

# FLOWER

USER GUIDE

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# FLOWER User Guide

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# INTRODUCTION

FLOWER, the Framework for Long-term, Whole-System, Equity-Based Reflection, is designed to assess the multisolving potential of investments or initiatives. It is most effective when used by groups to create a dialogue of inquiry about various investment options.

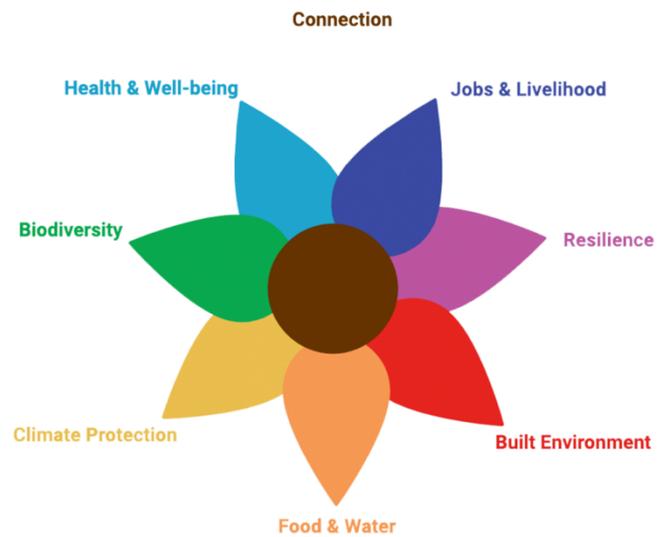
Challenging issues in a community or region are often addressed by experts working in silos, not realizing their pooled efforts may not only save resources but could bring benefit to other areas at the same time.

Multisolving is the act of using one investment of time or effort to solve for several goals at once in a way that improves equity and strengthens a web of relationships worldview. FLOWER helps a group explore the various multisolving benefits a project might produce.

The FLOWER tool facilitates the exploration of the most important questions around multisolving:

- Who should be involved?
- How do we design for multiple benefits?
- How do we ensure burdens and benefits are shared equitably?

FLOWER represents eight types of multisolving benefits as petals that change size, color, or transparency to indicate impacts:



Petal	Benefit Definition
Jobs & Livelihood	Provides meaningful work at a living wage and builds assets in a community
Resilience	Builds people’s capacity to survive or even thrive in the face of disruption
Built Environment	Ensures access to energy, housing, mobility and the ability to make things people need
Food & Water	Increases access to healthy food and clean water
Climate Protection	Reduces greenhouse gas emissions or boosts carbon-sequestration
Biodiversity	Preserves the variety of life that can be found on the earth
Health & Well-being	Improves overall well-being and creates safe living and working conditions
Connection	Increases people’s connection to each other and to the earth

The FLOWER tool was developed in 2024 by the Multisolving Institute and built by Chris Soderquist with [Pontifex Consulting](#). Visit the [Multisolving Institute](#) website to learn more about multisolving and FLOWER.

# GETTING STARTED

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To get the most out of FLOWER, we recommend first recruiting people from various sectors interested in the challenges you are facing and the overall well-being of your community or region. Once gathered, work with your group to further define the issues faced and specific needs of your area. Using this information, complete the Assess Needs section of the simulation so that you may see how well policies tested fit those needs.

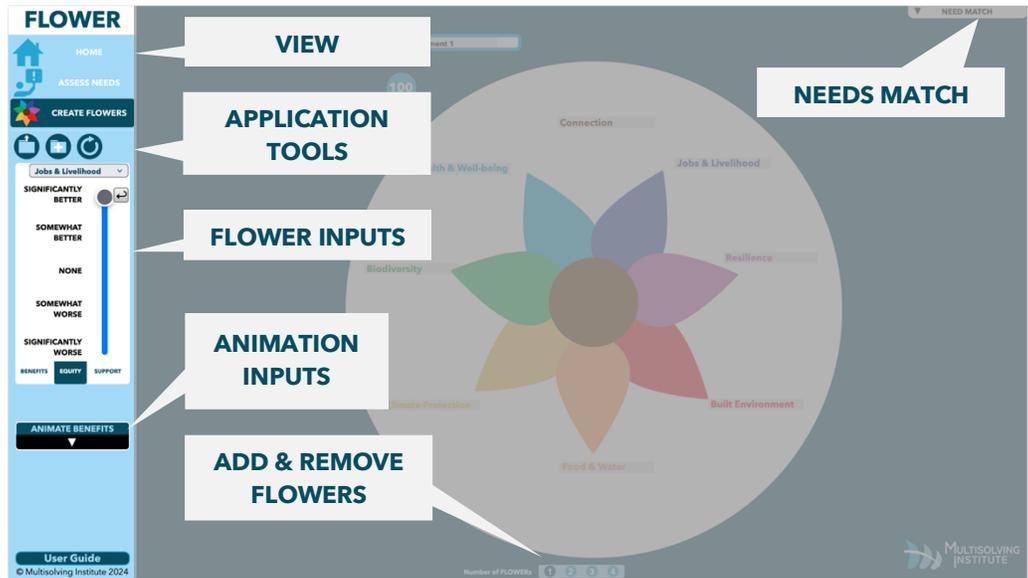
Following the needs assessment, decide together on one or multiple policies to test in FLOWER for how they address those needs and issues. Create FLOWER diagram(s) to represent and analyze the benefit areas, equity impacts, and support sources of each of the policies over time.

Ideas for structuring a FLOWER group session:

- **Compare investment benefits** - Create one FLOWER for each investment a group is considering. Stand back and compare the FLOWERS. How does that change the group's thinking?
- **Brainstorm to address needs** - After defining priorities in the Assess Needs view, brainstorm investments that could meet those needs and create one FLOWER for each idea. Use the Needs Match Scores to compare how well each idea fits.
- **Iterate to improve planning** - In round #1, create a FLOWER for a project the group is working on. In round #2, look for project modifications that could increase the benefits and/or share them more justly. Repeat until no new ideas are surfacing.
- **Hold a visioning session** - Lead a group visioning session for a desired future in a neighborhood, a nation, or an ecosystem. Have people turn their visions into FLOWERS and present them to one another.
- **Experiment and get creative!** - Try out your own ways to use FLOWER, and let us know how it goes at [info@multisolving.org](mailto:info@multisolving.org)

# INTERFACE

## CONTROLS & INPUTS

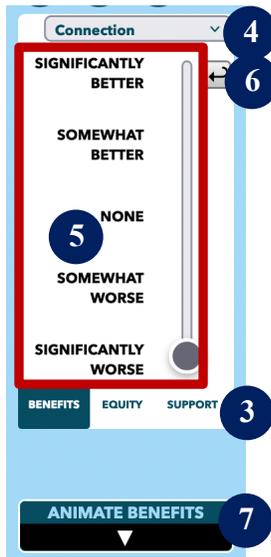


### Application-Wide Controls



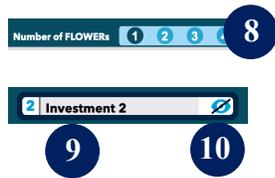
1. **View navigation** - At the top of the control panel, select between the HOME, ASSESS NEEDS, and CREATE FLOWERS views.
2. **Application tools** - Use these controls below the navigation in the control panel on the ASSESS NEEDS and CREATE FLOWERS views to (from left to right) LOAD SAVED INPUTS from a previous scenario, SAVE CURRENT PARAMETERS, or RESET ALL FLOWERS.

### FLOWER Benefits, Equity, and Support



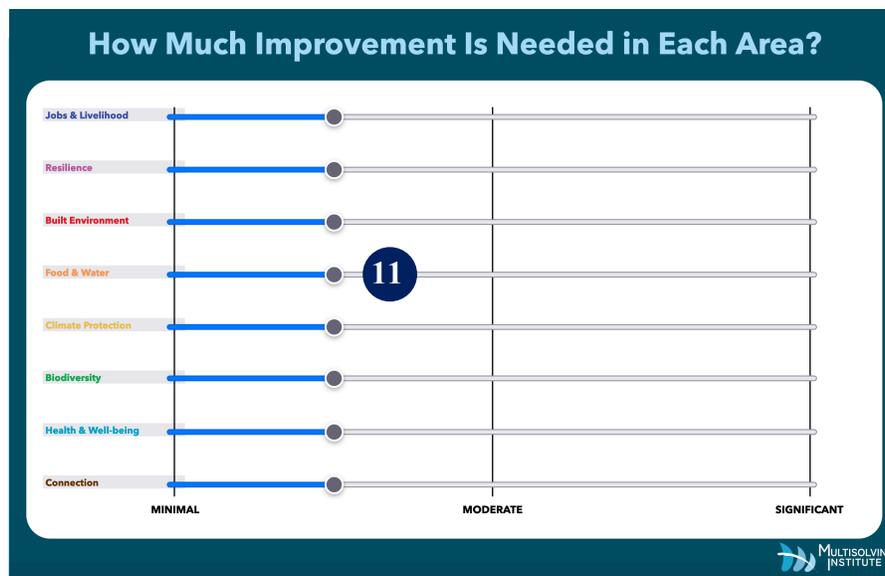
3. **Input panel selection** - Use the tabs at the bottom of the slider panel to select between the Benefits, Equity, and Support slider panels.
4. **Petal selector** - Select petals from the dropdown to input their impacts on the Benefits, Equity, or Support slider panels.
5. **Impact slider** - Indicate the direction and magnitude of impacts (or support on the Support tab) for the selected petal for the Benefits and Equity tabs.
  - a. **Note:** The equity slider will not show up for any petals that do not have benefits displayed.
6. **Impact reset button** - Use this button to reset the current petal slider to "None" on the current input panel.
7. **Animation settings** - Open this dropdown to view and change the animation inputs to show how the impact develops over time.

# Add, Remove, and Select FLOWERS



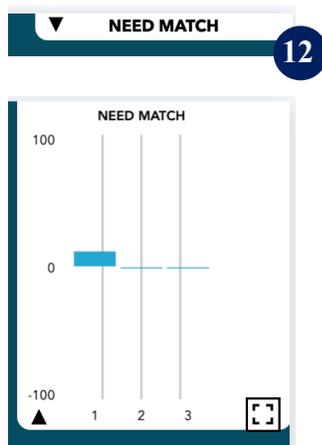
8. **Number of FLOWERS** - Select the number of FLOWERS to display. Selecting more than are displayed will add up to three new FLOWERS and selecting fewer than are displayed will remove the most recent FLOWER(s).
9. **Select a FLOWER to edit** - Select the "Investment #" label above a FLOWER to activate it for editing.
10. **Hide a FLOWER from view** - Toggle the "hide" button above a FLOWER to hide and unhide it. The label and settings will be retained while it is hidden.

## Assess Needs



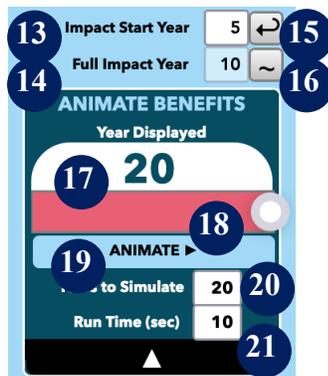
11. **Needs sliders** - Adjust the sliders on the ASSESS NEEDS view to indicate the priority of increasing benefits in each of the petal sectors.

## Need Match Graph



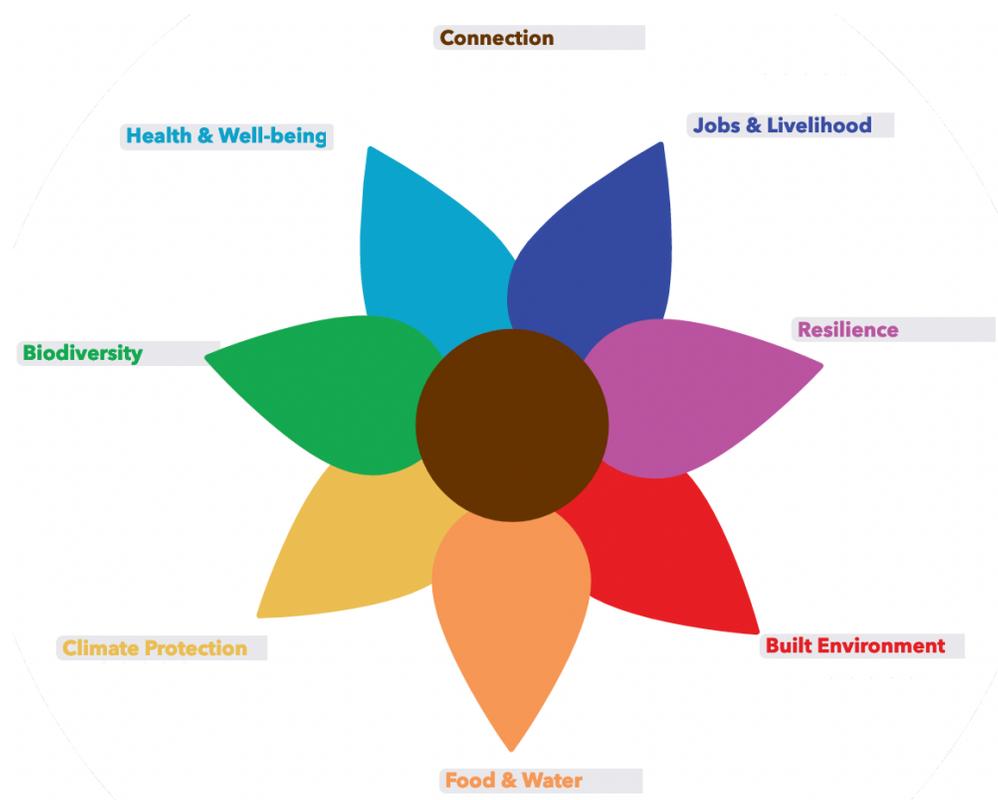
12. **Need match graph** - Expand this dropdown in the top right of the CREATE FLOWERS view to enlarge the Need Match graph, displaying need match scores for each FLOWER.

## Animation Controls



13. **Impact Start Year** - Input the year the selected petal's impact will begin.
14. **Full Impact Year** - After unlocking this field, input the year the selected petal's impact will reach its highest magnitude.
15. **Reset Year** - Click to reset the year in the field to the left of this button.
16. **Unlock Full Impact Year** - Click the "~" button to edit the full impact year.
17. **Year Display** - This field shows the year currently reflected on the FLOWER diagram.
18. **Year Slider** - Slide this circle to the left to view previous years on the FLOWER diagram and to the right to see future years.
19. **Animate button** - Click this button to run the simulation and show the indicated impacts over time on the FLOWER diagram.
20. **Years to Simulate** - Input the years over which the entire FLOWER simulation's impacts will play out. The default is 20 years.
21. **Run Time (sec)** - Input the seconds over which the simulated years play out. The default is 10 seconds.

## DIAGRAMS & GRAPHS



## FLOWER Benefits Diagram



### **RANGE OF COLORING BY BENEFIT IMPACT**

Significantly Worse = Grey, larger size petal

Somewhat Worse = Grey, half size petal

None = No Petal

Somewhat Better = Color, half size petal

Significantly Better = Color, full size petal

## FLOWER Equity Diagram

A petal must have benefit impacts before equity impacts can be entered. The base color of the petals depends on the benefit impact.



### **RANGE OF TRANSPARENCY BY EQUITY IMPACT**

Significantly Worse = Most transparent

None = Medium transparency

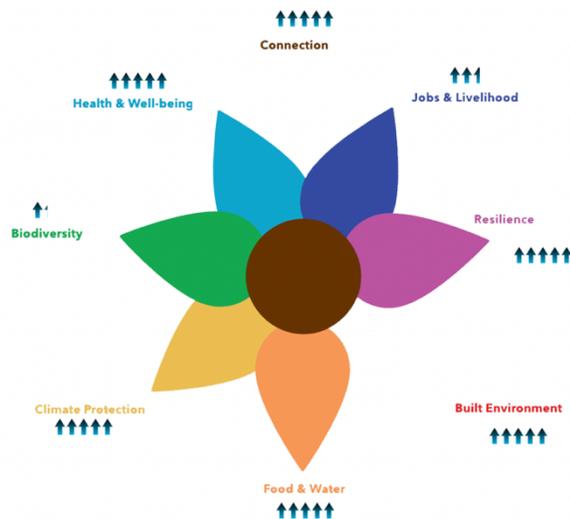
Significantly Better = No transparency

## FLOWER Support Diagram

A petal does not need to have benefit impacts displayed to input support from that sector.

### **RANGE OF SUPPORT**

0 to 5 arrows, more arrows indicate more support

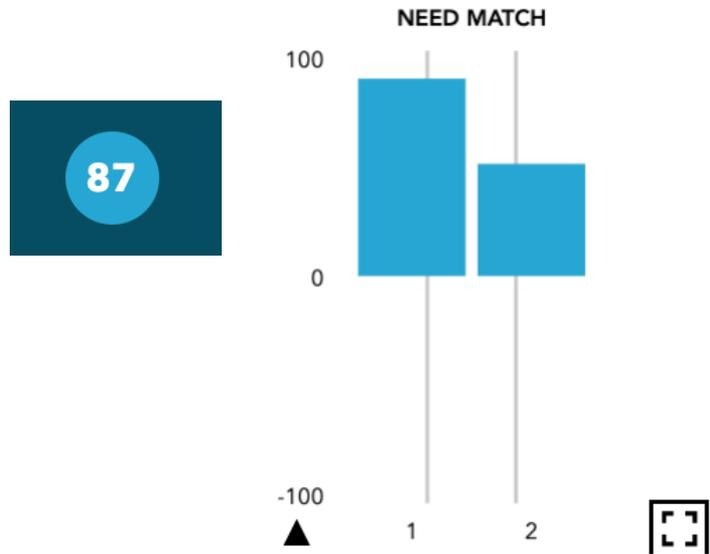


## Need Match Graph and Score

The need match score is reflected in the circle under each FLOWER's label. Open the dropdown in the top right of the screen to see a need match graph which may be expanded to full screen by clicking the button in the bottom right corner of the graph.

### **RANGE OF NEED MATCH SCORE**

-100 to 100, a higher score indicates a better needs match



# INSTRUCTIONS

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## FACILITATION GUIDANCE

There are as many ways to use FLOWER as there are teachers, facilitators, individuals, and groups to use it. Some general principles for using FLOWER with others include:

**Make sure you are familiar with FLOWER before you use it with others.** Your first step should be to explore FLOWER on your own. Be playful; create FLOWERS; test out the sliders and the various tabs; digest this user guide. Test your understanding by picturing a project or investment you know well and capturing it and the needs of the community in FLOWER.

**Help the group you are supporting understand the definition of multisolving.** Before you start, make sure the gathered group understands multisolving. The definition we use is:

***multisolving (v):** using one investment of time or effort to solve for several goals at once in a way that also improves equity and strengthens a web of relationships worldview*

It can be helpful to pause after sharing the definition and ask participants to name examples of multisolving in their own work or lives.

**Orient people to the “shared world” of FLOWER.** Before trying to build FLOWERS or hold conversations supported by FLOWER visualizations, take the time to orient your audience to the FLOWER diagram. In the Benefits tab, move sliders up and down and draw people’s eyes to the petal that is changing. Or, in the Equity tab, move the slider and point to where petal transparency is changing.

**Focus on process as much as product.** Use FLOWER to help groups have higher quality conversations about the complexity and interconnection of their world and to improve their thinking about potential projects or investments. Think of creating FLOWERS as a process that improves connection, understanding, and joint thinking as much as a product that shows the results of that thinking.

We often say there are no correct FLOWER diagrams. If three groups diagram the same situation but create somewhat different FLOWERS, that’s great! It’s a chance to dig into assumptions, learn from one another’s perspectives, and identify questions worthy of further exploration or research.

**Foster learning, listening, and high-quality conversation.** The conditions that promote good conversations with FLOWER are likely ones that you are already working on in your classroom, coalition, organization, or community. Before starting with FLOWER it is good practice to ask individuals to reflect on how they want to “show-up” in the activity.

The sorts of answers we are listening for:

- Give everyone time to speak
- Be curious
- Listen to understand
- Share your assumptions

FLOWER sessions, at their best, help people explore from differing points of view. To do this, encourage participants to observe and share their own thinking. Why do they think a particular petal is large (or small)?

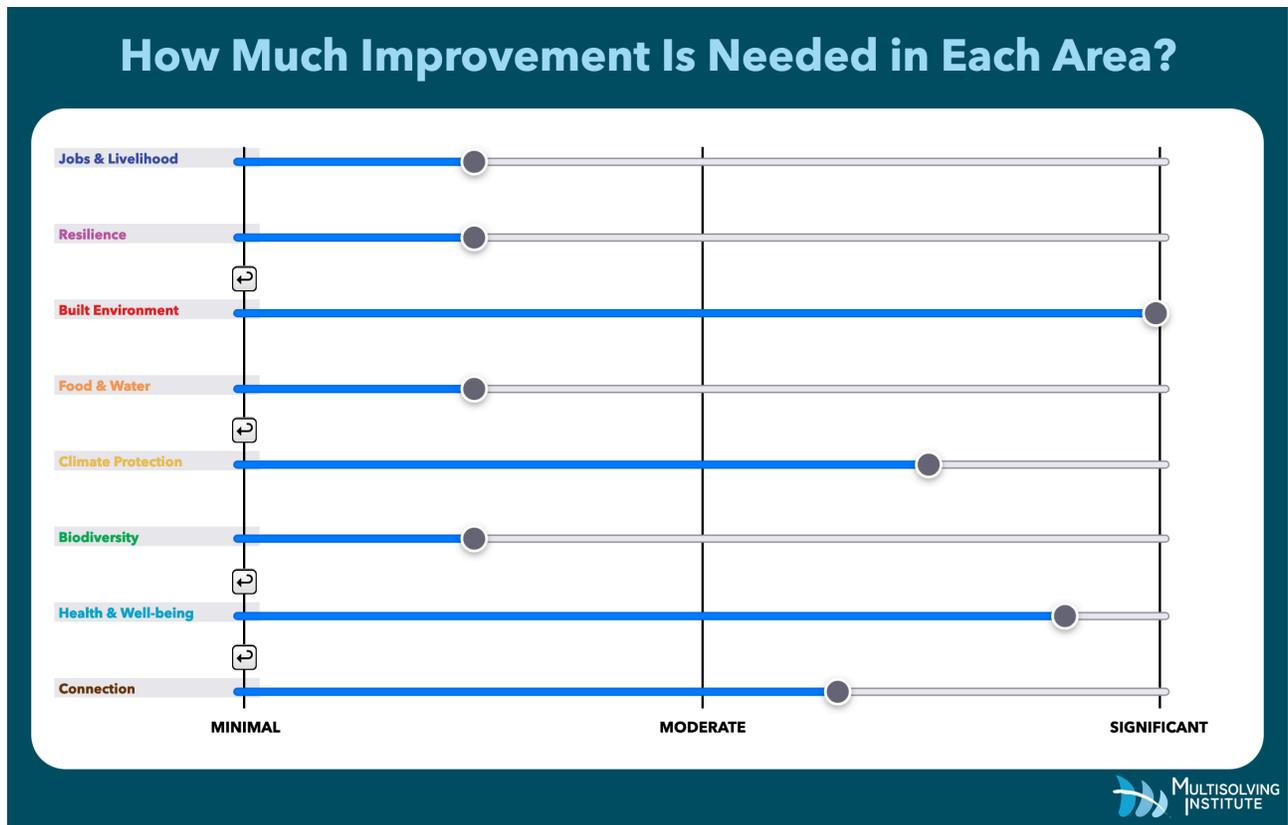
The same holds true for discussing needs in the Assess Needs view – if participants disagree about priorities, it’s a chance to practice cultivating curiosity about needs and perspectives different than one’s own.

**Weave awareness of equity into your facilitation.** FLOWER sets up conversations about who benefits and who might be burdened because of the projects or investments you are analyzing together. Depending on your group, you may want to begin building the capacity for effective conversations about equity before turning to FLOWER. You might remind the group that, to create FLOWERS that represent the group’s best thinking, it will be important to hear from everyone. Collective intelligence requires respect and creating space for each other to share, an equity practice in itself!

Sometimes, more than one type of equity is relevant. You can use the Number of FLOWERS feature to make multiple FLOWERS. For instance, FLOWER 1 could show racial equity and FLOWER 2 could show gender equity.

Once you have gathered your groups and arrived at some policies to test, proceed through the next sections of this guide to create and analyze your scenarios.

## ASSESS NEEDS



Some petal sectors will be a higher priority to your team or community than others. For example, your team may believe Climate Protection is more important to your community than Biodiversity. Starting with the Assess Needs view to first build a shared picture of these priorities helps create an understanding of everyone’s goals and ensures the needs of marginalized groups are considered.

Use the sliders on the ASSESS NEEDS view to input your assessment of how important increasing benefits in each petal area is to your community: Minimal, Moderate, or Significant.

In the example above, the most important priorities are (from highest to lowest priority): Built Environment, Health & Well-being, Climate Protection, and Connection.

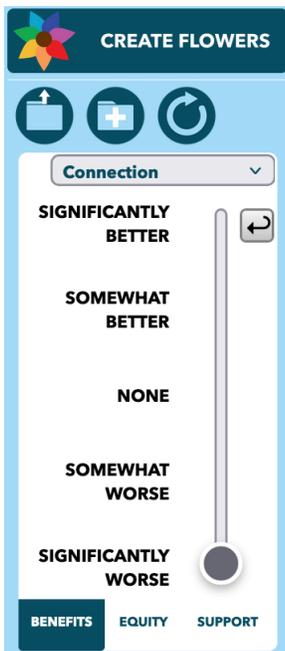
After you have set the needs and created a FLOWER, click the NEED MATCH dropdown at the top right of the CREATE FLOWERS view to show a graph comparing the effectiveness of interventions relative to the importance of each petal benefit. Click on any bar for its score, ranging from -100 to 100:

- Items with the greatest need are weighed more heavily in the score.
- If an item is rated extremely important, a petal impact of significant will contribute more to the NEED MATCH score than if a lower priority item is expected to have a significant petal impact.

In other words, the highest priority needs must show a large benefit to receive a high score. Need match scores are also displayed under the label for each FLOWER.

## CREATE FLOWERS

FLOWER diagrams allow you to evaluate your investments and initiatives using a multisolving framework. Deciding where to set the sliders to represent the size of each benefit provides an important opportunity for conversation and thinking together. You won't have specific data for each petal in most situations, and even if you did, each petal is measured in different units (tons of carbon, number of jobs, species protected, etc.), so do your best to estimate the slider values. Some questions that might help the process:



Think of all possible investments for this location. If most of them would have more impact on this petal than the investment you are diagraming, set the slider closer to None. If most of them would have less impact, set the slider closer to Significantly Better.

Remember that sometimes policies or investments can have harmful impacts, be sure to drag the slider downwards for the petals where this may occur.

On the CREATE FLOWERS view, build your FLOWER as follows:

- Select the BENEFITS tab to access the benefits input panel.
- Select a petal from the drop-down list at the top of the input panel.
- Use the slider to indicate the expected impact of the policy on that petal, from Significantly Better to Significantly Worse.
  - A positive benefit will result in a colored petal and a negative benefit a grey petal.
  - The intensity of the impact will be shown in the petal size, where larger means a greater positive or negative impact.

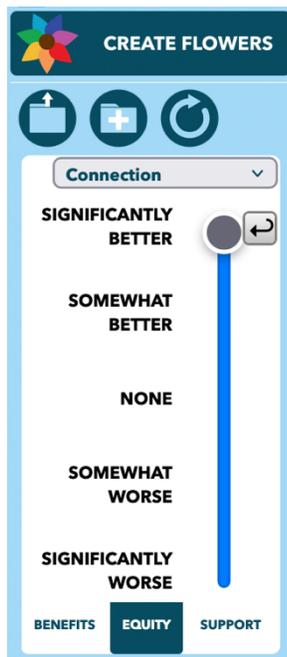
Click the reset button to the right of the slider to reset the selected petal's slider in the benefits input panel. If you would like to reset all petal sliders for all FLOWERS you have created, click RESET ALL FLOWERS in the application-wide controls above the slider section.

Use the NUMBER OF FLOWERS panel at the bottom of the screen to add and remove comparison FLOWERS. You can add up to three new FLOWERS. To remove the most recent FLOWER(s), select fewer FLOWERS than are displayed. Note you can only remove the FLOWER(s) most recently created.



To select a FLOWER for editing, select the label above that FLOWER. A FLOWER can also be hidden while keeping all its settings by toggling the hide button on the right side of its label.

## ILLUSTRATE EQUITY IMPACTS



In the process of setting equity impact sliders, you'll want to take time and help participants listen carefully to one another. Make sure that everyone is thinking about the same type of equity (for instance racial equity or intergenerational equity or gender equity). If more than one type of equity is important, you can make a FLOWER to explore each type of equity.

Insights that can help the group think about where to set the equity slider include:

Does this benefit mostly serve a group that has historically been marginalized? That would be an equity improvement.

Does this burden mostly fall onto a group that has historically been centered? That also would be an equity improvement.

If benefits go most to well-off groups, or burdens fall on already marginalized groups, that would worsen equity.

Use the EQUITY tab at the bottom of the FLOWER slider window to assess each intervention's impact on equity:

- After creating your flower on the BENEFITS tab, select the EQUITY tab to access the equity input panel. Note the equity slider only shows up for petals that have benefits entered.
- Select a petal from the drop-down list at the top of the input panel.
- Use the slider to indicate the expected impact of the policy on equity in that petal's sector, from Significantly Better to Significantly Worse.
  - An investment that positively impacts equity will result in a less transparent petal.
  - An investment that negatively impacts equity will result in a more transparent petal.

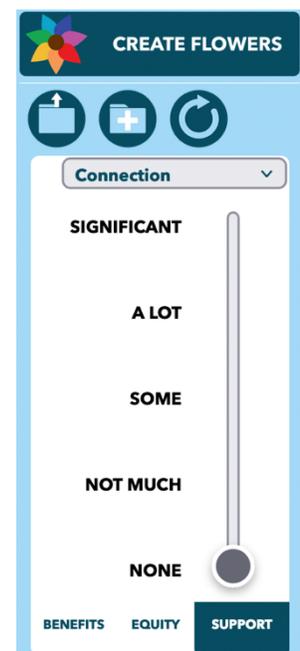
Click the reset button to the right of the slider to reset the selected petal's slider in the equity input panel. If you would like to reset all petal sliders for all FLOWERS you have created, click RESET ALL FLOWERS in the application-wide controls above the slider section.

## DISPLAY SUPPORT SOURCES

The resources to implement an intervention may come from one source or many, and support may include different things in different situations. It may be money invested, volunteer hours donated, or supplies or tools loaned to the effort. To decide where to set the sliders ask, "how much support for this effort is coming from sources that would identify this petal as their main goal or purpose?" For instance, if most of the funding comes from a hospital partner then the support associated with the Health & Well-being petal would be high.

Use the SUPPORT tab at the bottom of the FLOWER slider window to indicate the support sources for your initiative:

- Select the SUPPORT tab to access the support input panel. Note that a petal will only show on the diagram if you have FLOWER benefits for that petal, but support may show even if there is not a benefit petal.
- Select a petal from the drop-down list at the top of the input panel.



- Use the slider to indicate the level of support that would come from that source, from None to Significant.
  - The level of support will be represented by ↑ symbols next to the source petal location on FLOWER, with more symbols indicating more support.

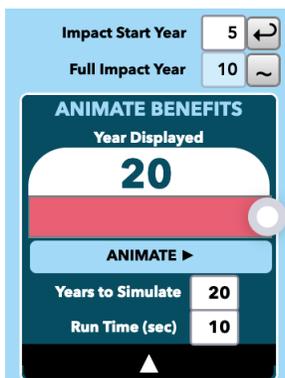
Click the reset button to the right of the slider to reset the selected petal's slider in the support input panel. If you would like to reset all petal sliders for all FLOWERS you have created, click RESET ALL FLOWERS in the application-wide controls above the slider section.

After setting the Support sliders, step back and look at the FLOWER. Notice if there are any petals that are large but don't show much support. That is a sign there could be new partnerships to be cultivated.

## ANIMATE BENEFITS

FLOWER benefits may take years to reach their maximum or to even become visible. The ANIMATE BENEFITS feature allows you to illustrate these dynamics for a FLOWER diagram. Use the animation feature if you'd like the group to improve their shared understanding of the time course of when benefits appear. Before setting the animation parameters it can be helpful to have a simple discussion imagining the project playing out over time. What would happen right away? What benefits might take longer to appear?

Click the arrow under ANIMATE BENEFITS to open the animation controls.



Set impact timeline settings for the selected petal in the drop-down menu using the first two fields:

- Input the year impacts will begin in IMPACT START YEAR.
- Input the number of years it will take to reach full impact in FULL IMPACT YEAR.
- Repeat the process for each petal where the impacts don't appear immediately.

Set simulation time parameters in the section below the ANIMATE button. These simulation settings apply to the entire simulation run and are the same for all petals:

- Enter the total number of years in which petals will grow in YEARS TO SIMULATE. The default is 20 years.
- Enter the time the entire animation should take to run in RUN TIME (sec). The default is 10 seconds.

After entering the parameters, press ANIMATE to watch the FLOWERS over time, then use the ANIMATION SLIDER directly above that button to adjust the animation year and see how the petals change. The current animation year will be displayed in the field above the slider.

In the example above, the scenario will span 20 years, and the animation will take 10 seconds to fully unfold. Benefits for the selected petal are set to begin appearing in year 5 and will accrue over 10 years. The animation pane has been set to view year 20 on the FLOWER diagram.

Understanding the timing of benefits can help a group know what benefits they might be able to show quickly (for an early grant report or the re-election campaign) and what benefits will require patience and sustained effort.

## SAVE OR LOAD SCENARIOS

Use the SAVE CURRENT PARAMETERS button to save a .csv file of all current application settings for future use within the simulation.

To use a saved file in a future session, click the LOAD SAVED INPUTS button and upload it to the application. Note this will override all settings in the current session.

