

(Time: 30 mins)

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## PURPOSE

Participants will reflect on their values and align them to roles in social change movements, giving them insight into how they can best contribute to the betterment of a social issue.

## SKILLS

- Self Awareness
- Self Management
- Responsible Decision Making
- Systems Thinking

## INSTRUCTIONS

1. Ask participants:
  - Think of a time when you wanted to change an inequity; what can make moving forward difficult?
  - Can you describe a time when you felt you weren't doing enough? When you didn't know what to do? How did that feel? What helped you move through that challenge?
  - Can you describe a time when you felt like you were wearing too many hats in a social change project? How did that impact your work?
2. Show participants pages 3-4 of this [mapping exercise](#), developed by Deepa Iyer from SolidarityIs and Building Movement Project, to identify our roles in a social change ecosystem. Within any given social change issue or complex challenge, these roles appear over and over again across the ecosystem.
3. Discuss each of the roles using the following as prompts:
  - What are your values?
  - How can you be aligned to those values in your social change work?
  - What are the roles of others in our community who are working on similar issues?
  - What we can offer with our full energy and commitment? What does that role look like?



## Map Your Social Change Role

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4. After participants have mapped their social change role, ask them to read over and complete the reflection guide on pages 5 - 8 of the mapping exercise. These are deep reflection questions that will help participants determine if they are in the right relationship with their role, how they are making space for others to occupy different roles, and how to make better connections. Facilitators should remind participants that to reflect on their social change role specifically around the issue that is being discussed (e.g. climate change). The exercise should not be general, as roles can shift from issue to issue.
5. As a group or within smaller pairings, discuss the reflection questions.
6. Identify the different roles that emerge from the participant group around this issue. What roles are represented? Who are the community members occupying other roles in this issue?

### DEBRIEF

7. Ask participants to reflect on the exercise using the following prompts:
  - How did the exercise make you feel about your social change role?
  - What was challenging about this reflection exercise?
  - How might our social change roles change from issue to issue?
8. Ask participants to set two goals for themselves as they consider how to stretch their roles and take bolder risks. For example, they can use this [template](#) to identify short, medium, and long-term goals. Facilitators could also ask participants to identify one SMART (Specific, Measurable, Achievable, Relevant, Timely) goal and one B-HAG (Big, Hairy, Audacious) goal.

**Pro-tip 1:** Read more about Deepa Iyer's Social Change Roles process [here](#).

**Pro-tip 2:** If possible, team participants together to check-in about their goals for accountability and momentum.



## New Lenses on Our Worldview

(Adapted from McCarthy, T. (2013) Levels of Reflection: The Mirror, the Microscope, and the Binoculars. *International Journey of Self-Directed Learning*, 10(1): p. 1-22)

(Time: 45 mins)

### PURPOSE

In this exercise, participants use three lenses to reflect on how systems thinking and engaging with others has helped them learn about themselves, broadened their own worldview, shifted their understanding of the complex challenge.

### SKILLS

- Self awareness
- Systems thinking

### INSTRUCTIONS

1. Facilitate a reflection exercise called Mirror, Microscope, and Binoculars. The questions posed allow participants to use three lenses to focus their reflections: a mirror (looking at themselves), a microscope (looking at the experience), and binoculars (looking at the greater picture). The questions can be posed as a group or written first and then discussed.
2. Examples of prompts are as follow:

Reflection Lens	Focus Area	Sample Prompts
Mirror	What we have learned about ourselves as individuals and group members.	<ul style="list-style-type: none"> <li>• What is one thing that I have learned about myself through the experience?</li> <li>• What are my strengths in having Better Conversations? What are my challenges?</li> <li>• How do I have more or less understanding of empathy?</li> <li>• How has this experience challenged misconceptions, prejudices, biases, or stereotypes that I held?</li> <li>• How have the discussions challenged the way I live my life/my values/my ideals?</li> </ul>
Microscope	What we have learned about engaging in the majlis.	<ul style="list-style-type: none"> <li>• How would I summarize the experience today?</li> <li>• What have I learned about my peers and/or community through the majlis process?</li> <li>• What were some moments in the majlis when I felt a sense of anxiety/anger/ indecision/ happiness/excitement/wonder, etc?</li> <li>• Do I feel my contributions in these activities had any impact on others?</li> </ul>



## New Lenses on Our Worldview

Reflection Lens	Focus Area	Sample Prompts
Binoculars	What we have learned about the global complex challenge or issue.	<ul style="list-style-type: none"> <li>• How has this experience broadened my understanding of the challenge/issue?</li> <li>• What are my views about the issue now? About others who share different perspectives than me?</li> <li>• Where do I stand now? How would my systems map about this issue look different now that I've engaged with others?</li> <li>• Did the systems maps reveal anything that I did not anticipate?</li> <li>• How can I apply systems thinking to other areas of my life?</li> </ul>

### DEBRIEF

3. Provide participants time to share their feelings about the process.
4. Ask participants to find commonalities in their reflections.





# Proposing Systemic Solutions

(Time: 45 mins)

## PURPOSE

Participants analyse their systems map and work together to identify possible systemic solutions.

## SKILLS

- Systems thinking

## INSTRUCTIONS

1. During the Prepare stage, participants generated systems maps of the issue from their respective worldviews. Revisit these maps and ask participants to adapt their maps based on the new research, knowledge, and experiences they've had through the majlis Engage phase. Ask participants:
  - What elements were missing from your map?
  - What interdependencies were missing from your map?
  - Are there other gaps that need to be filled in your map?
  - Do we need to change the boundaries of your map? Expand them? Contract them?
2. Have participants work in small groups to propose a systemic solution to the challenge. Prior to this group work, revisit the group's reflections from the Consider Systemic Solutions activity in the Prepare phase, covering the topic of plastic pollution.
3. Provide markers or highlighters to help participants trace and visualize the secondary and tertiary impacts of systemic interventions. As they work in groups, have participants consider:
  - How can we affect the elements that are most salient to the issue?
  - Where are some of the key levers that can shift this system?
  - Which interdependencies would you like to strengthen?
  - What are some of the secondary or tertiary impacts of your proposed solution? What might some unintended consequences be?
  - How feasible is the solution? Financially? Economically? Politically? Geographically?
  - What would you say is the objective or purpose of the solution on the system?
  - What are you unsure of? Encourage participants to consider where there might be multiple gaps in the map, what assumptions they may be making, and how they may be unaware of a wide range of existing local efforts.
4. Ask each group to present their systemic solution.



## Proposing Systemic Solutions

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### DEBRIEF

5. Reflect on the experience by asking participants the following:
  - What was challenging about looking at the challenge through a systemic lens? How is it different from the traditional way we think of problems?
  - A complex problem is always changing and adapting. Describe how this system map is constantly adapting and shifting. How might those shifts impact your proposed solution?
  - It is said that there are systems within systems. Looking at this map, where might you identify microsystems with their own elements and interdependencies?
  - What are we learning about the limits of our understanding of systemic challenges?
  - What was challenging about identifying a possible systemic solution in a group? How do different worldviews and perspectives impact how we see the system?
  - How did the question of feasibility impact your consideration of systemic solutions?
  
6. Diving into systems mapping should leave participants asking more questions. Have participants develop 1 - 2 questions they have about the issue.

**Pro-tip 1:** Identify existing local, national, and global efforts that are addressing the issue. Discuss where these interventions fall on the systems map and how they might change or shift the system in the short- and long-term.



# Taking Action Towards Social Change: #SolvingIt

(Time: 60 mins)

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## PURPOSE

This activity honors the expertise and efforts of community members as changemakers. Drawing inspiration from the [#SolvingIt series](#), participants will identify local community members who are working towards social justice and equity.

## SKILLS

- Social awareness
- Responsible decision making

## INSTRUCTIONS

1. Introduce participants to the [#SolvingIt series](#) on Instagram. The series highlights activists, artists, changemakers, and innovators who are working to address some of the world's complex challenges. One of the most interesting aspects of the #SolvingIt series is that it positions "insiders" within a community as the experts.
2. Discuss what it means to be a local community-based "changemaker" who is working to disrupt systems in the effort to bring more equity. Create a list of words or phrases.
3. As a class, discuss at least four ways that changemakers can leverage their local expertise and act on a system.
  - Direct action is service in which you work directly with the population you want to impact. This could include volunteering at a soup kitchen, cleaning up a park, walking dogs in an animal shelter, or creating a small business to support local artisans.
  - Indirect action is service in which you are not in the presence of the population you are impacting. This could include fundraisers or collections.
  - Advocacy is when you speak up for a particular issue and try to persuade people in a particular direction. This could include writing letters to policy makers or conducting awareness campaigns.
  - Research involves finding and sharing new information about a social issue. This could include conducting an environmental survey, compiling effective means to reduce litter, or conducting social research by interviewing people on a particular topic.

## Taking Action Towards Social Change: #SolvingIt

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4. Have participants go through some of the profiles on the #SolvingIt series and discuss the following questions:
  - What are some examples of direct action, indirect action, advocacy, and research that you see?
  - Describe how some changemakers use multiple methods in their action.
  - Share a profile that you find particularly inspiring or eye opening.
  
5. Provide participants time to identify changemakers in their own communities. Remind participants that acting to address complex problems can consist of small shifts in the system. Some examples include:
  - Shedding light on local practices of artisans and artists whose voices may be traditionally marginalized.
  - Gardening and local farming to change food distribution systems.
  - Campaigning for changes in local policies.
  - Providing care or other healing practices to traumatized and/or sick community members.
  - Leveraging a position of leadership to support change, such as a government official or local philanthropist.
  
6. Have participants use the following template to nominate a community member to #SolvingIt. Identify local artists to illustrate a picture of the nominees or have participants include a photograph.
  - Name of person who is #SolvingIt
  - Write 2 - 3 sentences summarizing how this person is working to address a complex problem.
  - Why is this work critical in the work towards equity and social justice?
  
7. Conduct a gallery walk of the participants' #SolvingIt nominations.
  
8. Post your #SolvingIt nominations on Twitter and tag @DohaDebates and/or submit it to Doha Debates at <https://dohadebates.com/solvingit/>.

### DEBRIEF

9. Lead participants through a discussion using the following prompts:
  - Looking back at the four ways that changemakers can leverage their local expertise to address problems, what themes are emerging from our nominations?
  - Describe any challenges you had in identifying local expertise.
  - Describe the importance of highlighting the experiences, expertise, and knowledge of local community members. In what ways have you experienced or seen such expertise marginalized?



Optional: Plastic Pollution Example

## Explore Plastics Pollution through a Systems Thinking Lens

Let's look at an example of a complex global system that we all take part in: Plastic Pollution. Single-use plastics are incredibly convenient, but they're also discarded easily and end up in our oceans, food chains, and ultimately in us. How do we tackle this problem? Where do we even start?

### 1. Who are the stakeholders connected to the problem?

**Activity:** [Read and Discuss](#) (20 mins)

This complex problem has a wide range of stakeholders and issues involved, from private citizens, to small businesses, corporations, government policies, educational systems, and so on. And each of these stakeholders holds a unique worldview of the problem and differing value judgements. Some may have similar views on the problem, but often the actual formulation of the problem is drastically different.

It turns out there are a lot of stakeholders involved in the plastic pollution problem and the way each of them sees the problem has to do with their lived experience, knowledge, and their values. By talking to people and organizations with different stakes in the problem, we can start to connect the different parts of the system.

**Task:** Brainstorm a quick list of stakeholders in the plastics pollution problem.

### 2. How do we begin to see the larger system?

Each element of the problem is connected to other elements in different ways. This looks more like a web or a system than a long complicated list. If we study the Plastic Systems Map in Appendix A, we start to see that the plastic pollution challenge isn't just a linear cause-and-effect problem; it's a big, complex system.

**Task:** Locate yourself as a stakeholder on the Plastic Systems Map. Which aspects of the system that feel most important to you?

### 3. What happens if we make changes to the system?

Because the elements are interconnected, addressing one element will likely cause unexpected consequences in another. As a consumer, you might try to address this problem by getting more of your single-use plastic waste into the recycling bin. But when we look at the problem systemically, it turns out that less than 9% of all plastic is recycled in the first place and most of that plastic ends up in other countries, like Vietnam. With little regulation in some of those countries, the plastic just ends up sitting in dumps or incinerated, getting caught up in the environment. But some of it is washed, melted down and resold by people for income.



## Explore Plastics Pollution through a Systems Thinking Lens

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**Task:** Scan all of the nodes on the Plastic Systems Map and ponder their relationships to each other. Imagine changing one element and what the consequences might be.

### 4. How do we identify possible solutions?

Instead of coming up with one quick-fix solution, we can start to see how pulling or impacting on one area of the system might affect other places in the system, because it's all interconnected.

**Possible Solution A:** In Vietnam, an environmental activist Hoang Thao is working to shift the system with an environmental awareness campaign that would change consumer buying habits. Because she sees it as a systemic challenge, she knows that changing behaviors is related to convenience. So she created a one-stop shop for everyday items without any plastic packaging. That ends up impacting the economy by creating new jobs, reducing the use of single-use plastics, which means discarding less, which means less ends up in a landfill. Is it the only solution to this complex problem? No. But it is definitely one way to tackle the problem systemically.

**Possible Solution B:** Why not provide more education to increase consumer awareness of the environmental and health impacts of microplastics. The hope would be that this awareness might overcome our consumer drive for ease and convenience, and increase our willingness to reduce single-plastic use. But that willingness alone may not cause change, if environmental-friendly non-plastic businesses are in low supply or if their products are price-prohibitive.

So perhaps a two-pronged approach that both provides education and lowers the barriers for non-plastic manufacturing and retail outlets are needed to really change consumer behavior.

**Task:** Think of one more example of a change you might make that would have a positive impact on the plastics pollution problem without having a negative impact on other aspects of the system?

### 5. How to ask “what if” questions?

Systemic mapping of a complex issue allows stakeholders and decision-makers to ask “what-if questions.” For example, what if technological advances in material science results in the manufacturing of cheap and convenient 3-D printing of non-plastic containers? What would be the impact on jobs for the plastics industry? Could the labor force be retrained to work in new plants producing non-plastic products? Perhaps these new technologies would be viewed negatively in communities relying on chemical and plastic manufacturing for jobs.



## Explore Plastics Pollution through a Systems Thinking Lens

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What if we looked at the system from another angle - the production of single-use plastics? Here, it turns out that using recycled plastic is more expensive than using what's called virgin plastic, the raw material of plastics. Where does that come from? Virgin plastics are the byproducts of petroleum manufacturing. So the interconnection between single-use plastic manufacturers and the petroleum industry is really strong because of the economic value. And because that interconnection is strong, the prices for single-use plastics for consumers - people like you and me - is less. Or what if new green energy technologies continue to make fossil fuels more obsolete? The reduction in oil and gas waste products will reduce the amount of virgin plastic pellets available. This in turn will result in the rising price of plastics and change the economic dynamics for non-plastic products.

Maybe we begin to ask questions to test future scenarios like " what if rising levels of microplastics in our oceans begins to significantly lower commercial fish reproduction?" What would be the economic impact to the fishery industry or the effects on food security? How will those impacts change public policy around plastic use and recycling? By including the fossil fuel or fishery industries, we're making judgements on where the boundaries are for this complex problem. In other words, we're deciding which elements are part of the problem and which are not, and this can bring stakeholders into conflict.

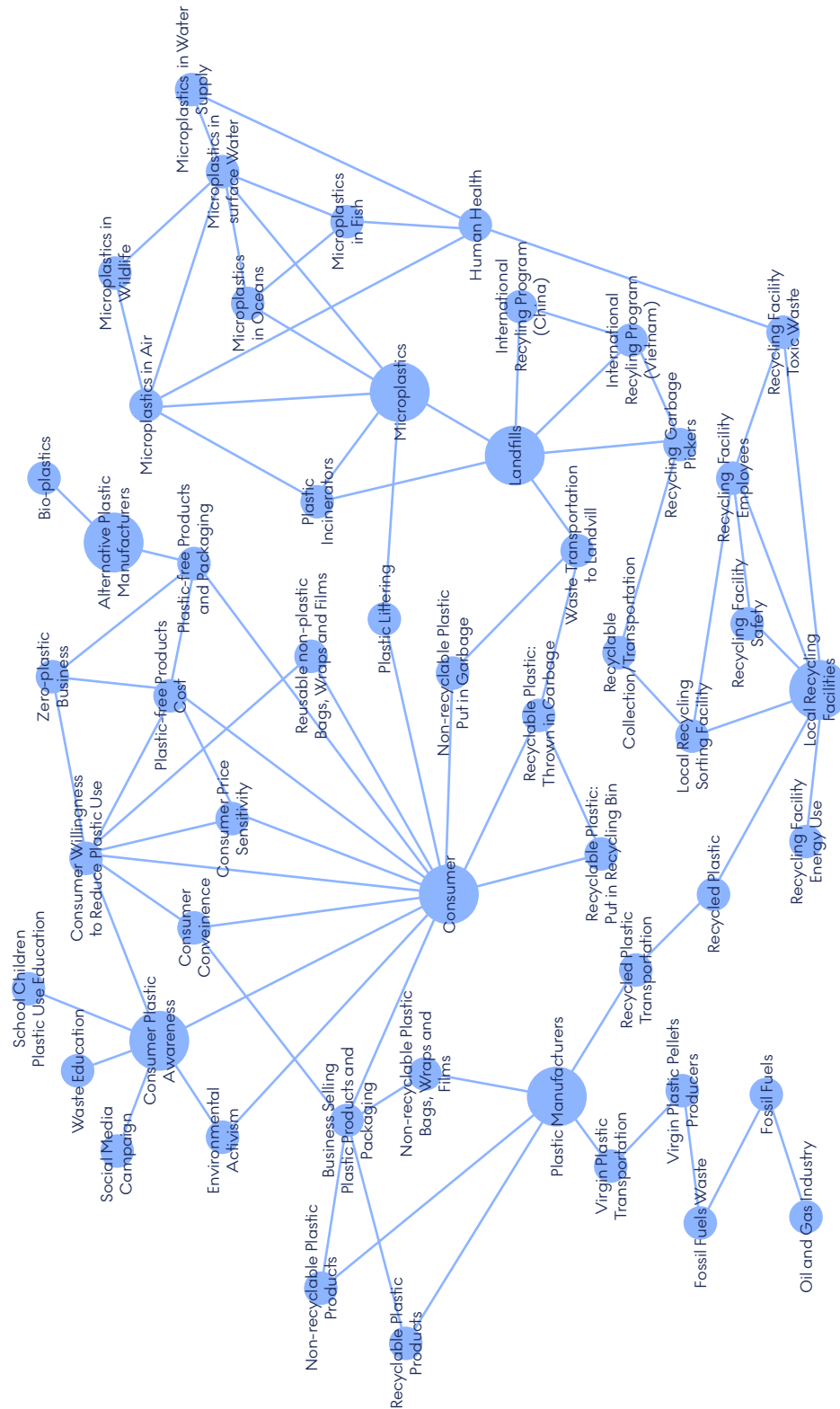
### 6. Who has the power?

Not all stakeholders have the same power within the system to make change; consider, for example, how government policies or strong industry lobbies might shift the resources dedicated to tackling climate changes, while indigenous voices on climate change have been historically marginalized in the system. To reduce conflict and marginalization, those boundary judgements must be exposed and discussed with special attention to making all stakeholder voices heard. Through dialogue about the beliefs and boundary judgements, a much deeper understanding of the problem emerges.

#### In summary:

So how do we address wicked problems? Before jumping to any solution, we have to look at the whole system. And that requires us to ask some important and difficult questions, especially when we're used to seeing things from our corner of the system. Who else is involved in this system? What are the multiple perspectives for all those who have a "stake" in the problem? How are the specific elements of the problem connected? To me? How would a change in one part of the system impact the other parts? In short, systems thinking - or thinking systemically - helps minimize the distorted thinking that comes when we're entrenched in our worldviews and helps us see the world more accurately. If we can listen to each other's perspectives and find connections, we'll be better equipped to understand the scope of the challenge and develop a systemic response together.

# Plastic Systems Map







## Activity: Consider Systemic Solutions

(Time: 25-30 mins)

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<b>PURPOSE</b>	Participants engage in an analysis of a systems map, identifying gaps and possible systemic solutions.
<b>SKILLS</b>	<ul style="list-style-type: none"><li>• Systems thinking</li></ul>
<b>INSTRUCTIONS</b>	<ol style="list-style-type: none"><li>1. Invite participants to consider pollution generated from single-use plastic. If possible, have them listen to the Course Correct podcast, Kicking our Plastic Habit.</li><li>2. Introduce this systems map reflecting the complex global challenge of single-use plastic pollution. Ideally, have this map displayed (e.g. by projecting it or printed individually for participants).</li><li>3. Discuss the following to guide participant understanding of the systems map:<ul style="list-style-type: none"><li>• Within this system, who or what are the most influential elements? How do we determine that looking at the map? Have participants refer to the size of the node to help them think about influence.</li><li>• What are some surprising interdependencies we notice in this system?</li><li>• Where are you located within this system?</li></ul></li><li>4. Begin some tracing exercises to support participants in seeing how different elements are connected within this dynamic system. For example:<ul style="list-style-type: none"><li>• In what ways do we influence the presence of microplastics in fish?</li><li>• What interdependencies might be reinforcing feedback loops? Balancing feedback loops? Refer back to What is a System for a review of feedback loops in systems.</li><li>• Think about time within this system. Which interdependencies might have an immediate relationship? Which ones are more long-term? To help participants think through these questions, provide the example of a full bucket as a metaphor for the system. What intake of water might make the bucket overflow quickly or slowly?</li><li>• How might impacting consumer plastic awareness en masse impact the system over time?</li></ul></li></ol>



## Activity: Consider Systemic Solutions

5. Working in small groups, ask participants to propose a systemic solution to the plastic pollution challenge. Provide markers or highlighters to help participants trace and visualize the secondary and tertiary impacts of systemic solutions. As they work in groups, have participants consider:
  - How can we affect the elements that are most salient to the single-use plastic pollution problem?
  - Where are some of the key levers that can shift this system?
  - Which interdependencies would you like to strengthen?
  - What are some of the secondary or tertiary impacts of your proposed solution? What might some unintended consequences be? How, for example, might the intervention impact employment at global recycling facilities?
  - How feasible is the solution? Financially? Economically? Politically? Geographically?
  - What would you say is the objective or purpose of the solution? For example, is it to make certain practices more sustainable? Eradicate the pollution problem? Change the availability of particular resources?
  - What are you unsure of? Encourage participants to consider where there might be multiple gaps in the map, what assumptions they may be making, and how they may be unaware of a wide range of existing local efforts.

6. Ask each group to present their systemic solution.

### DEBRIEF

7. Reflect on the experience by asking participants the following:
  - What was challenging about looking at the single-use plastic pollution challenge as a systems map? How is it different from the traditional way we think of problems?
  - A complex problem is always changing and adapting. Describe how this system map is constantly adapting and shifting. How might those shifts impact your proposed solution?
  - It is said that there are systems within systems. Looking at this map, where might you identify microsystems with their own elements and interdependencies?
  - What are we learning about the limits of our understanding of systemic challenges?
  - What was challenging about identifying a possible systemic solution in a group? How do different worldviews and perspectives impact how we see the system?
  - How did the question of feasibility impact your consideration of systemic solutions?



## Activity: Consider Systemic Solutions

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8. Diving into systems mapping should leave participants asking more questions. Have participants develop 1 - 2 questions they have about the single-use plastic pollution system.

**Pro-tip 1:** Identify existing local, national, and global efforts that are addressing the single-use plastic pollution problem. Discuss where these solutions fall on the systems map and how they might change or shift the system in the short- and long-term.

**Pro-tip 2:** Have participants watch this 13-minute video of Fred Kirschenmann describing resilience in farming systems. Discuss what it means for a system to be resilient. How resilient is the single-use plastic pollution system? How does resilience impact the success of systemic solutions?

**Pro-tip 3:** After participants have completed the Mapping Your Worldview activity, have them apply this activity to brainstorm possible systemic interventions based on their limited perspective. In what ways do their systemic solutions change after they've broadened their worldview by listening to others' perspectives and adapting their map accordingly?