

Identifying Pathways to Strengthen Tribal Capacity for Natural Resource Management

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ABSTRACT

Now more than ever, federal public land agencies are recognizing the importance of collaborating with Native American Tribes in conservation management. The concept of “Tribal capacity” has been identified as a barrier to equity, but prior to this study, this phrase remained undefined. This lack of understanding is leading to underinvestment in strengthening Tribal capacity. This study aims to define Tribal capacity in the context of the relationship between federally recognized Tribes and the U.S. federal government regarding natural resource management. Through a secondary analysis of interviews with federally recognized Tribes nationwide, I found Tribal capacity can be broadly defined as factors that influence a Tribe's sovereign right to manage, monitor, or conserve natural and cultural resources and work with partners. Tribal natural resource departments are operating on a spectrum of capacity nationwide. Understanding the strengths, barriers, and opportunities unique to each Tribe is crucial to effectively address Tribal capacity. Moreover, this is a two-sided relationship: federal agencies also must bolster their internal capacity to collaborate with Tribes. I analyzed two Biden administration policies and interviewed employees from four federal public land management agencies to understand their efficacy. Recent policies and leadership changes have spurred agencies to take Tribal stewardship seriously, but they are at the starting point of bolstering internal capacity to work with Tribes. Federal comprehension of Tribal capacity remains elusive despite these policies. To effectively collaborate with Tribes the federal government needs programs specifically designed to address the root barriers to Tribal capacity, not the symptoms.

KEYWORDS

Traditional ecological knowledge, Indigenous co-stewardship, self-determination, Tribal trust responsibility, Tribal policy.

INTRODUCTION

The value of Traditional Ecological Knowledge (TEK) has been increasingly recognized by Western natural resource management practitioners as a tool to fight against climate change (Armatas et al. 2016, House 2022). TEK is a system of knowledge and worldview encompassing local people's empirical knowledge, practices, and beliefs about ecological phenomena (Berkes 2017). This system of knowledge has developed through generations of relationships living intimately with the land (Ramos 2018). This intergenerational relationship was disrupted by Euro-American colonization and the subsequent decimation of Indigenous culture and landscape (Erickson et al. 2022). Despite the historical forces that attempted to disconnect Native Americans from their cultural resources and ancestral lands, traditions have been kept alive through generations of ecological knowledge bearers. Now more than ever, federal public land agencies are eager to engage with Native American Tribes to inform their conservation management approach.

Native Americans have a vital interest in the actions of federal public land agencies. By the early 20th century most of the land stolen from Native Americans was controlled by the federal government through a handful of public land management agencies (Catton 2016). Tribes have been advocating for their right to access cultural resources on their ancestral lands including ones that have been designated as public land (Souther 2023). Restoring access to public land for gathering, ceremony, and stewardship is only the beginning of repairing the relationship between Tribal members, their ancestral lands, and public lands. Considering Tribal natural resource programs as equal partners in co-stewarding public lands is a crucial step in furthering TEK integration.

Efforts by the federal government to implement TEK in public land management are framed as opportunities for Tribes to finally gain access to their ancestral lands and cultural resources, but the actual benefits to Tribal sovereignty and conservation can be hard to realize. A number of co-stewardship agreements and projects have been established in the past decades with mixed results (Adelzadeh 2006, Pickering Sherman et al. 2010, Diver 2016a). Several factors led to failures in these projects but this is only once a project is implemented. There are hundreds of Tribes lacking the capacity, whether it be staff or funding, to collaborate directly with public land agencies (Pickering Sherman et al. 2010). Decades of federal government underinvestment in

Tribal education and economic development have created a landscape of missed opportunities across the country. With Tribal governments providing various essential services to their citizens, conservation is not always the top priority (Pickering Sherman et al. 2010). Similarly, federal agencies may lack the capacity to fully support Tribal co-stewardship (Diver 2016a). Recent investments in Tribal conservation rarely get to the root of the problem: Tribal capacity. Therefore, the federal government opening its doors to TEK isn't enough if Tribes have no one to walk through the door. This underinvestment in Tribal natural resource management capacity shows the disconnect between historical injustices and contemporary conditions. Investment in strengthening Tribal capacity may lead to more effective TEK integration and positive conservation outcomes in federal public lands across the country. Therefore in this study, I am investigating both Tribal capacity and the federal government's capacity to work with Tribes.

“Tribal capacity” has been identified as a barrier to equity by the Department of the Interior, but this phrase remains largely undefined (Department of Interior 2022). Many potential factors influence Tribal capacity, but prior to this study, they remained unidentified. This lack of structure and accountability is leading to underinvestment in strengthening Tribal capacity. Therefore, in this study, I ask, (CRQ) How can the federal government's growing interest in Native American ecological knowledge integration and stewardship lead to strengthening Tribal capacity for natural resource management? (SQ1) What is the state of Tribal capacity for natural resource management in the United States? (SQ2) How and to what extent are federal policies impacting Tribal capacity on the ground? Finally, (SQ3) What management strategies and resources are needed to overcome barriers to Tribal stewardship? By speaking with public land management agencies and Tribal natural resource program leaders I can build a greater understanding of Tribal capacity needs and assets. Anticipating that current federal policies have led to little realized changes on the ground, this enhanced understanding can identify pathways for change and lead to improved strategies to strengthen Tribal capacity to achieve Tribal stewardship goals.

EXTENDED INTRODUCTION

History of Native Americans and public lands

Federal government policies have facilitated the dispossession of Native land and thus directly shaped the landscape of Tribal capacity across the country. Right after the U.S. Constitution was signed, the government began signing treaties with Native American Tribes promising peace, land, and protection between the sovereign nations, but these promises never materialized (Lohmann 2022). This nefarious pattern continued through the Indian Removal Act of 1830-1850 which forcibly removed Indians from their ancestral lands onto reservations, resulting in the genocide of thousands (Lohmann 2022). A few decades later reservation land was under attack through the Dawes Act of 1887 which facilitated the sale of Native land to white settlers (Lohmann 2022, Glendenning et al. 2023). Then again in the 20th century, many Tribes were terminated as a result of House Concurrent Resolution 108. From 1953-1970 over 100 Tribes lost their federal recognition status and the remainder of their land totalling over 1 million acres (Department of Tribal Governance 2019). Their reservation land was transferred to public land agencies or sold as private land (Catton 2016). As a result of these policies, Tribal lands today represent a fraction of their ancestral lands. In total, Tribes lost 98.9% of ancestral lands with current landholding size on average a mere 2.6% of historical land bases (Farrell et al. 2021). Forced migration also placed native communities in more vulnerable climatic areas with current Tribal land significantly hotter and drier than ancestral land (Farrell et al. 2021). These policies demonstrated an effort to transform Indian systems of communal land ownership and natural resource stewardship to private ownership. In addition, it severed connections to ancestral lands and TEK and placed communities in harm's way.

The implications of broken treaties, removal, allotment, and termination of Native American Tribes have created the landscape of natural resources we have in the United States today. Much of these stolen lands are now in control of a handful of public land agencies including the US Forest Service, National Parks Service, and Bureau of Land Management (Catton 2016). The United States founded “fortress style” conservation by removing Indigenous people from their land to establish the first national parks (Sapignoli and Hitchcock 2023). Under fortress-style conservation Indigenous stewardship was also removed leading to culturally and ecologically destructive practices such as fire suppression (Connor et al. 2022). This is why Native Americans have such a vested interest in public land management on their stolen ancestral lands. Simply put, there would be no public lands without the removal of Tribes from their ancestral territories (Glendenning et al. 2023). This relationship is memorialized through the federal trust relationship:

a legal and moral obligation for the federal government to protect Tribal interests including their lands and resources (Berkey 2006). The trust responsibility was established through various treaties. This responsibility extends to federal public land-owning agencies which must protect Native interests on public lands (Berkey 2006). The actual legal implementation of the trust responsibility to protect Tribal natural and cultural resources has been wildly inconsistent, demonstrating the structured racism against Native Americans in the legal system (Berkey 2006, Lohmann 2022). Conservation policies have often been implemented in ways that penalized Native communities by restricting access to land and opportunities to sustain traditional cultural practices and lifeways. This history shapes the landscape and power dynamics underlying Tribal co-stewardship efforts.

The historical dispossession of lands has shaped today's heterogeneous landscape of Tribal capacity, but Tribes are determined to exercise sovereignty and self-determination in natural resource management. We now find ourselves in what has been described as the era of self-determination for Tribes. As President Nixon stated in 1970 "It is long past time that the Indian policies of the Federal government began to recognize and build upon the capacities and insights of the Indian people." (Glendenning et al. 2023). In the past decades, Tribes have fought to regain lands and management of their natural resources on reservations and beyond. Recent successes include the establishment of Bears Ears National Monument and the reintroduction of California condors to Yurok ancestral land (Ricketts 2023, Martinez et al. 2023). These wins are the result of decades of activism by Tribes and their allies. Now the federal government is strategizing for a future where co-management of natural resources with Tribes is the norm, not the exception.

Accompanying the movement for sovereignty in natural resource management, there has been a shift in dialogue about traditional ecological knowledge. Throughout the 2000s individual land management agencies began to recognize TEK internally and further develop working relationships with Tribes (Souther et al. 2023). Biden administration executive and secretarial orders increased the representation of Tribal priorities in federal policies, creating top-down support. For example, Joint Secretarial Order 3403 from the secretaries of the DOI and USDA was one of the first policies to identify Tribal capacity as an important goal (Department of Interior 2021). These recent changes create an environment ripe for action and investment in Tribal communities. This political environment is what researchers have described as a pivot point: existing policies that create a launching point for Tribes to negotiate change (Diver 2016b).

Therefore, I am investigating this shifting dialogue to understand how to optimize the inclusion of Tribal capacity in the legislature.

Social-ecological theory

The relationships Native Americans have with land can be further described through a social-ecological framework. This framework seeks to describe the reciprocal relationships between society and the environment (Tidball et al. 2016). It can be understood as a two-way feedback loop, where human experiences influence environmental management decisions and vice versa. TEK emerged from socio-ecological systems and is the result of Native Americans living intimately with the land for generations (Armatas et al. 2016). The management decisions Native Americans make keep ecosystems in balance and provide cultural resources (Ramos 2022). Therefore the relationship between Native society and local ecology created a self regulating system. When Native Americans were displaced from their ancestral lands this relationship was disrupted. Landscapes became deregulated without their stewardship and no longer provided the same quality of cultural resources.

The displacement from ancestral land and subsequent degradation of TEK caused by colonization can be described as social-ecological traps (Long and Lake 2018). Traps create maladaptive states that are particularly slow to respond to challenges like climate change (Armatas et al. 2016). Traps can also create a slow response to opportunities and can explain why not all Tribes have responded to government co-stewardship initiatives. Social-ecological traps can also describe the relationship between Tribes and actors, such as the federal government. Simply put, creating opportunities for TEK integration is not enough because social-ecological traps are limiting Tribal capacity. Therefore Tribal engagement programs must address limitations created by these traps. Tribal capacity can be a metric to measure and explain the slow response between actors. The social-ecological framework explains why strengthening Tribal capacity can be a pivot point in transforming natural resource management.

Indigenous worldview

When examining the relationships and potential co-management of public lands it's important to consider the differing worldviews each actor holds. The life, water, and other matter in public lands have been managed through the North American Model of Wildlife Management for over a century. This model considers wildlife public trust resources and commodities that must be regulated and relies on hunting to fund the regulation (Peterson and Nelson 2017). The model was envisioned to protect commercially relevant species and thus is ineffective at protecting the full complexity of ecosystems (Servheen 2023). Critics argue that the North American Model does not include the diversity of perspectives in wildlife management and affirms power imbalances (Fisk et al. 2024). Indigenous worldviews, on the other hand, typically understand the natural world through kincentricity - which considers all living things as relatives. Therefore, conservation becomes a reciprocal obligation between family members (Martinez et al. 2023). Kincentricity encompasses all of an ecosystem's complex abiotic and biotic factors. The North American Model commodifies biodiversity, reinforcing settler colonialism through conservation (Martinez et al. 2023). These differing worldviews set the foundation for relationships between public land agencies and Tribes. The North American Model must be redesigned to accommodate a future of comanagement of public land.

Asset framework

The United States federal government has historically held a paternalistic attitude towards Tribal nations. Therefore, when discussing Tribal capacity, it's important to acknowledge the problematic role that language has played throughout history. This study aims to use the asset model to describe natural resource capacity from a Tribal perspective. The asset model was developed in opposition to the deficit model that was the norm among institutions (Calo 2018). The deficit framework attempts to help communities from the top down, telling them what they need. This results in disempowerment and does not address the systemic barriers to community development. Instead, the asset model strengthens communities by understanding their capacities, assets, skills, and knowledge (Kretzman and McKnight 1993). The social capital framework furthers this approach by considering a community's cultural, human, and social resources (Emery and Flora 2006, Mueller et al. 2020). Furthermore, knowledge deficit approaches have been ineffective in addressing true barriers for communities of color (Calo 2018). These frameworks

show it is possible to identify barriers and critique a system in a way that honors the study community’s knowledge and experiences.

Together these frameworks provide context for the systemic issues Tribal nations face. Tribes cannot be engaged in the same way other historically oppressed communities are because they are sovereign entities. The unique history and rights Tribes in the United States have must be considered to properly understand the solutions to these issues.

METHODS

Study site description

In this study, I focused on the relationship between Tribes and the United States Federal government in terms of natural resource management. The relationships Tribes have with the Federal government are dependent on many factors, one of which is federal recognition status. To narrow the scope of this study I focused on federally recognized Tribes and Alaska Native Villages (Figure 1). They will collectively be referred to as “Tribes” hereafter. Tribes from across the United States were interviewed in an attempt to understand regional differences. To examine the other half of the relationship, I focused on federal agencies that regulate natural resource use and/or hold public land. This includes the National Parks Service, Fish and Wildlife Service, Bureau of Land Management from the DOI, the Forest Service and Natural Resource Conservation Service from the USDA, and The National Oceanic and Atmospheric Administration.

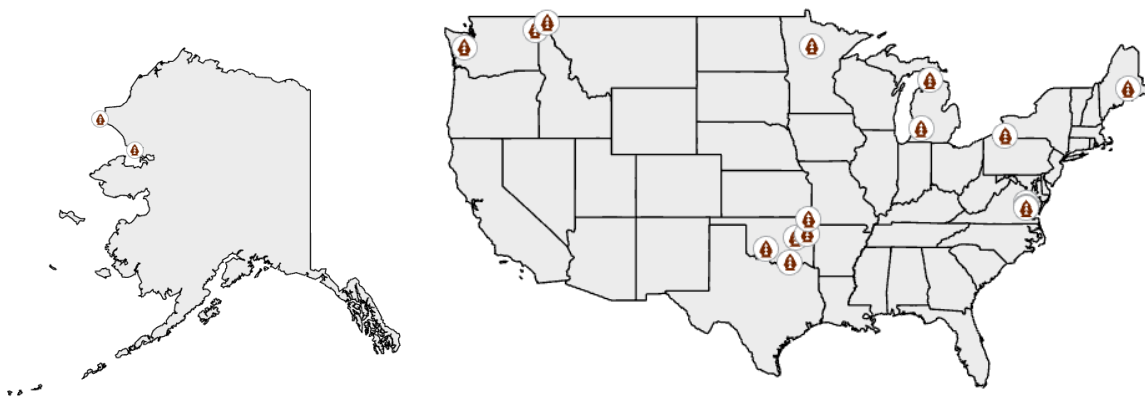


Figure 1 Map of Tribes interviewed for the secondary analysis. This shows the geographic distribution of the specific Tribal governments that were interviewed instead of reflecting the ancestral homelands of Tribes that have been displaced.

Tribal interview secondary analysis

I started this study as a project I worked on for the US Fish and Wildlife's Directorate Fellowship Program, a 12-week fellowship in the summer of 2023. The goal of the project was to understand how USFWS can support Tribal capacity for wildlife management with a focus on augmenting funding programs. For the project, I conducted 18 Tribal interviews (16 federally recognized Tribes and two Alaska Native Villages) with 26 individuals from June to August 2023. I contacted 70 Federally recognized Tribes and Alaska Native Villages representing each of the USFWS regions by email. USFWS Tribal liaisons identified Tribes to contact and provided contact information. Tribal governments have varying structures, so interviewees included employees of wildlife, environmental, natural resource, forestry, and grant departments as well as administrators. These will be referred to as Tribal Natural Resource Departments (TNRD) and TNRD staff throughout the study. I conducted semi-structured interviews that were 1.5 hours long and were conducted either in person (n=5), with Microsoft Teams video conferencing (n=11), or over the phone (n=2). All interviews had live transcription and no audio/visual recording of interviews occurred to ensure interviewee comfort. For this thesis, I obtained a copy of the interview transcripts for secondary analysis regarding my research questions. Interview transcripts were uploaded to Taguette for qualitative data coding. Coding strategies included deductive codes that were developed from the interview questions, and inductive codes which emerged from analyzing the transcript text.

Policy analysis

The process to address SQ2 began by identifying policies from the past five years that attempt to redefine US government-to-government relationships (Table 1). I identified these policies through a literature review and informal conversations in the field. These policies were analyzed through qualitative data coding using the existing codebook from the secondary Tribal interview analysis. I also developed new codes by analyzing the challenges Tribes reported having

with the federal government.

Table 1. Policies Analyzed

Policy Number	Policy Name	Policy Enactment Date
Joint Secretarial Order 3403	Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters	November 2021 (DOI and USDA) November 2022 (DOC)
Executive Order 14112	Reforming Federal Funding and Support for Tribal Nations To Better Embrace Our Trust Responsibilities and Promote the Next Era of Tribal Self-Determination	December 2023

Semi-Structured Federal Employee Interviews

I then developed interview questions to understand the effects, if any, these policies have had on the federal government’s capacity to work with Tribes. I invited ten employees from six federal agencies that were identified in the study site section via email. I focused my scope on employees in the agencies’ Native American affairs office to ensure interviewees were knowledgeable on Tribal affairs. In total five interviews with five employees from four were held. Agencies include the National Parks Service (NPS), Fish and Wildlife Service (USFWS), The National Oceanic and Atmospheric Administration (NOAA), and the Forest Service (USFS). Interviewees were employees at the regional and/or national level. These one-hour semi-structured interviews took place in April 2024 primarily over Zoom video conferencing. I uploaded interview transcripts to Taquette for qualitative data coding. My coding strategy was again deductive and inductive, but with the addition of the newly identified codes also utilized in the policy analysis.

RESULTS

Tribal interview secondary analysis

Tribal capacity in the context of natural resource management can be broadly defined as factors that influence a Tribe's sovereign right to manage, monitor, or conserve natural and cultural resources and work with partners. The factors of a Tribal government department that shape their capacity include staff, equipment, planning, technical knowledge, grant writing, and administration. External factors out of the Tribal government's direct control include relationships with the federal government and access to funding. Some factors were reported as the most limiting to capacity: staffing, access to funding, and federal government relationships (Figure 2).

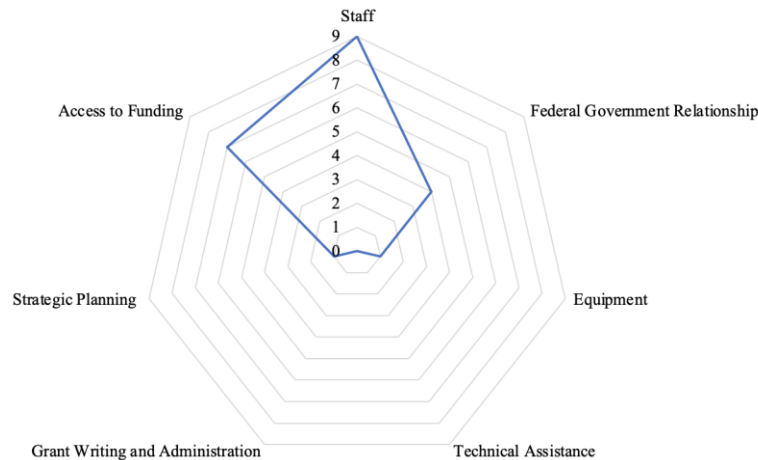


Figure 2. Most important limiting factors to Tribal capacity building. The number represents how often interviewees identified a factor as most limiting when directly asked. When Tribes reported multiple factors as equally important they were counted in all categories.

Staff

The capacity of TNRD program staff was the most limiting factor to building capacity (Figure 2). Barriers to securing permanent funding created difficulties in hiring and retaining qualified staff. Many TNRDs avoid hiring staff for short-term one to two-year projects and strive to find permanent funding, but this is difficult to accomplish when grants are often short-term project-based. To adapt to these staffing shortages Tribes undertook a variety of strategies. One was to contract out project funds when staff funds aren't provided by a grant. This is not ideal, as it means funds and opportunities are leaving the Tribal economy. Another workaround was funding staff salaries through multiple grants and undertaking multiple projects from different

areas. This resulted in staff being overburdened with little time to participate in consultations or apply for new funding.

“Retention is probably the biggest thing. We try to be realistic when it comes to goals. What we can get done and know we can fund. With this NOAA grant, we are hoping to hire a biologist. It will be great experience building but we will have to let applicants know in a few years funds will be gone and they will need to look for another job. For our wildlife guy, we talked about wages and salaries. He would like to make more but we cannot afford it.” (personal communication 07/11/2023)

Equipment

Equipment funding is a capacity concern for Tribes when starting a new department, expanding an existing program, or for newly federally recognized Tribes. Smaller purchases such as lab and field equipment can feasibly be funded by grants and create assets moving forward. Funding for major equipment such as vehicles and boats can be harder to come by but is essential for department capacity and sovereignty.

“For the Tribe, capacity building means the acquisition of assets such as tools and personnel. It should also include funding for supplies and equipment for the personnel to be active and for implementation to take place. Tribes getting the tools to do it themselves and learn the skills are more beneficial in the future rather than it being just a “one-off project.” The Tribe needs to be able to retain the money and the assets.” (personal communication 07/10/2023)

Grant writing and administration

Searching for grants, writing applications, and reporting progress presents a large burden on Tribal capacity. For Tribes with small government teams without a grant writer, TNRD staff are responsible for all of the administration of grants. Time spent on grant administration means less time in the field implementing projects. For small teams, this significantly cuts down on their program implementation capacity. For Tribes with the luxury of having grant writers, TNRD staff often write the grant content, but hand off the submission and reporting responsibilities to a grant writer.

“It is kind of a weird catch-22. You need money to have staff to get the money to pay for staff. This has been a major conversation with all the federal agencies. Thank you for all the grant funding opportunities but they are not recurring. You want to give us money, but we do not have the administrative capacity to maintain all of that. By the time we do build that up the money has run out, so it is not even worth it for Tribes. The money only lasts so long so by the time we hire, train, and get up to speed we are not promised more. We then have a conversation of if it is even worth it which is unfortunate.” (personal communication 07/31/2023)

Access to funding

Tribes expressed a need for grants that support capacity and natural resource management goals. Existing federal grants are often project-focused and do not provide enough funds for staff, equipment, or training. Funding for wildlife presents a gap in protecting culturally significant species and providing opportunities for subsistence harvesting. The structure of grants also needs to fit Tribal needs. There were also experiences with outdated policies that did not include Tribes as viable recipients of funding or partners for projects. Since grant administration can be a capacity burden, Tribes often narrow their grant applications to Tribal specific grants so they don't have to compete with other organizations. Many of these grants are incredibly competitive because there are few grants exclusively for Tribal natural resource management. If grant money was more reliable Tribes could depend on federal grants to grow their capacity. Tribes expressed a need for more permanent noncompetitive grants.

“Funding for wildlife is one of our biggest hurdles. We are trying to be proactive rather than reactive. Fisheries are reactive when you look at resources like salmon that are lessening in the US. We want to get a grasp on endangered species such as moose. Being proactive rather than reactive when we are already out of a resource. We have frustrations with the lack of proactive funding when it comes to cultural species such as moose.” (personal communication 07/11/2023)

Technical assistance

Technical assistance can come in many forms but the main focus for TNRDs is in the form of Tribal employee training. When expanding a program, a Tribe may want to collaborate with

federal partners for specialized employee training. This can set the stage for continued collaboration with federal agency employees. This knowledge quickly becomes an asset to build Tribal capacity in the future. The second form of training Tribes are looking for is assistance with grant applications from agency staff. Agency staff should be prepared to answer technical questions related to grant applications.

“We tried to talk to Tribal liaison for help with a grant application but they would not give help. Tribes have to rely on outside partners to get work done. That is giving up Tribal sovereignty. It is an acknowledgement that they do not have the resources and then there is the challenge of finding that person to help. I constantly get sent funding opportunities and they think it is helpful, but it is not. It would be helpful if they provided resources to help us apply or sit down and show us how to go after those funds.” (personal communication 07/25/2023)

Strategic planning

Strategic planning is a valuable tool for Tribes to narrow the scope of grant applications and focus on their goals. Before undergoing strategic planning, Tribes tend to apply to a multitude of opportunities and allow their goals to be determined by what grants they receive. Tribes that have undergone strategic planning systematically apply for grants that fit their goals and enhance their existing programs.

“We were able to reprioritize and refocus. We became experts in what we were doing rather than an expert in manipulating things to get more money. Now we can add money to fill problems related to the plan, as opposed to seeing what “falls to the ground.” Making the transition from shotgunning money to focused development of programs is the key. That breakthrough increased sophistication, staff, money, all of it. The planning piece is so important and helpful.” (personal communication 08/01/2023)

Federal government relationships

The relationship Tribes have with the federal government at large and specific agencies has an impact on their natural resource management capacity. These relationships can be shaped by federal employee attitudes, practices, and policies. Bureaucratic barriers such as needing approval from federal agency biologists make fulfilling permitting requirements for restoration

challenging. Many Tribes expressed the sentiment that these permits undermined their sovereignty and the expertise of their biologists on staff. The way consultation is done also has a huge impact on these relationships. Tribes want to be engaged early in the process when there is time to make decisions together, instead of being informed after a decision. Overall, there was a desire for relationships to function on a government-to-government level. Tribes are not like any other stakeholder, they are a sovereign entity and should be treated as such. Stories of success were reported when on the ground biologists from both sides could work together and TNRD leadership could communicate directly with agency leadership. When this did not happen Tribes perceived it as a capacity issue on the side of the federal government and a failure to meet government-to-government obligations.

“They also need acknowledgment that Tribes are not ignorant. We have the capacity to do what no other Tribe and very few federal programs are doing. We have done it and done it well. However, the federal people keep pushing that we need a federal biologist. Federal entities do not trust that we have the same capacity as them.” (personal communication 07/18/2023)

“There needs to be more work done on the consultation process. It needs to be more of a co-management process. Management plans and regulations need to have Tribes on the front end. Agencies and states should not develop plans, and send it out for Tribal comment after the fact, because it is impossible to change anything once it has been developed. It is just checking a box. It is one of the biggest challenges.” (personal communication 07/31/2023)

Policy analysis

Analyzing the text of the policies in Table 1 was the first step in understanding how these policies impact Tribal capacity for natural resource management. By analyzing the Tribal interviews and these policies I identified five themes that are key to improving the federal government’s capacity to collaborate with Tribes. They include access to funding, bureaucracy, attitudes, legislative action, and overall internal capacity. Each of these policies had unique strategies to address these themes and the factors for Tribal capacity building. Both Executive order (E.O.) 14112 and Joint Secretarial Order (S.O.) 3403 mention the importance of Tribal

capacity but they address different aspects of Tribal capacity. E.O. 14112 focuses on addressing the “access to funding” and “grant writing and administration” capacity factors. While S.O. 3403 focuses on improving the federal government's capacity for collaborating with Tribes and thus addresses Tribal-federal government relationships.

All of these policies had a large focus on reaffirming the government-to-government relationship between these entities and the responsibilities that follow the trust responsibility. Joint Secretarial Order 3403 focused primarily on supporting collaborative efforts such as co-stewardship by ordering agencies to identify and pursue potential projects. It also addressed the importance of training federal employees on Tribal relations by rewriting department manuals and including co-stewardship into employee performance review standards. S.O. 3403 also makes strides toward eliminating bureaucratic barriers by granting regulatory waivers to Tribes. Executive Order 14112 tackles inaccessible funding by ordering agencies to restructure their grants to be flexible to Tribal needs and alleviate administrative capacity burdens. It also highlights the efficiency of Tribal self-governance in promoting autonomy and self-determination.

Understanding the accountability mechanisms in each of these policies is important to gauge their potential impact. Joint S.O. 3403 required agencies to produce an annual report on their progress towards fulfilling the goals of the order such as co-stewardship. According to DOI and USDA annual reports, S.O. 3403 seems to have increased the number of co-stewardship agreements agencies sign per year increasing from 23 in 2022 to 181 in 2023 (Figure 3). For Executive Order 14112 agencies were tasked with identifying the need for additional funding which will eventually lead to recommendations for changes in policies and budgets. Agencies were also ordered to assess Tribal access to competitive grant funding by tracking applications and funding award success rates. Since a majority of the workload of achieving the goals of these orders falls on the agencies, I wanted to speak to the agencies themselves about their implementation strategies and progress related to Tribal capacity building.

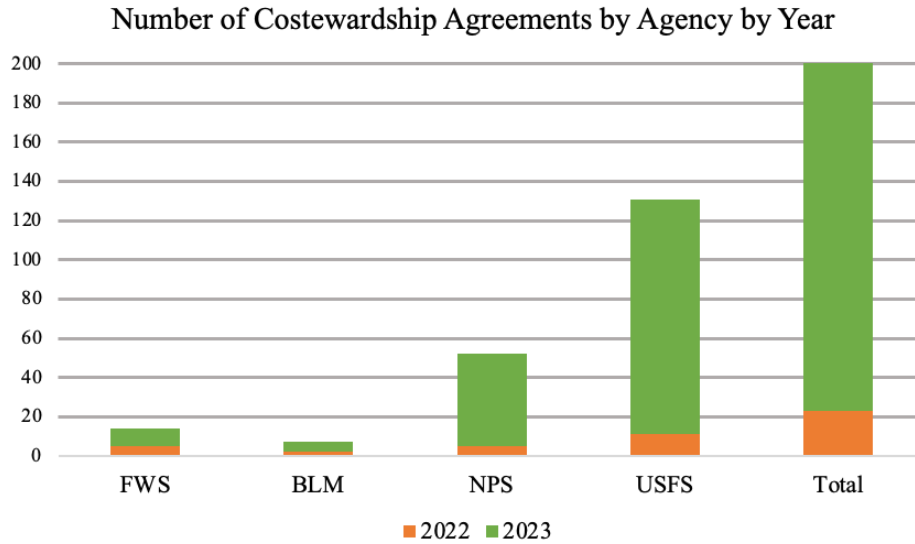


Figure 3. Number of co-stewardship agreements by agency per year 2022-2023. Data from the DOI and USDA annual reports on co-stewardship. NOAA is in the process of publishing its first report.

Federal employee semi-structured interviews

A policy is only as impactful as its implementation, which is why I interviewed employees of Tribal affairs programs at federal public land management agencies. The results focused on identifying what internal capacity changes agencies have made to increase their ability to collaborate effectively with Tribes. Changes in internal capacity can be quantitative through changes in funding or hiring. They can also be qualitative in nature reflected in shifts in employee perspectives and attitudes toward working with Tribes. Federal agencies can alleviate barriers by changing bureaucratic processes and making government funding more accessible.

Internal capacity

Government agencies are addressing their internal capacity to work with Tribes through quantitative and qualitative metrics. Quantitative investment into internal capacity building is through hiring more employees to work with Tribes or training existing employees. Staff from three out of four agencies shared that they have hired or are in the process of hiring more Tribal affairs-focused employees. NPS, for example, is hiring Tribal specialists at the national, regional, and individual park unit levels. Nearly every agency has also invested in training programs for new and existing employees focused on cultural competency, Tribal consultation, completing co-

stewardship agreements, and Indian law. As an interesting accountability mechanism, many agencies have integrated Tribal collaboration into leadership performance reviews.

“Currently, we have a fundamentals class at our Grand Canyon training center for new employees. So that opens their mind that they'll be working with Tribes and these are themes that you need to know the importance of. That co-stewardship is important and once you sign that document to become a federal employee, you are signing that Tribal trust responsibility we have and that not only one person is responsible, that they're all responsible, and they need to be very respectful.” (personal communication 04/23/2024)

Attitudes

Beyond tangible policies, qualitative changes in employee attitudes toward Tribal affairs also play a pivotal role in policy implementation. All interviewees reported that Tribal affairs has been more of a priority as a result of leadership changes and the implementation of S.O. 3403. Both DOI and NPS's leadership are Indigenous and employees of the respective agencies said this has influenced the prioritization of Tribal stewardship. The influence that leaders like Deb Haaland have on federal land management was reported even outside of the DOI. No matter if agency leadership is Indigenous, there is a theme of Tribal affairs having much more of a priority during this administration. Tribal liaisons reported an increase in requests for training showing an earnest interest in learning coming from the employees themselves.

“These issues are getting a lot more attention than when I started in the Forest Service [two decades ago]. It was fairly lonely in terms of the number of people that were working on Tribal issues. And that's really changed in the last few years and policies like the secretarial order have really brought it up to one of the big priorities for a lot of activities going forward. So definitely been a real game changer in that respect.” (personal communication 04/17/2024)

Bureaucracy

Tribal interviewees identified bureaucratic regulatory practices as a major obstacle to collaborating with the federal government. Three out of the four agencies I spoke with identified at least one permit process that has been revised to make it easier for Tribes to complete. For example, USFWS revised their National Eagle Repository procedures so Tribal members can

receive lifetime permits to obtain feathers for cultural purposes. Many of the co-stewardship agreements signed recently focus on providing access to public land for cultural resource gathering and ceremonies for Tribal members. Minimizing bureaucracy is a step towards respecting sovereignty so Tribal members don't need permission to access their ancestral lands.

“We definitely emphasize to our parks and our employees that nothing is black and white when you're working with Tribes. Because this [policy] says this it doesn't mean you can't find a creative, innovative way to work with your Tribe to say yes, there are ways we can make these policies and authorities work for us within our legality of working with Tribes.”
(personal communication 04/23/2024)

Funding

Making funding more accessible has been an ongoing conversation long before E.O. 14112. For example, the USDA implemented a policy in 2023 to waive all their grants' fund matching requirements for federally recognized Tribes. The other aspect of funding accessibility is changes in funding going directly to Tribes. Changes in this respect have been subtle and focused on increasing outreach to Tribes to get more applicants to existing grant programs. Recently many agencies have set aside funds for Tribes from the Infrastructure Bill and Inflation Reduction Act, which may be partially responsible for the increase of co-stewardship agreement. The greatest obstacle identified when trying to make funding more accessible is legislation. If the bill behind a grant requires matching funding the legislation needs to be changed to make this possible.

“It's obviously been a huge bounty to have federal funds available to work with Tribes. But I do think one issue I would definitely highlight is that a lot of the money comes in big chunks, and there's a pressure to move it out quickly. And that kind of puts a disadvantage on working with Tribal communities. And they try to encourage leadership to think about more capacity building.” (personal communication 04/17/2024)

Legislative action

The greatest caveat within all of the conversations about changing policies to support federal internal capacity for Tribal collaboration is legislative constraints. A key aspect of S.O. 3403 is that it required these departments to review policies and legislation related to Tribal affairs.

This process allows agencies to know what is within their rights, identify legislation that needs to change, and how to work creatively to achieve shared goals.

“After we have our legal review we will have these workforce workshops so that we can share with our workers and say look, maybe you are familiar with these authorities, but now we can go maybe think outside of the box.” (personal communication 4/16/2024)

DISCUSSION

Tribal natural resource departments operate on a wide spectrum of capacities across the country. Understanding the strengths, barriers, and opportunities unique to each Tribe is the first step to effectively addressing Tribal capacity. To effectively collaborate with Tribes on TEK integration and stewardship, the federal government needs to strategize on how to meet Tribes at their location on this spectrum of capacity. Recent executive orders have spurred federal agency leadership to take Tribal stewardship seriously, but Tribal capacity seems to be the missing piece of the puzzle. Therefore, top-down support for Tribal stewardship is only as effective as its on-the-ground integration. The programs initiated as a result of these policies address some of the factors of capacity identified above but lack a holistic understanding of Tribal capacity. The solutions I identify below address capacity at the problem’s root by providing funds and power directly to Tribes. This will grant Tribes the authority to autonomously manage funds to strengthen the capacity factors most pertinent to them. This will augment the government-to-government relationships between actors to strengthen future collaboration.

Defining Tribal capacity

Tribal natural resource departments are operating on a spectrum of programming capacities across the country. The factors for capacity building described in the results shape a Tribe’s total capacity for natural resource management. These factors can be categorized as barriers, opportunities for growth, or existing strengths. Each Tribe has unique abilities and challenges regarding each of these factors. For the sake of defining Tribal capacity, the results of my study suggest it can be understood through four broad stages: emerging, moderate, high, and independent

capacity (Table 2). These broad categories are meant as a lens to understand Tribal capacity through the unique assets of Tribes at each stage.

The following figure emerged from the Tribal interviewees, with many interviewees self-identifying their stage and what aided their growth. I interviewed multiple Tribes that have self-identified or I have categorized under each of these stages. In the following section, I aim to provide a characterization of Tribes at each stage. There are exceptions to each of these scenarios but Tribes tend to follow one of these characterizations. I recognized patterns of opportunities and barriers as follows:

Emerging capacity Tribes have small governments with only 1-2 staff dedicated to environmental protection in general. Because of this low staffing there may not even be someone dedicated to natural resource management full-time. Their largest challenges are balancing staff program implementation time and grant administration to grow their capacity. Emerging capacity Tribes may also have small land bases and/or populations which makes it harder for them to compete for funding and recruit staff. These Tribes also tend to have recently gained federal recognition status and thus are navigating these systems for the first time.

Moderate capacity Tribes generally have a few staff dedicated to natural resource management. This is where you see staff undertaking multiple roles because of limited funding. Their largest opportunity is to relieve grant administration burden and access funding so staff can focus on one program area. This is also the stage where Tribes begin collaborating with federal agencies but staff capacity is a barrier to fulfilling government-to-government consultation requests.

High capacity Tribes often have multiple TNRDs such as environmental, wildlife, forestry, agriculture, etc. These Tribes often have great administrative support with a team of grant writers. The greatest opportunity at this stage is undergoing strategic planning to apply for grants that strengthen their existing program areas systematically. These Tribes typically have a large population and land base with programs designed to independently manage their land and resources.

Independent capacity Tribes have multiple robust TRNDs with sometimes 20+ staff per department. They have consistent funding streams and have undergone strategic planning making them financially independent of federal grants. Interestingly, I found these Tribes often have funding from a treaty or compact providing funding beyond typical gaming or grant sources. They

can work on par, or with greater capacity than the federal government. Yet relationships and bureaucratic processes stifle their progress. Therefore federal government capacity, not Tribal capacity, is their largest barrier. Independent capacity Tribes typically manage land beyond the reservation and engage in co-management agreements. This often makes them the most robust conservation entity in their region.

This table summarizes my key findings related to Tribal capacity. All Tribes regardless of capacity articulated technical assistance as a capacity strengthening opportunity. Most Tribes identified strengthening relationships with the federal government as an opportunity. This is especially important to Tribes with a small land base as an opportunity to steward more land. Independent capacity Tribes named this as a key barrier since bureaucratic processes and lack of federal government capacity slowed their conservation efforts. Independent capacity Tribes also self-reported that strategic planning allowed them to progress to the next stage, and is, therefore, an opportunity for high-capacity Tribes.

Table 2. Stages of Tribal capacity.

strengths barriers opportunities

Factors for capacity	Emerging capacity	Moderate capacity	High capacity	Independent capacity
Staff				
Equipment				
Technical Assistance				
Strategic Planning				
Grant Writing and Administration				
Access to funding				
Federal Government Relationship				

This is not meant to say Tribes with higher capacity levels are better than those at lower capacity levels. There are 500+ federally recognized Tribes in the United States so it's important to understand the unique strengths, barriers, and opportunities each Tribe has. The asset framework suggests that identifying these assets will lead to a better understanding of the community (Kretzman and McKnight 1993). This guide is a tool to understand how the factors of capacity form a Tribe's overall capacity. The federal government needs to strategize on how to meet Tribes at their stage in this spectrum of capacity. Current federal programs are not adequately serving Tribes at each stage along this capacity spectrum. For example, many grants do not provide funding for staff salaries. This ignores how important staffing is for building capacity and makes these programs inaccessible to emerging and moderate-capacity Tribes. This guide can be a tool for the federal government to design Tribal funding programs and collaborative efforts in a way that strengthens capacity.

Federal collaborative capacity

Recent policies and changes in agency leadership have spurred federal agencies to take Tribal stewardship and TEK integration seriously. This is evident in the sheer number of co-stewardship agreements signed in the past year jumping 687% from 2022 to 2023 (Figure 3). While this study emphasizes Tribal capacity, it also revealed significant limitations in Federal agency capacity to understand the challenges and opportunities for working with Tribes. Top-down support for Tribal stewardship is only as effective as its integration. S.O 3403 focuses on bolstering federal agencies' internal capacity without acknowledging the gap in Tribal capacity. Therefore, federal comprehension of Tribal capacity seems to still be the missing piece of the puzzle. Without programs specifically designed to support Tribal capacity, it seems unlikely that these policies will address the factors of Tribal capacity.

Federal agencies are still in the infancy stages of bolstering their internal capacity to work with Tribes. S.O. 3403 combined with leadership changes is effectively leading to development in the agency's internal capacity. Many agencies are making significant investments in staffing by hiring Tribal liaisons at the management unit level. This is the type of support that will be necessary to collaborate effectively with Tribes. Similarly, training on Tribal relations is also in early phases across agencies. Currently, only NPS has required training for all new employees with USFS

developing a similar requirement. All federal land management agency employees must know they are responsible for upholding the federal Tribal trust responsibility. Training can also ensure co-management projects are successfully implemented and don't run into relationship challenges like the Ti-bar project (Diver 2016b). Both of these investments represent a trend toward localizing Tribal relations. This is important because many Tribes said having all relationships go through the Tribal liaison is inefficient. This changes the role of regional Tribal liaisons from handling all Tribal relations to focusing on staff training, technical assistance, and conflict resolution. Nevertheless, regional Tribal liaisons are struggling for a budget and staff. Finally, a positive change that I see as a result of S.O. 3403 is strengthened accountability. Leadership performance reviews are an interesting way to set the tone that collaborating with Tribes is the standard, not the exception.

Executive Order 14112 makes strides toward addressing Tribal capacity on the ground but restructuring funding must be accompanied by expanding funding. Simplifying the grant application process will address the grant writing and administration capacity factor. However, accessibility of funding is also measured by the competitiveness of these grants. The main strategy agencies reported surrounding funding is increasing outreach about opportunities. If the number of applicants increases without expanding the pool of funds then grants are just becoming more inaccessible. So increasing outreach and collaboration without expanding the budget isn't supporting Tribal capacity. It's important to note the growing number of co-stewardship agreements is partially attributed to an increase in funding through the Inflation Reduction Act (IRA). Unfortunately, the IRA is a one-time pool of funding and requires Tribes to have the capacity to manage grants that are upwards of a million dollars. This one-time funding is unlikely to provide long-term capacity building so agencies need to design funding that supports the strengthening of Tribal capacity. E.O. does call for an assessment of areas in need of funding so this is a promising area of development. Overall, restructuring federal funding will most effectively increase the accessibility of funding when combined with an expansion of grant budgets.

The policies analyzed have a limited impact on Tribal capacity on the ground because they address the symptoms not the causes. We must remember that barriers to capacity have been caused by socio-ecological systems (Long and Lake 2018). These negative feedback loops are not going to be broken without strategic interventions at the root of these issues. The implementation of S.O. 3403 is likely helpful for independent capacity Tribes whose main barriers are bureaucratic

processes and lack of federal capacity. For lower capacity Tribes, increasing federal capacity can result in more capacity for technical assistance and opportunities to build a relationship with more employees. E.O. 14112 has the potential to make funding more accessible if it's thoroughly implemented. Nevertheless, neither of these policies address key barriers like staffing. Therefore there is still a lack of understanding and action around the root causes of capacity limitations.

Looking to the future

Biden administration-era policies have ushered a new wave of support towards Indigenous co-stewardship. Progress has been made in building both Tribal and federal capacity for co-management of public lands. Nevertheless, there are ongoing challenges to realizing Tribal sovereignty of natural resource management. The need for new policies and strategies to address barriers to Tribal stewardship was identified by both Tribal and federal interviewees. By defining Tribal capacity we can understand specifically what factors are needed to strengthen capacity. The federal interviewees showed employees are eager to uphold the Tribal trust responsibility but more resources are needed to realize this goal. These findings can be applied to understand opportunities for the future. The following recommendations emerged from the conversations with Tribal and federal employees.

1. Non-competitive base funding

Both Tribal and federal interviewees specifically suggested a noncompetitive funding program for natural resource management that would provide base funding for capacity building. This would be modeled after the Indian General Assistance Program (IGAP) from the EPA. IGAP provides each eligible federally recognized Tribe and Alaska native village with funding for one staff member per year (US EPA 2018). This staff member is then given support and resources for developing an environmental department. Many TNRD reported this is how their department started because it lifted the burden of finding funding for the first staff member. This also creates a point of contact at the Tribe for the EPA that is available to respond to requests for collaboration. This grant is noncompetitive and simple to renew so Tribes can rely on it year after year. IGAP is not without its issues, and a 2008 audit recommended funding should be based on long-term goals,

not a standard dollar amount (Kasper 2008). Nevertheless, a non-competitive base funding program can be developed to improve on any of IGAPs shortcomings.

A non-competitive base funding program for natural resources would be transformational for Tribal capacity building. For emerging and moderate capacity Tribes it could give them the capacity needed to get a TNRD off the ground. For high and independent capacity Tribes it could provide a point person to facilitate the consultation and collaboration process with the federal government.

“We want something that has a low barrier. Agencies should recognize that Tribes should not have to make up a project just to get funding when they are already struggling on capacity. That is just another burden for the Tribe by requiring them to take on more work for funds. It is not going to work moving forward.” - Tribal interviewee (personal communication)

“The EPA has base funding from their general assistance program that a lot of Tribal natural resources programs are dependent on as a way to just have kind of that basic staff capacity and then they can go after other grants. And I think if there was something more like that with the Tribal forestry programs, that would help because I think some of those lean on BIA for some of the funding but it gets a little bit complicated. So looking at more ways to get base support for Tribes and those ladder programs so that they can build up to bigger ones.” - federal interviewee (personal communication 04/17/2024)

2. Self-governance

Self-governance contracts and agreements put the decision-making power into the hands of TNRDs. These contracts transfer services that are provided by the federal government to Tribal governments (Sen. Jackson 1975). This has historically been transformative in the healthcare sector providing Tribes the right to self-determination (IHS 2013). The efficacy of self-governance is recognized by E.O. 14112 and there is a growing movement to utilize these services in natural resource management. Currently, the Bureau of Indian Affairs manages most of the self-governance contracts for natural resources. This is inefficient as funds go from natural resource agencies to the BIA and then to Tribes. There is a belief within the federal government that the BIA should handle all Tribal engagement and funding, but the BIA has a track record of deficit thinking and many Tribes reported a desire to circumvent BIA involvement. Federal agencies

within the DOI have the authority to create self-governance contracts directly with Tribal governments. The USDA recently gained the authority to create self-governance agreements. This cuts down on the bureaucratic process and puts the power in the hands of Tribes directly. Several natural resource agencies have already piloted self-governance contracts, symbolizing a paradigm shift towards Tribal sovereignty. The FWS provided training on processing these contracts to a team, which creates a clearer pathway for Tribes to complete self-governance contracts. Self-governance represents a creative way to utilize existing funding to uplift Tribal capacity.

3. Restructuring Existing Grant Programs

There are a plethora of funding opportunities for Tribes but not all of them are accessible and appropriate for Tribal needs. The need to restructure federal funding is reiterated by Executive Order 14112 (The White House 2023). Existing funding programs can be restructured to prioritize flexibility in funding so Tribes can use the funds to improve capacity. This can address the equipment capacity factor by purchasing assets. Even seemingly small changes like eliminating matching fund requirements can make grants more accessible, especially to Tribes without extensive economic development (Spears et al. 2023). Additionally changing legislation should not be considered an unbreakable wall. Agencies should pursue legislative action to change grant requirements as needed.

There are three avenues for expanding funding for Tribes within existing programs: increasing Tribal exclusive grant budgets, Tribal set aside, and grant award amounts. Most Tribes prefer grants that are exclusively designed for them, so increasing the budget of these grants will make them more reliable and less competitive. Expanding grant award amounts can ensure there is enough discretionary funding to pay for staff time. Finally, for grants that are not exclusive to Tribes, increasing the pool of funds set aside for Tribes signals the prioritization of Tribal stewardship. The expansion of funding combined with restructuring grant requirements will truly address the inaccessibility of funding.

4. Training and Relationships with Federal Employees

There is a clear need to address the relationships between the federal government and Tribes. Government-to-government relationships that emphasize Tribal sovereignty must be the standard and failure to do so can be catastrophic (Diver 2016a). Both agencies and Tribes have

identified the need for employees at all levels to be equipped with the skills to collaborate with Tribes. This can be achieved through training on cultural sensitivity, trust responsibility, how to facilitate different types of agreements, and the unique opportunities that come with Tribal collaboration. Differing worldviews have been a source of contention in past co-management projects, but these trainings can provide a perspective on Indigenous worldviews to federal employees (Diver 2016b, Martinez et al. 2023). Government-to-government relationships are unlikely to emerge without proper cultural and internal capacity changes. Therefore high-quality training must be a requirement for new and existing employees across agencies.

This cannot be possible without expanding funding and staffing for Native American affairs departments across agencies. TNRD expressed how inefficient communicating through a Tribal liaison can be, but this is just a symptom of the greater underinvestment in Native American affairs departments. This was reiterated by Tribal liaisons reporting an increased workload from an interest in co-stewardship from both Tribes and federal employees. Tribal collaboration requires investments at both the local and regional levels. So expansion of training and Native American affairs programs are needed to develop government-to-government relationships.

Many of these solutions address Tribal capacity at the root of the problem by providing funds and power directly to Tribes. Tribes reported staffing, funding, and federal government relationships to be the most limiting factors to building capacity. Each of these recommendations addresses one or multiple of these factors. Expansions on funding programs focus on strengthening sovereignty by allowing Tribes to use the funds on their terms. Recommendation four focuses on improving the federal government's internal capacity to work with Tribes. While recommendation one may require legislative funding, the other solutions can be implemented immediately. Right now there is momentum to support Tribal stewardship and it should be leveraged to implement these recommendations in the near future.

Synthesis

The federal government's current "one size fits all" approach to Tribal stewardship is not serving the full spectrum of Tribal capacities across the country. This is leading to missed opportunities for TEK integration and stewardship. By defining the concept of Tribal capacity through the seven factors we can analyze the efficacy of current programs and better design future

programs. Recent policies have addressed the symptoms of Tribal capacity, but lack a holistic understanding of the concept. While this study focuses on tribal capacity, changes to the federal government's capacity to work with Tribes are also necessary to achieve shared conservation goals. S.O. 3403 has led to changes in attitudes and tangible investments in federal capacity building. Nevertheless, expanded training, accountability, and staffing are necessary to fulfill the federal Tribal trust responsibility. E.O. 14112 lays the foundation to make funding accessible but this is unlikely to happen without expanding funding budgets. Creative funding solutions are needed to address gaps and legislative action should be pursued when roadblocks are encountered. Solutions including a base funding program and/or self-governance contracts holistically address the main barriers to capacity. Implementing the recommendations I identified above can strengthen opportunities to realize shared goals of Tribal stewardship and TEK integration.

Limitations and opportunities for further research

I would like to recognize that the 18 Tribes included in this analysis represent only a small fraction of the 500+ federally recognized Tribes in the United States. I also recognize there are great variations in relationships across regions and the interviewed Tribes do not encompass all geographic areas. Given the time constraints, I focused the policy analysis on only two policies but there is a whole history of Indian law that determines current politics and rights. While I did outreach to five agencies that represent the majority of the US federal public land holdings, I was only able to interview staff from four of these agencies. Given the time constraints, I focused my outreach on two to three staff from each agency. Given more time I would have liked to talk to more employees who held many different positions to have more diverse perspectives.

There were many topics mentioned during the interviews that were out of the scope of this study. For example, the role of academia in supporting Tribal natural resource management capacity is a topic worth exploring. The impact of funding from the IRA and Infrastructure bill was another major theme through both interview populations. Additionally, the situation in Oklahoma after the *McGirt* decision and gaming compact renegotiations is ever-evolving and will have deep impacts on natural resource management in Oklahoma (Young 2021). While this was not the focus of this study these relationships warrant a deeper analysis to understand and monitor how these decisions are impacting subsistence rights.

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