

## Tool 5: A Problem-Solving Checklist for Coproduction

**An informational tool provided as part of a toolkit for researchers and resource managers with an interest in coproducing actionable science to support public land management.**

Coproduction to support public land management involves carefully considering how researchers and resource managers will collaborate on each project. Despite the best intentions, things sometimes go wrong. We developed this checklist based on the authors' collective experiences with aspects of coproduced projects that did not go quite as planned. The questions focus specifically on problem solving and reflect what we wished we would have asked or done earlier in the project to expedite it and better meet its goals.

We suggest that project teams talk through the relevant questions in this list when beginning a coproduced project to make sure all parties have a clear understanding and shared path forward. While some of this information is referenced in other tools in this toolkit and can be found in project management courses, the questions in this checklist are more detailed and nuanced. The answers also often change as the project progresses and as roles, responsibilities, or staffing change. We encourage project leads and teams to revisit relevant questions in this list periodically to verify that the answers are still clear, appropriate, and understood by all involved.

### **Initiating coproduction and delivering actionable science products**

1. What [level of coproduction](#) is planned, why is that level needed, what are the associated workloads, who will authorize and do that work, and what are the benefits and motivations for each agency?
2. What relationships are in place to facilitate coproduction? What relationships need to be developed or strengthened? How will that happen?
3. Is there a clear understanding of why the project is needed, who will use the products, and how people will use them to inform decisions? If not, what is the plan for engaging people who can answer these questions?
4. When will the results, outcomes, or products from the project be needed for decision making? Is this timeline realistic based on current staffing, resources, and other priorities? If not, what are the plans for solving this issue?
5. Who will work to ensure that planning, policy, and management expertise from key programs and offices is available to the project, including expertise to identify who the intended audience/users are, how and for what decision(s) that audience will use the products, and what implications the results may have for public land management?
6. If end users (e.g., field staff or policy makers) are not part of the project team, how will their input be provided throughout the study to ensure the products meet their needs?

### **Clarifying roles, involvement, and decision making**

7. Do the project leads from both the resource management agency and the science agency/organization have the time, resources, and authority needed for the project to succeed? If not, how should issues be addressed?
8. Does the project team collectively have the skills and expertise needed for the project to succeed, including both interpersonal skills (e.g., facilitation and communication) and technical skills and expertise? If not, what is the plan for bringing these skills into the project?
9. Who will make day-to-day project decisions? How, when, and to whom will they communicate important decisions?
10. Who will be the final authority on sensitive/controversial project decisions for each agency?
11. Who will be on the project team? How and how often will they meet? What is the expected workload? Does each team member know why they have been asked to participate and what the team wants from them?
12. Will there be additional project advisors or an advisory group? If so, how and how often will they be kept informed? What is the expectation for input/involvement from them? Does each member know why they have been asked to be an advisor and what is wanted from them? What is the strategy for securing and maintaining their engagement, and how will you know if it is working?
13. Who will help with problem solving when challenges (e.g., staff loss/turnover) or controversies arise?

## **Defining and conducting the project**

14. Who will have a say (and who will have the final say) in defining the project (often after the funding is in place), including clarifying project scope, objectives, tasks, timelines, and end products? Who will prevent scope creep, and how?
15. How and how often will the resource management lead and the research lead communicate?
16. How will project decisions and progress be recorded and shared with the project team on an ongoing basis so that all parties are informed?
17. Who will contribute to developing and refining study methods, and how?
18. Who will participate in collecting data for the project? Who will participate in analyzing project data?
19. Who will review, interpret, and provide feedback on initial results?
20. Who will be an author on products and publications? In what ways will they contribute?
21. Who will be acknowledged in project publications, and in what ways are they likely to contribute?
22. Who will make decisions about publications, including framing, which findings to highlight or discuss, the scope of “Management Implications” sections, target journals, suggested reviewers, and revision of manuscripts in response to reviewer input?
23. Who will decide if, when, how, and where to publish sensitive findings?

## **Communicating project findings and supporting product use**

24. When and how will the project team start expanding or shifting its focus from creating products to sharing and supporting use of project products? Who will lead these efforts?
25. How will the project team identify and work with project champions that can share and advocate for use of project results within the resource management agency?
26. Who will draft and edit project websites, briefing sheets, presentations, news releases, and other communication products? Who will ensure that these are completed and approved through the proper channels?
27. Who will identify target audiences (e.g., programs, offices, or individuals) for sharing of project findings and products? Who will schedule, facilitate, and conduct that communication and sharing?
28. How will the project team support integration and use of products in agency decisions and work processes, including developing/providing training or supporting development of relevant guidance/policy?

## **Evaluating project progress and outcomes and assessing impacts**

29. How will project leads evaluate what is working well (and what is not) on a regular basis so that any issues can be identified and resolved in a timely manner?
30. Who will evaluate the project, process, and products? What will be the criteria for success of each? Who will design the evaluation, collect the data, and do the analysis? When will the evaluation occur? Who will share the findings, and with whom?
31. If partners were not able to use the products as planned, can additional efforts support use? How can future efforts be changed in light of this experience to produce products that are both useful and used?
32. Who will think about any needed follow-up projects and work to find funding for any such efforts?
33. Does the project team feel that the time and resources required for the project to be conducted as a coproduced effort paid off in achieving project goals, including greater product utility and use or other measures of impact?

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### **Suggested Citation**

Selby, L.B., Carter, S.K., Haby, T.S., Wood, D.J.A., Bamzai-Dodson, A., Anderson, P.J., Herrick, J.E., Samuel, E.M., and Tull, J.C. A Problem-Solving Checklist for Coproduction: An informational tool provided as part of a toolkit for researchers and resource managers with an interest in coproducing actionable science to support public land management. Denver (CO): U.S. Department of the Interior, Bureau of Land Management; 2024. <https://www.blm.gov/noc/report/toolkit-coproducing-actionable-science-support-public-land-management>.