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To succeed, the Path to Knowledge Co-Production Must Be Indigenous-Led

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The ongoing lack of experience in knowledge co-production methods became evident upon the cancellation of the National Academies of Sciences, Engineering and Medicine (NASEM) study on co-production of environmental knowledge (1). To remedy this, we offer an Indigenous-led approach as an effective path to overcome barriers within specific projects, and also as a general pathway to working with and among diverse Indigenous communities in a good way.

Such *pre-co-production* relationship building requires its own methodologies, time, and commitment.

Co-production of knowledge should be a process driven by Indigenous values, yet inclusive of non-Indigenous participation. Co-production using Indigenous-led framing creates a tangible pathway to building the Indigenous/Non-Indigenous and/or Intertribal knowledge base, and it implies decolonial approaches to collaboration based on Reciprocity, Responsibility, Relationality, and Respect (2,3). We recommend an immersive ‘Campfire model’ of relationship-building through a stage-like, simultaneous and reflective process of moving towards knowledge co-creation (see Figure at <https://zenodo.org/records/14365239>). The ultimate goal is to start co-creation on clear, co-defined, and equitable terms. Building upon All Our Relations approach (4,5,6), as a (self)-reflection guide to facilitate the process, the model relies on five intertwined dimensions: nature relationships, human relationships, action, feeling, and knowledge. The travel along each path towards the “fire of co-creation” is enabled through Indigenous methodologies, including storytelling, crafting, reflection, and ceremony. All paths should be completed before knowledge co-creation becomes a possibility. However, co-creation does not stop with following these steps: it begins with them as they are to be constantly revisited, revised, reinvigorated and reinsured during and after the process of knowledge co-creation. We invite NASEM and other Western institutions to consider this approach in developing their partnerships with Indigenous communities and scholars, and we encourage Science to continue serving as a key forum for discussions focused on knowledge co-production.

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