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COMMENT



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Genuine tribal and Indigenous representation in the United States

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Natural resource management agencies in the United States have a legal responsibility to represent Indigenous Peoples and federally recognized Tribes in environmental stewardship. This comment article is a call to action that argues for genuine representation of Tribes and other Indigenous Peoples through adherence to existing, formal consultation policies and coproduction of knowledge. Agencies must recognize and respect the differences between public involvement and government-to-government consultation with federallyrecognized Tribes. Sovereign tribal nations are not the public and have a unique relationship with federal agencies based in the federal trust responsibility. Coproduction of knowledge is an emerging enterprise that has potential for meaningfully engaging and genuinely and equitably representing Indigenous Peoples and Tribes and should be codeveloped and implemented as policy. Agencies should build capacity to properly represent tribal nations in decisions. Agency employees and Indigenous Peoples must spend more time together to increase cultural awareness and build meaningful relationships to facilitate genuine consultation and coproduction of knowledge.

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Introduction

he Government of the United States has major agencies responsible for the stewardship and management of air, lands, waters, and natural resources. The United States Government, through its Executive Branch, holds the public trust over natural and cultural resources for generations of citizens in perpetuity. Sovereign tribal nations own and manage millions of acres of land in the United States, and Indigenous Peoples have a substantial interest and role in environmental stewardship based on ancient relationships with their traditional homelands (e.g., Royal, 2007; First Nations Development Institute, 2018; Brooks et al., 2022). Indigenous Peoples have a deep cultural and ethical responsibility to care for lands, waters, and all-natural resources and a legal right to be part of resource stewardship on federal lands in their ancestral territories. Tribes also have thousands of years of experience managing North American ecosystems. Indigenous Peoples have the right to use and occupy traditional lands and in some cases, they have ratified treaties with the United States government validating continued access to resources through time. Both globally and in the United States, Indigenous knowledge, perspectives, and expertise are necessary for successful environmental decision-making and governance, ecosystem accounting, and natural resources conservation and management (e.g., Lander and Mallory, 2021; Normyle et al., 2022).

Tribal stewardship of lands goes well beyond physical existence, extending to spiritual, religious, medicinal, sociocultural, and psychological components of tribal identity for past, present, and future generations. Under International Law, Indigenous Peoples have the right to life; it is implied that air, water, and natural resources benefit from this as Indigenous lifeways are closely interconnected with the natural and cultural worlds (United Nations, 1989, 2007). Indigenous Peoples have experienced a long history of colonization, cultural biases, disrespect, opposition, and lingering mistrust in their relationships with the United States Government and other entities (Kelley et al., 2013; Carlo, 2020). To genuinely represent Tribes in successful environmental stewardship, the negative relationships of the past must cease and be replaced with positive relationships.

Federal agencies need to properly implement existing consultation policies in the United States and develop and implement new policies and practices to ensure Tribes are represented in environmental stewardship and resources management in a way that truly accounts for their rights and sovereignty. This comment article is a call to action to genuinely represent Indigenous Peoples in environmental stewardship through formal governmentto-government consultation and coproduction of knowledge. Coproduction of knowledge takes the principles of governmentto-government consultation a step further by adding equity of information, equity of knowledge, and equity of intellectual authority (Ellum Yua et al., 2022; Isaac, 2015). Coproduction of knowledge is the creation of new information by working together to understand the environment; it involves mutual understanding, respect, and recognition that each party brings something necessary to the discussion (Isaac, 2015). Understanding and learning to apply these concepts are important because most federal officials working for resource management agencies in the United States will participate in tribal consultation and engagement during their careers.

Tribes are not the public

At the outset, it is important to differentiate Tribes from public stakeholders. Public involvement is the process of encouraging citizens outside an organization to be interested in the work of the organization (Cambridge University Press, 2022). Federal agencies routinely engage their public stakeholders as part of

normal day-to-day business operations by sharing information and involving segments of the public in their activities. Agencies use many different methods of public involvement (Creighton, 2005). These activities can be successful and positive for agencies and the public when problems are resolved, or agreements are reached. Public involvement can also fail in terms of its meaningfulness and satisfaction for the participants, particularly for groups of people who do not share the culture of, and protocols used by the federal agencies (Jacobs and Brooks, 2011; Brooks and Bartley, 2016).

In public scoping, hearings, and comment periods used by agencies in the National Environmental Policy Act (NEPA) and federal rulemaking processes, agencies ask segments of the public to provide information to be used, or not, in final environmental decisions. Under the NEPA, agencies respond in writing to public comments they deem substantive. Substantive means important, serious, or related to real facts; a substantive public comment has real importance or value to the federal action. In federal rulemaking under the Administrative Procedures Act, there is no requirement for the agencies to respond in writing, but they do address substantive comments in the final rule. There are several ways to improve both public involvement and tribal engagement that are beyond the scope of this comment article (e.g., Innes and Booher, 2004; Shearer, 2007; Jacobs and Brooks, 2011; Dorantes and Brooks, 2012; Environmental Law Institute, 2015).

Our position is motivated in part by a widespread problem. Federal agencies often mistakenly include tribal officials and other Indigenous organizations as segments of the public. In a public process like NEPA, tribal representatives are not given a special status above and beyond any other public stakeholder or interest group. Federal agencies strive to treat everyone in a similar and fair manner regardless of national origin or heritage. This presents a problem and disconnect for Tribes in that Indigenous Peoples have special relationships with the lands, waters, and natural resources that often go beyond the connections, experiences, and needs of the public (e.g., Royal, 2007; United Nations, 2017, 2020; Brooks et al., 2022). In some cases, Tribes have treaty rights to lands and natural resources. Moreover, Tribes have special legal status as sovereign nations within the United States and internationally (United Nations, 2007; National Congress of American Indians, 2020).

In the United States, the federal government has a trust responsibility with federally-recognized tribal nations and in some cases individual Indians that live on trust lands. In Indigenous legal doctrine, there are group and individual rights tied to places through time. Although Indigenous Peoples and tribal members are citizens of this country and may seek collaboration, education, and outreach from federal agencies, tribal nations should not be considered a segment of the public and treated as public stakeholders in federal decision-making processes. Tribes often have a large stake in federal decision-making, but they are not public stakeholders; they are sovereigns like Canada and Mexico or any other nation that may formally consult or negotiate with the United States.

Sovereign tribal nations have a unique relationship with federal agencies based on the federal trust responsibility. There is a difference between the legal relationship the federal government has with tribal nations and the racial or ethnic status of Indigenous Peoples. Because the federal government cannot discriminate based on race, these two things often get confusing, and sometimes our federal colleagues feel they are being asked to favor Tribes based on race. This is an incorrect notion that must be corrected. In the United States, tribal-federal relations are based on a legal relationship between sovereign nations, not racial or ethnic heritage. For the purposes of decision-making, federal agency leaders and tribal leaders should primarily interact in a

government-to-government manner. However, elected tribal leaders may not always represent all Indigenous Peoples in their territories, so agencies must also have meaningful public engagements with Indigenous individuals and groups outside of tribal governments in culturally appropriate ways.

Formal government-to-government consultation

The Government of the United States has a responsibility to act in the best interest of Tribes. Therefore, to understand their best interests, agencies must consult with Tribes to properly represent those interests in decisions and environmental governance. For federally-recognized Tribes, federal agencies recognize a government-to-government relationship. The agencies have an ethical and legal obligation to conduct formal consultations with tribal governments outside and separate from public involvement (USDOI, 2011, 2015). This obligation is based on the U.S. Constitution and federal treaties, statutes, executive orders, and judicial rulings (Environmental Law Institute, 2015).

The agencies' special relationship and obligation to consult with Tribes derive from the federal trust responsibility, also called the trust relationship. The National Congress of American Indians (2020, p. 23) considers trust responsibility to be 'one of the most important doctrines in federal Indian law.' The trust relationship is based on treaties between tribal nations and the federal government, European legal theory, and definitions by the Supreme Court (Environmental Law Institute, 2015; National Congress of American Indians, 2020). The obligation and the legislation address protection of tribal property and assets in cases where the title is held in trust by the Government of the United States on behalf of a tribal nation. The trust responsibility also protects Tribes' rights to self-governance and their need for a secure land base from which to develop resources and maintain tribal and cultural ways of life.

Federal resource management agencies have national directives, policies, and guidance spelled out for conducting formal government-to-government consultations with Tribes and formal consultations with Alaska Native corporations (Clinton, 2000; USDOI, 2011, 2012, 2015; Environmental Law Institute, 2015, 2016; Lander and Mallory, 2021). Alaska Native Corporations are any Alaska Native village corporation, urban corporation, or regional corporation, as defined in or established pursuant to, the Alaska Native Claims Settlement Act (USDOI, 2012, 2015). Agencies are required to notify the appropriate Tribes and Alaska Native corporations when they consider taking any action with tribal implications. Furthermore, Tribes and Alaska Native corporations may initiate formal consultation on any federal actions and undertakings they believe could affect their peoples, lands, ways of life, or sovereignty.

The U.S. Department of the Interior has defined a federal action with tribal implications as any regulation, rulemaking, policy, guidance, legislative proposal, change to grant funding or operational activity that may have a substantial direct effect on an Indian tribe (USDOI, 2011). The policy lists several things that could be affected by federal actions including but not limited to tribal cultural practices, lands, resources, access to traditional areas of cultural or religious importance, the ability of Tribes to govern or provide services to their members, and the ability of a native corporation to participate in federal programs for which it qualifies.

To genuinely represent Tribes, agencies have been directed to follow several guiding principles (USDOI, 2011, p. 2). For example, 'consultation is built on the government-to-government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility.' The agencies must communicate with Tribes in

an open and transparent way without compromising tribal rights or the formal consultation process. Agencies are directed to conduct tribal consultation in a meaningful and good-faith manner before and outside of public processes and to follow up with Tribes about the results of the consultation.

These policy directives apply to the agencies' responsibilities of environmental decision-making, resource management and stewardship, scientific research, and policy-making. The agencies are required by policy to build capacity and partnerships to implement formal consultation directives. For example, agencies are directed to provide training and learning opportunities to their employees to help them understand why and how to implement formal consultation with Tribes and Alaska Native corporations. The agencies should officially work with federally recognized tribal nations through government-to-government consultation. When done correctly, a consultation can be meaningful for both Tribes and agencies if the agencies demonstrate how tribal inputs affected final decisions (Environmental Law Institute, 2015).

Coproduction of knowledge

Coproduction of knowledge is a popular topic among Indigenous Peoples, resource professionals, and tribal nations as they discuss how to engage one another and best account for the knowledge, perspectives, and values of Indigenous Peoples (Carlo, 2020; Inuit Circumpolar Council Alaska, 2020; Wheeler et al., 2020; Wong et al., 2020; Ellum Yua et al., 2022). Coproduction of knowledge is an approach to Indigenous engagement designed to ensure equity of knowledge and equity of intellectual authority (Ellum Yua et al., 2022; Isaac, 2015). Coproduction of knowledge occurs when scientists, managers, tribal leaders, elders, and other Indigenous knowledge holders codevelop an understanding of an issue. Both parties contribute to a shared meaning of environmental research and management. Their individual contributions support and fuse into a new and distinct understanding of how to best conduct the research, analyze data, and interpret results to inform decision-making and resource management.

Coproduction acknowledges and accounts for Indigenous cultures, values, and ways of knowing through interactions that are respectful and mutually beneficial thereby better representing Tribes in federal research and natural resources management (Isaac, 2015; Carlo, 2020; Ellam et al., 2022). When agency officials and Tribes recognize and understand how Indigenous knowledge and scientific knowledge complement one another, they are better positioned to co-create new and useful environmental knowledge. In the process, the partners combine their individual understandings in a way that enhances the qualities of each other's environmental knowledge.

The goal of coproduction is for Indigenous understandings and scientific understandings to inform each other, and 'both groups benefit equally from the resulting information' (Isaac, 2015, p. 52). Out of respect, agencies should bring Indigenous Peoples into federal projects and proposals as early as possible so they may make real contributions (Johnston, 2020). 'Involving both parties at the start ensures they are equally involved in determining the goals of the project. If the project is going to be equal, each needs a chance for their value system to provide input into the reasons for pursuing the project' (Isaac, 2015, p. 53). By engaging at the earliest stages of research and decision-making, Indigenous partners and scientists ensure equity in determining the choice of research objectives, design, and methodology. Successful coproduction is verified by discussing and arriving at a consensus on the credibility, usefulness, and mutual benefits of the results, implications, and products of the research.

Federal agencies and Tribes should use the coproduction of knowledge to promote tribal sovereignty, governance, and self-determination. Indigenous Peoples involved in coproduction projects require a level of control over research and their data that has historically been missing (Rodriguez-Lonebear, 2016). There are examples of tribal institutional review boards regulating the research process and approving research protocols from an Indigenous perspective on tribal lands (Kelley et al., 2013). This Indigenous governance practice serves to protect Indigenous communities and their data sovereignty and ensures they benefit from research that uses their knowledge and information. Data sovereignty and data governance are important concepts that have emerged as Indigenous Peoples work toward self-determination and decolonization in natural resources management.

Indigenous data sovereignty means that Tribes have the right and ability to govern the collection, ownership, and use of their own data (Rodriguez-Lonebear, 2016; Carroll et al., 2019). Indigenous societies were traditionally data rich as the "Indigenous Peoples of the United States identified, gathered, and used essential data in pursuit of their own goals" for millennia; the first human inhabitants of North America relied on keen observation, data collection, and data management for their survival (Rodriguez-Lonebear, 2016, p. 255). It is necessary that tribal nations and Indigenous communities maintain control and authority over their data. Important considerations include the purpose of data collection; what data are collected and from whom; how are data to be used; where are data securely stored; and who will control access to data (Snipp, 2016). Data sovereignty and data governance are closely related to the coproduction of knowledge approach and should be carefully considered and accounted for in all future policies designed to implement coproduction with tribes and other Indigenous Peoples.

Coproduction is applicable to both federal research and management but is not yet guided by federal law and policy. Tribes and federal agencies should seriously consider formulating guidelines and policies to enable and implement the coproduction of knowledge. The federal action of policymaking for the coproduction of knowledge would require government-to-government consultation with appropriate Tribes. Coproduction should become formalized as a required part of research and decisionmaking protocols involving work with Indigenous communities, Tribes, and their homelands. Formal agreements and other arrangements may prove useful for implementing the approach. Examples include cooperative agreements to conduct studies designed to better account for Indigenous knowledge in environmental research. The partners may begin by co-conducting pilot or demonstration projects designed to develop and field test frameworks and methods appropriate for coproducing knowledge. Objectives for this preliminary work may include:

- Define a process with consistent methods for creating and vetting Indigenous panels of experts and link them with relevant research projects, demonstrating a good match between Indigenous knowledge and research questions.
- Enhance the authority and application of Indigenous knowledge in scientific research by promoting the coproduction and sharing of information through direct interactions between Indigenous Peoples and scientists.
- Develop and provide rosters of Indigenous panelists and guidance for external scientists to effectively access and engage those panels on a systematic basis.

The roles of the Indigenous panelists are to inform research proposals, goals, and objectives at early stages; provide accurate and detailed information and longitudinal depth; provide alternative research interpretations and recommendations; and contribute insights into new models for understanding the environment, our relationships to it, and potential impacts from natural resources

management and development. The investigators should budget substantial funds to compensate Indigenous panelists and other experts for their time and contributions. The general model would ensure meaningful and equitable contributions from Indigenous partners from the research proposal phase through authorship, publication, and distribution of findings.

Conclusion

Agencies should recognize and respect the differences between public involvement and formal government-to-government consultation. Tribes are not public stakeholders; they are sovereign nations. Agencies should prioritize building capacity for conducting government-to-government consultation and coproduction of knowledge through training, mentoring, and building stronger relationships with tribal nations and other Indigenous partners.

Agencies must acknowledge and account for Indigenous cultures, values, ways of knowing, data governance, and data sovereignty to accomplish genuine tribal representation (e.g., Jacobs and Brooks, 2011; Dorantes and Brooks, 2012; Isaac, 2015; Brooks and Bartley, 2016; Carroll et al., 2019; Carlo, 2020). Coproduction of knowledge is an emerging enterprise that holds high potential for successfully engaging Indigenous Peoples, particularly in federal environmental research and management of natural resources. When coproduction is done correctly, it builds trusting relationships between agencies and Tribes, produces more robust science and decisions, and accomplishes genuine, ethical, and equitable tribal representation (Ellam et al., 2022). This in turn makes for more cohesive and better-functioning societies and more accurate and complete data for use in environmental decision-making, management, and policy (Isaac, 2015). Federal agencies and their Indigenous partners should work to develop viable and effective frameworks and methods for implementing the coproduction of knowledge using special arrangements, funded agreements, and memoranda of understanding. Open and transparent communication from the beginning is a prerequisite for developing and implementing coproduction.

Genuine tribal engagement and representation begin with better relationships, and relationships require long-term social interactions. Agency officials and Indigenous Peoples need to intentionally spend more time together both formally and informally to increase cultural awareness and practice crosscultural communication (Dorantes and Brooks, 2012; Brooks and Bartley, 2016; Carlo, 2020; Bartley and Brooks, 2021). Interactions should take place as frequently as possible at professional gatherings and outside business hours and preferably on the land and water in both urban and rural settings and places in tribal homelands. The air, lands, waters, and natural resources are the foundation of both genuine Indigenous representation and shared environmental stewardship. Environmental stewardship and effective management depend on relationships between working partners and their relationships with places in the landscape (Brooks et al., 2015).

Both federal and tribal capacities need to be increased to achieve genuine tribal and Indigenous representation in the United States. Education and training are needed for academics, students, funding agencies, and research institutions about how to best coproduce studies and environmental decisions with Indigenous communities. Agencies should budget more time and funds for planning for the coproduction of knowledge and relationship building. Time is an issue for Indigenous leaders and knowledge holders as they do not have unlimited availability. They are highly sought after, crunched for time, and focused on addressing pressing needs in their communities while practicing

their traditional ways of life. Agencies should budget extra funds to pay for the training, expenses, time, and contributions of tribal and Indigenous partners when they work on agency projects (Shearer, 2007).

Agencies and Tribes need to acknowledge and respect their differences and capitalize on their diversity of thought (Isaac, 2015). Successful government-to-government consultation and coproduction of knowledge will help Tribes and agencies to better understand and mutually benefit from their differences. Public processes used in NEPA and federal rulemaking in the United States are inadequate for accomplishing genuine tribal and indigenous representation (Jacobs and Brooks, 2011). To accomplish shared stewardship in a genuinely representative way, agencies must properly conduct government-to-government consultation with the appropriate Tribes before and outside of public processes. The next important step will be for these partners to mutually devise policies and practices for the coproduction of knowledge in the United States.

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