

Scoping – getting to know a community.

It is important to ask a range of questions so that you can understand community context, culture, and priorities. All of this needs to proceed thinking about a project.

Some categories of questions to think about asking are:

- Questions about who should be included
 - If we don't include them who would be pissed off? Is anyone typically left out of these kind of conversations?
- Questions about the right way to ask questions.
 - How do you typically interact with your peers? What is the best way to introduce these issues? Don't be afraid to think of town halls, one-on-one's, informal events
- Questions that get at the community capability - e.g. start from strength and respect.
 - What makes your community special? What are your greatest strengths? What are you most proud of. What have you guys done already and what changes have you made? If you could tell me one thing about your community/city, what would it be?
- Questions that are a version of "What are your issues that touch on geoscience"
 - What does your community worry about in terms of weather, climate? Sustainability? Natural disasters? Pollution? Health? Environmental Justice? Earth science?
 - What issues that you wish you had more time to focus on but that get pushed down the list by other issues (day-to-day or otherwise)?
 - Are there issues like these that you feel you should be paying more attention to, but aren't?
 - Are there are opportunities you'd like to see your community better able to tackle?
- Solutions/Vision questions
 - What would you like to see different in 10 or 15 years?
 - What would you like to accomplish this year that sets you up to accomplish even more next year?
 - What does a 10-year-old in your community look forward to when they are 20?
- Questions that get at challenges
 - What are the obstacles to addressing the issue(s) noted above?
- Questions that get at scientist's role
 - What kinds of things might a scientist do, in their work with your city? Will they be speaking in public forums, reviewing documents, working with city workers, etc.?
 - What will they do on a day-to-day basis?
 - What experience does your city have working with scientists on this issue or other issues?
 - What skills or attributes are most important to you in a scientific partner? (i.e. ability to translate knowledge, broad networks, specific expertise in a particular area, ability to work in groups, sense of humor, ability to bring relevant science to the table, patience, ability to meet deadlines, ability to give a roughly right answer quickly, willingness to accept that science isn't the only factor guiding decisions, etc.)
- Other categories of questions?
 - Logistical – looming issues, timelines, deadlines, resources available (time and money)

Making a Pitch – Offering ideas that use geoscience to advance community priorities

Once you've gotten to know the community a little, it is time to try to nail down a project. You will probably have project ideas and hopefully your community partner does too. Often, this is an iterative process. Your initial project ideas are something the community can react to, ask questions, about, and provide feedback on – allowing the two of you to learn more about each other and refine the project ideas together. In other words, don't be too alarmed if your initial projects don't meet with wild approval or their initial questions seem to pull you out of what you know best. At this point, it is best to think about your broad knowledge, and not your particular expertise. Don't worry if it is a project that you can do by yourself; matching the project to the right scientist comes later.

Some suggestions for projects:

- Think about something that is tied to a larger priority
 - For example, the city wants to build more parks – is there testing that could ensure the park is safe or ways to design a park to deal with severe weather or hazards.
- Think about what a **specific person** might want to do, then what would help them do that.
 - Parents might want to ensure their kids aren't affected by air pollution on their walk to school – how could you get data about air pollution on their walks?
 - A water manager might want to ensure sufficient water resources during a drought.
- Focus on a pending decision – even better if the decision has a timeline (e.g. City Council greenhouse gas targets being set in January)
- Sometimes it helps to think in categories – what could you do that is related to pollution, environmental justice, agriculture, natural hazards, energy use? Also think about combining categories.

Think about strengths and constraints:

- Ask what a good first step might be. Aim for something you might be able to do in about 3-4 uninterrupted weeks (translates into about a year at ½ day a week or so).
- Use Improv rules – not why it won't work but what could make it work. A bad idea might launch a productive conversation. It is ok to say here are some ideas, let's make them better together.
- Think about politics or other barriers that might prevent the project from being completed and manage those from the outset.
 - Resilience to severe weather rather than adapting to climate change
- Think about the community's strengths and leverage them
 - Save most of any community data collection for a second or third project; focus initial projects on making use of existing data.
- Don't worry about publication in the places you usually publish
 - Community participation may produce a different way of sharing what you learn – one you can do together
 - The project might apply well known science, and that application might be publishable in a different kind of journal
- Redefine the problem. For example, is the problem how to buy a street sweeper or how to keep the streets clean?

Troubleshooting

Even the best projects can veer, and even the best relationships have stress. In fact, relationships that weather stress are often stronger than those that did not. So, don't shy away from conflict or disagreement – work through it. Very little fixes itself without some effort. Some techniques for managing when things go wrong:

- Assume good intent and ask for clarification
- Try to see things from someone else's point of view - use your empathy skills.
- Ask non-judgmental questions from a place of curiosity – this especially works well in the moment. Even a question as simple as “Can you tell me more about that” can help diffuse a tense situation or uncover underlying issues.
- Even if you think you have a solution, force yourself to come up with more than one and think about them.
- Don't be afraid to ask for help - friends, colleagues, even your community partner.
- Take a breather if things get heated, and walk away (politely) if necessary for a few days. In meetings, sometimes a coffee break makes all the difference.
- What other rules or techniques would you add?

Your additions here: