



Smithsonian

SCIENCE
for Global Goals

CLIMATE ACTION!

Part 7: Taking Action



SUSTAINABLE DEVELOPMENT **GOALS**

developed by



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HEALTH
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PART 7: TAKING ACTION

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Planner

<u>Activity</u>	<u>Description</u>	<u>Materials and Technology</u>	<u>Additional Materials</u>	<u>Approximate Timing</u>	<u>Page Number</u>
Task 1: How can we prepare to take individual or collaborative actions in the system?					
Discover	Identify the relationships between different mitigation strategies in the system.	<ul style="list-style-type: none"> • Paper • Pen or pencil 	Lists of mitigation strategies from Parts 5 and 6	30 minutes	204
Understand	Analyze the system to find places where you could make a difference.	<ul style="list-style-type: none"> • Paper • Pen or pencil • Sticky notes (optional) 	<u>Complex Mitigation System Diagram</u>	30 minutes	206
Act	Determine which part of the system you will act to help.	<ul style="list-style-type: none"> • Paper • Pen or pencil 	<u>Futures Mood Board</u> <u>Complex Mitigation System Diagram</u>	30 minutes	206
Task 2: How will I contribute to actions in the atmospheric system?					
Discover	Explore all the actions you could take.	<ul style="list-style-type: none"> • Pen or pencil • Paper 	<u>Complex Mitigation System Diagram</u>	30 minutes	208
Understand	Determine what your role will be when collaborating and communicating in the system.	<ul style="list-style-type: none"> • Pen or pencil • Paper 	<u>Identity Map</u>	40 minutes	209
Act	Put your ideas into action.	<ul style="list-style-type: none"> • Pen or pencil • Paper 	<u>Action Plan</u>	Your entire life	212



Task 1: How can we prepare to take individual or collaborative actions in the system?

Throughout this guide, you explored the complex relationships between humans and the atmosphere, including how human-induced changes to the atmosphere relate to you and your communities. As you navigated through the guide, you became an action researcher, tasked with identifying and addressing community problems. You began by recognizing existing knowledge, then conducted investigations to understand local and global issues more deeply. Finally, you will now act based on your discoveries to improve both local and global communities to address the question, How can we mitigate human impacts on the atmosphere?

In this task you will first **discover** the relationships between mitigation strategies in the system. You will then **understand** how you can analyze the system to find places where you can make a change. Finally, you will **act** by deciding which part of the system you will work within.



Discover: *What are the relationships between mitigation strategies in the system?*

In this guide, you learned about many elements and relationships within the atmospheric system. You also learned about many possible individual and collective mitigation strategies to reduce human impacts in the system.



1. Take out a piece of paper and title it “Complex Mitigation System Diagram.”

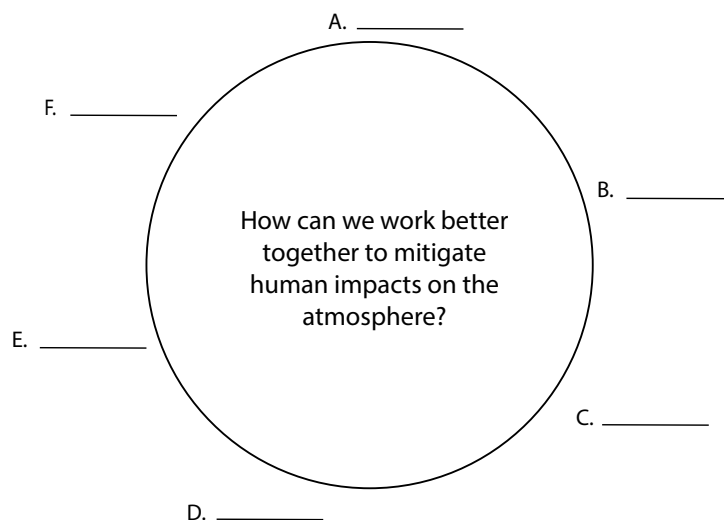


Figure 7.1: *Complex Mitigation System Diagram* example.

2. Draw a circle on the paper and write in the center, “How can we work better together to mitigate human **impacts** on the atmosphere?” Add the labels shown in Figure 7.1.
3. Look at the lists of individual and collective mitigation strategies you learned about in Parts 5 and 6.
4. Think about these mitigation strategies you identified that would help you address the driving question in the middle of the diagram.
5. Select six strategies from your lists that you most connect to.
6. Place them around the outside of the circle on the six lines labeled A-F.
7. Create a key for your diagram.
 - a. Choose two different line colors or shapes (dotted, dashed).
 - b. Label one type of line “individual action” and the other one “collaborative action.”
8. Draw the line type you’ve chosen between the mitigation strategies around the circle that you think would require individual actions to help address the question in the middle.
9. Draw the line type you’ve chosen between the mitigation strategies around the circle that you think would require collaborative action to help address the question in the middle.
10. Identify places where the two different lines cross. Many actions often need both individual and collective strategies to work together. Think about this as you develop your action plan.





Understand: How can we analyze the system to find places where we could make a difference?

Now you need to analyze your Complex Mitigation System Diagram to identify the specifics of the hopes and concerns your mitigation strategies focus on.

1. Take out your Futures Mood Board from Part 1 and remind yourself about your team's hopes and concerns. Pick some hopes and concerns that feel very important to you now.
2. Give each team member a pile of sticky notes or small pieces of paper. Put each hope and concern on a sticky note or piece of paper.
3. Individually, examine possible connections between each hope or concern and the strategies on your Complex Mitigation System Diagram. When you notice a connection between a hope or concern and a mitigation strategy, make a check mark on the sticky note.
4. When everyone has finished, silently examine all the hopes and concerns you identified.
5. If you think a hope or concern is something that either affects your **community** or is something your community can help with, put a plus sign (+) next to that.
6. Examine all the marks and discuss with your team:
 - a. Which hopes and concerns seem to be most important to your team?
 - b. Which hopes and concerns do you think you could take mitigation action on right now?
7. Save this Complex Mitigation System Diagram for the next activity.



Act: Which part of the system will we act to help?

At any time, there are many problems any of us could work to solve. But trying to solve everything at once often means you are not able to make much progress on anything. In this step you will work with your team to identify which problem might be the best one for you and your team to work on first.



1. By yourself, examine the hopes, concerns, and mitigation strategies on your Complex Mitigation System Diagram. From this, identify one problem that seems important to your community. Do you think that would be a good problem to work on first?
2. Share your ideas with your team.
3. As a team, come to **consensus** on the problem you want to take action on. A consensus is a balanced decision that works for everyone in the group. There are many ways to come to consensus. Here are some ideas. You can choose whatever works best for your team.
 - a. List the good things and bad things about picking each problem. Discuss as a team.
 - b. Try to find the same values. Are there other people who picked similar hopes or concerns as you? Use that to help you try to pick a problem that would need to be solved to achieve that hope or avoid that concern.
 - c. Build a sense of the group opinion. Are there some problems that many people would be interested in working on?
 - d. Find a slow consensus. Find a partner, and as a pair find consensus on which problem is most important to work on first. Then in a group of two pairs (four team members) you can build consensus among the four of you. Then in a group of four pairs (eight team members) you can discuss further to build consensus. Keep adding groups together until you have found a team consensus.
 - e. Consider your impact. Think about who would benefit from your team working on a specific problem. Which group are you most interested in helping?
4. Write down the problem you decide upon as a team.



Task 2: How will I contribute to actions in the atmospheric system?

As **action researchers** you now have a lot of information. You discovered what is important to you and your team. You understand more about humans in the atmospheric system. You understand the values of people in your community. Now you will put those ideas together. In this part you will decide how your team will act to solve the problem you identified. Then you will put those plans into action. In this task you will **discover** more about the possibilities for action. Then you will **understand** more about your role in working toward your goals. Finally, you will **act** on your ideas and work toward a **sustainable** and positive future.



Discover: *How can we help solve our problem?*

There are many ways to act to solve a problem. You and your team need to decide what action might work best for you and your community.

1. Take out the problem you all decided you want to help solve. What are the actions that might help make the problem better?
2. Individually, get out a piece of paper and write or draw any actions you can think of. If you are having trouble thinking of actions you can take, here are some ideas you may want to consider.
 - a. **Personal:** Could you make changes to your behavior that might help mitigate your impact on the atmosphere? For example, could you act to produce less air pollution or greenhouse gases? Create and sign a pledge to yourself. I pledge to _____ (action) to help _____ (reason).
 - b. **Educate others:** Other people you know may not know much about the system of the atmosphere. Could you choose a group to educate to help them learn more? Could you redesign any elements you created in this guide and share them with others?
 - c. **Communicate with your community:** Help your community understand your atmosphere problem and how they could help by designing posters, composing songs, recording podcasts, making public service announcements, setting up a social media campaign, or using other ways to communicate.



- d. **Government change:** Are there rules you think need to be changed about the atmosphere and our relationship with it? You could try to encourage a local or country government to change those rules. For example, you could write letters to officials or speak at local government meetings to share the actions you think are necessary to help solve the problem you identified.
 - e. **Global change:** Collaborate with others around the world who are worried about the same problem. For example, join a group that is working to mitigate human impacts on the atmosphere.
 - f. Come up with your own ideas!
3. Share your ideas with your teammates.
 4. Examine the problem you selected on your *Complex Mitigation System Diagram*. Notice any elements or relationships that relate to this problem. Discuss with your team how those elements or relationships might affect the actions your team shared with one another.



Understand: *What will my role be when collaborating and communicating in the system?*

Now it is time to plan your action. As you have learned, variations among people's perspectives and abilities can make the whole team stronger. Think about what role you will take to help with the team action.

1. Take out your *Identity Map* from Part 1 and examine it closely. Make a note of things about your identity that might help you decide how you would like to act. For example:
 - a. What brings you joy or happiness?
 - b. Do you have any special talents, such as art or music, that might be useful to capture people's attention?
 - c. Are you part of any groups that you could communicate with?
 - d. Are you interested in science and engineering or other ways to try to find innovative solutions?



- e. Do you have good planning or organizational skills?
 - f. Are there other things about your identity that might help you work toward the future you want?
2. Gather with your team. Write “Team Strengths” on a sheet of paper or on the board.
 3. Under *Team Strengths*, write down all the ideas each person had about things from their identity that might help you all act.

 **Emotional Safety Tip**

Everyone has strengths and weaknesses. As a team member, sharing your unique strengths is important, even if it feels uncomfortable. It is important to respect your own strengths and to respect what others identify as their strengths.

4. As a team, discuss the actions you thought of in the Discover activity. Remove any actions that would not be helpful or that you cannot do.
5. Share your ideas and listen to others. Come to a consensus about which action you will take, using your *Team Strengths* list to help you decide the best action for your team. You can use some of the consensus-building ideas from the task 1, Act activity, if you want.
6. With your team, take out a piece of paper and title it “Action Plan.”
7. Write “Goal” near the top of your *Action Plan*.
8. Discuss with your team what you want the final outcome of your action to be. When you have decided on your goal, write it next to *Goal* on your *Action Plan*.
9. Next write “Concerns” on your *Action Plan*.
10. Discuss with your team, are there things you are uncertain about or that you worry might not help people the way you want? If so, write those concerns down next to *Concerns*.
11. Think quietly to yourself about the steps that could be part of planning the action your team picked. Keep in mind your concerns and try to find a way to make sure they do not become a problem.
12. Individually write, draw, or use another way to record your ideas on small pieces of paper. Each piece of paper should have one step.



13. Have each team member share their steps by placing their pieces of paper on a table or by using a digital tool for collaboration.
14. Read through the steps from your teammates.
 - a. Did you notice any steps that were similar to yours?
 - b. Do you think your team is missing any steps?
15. Start to organize your team's steps. You can move the pieces of paper around as you do this. Thinking about your team's steps will help you decide how you will take action.
 - a. Group any similar steps together.
 - b. Remove any steps you don't think are needed to help your team take action.
 - c. Think about how each team member will help. Put their names with the steps they would like to help with.
 - d. Think about what steps might be missing. Add those steps.
16. Put the steps in order. For example, what do you think the team needs to do first? Place that piece of paper before all the others.
17. Record the following on your *Action Plan*:
 - a. The steps your team would like to take
 - b. The order of those steps
 - c. Who will help with each step (it might be more than one person)
 - d. When and where you will take these steps
 - e. How long your action will continue
 - f. Partners or other people you will involve
 - g. How you will communicate your action plan to the community
18. Think about what you will do if your plan doesn't work or you run into another problem. For example, what will you do if an adult in your community says you need permission to do something in your plan? Record these ideas as part of your action plan.
19. Remember to create an **inclusive** action plan. Being inclusive means everyone on your team can participate in some way. You may need to make changes to the plan so that everyone feels safe, comfortable, and able to help. Those changes are okay! They are part of being a good teammate.





Act: *How will I put my ideas into action?*

The time has come to act! You can use everything you have learned to take action to help create the future you want.

1. With your teammates, implement your Action Plan. This may take some time. There is no need to worry; take the time you need. When you are finished, come back and complete this activity.
2. Think quietly about the action you took. Consider:
 - a. What went well?
 - b. What do you think could have gone better?
 - c. How would you change your action if you had to do it again?
3. Discuss with your team:
 - a. What makes you proud of yourselves as a team?
 - b. What do you think you have learned for next time?
4. How are you feeling about working together to mitigate human impacts on the atmosphere?
5. Think quietly to yourself about what you plan to do to create the changes you want to see in the future.

Congratulations!

You finished the *Climate Action!* Community Research Guide.

All of us should be trying to do what we can to change ourselves and our world for the better. Maybe you took a big action. Maybe you took a small action. Maybe it had a big impact. Maybe it had a small impact. The most important thing is that you did something. When you take action to make your community better, you create the world you want to live in. You and your team are changing the world, one step at a time!



Glossary

This glossary can help you understand words you may not know. You can add drawings, your own definitions, or anything else that will help. Add other words to the glossary if you would like.

Action researcher: A person who works with their community to discover, understand, and act on local and global problems they learn about

Community: A group of people who share something in common, such as a space or an identity

Consensus: A balanced decision that works for everyone in the group

Impact: The effect one thing has on another

Inclusive: Making sure no one is left out

Sustainable: An approach that balances different perspectives and can keep working for a long time



Meet Andre Radloff, Your Climate Action Guide Developer

Meet Andre Radloff. Andre (*AHN-dray*) was the main person writing this guide. He talked with lots of researchers to get information. However, like anyone, he has his own perspective. You have learned it is important to consider the perspectives of your teammates and research mentors. Perspectives affect what we think and how we think. It is also important to think about the perspective of the writer. This can help you understand why the guide was written the way it was. Considering the source of information is always a good idea. To help you, Andre filled out an identity map, just like you did in Part 1.

Andre's Identity Map



Before you finish the guide, think quietly to yourself about Andre's identity map.

- What questions do you have about the way the guide was written?
- What perspectives does Andre have that might have made her write the guide the way it is?
- Are there things you would include that were not included?

Do you want to tell Andre what you would change about the guide? Email him at scienceeducation@si.edu. He'd love to hear from you!





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Smithsonian Science for Global Goals (SSfGG) is a freely available curriculum developed by the Smithsonian Science Education Center in collaboration with the InterAcademy Partnership. It uses the United Nations Sustainable Development Goals (SDGs) as a framework to focus on sustainable actions that are student-defined and implemented.

Attempting to empower the next generation of decision-makers capable of making the right choices about the complex socio-scientific issues facing human society, SSfGG blends together previous practices in Inquiry-Based Science Education, Social Studies Education, Global Citizenship Education, Social Emotional Learning, and Education for Sustainable Development.

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