

# What level of coproduction makes sense for my project?

*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*

Research requested by federal land management agencies to inform their policies and actions can range from largely independently conducted projects to highly integrated, collaborative projects. As projects become more collaborative, they enter the realm of coproduction (see the 'What does coproduction look like in a public lands context?' [video](#) and [information sheet](#)).

Coproduction in this public lands context is not a one-size-fits-all approach to conducting projects, but rather a shared commitment by researchers and resource managers to work together in partnership to produce actionable science that meets the needs of resource managers. Some projects may warrant only limited, targeted interactions between resource managers and researchers to produce the results or tools that resource managers need. Other projects may be more exploratory, complex, or less well defined and require a greater level of input and engagement throughout the project.

This information sheet is intended to be used by researchers and resource managers who have determined that coproduction is the right approach for their project, but who are looking for direction on what level of coproduction might be the best fit for them and their project. The matrix on the reverse side of this sheet is meant to provide an idea of the commitments, roles, and responsibilities that researchers and resource managers can expect with different levels of coproduction, while acknowledging that every project will have its own unique context and needs. The goal of this tool is to help encourage and guide conversations, especially at the outset of projects, about how both parties will work together.

A variety of benefits are typically associated with projects that have a higher level of coproduction (i.e., projects that fall farther to the right in the matrix):

- Resource managers are more likely to gain a **better understanding of the data, methods, and findings** from the project, increasing their ability to apply its conclusions and understand important limitations.
- Researchers are more likely to really **learn about the land management agency's decision-making process**, increasing their ability to produce truly actionable science for current and future projects.
- Researchers and resource managers are more likely to **build strong and lasting relationships** with each other and with other stakeholders at both individual and program levels.
- Products and outputs such as publications, datasets, and decision-support tools are more likely to directly **relate to specific management needs** and be easily used in agency decision-making processes.
- There are more opportunities for **meaningful and relevant professional development** for all parties, including, but not limited to, co-authorship on publications and other products.

To realize these benefits (see *What does coproduction look like in a public lands context?* information sheet for more details on benefits and associated citations), as the level of coproduction increases, there is also a need for greater **engagement, time, and resources** (see matrix).

## **Using this information sheet:**

The matrix on the next page describes a continuum of coproduction levels and some characteristics, commitments, types of projects, and workloads likely to be associated with each level. The continuum concept and framework was modeled after Meadow et al. 2015<sup>1</sup>, but we have tailored and expanded information here to reflect the specific context of science requested by a federal land management agency to inform resource management on and around federal public lands.

## **References:**

<sup>1</sup> Meadow et al., 2015, Moving toward the deliberate coproduction of climate science knowledge. *Weather, Climate, and Society* 7:179-191.

# Project and partnership characteristics along a coproduction continuum

Note that "In addition" below refers to characteristics of coproduction that add on to those listed to the left within the same row.

Coproduction Level →	Low	Medium	High
<b>Typical types of projects and their goals</b>	Typical projects have defined needs and use established methods and approaches. Projects typically require input and guidance from the management partner to define objectives and may require occasional reassessment to ensure that the research is addressing management needs. Projects are typically relatively straightforward to conduct and project stages (e.g., data collection and analysis) may proceed independently.	Typical projects may address complex questions that require ongoing input from the management agency to best meet the agency's needs and be easily used within their decision-making processes.	Typical projects address highly context-specific, complex, sensitive, or exploratory questions that require substantial input from the management agency to define and answer (e.g., development of new approaches or methods, projects intended to inform decisions made by multiple resource management programs or offices).
<b>Defining characteristics of partnerships</b>	Targeted partnership: researchers and resource managers (or the programs they work for) engage and may make joint decisions on some aspects of the project, likely concentrated at project initiation and application, but do not fully share project decision-making.	Commitment to joint decision-making and joint responsibility for multiple (but not all) aspects of the project, and commitment to periodic engagement as the project progresses.	Joint decision-making: equal responsibility and power sharing on all aspects of the project, continuous significant engagement throughout the life of the project, and shared responsibility for project outputs, outcomes, and overall success.
<b>Partner commitments and communication</b>	Resource managers provide input on project objectives, proposals, and/or statements of work. Communication is likely infrequent and focused on clarifying objectives, coordinating logistics, reviewing draft products, and sharing results with agency staff at project completion.	<i>In addition</i> , researchers and resource managers meet periodically for joint review and/or refinement of objectives, methods, results, and products, and work together to share project products with target audiences.	<i>In addition</i> , researchers and resource managers meet frequently to communicate and work together to complete the project, with both parties providing knowledge and expertise that are needed to complete the project successfully. Both parties work together to share results widely with agency staff at project close through multiple mechanisms.
<b>Resource manager roles and responsibilities</b>	Resource managers develop and provide key input in determining the scope, direction, management needs, and desired outcomes as part of project initiation, as well as effective distribution and application of products. Resource managers provide guidance or approval only on major project decisions.	<i>In addition</i> , resource managers participate in periodic project team meetings and provide context, expertise, and interpretation. Additional workload may focus on informing leadership about project progress and results and learning about any changes in policy that might affect the project.	<i>In addition</i> , resource managers commit additional time on a regular basis (often during joint work sessions) to help develop methods and interpret results; address any emerging issues or challenges within the agency; plan for communication, distribution, and use of the resulting science products; and engage leadership to facilitate policy-relevance and broad application of findings across the agency.
<b>Researcher roles and responsibilities</b>	Researcher drafts initial proposal, incorporates input from the management agency, facilitates completion of agreement or contract paperwork, and produces and shares the specified deliverables. In addition to conducting research activities, researchers are expected to periodically communicate progress and findings with the management agency.	<i>In addition</i> , researcher actively seeks and incorporates partner input by preparing and coordinating project team updates or meetings, and by following up on action items related to research progress.	<i>In addition</i> , researcher shares joint responsibility for successful, timely completion of most or all aspects of the project, including the development and application of defensible methods and production of actionable science products. Researcher shares responsibility for effective communication of findings to target audiences within and outside of the management agency and commits to providing science support for related agency management decisions.



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