

Collaboration in the shadow of the wall: shifting power in the borderlands

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Abstract Border security places a heavy burden on public and private land managers affecting rural livelihoods and limiting managers' ability to collectively act to deal with environmental issues. In the southern Arizona borderlands, natural resource managers come together to solve complex environmental issues creating a diverse set of formal and informal institutional arrangements between state and nonstate actors. We explore the effects of the border on these collaborative institutions, as well as the managers' views of the border, invoking theoretical work on power, institutions, literature from the burgeoning field of borderland studies, and recent work on collaboration and the common interest in civil society. In doing so, we seek to understand how a rural community that has taken center stage in national discourse copes with the border on a daily basis and how changing power differentials in the borderlands affect a governance network. This study informs our understanding of when and where collaboration occurs, as well as our conceptualization of the border and the effects of border policy and immigration on natural resource management.

Keywords Collective action · Power · Natural resources · Borders · Collaboration

Introduction

In Arizona, controversy swirls around the construction of the border fence, vigilantism, Arizona Senate Bill 1070, and the recent murder of Southeastern Arizonan rancher Robert Krentz. Politicians, advocates, and lobbyists passionately argue over proper treatment of undocumented migrants, the links between immigration, the economy and crime, and

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whether immigration and the racial and ethnic identity of immigrants fundamentally change the United States of America or whether immigration is fundamental to our identity. All of these concern challenges to human dignity. A lesser-evaluated component of the immigration debate is the impact of border issues on environmental management collaboration. Public and private land managers engage with the border on a day-to-day basis. Immigration and immigration rhetoric have affected the community's ability to manage land and their collaborative efforts to solve environmental issues in the borderlands.

To better understand the border's impact on collaborative land management, we conducted participant observation and semi-structured interviews in Cochise County, Arizona, between 2009 and 2010 focusing our attention on the US side of the border. This borderlands community has been rocked by political debate, the high-profile murder of a rancher, steadily increasing smuggling and immigration activity over the past few decades, escalating Border Patrol presence, and controversy surrounding construction of the border wall/fence. Because we were interested in how the natural resource community perceived the border's impact and its effect on shifting power relationships in environmental collaborations, we spoke with 78 prominent landowners, leaders of collaborative organizations, nongovernmental natural resource or environmental organizations, agency personnel involved in collaborations, and local government officials. We focus our attention on the US side of the border in southeastern Arizona, although we recognize that there are international implications to the border and natural resource activities. Some of our participants are actively engaged in natural resource management through ranching or collaborations with Mexican NGOs in Mexico, and we discuss the effects across the international border with these individuals. Many of the ranchers employ Mexicans on their ranches, so ranchers frequently discussed how changing labor, immigration, and militarization policies on the US side affected the individual laborers, as well as the Mexican border communities that these laborers are from. Although the primary focus of this study is on the impact of the border on natural resource collaboration within US borderlands, we frequently touch upon impacts in Mexico or on collaborations that bridge the international border from the perspective of Americans, and a few Mexicans working at NGOs, that are living and working in Cochise County, Arizona.

Within our study area, there are countless collaborations—big and small, formal, and informal—that attempt to handle biodiversity threats, promote water conservation and riparian restoration, and manage fire. All of these represent the smaller, more tractable problems nested within a complex system (Brunner 2010). A multilayered web of these interconnected organizations and actors creates a complex environmental governance network. We explore how differences in power, especially with regard to the border crisis, affect collaboration within the governance network. This empirical study incorporates Moe's (2005) perspective of New Institutional theories integrating power within an institutional arena through Lasswell and Kaplan's (1950) ideas of power and influence. We extend Moe's perspective of power within government to governance, including both state and nonstate actors. Additionally, we include borderlands literature about immigration, security, and community and highlight the role of civil society in US–Mexico border issues, as well as natural resource management.

At the national level, border discourse frequently focuses on threats, particularly security threats and terrorism (Ackelson 2005). This framing in the American context is not unique. Many European countries invoked ideas of threats associated with migration and borders during the Cold War (Buzan and Waever 2003). In contrast to the national debate, we find complex, nuanced views about the border and its impacts on the environment,

community, and livelihoods in the southern Arizona borderlands that are highly contextual. At the local level, the border has created environmental challenges, such as the wall's function as a wildlife barrier and the effects of road and wall construction on the fragile desert. Immigration and the border certainly have directly or indirectly affected public and private land managers within the southwest since federal policy shifted migration by funneling urban migrants into rural corridors beginning in the 1990s. Debate over the border threatens collaborative efforts that were already tenuous such as those between civil society, environmental NGOs, and governmental agencies, while simultaneously spurring new collaboration between Border Patrol and land management agencies.

The borderlands present two intertwined policy arenas, the border and natural resource governance, where actors come together and are torn apart by simultaneously diverging and converging interests. As natural resource management actors attempt to collectively act, they are faced with shifting power dynamics and challenges associated with the border. We find that natural resource managers perceive large impacts of the border crisis on natural resource management and that there is a remarkable degree of agreement among diverse managers about the types of impacts. The changing power dynamics, especially the increased power of Border Patrol, has affected natural resource management activities and collaborations, but as of yet the border has not caused the dissolution of existing natural resource management collaborations. Additionally, most natural resource managers perceive that their interests and concerns are overlooked by the national debate about security, immigration, and smuggling, which has created a discourse of “us versus we” (Johnson 1994). We find that Moe's theories about power within institutions can be extended to incorporate nonstate actors; in this case, and many others, we must extend theories to include the civil society that increasingly influence the policy arena.

Theoretical foundation

Natural resource managers in a borderlands community provide a unique opportunity to understand the border on the ground and incorporate power in a study of state and civil society collective action and the emergence of collaborative arrangements (Johnson and Prakash 2007). In response to Moe's (2005) critiques of institutional analysis failing to include the role of power, we combine traditional new institutionalism perspectives on collective action with Lasswellian views of power, literature from the burgeoning field of borderland studies, and recent work on collaboration in civil society. In doing so, we seek a systematic approach to understanding how a rural community that has taken center stage in Arizonan and national debates copes with the border on a daily basis. This understanding informs natural resource management, when and where collaboration occurs, as well as our conceptualization of the border and the effects of border policy and immigration on natural resource management.

Classic studies of collective action posit that no one individual or group will be independently motivated to change their behavior unless there is a privileged group or hegemon willing to create the public good of a common set of institutional arrangements (Olson 1965). However, empirical research from New Institutionalism at the local level has shown many examples of cooperation without externally imposed rules (Baland and Platteau 1996), where groups of people self-organize to resolve social dilemmas without the external imposition of rules (Ostrom et al. 2002). Instead of Hobbes' (1988) “war of all against all,” groups of people self-organize into collaborative institutions to resolve collective action dilemmas. Similarly, neoliberal regime theory in international relations

argues for the structural benefits of collaborative institutions—as information clearing-houses that reduce transaction costs, provide transparency, improve information flows, and minimize enforcement costs (Keohane 1984). In this literature, collaborative institutions increase levels of cooperation by building social capital leading to more collective action, as individuals gain trust and experience reduced transaction costs (Marshall 2005; Lubell and Scholz 2001). In contrast, some argue that a multiplicity of collaborative institutions in the same policy arena may reduce overall levels of collaboration because the ecology of games allows individuals to take hard line positions in one forum or foster animosity between institutions (Lubell et al. 2010; Long 1958).

Beyond the collective action literature, several other recent research programs have begun to examine the origination of collaboration in more detail. In the policy and governance literature work on adaptive governance (Folke et al. 2005), network governance (Jones et al. 1997), collaborative public management (Agranoff and McGuire 2003), co-management (Armitage 2005), collaborative policy making (Innes and Booher 2003; Weible et al. 2004), and collaborative governance (Ansell and Gash 2007; Wondolleck and Yaffee 2000), all study aspects of consensus-based decision-making and the collaborative process with many of these literatures focused on environmental issues. From all of these studies, two issues surface again and again: (1) the genesis and perpetuation of collaboration through trust-building and (2) the challenges that arise from power asymmetries (Ansell and Gash 2007). Both of these issues recur repeatedly in our study as well; we focus our attention on how shifting power asymmetries affect collaboration.

Power is an important, although often overlooked, aspect of these governance networks. Within the management literature, power is described in terms of the governance outcomes,¹ while within the New Institutional and collective action literatures, power typically refers to differences in access to resources (Hector and Opp 2001). Moe's (2005) characterizations of power dynamics within collaborative ventures often hold, particularly in the formal governmental environment that he focuses on, (i.e., the bureaucracy) in that collaboration is not entirely voluntary and devoid of power dynamics. Dahl argues that power is the ability to force another individual to do something that he or she would not otherwise do, which he contrasts with narrower ideas of influence or control (Dahl 1957). By combining the insights from New Institutionalism with classic perspectives of power (Lasswell 1936; Lasswell and Kaplan 1950), we gain a more fully informed view of the border landscape and empirically study Moe's critique. Bachrach and Baratz (1962) argue that power is dynamic, decision based, may not reflect the position of actors, and exercised through both action and limits on the scope of action. Beginning with Moe's critique that we must consider power in institutional studies, we utilize Bachrach's and Baratz's definition that power is dynamic and decision based and the exercise of power occurs when an individual and organization can force another to act, as defined by Dahl.

In our case, agencies and civil society exercise power through actions taken, i.e., brush clearance, construction of a wall, and surveillance activities, options available to the actors, and the collaborations in natural resource management and border security. Although the agency, the Department of Homeland Security, exercises power in many relationships, especially with other federal agencies, the means by which they do so continues to shift. The shadow of the cartels and threats of violence, or perceptions of the threat of violence, from smugglers has also caused dramatic changes in natural resource managers' activities, policies, and ability to collaborate on particular projects. While power dynamics are important to consider, the New Institutional perspective provides insight into collaboration

¹ See for example Jones et al. (1997).

in civil society. By bringing these perspectives together in our analysis, we explore how actors within the governance networks tactically utilize their relationships mobilizing resources and action and strategically voicing preferences and opinions in multiple collaborative forums in the context of efforts to collectively act.

Methodology

In order to understand the role of power in collaborative governance networks between civil society and government agencies, we conducted fieldwork in a borderlands community. Using this information, we analyzed the institutions and relationships between the actors. We focus on how power affects the discourse and the institutional arrangements, especially with regard to the border crisis.

Institutional analysis

Managers craft institutions, rules, norms, and shared strategies to solve many different natural resource issues (Wondolleck and Yaffee 2000). Institutions shape the incentives for natural resource managers (Schoon 2008) and enhance or restrict opportunities for working across jurisdictional and property ownership boundaries (Schoon and York 2011). Using an institutional analysis approach, we identify the relevant actors, their base and scope values, and strategies of creating collaborative institutions (Clark 2005; Ostrom 2005). We focus on how institutions, natural resource managers, and the governance network respond to the border crisis. During our interviews and participant observation, we collected qualitative information about natural resource managers' activities, perceived challenges and opportunities, and collaborative efforts. We take a multi-method approach and supplement our fieldwork data with archival information from organization and government web sites, public hearing transcripts, and relevant literature and publications.

Field methods

We utilized participant observation to gather data on more subtle themes and nuances and to gain rapport within the local community (Bernard 2006). Establishing high levels of trust with community members is particularly important given the political volatility in the border region today. In addition to joining ranchers, land use managers, and border patrol agents in their typical work environments, we attended public meetings and conducted participant observation with individual ranchers, agency field officers, and NGO representatives; activities included riding with ranchers on their property, watching agency consultations with landowners, and observation of board meetings and local public hearings. Participant observation allowed us to more actively engage and observe the community of natural resource managers and the wider borderlands community. Following in line with Wedeen (2010), ethnographic observation grounds our research on collective action, cross-border collaboration, and environmental governance. It allows us to engage with participants' views about the border crisis and learn about the processes through which they experience life in the borderlands.

In order to understand the effects of the border on collaborative land management, we selected a community in Arizona with high immigration rates, as well as a high degree of collaborative efforts. In 2009–2010, we conducted 98 semi-structured interviews with 78 individuals in Cochise County. We selected prominent landowners, leaders of collaborative

organizations, nongovernmental natural resource or environmental organizations, agency personnel involved in collaborations, and local government officials. Most interviews lasted between 1 and 3 h, although a few were all-day affairs. The period of our study between the summers of 2009 and 2010 led to an escalation of violence in the region, most notably the murder of rancher Robert Krentz, resulting in increased media and political attention (Steller 2010) and President Obama sending in the National Guard (Kelly 2010), which led us to more deeply engage natural resource managers' in their views about the border.

Borderlands collaboration

Collaboration in rural Arizona and the southwest has a long history, but so too does conflict among competing stakeholders (Sheridan 2006). Until very recently, within the land management domain, ranchers squared off with environmentalists who fought against agency foresters who argued with range conservationists (White 2008; Sayre 2005; Starrs 1998; Daggett 1998). In the 1990s, groups of environmentalists and ranchers in isolated pockets throughout the west began to recognize common ground, which allowed collaboration on issues such as the preservation of open space (White 2008; Brunner et al. 2002). The Malpai Borderlands Group, one of the collaboratives in our study, was part of this revolution and was sparked by debate between civil society and state actors over fire management (Sayre 2005) and advancing the common interest through collaborative decision-making processes (Brunner et al. 2005). Ranchers, the Nature Conservancy, and representatives from the US Forest Service and US Fish and Wildlife Service set aside differences and began to work on adaptive management strategies with formal and informal collaborative institutional arrangements in many domains over the past 25 years. In contrast, the Upper San Pedro Partnership, another collaboration in the county, formed from state and federal initiatives for protection of the San Pedro River. Current funding for the Partnership largely comes from Department of Defense monies that were a result of litigation and conflict over the endangered species, the Huachuca Water Umbel. Interestingly, this top-down origin has resulted in the emergence of many other grassroots institutional arrangements throughout western Cochise County. Histories of collaboratives in the region are varied, but also interconnected.

The southeastern Arizonan borderlands community is an appropriate region for this research because of the extent of collaborative activities, its proximity to the border, and its importance as an ecological hot spot. Known as the Sky Islands, it is home to over half the bird species found in North America (Felger and Wilson 1994) and the greatest diversity of mammals north of Mexico (Warshall 1995). After a half century's absence, the jaguar, *Panthera onca*, has been spotted in the region (Brown and López González 2000)—the first reports and photographs of the large cat's reappearance came from a rancher, Warner Glenn, who helped to found the Malpai Borderlands Group (Sayre 2005).

Partially due to the checkerboard pattern of public and private ownership (Fig. 1), as well as the nature of environmental management issues in the region, natural resource managers established more than twenty formal collaborations and numerous informal arrangements. Such forms of collaboration are increasing throughout the western USA (Wondollock and Yaffee 2000; White 2008). The traditional approach for land managers was to deal with environmental issues on their own, but as one Arizona forester commented during an interview, “fires don't read parcel maps.”

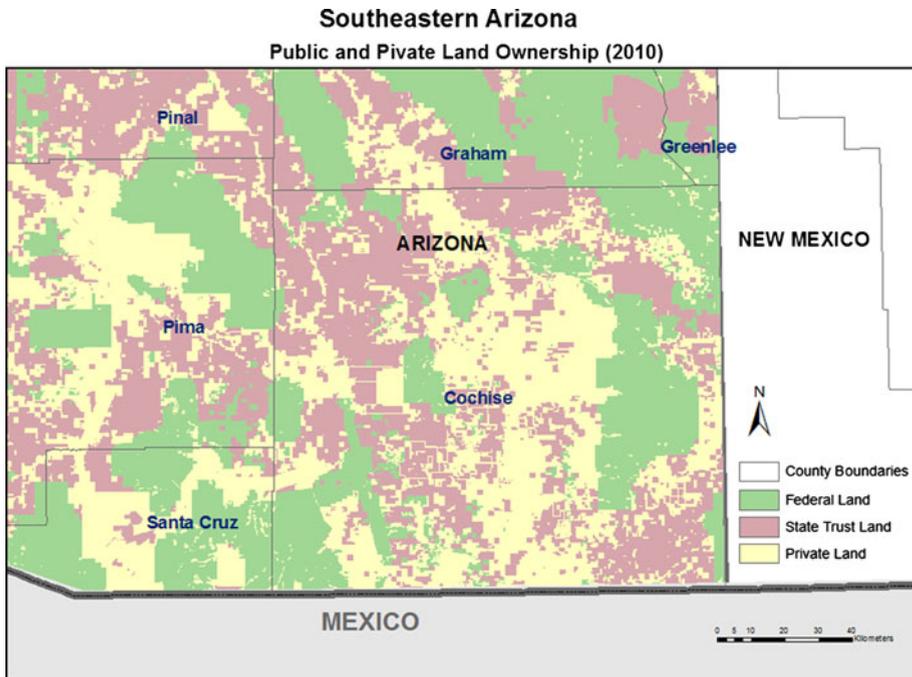


Fig. 1 Land ownership in Southeastern Arizona

Natural resource management actors

There is a mix of civil society and government actors in the region, which come together in a myriad of institutional arrangements. The US Forest Service, Arizona State Land Department, Department of Defense, US Fish and Wildlife Service, National Park Service, State Parks Department, and to a lesser extent the Bureau of Land Management manage vast stretches of land throughout Cochise County. Some of these public lands are leased for grazing and farming, while other lands are managed for recreation, biodiversity, and defense concerns. The Nature Conservancy and Audubon Society own and directly manage land for conservation; both groups actively collaborate on projects with private and public land managers on their own lands and adjacent and ecologically important lands throughout the county. In contrast, some groups, such as the Malpai Borderlands Group, do not manage land directly, but provide a forum for members to come together to discuss and coordinate land management issues, such as fire management and biodiversity conservation. Some public agencies focus their attention of support for private landowners' land management, for example, the Natural Resource Conservation Service provides support for farmers and ranchers in their conservation plans focusing on water conservation, best management practices, and restoration of the range.

The following organizations are actively involved in environmental, water, and land management collaborations in Cochise County (Table 1).

Land managers in the county also coordinate and communicate with international NGOs and public agencies, such as Biodiversidad y Desarrollo Armónico and Naturalia. We spoke with many individuals collaborating with these Mexican partners, but due to security

Table 1 Natural resource management collaborators

Federal agencies	State Agencies
United States forest service	Arizona parks department
Bureau of land management	Arizona game & fish
Department of defense	Arizona land department
<i>Natural resource conservation service</i>	
United States fish and wildlife service	Local governments
United States national park service	City of Benson government
United States geological society	City of Bisbee government
Bureau of reclamation	City of sierra vista government
Department of homeland security/border patrol	Cochise county government
Non-Governmental Organizations	
Malpai Borderlands Group	Sky Island Alliance
The Nature Conservancy	Community Watershed Alliance
Audubon Society	International Pollinators Association

concerns and the political fallout surrounding Arizona's SB1070 (many Mexican NGOs and agencies were unwilling to talk with Arizona state employees), we were unable to speak directly with these stakeholders. Future work will explore the impacts of the border in Mexico, but that is beyond the scope of this study. In this study, we primarily examine the American experience with the border and its effects on natural resource management within southeastern Arizona.

Collaborative institutions

There are two well-known, well-established, and well-studied collaborative groups in Cochise County: the Malpai Borderlands Group (Curtin 2002; Sayre 2005) and the Upper San Pedro Partnership (Varady et al. 2000; Stromberg et al. 2006). These two collaboratives are included in our study, but we expanded our scope to evaluate many new, overlooked, and less well-known groups, such as the Huachuca Firescape, which have sprung up in the region in the past 5 years. These overlapping and interconnected collaborations between state and non-state actors create a governance network with various levels of power and access to resources. In many cases, civil society has taken the lead in establishing and guiding collaboratives, with formal government playing a subsidiary role. Below are existing, emerging, or proposed projects and collaborations identified by land managers that involve multiple land managers and organizations, which we focus our attention within this study (Table 2).

The ecological hot spots found throughout Cochise County create numerous opportunities and challenges for the region's natural resource managers. The National Park Service has worked with International Pollinators and US Fish and Wildlife Service on bat habitat in Coronado National Memorial. Some of the larger collaboratives, such as Malpai Borderlands Group and the Upper San Pedro Partnership, also include biodiversity goals and projects within their activities, such as assistance in bringing together private landowners, NGOs, and federal officials to form Safe Harbor agreements for species, such as the

Table 2 Collaborative institutions

Upper San Pedro partnership	Upper San Pedro Water District
Middle San Pedro partnership/community watershed alliance	Gila-Yaqui Partnership
Huachuca Firescape	Malpai Borderlands Group
Chiricahua Firescape	Northern Jaguar Project
Wildlands network conservation plan	International Pollinators Initiative

Chiricahua leopard frog and Sonoran tiger salamander. The Northern Jaguar Project works to maintain habitat for the jaguar on public and private land, as well as to provide education to the community in Sonora, Arizona, and New Mexico. A regional NGO, The Sky Island Alliance, has been central in creation of the Wildlands Network Project, which proposes extensive wildlife corridors in an effort to establish priorities for agencies and communities, as well as target areas for biodiversity projects.

Cochise County is birding hot spot with the San Pedro River serving as a major thoroughfare for numerous migratory bird species. The San Pedro is also home to the endangered Huachuca Water Umbel, which resulted in great controversy and then collaboration, through the Upper San Pedro Partnership, to reduce groundwater overdraft and maintain in-stream flows. To manage multiple objectives and maintain in-stream flow, The Upper San Pedro Partnership brings together a very diverse group of private entities and public agencies, at the local, state, and federal levels. The Partnership also has cooperative water monitoring agreements with Mexican NGOs and government agencies. One of the biggest challenges facing water conservation stems from the transboundary nature of both groundwater and surface flows. Groundwater usage on either side of the border draws down the aquifer in a conical pattern on both sides of the border. With respect to surface water, the San Pedro is an international river, which ultimately requires cross-border coordination. In Cochise County, the flow of the San Pedro River is particularly tenuous, and the success of the Upper San Pedro Partnership relies entirely on the northern flow of the river from its source in Mexico. In Benson, several efforts are underway to form an organization like the Upper San Pedro Partnership to manage the Middle San Pedro. Currently, the Community Watershed Alliance serves as the major actor on the Middle San Pedro. A large effort is also underway to create the Gila-Yaqui Partnership to manage the Gila-Yaqui watershed including landowners, ranchers, NGOs, and government agencies (particularly Mexican federal environmental agencies).

Cooperation surrounding fire has a long history in Cochise County and much of the west, although the relatively recent shift toward managed burns was initially controversial and fraught with conflict. There are three formal collaborative projects that work on fire issues in Cochise County—the Malpai Borderlands Group, the Huachuca Firescape Plan, and the Chiricahua Firescape Plan. Through The Malpai Borderlands Group, federal and state agencies, NGOs, and ranchers develop burn plans, as well as other land management objectives, for southeastern Cochise County and southwestern Hidalgo County, New Mexico. The impetus for the creation of the Malpai Borderlands Group began over conflict surrounding fire management between ranchers and public officials in the 1990s (Sayre 2005). According to a forester with United States Forest Service, the Malpai fire plan revolutionized fire management in the region creating a new approach incorporating multiple stakeholders and management objectives in a single, flexible document.

Collaborative governance arrangements grew out of a need to tackle complex natural resource management concerns that cross scale, but this region increasingly faces a different type of disturbance from heightened border activities, specifically impacts of immigration, smuggling, and militarization along the US–Mexico border. The emerging changes in the region prompt the following question: How do increased tensions along the US–Mexico border affect power relations and collaboration in natural resource management?

Borderlands challenges

The border is not a single dimension policy issue, although sometimes the national rhetoric focuses simply on immigration, smuggling, or security. Issues and policy decisions associated with the border have a deep-rooted local history, which affects the current situation and, more importantly in this study, how the community perceives the border. Until World War I, the US border with Mexico was largely unregulated and monitored with the exception of restricting Chinese immigration since the 1882 Chinese Exclusion Act (Nevins 2002). While the first immigration bills passed after World War I decreased the numbers of eastern and southern Europeans allowed into the US, Mexican immigration was allowed to proceed with no regulation (Magaña 2003). Two primary arguments were used, which have resurfaced in modern debate. First, Mexicans were perceived as only desiring seasonal work, so were not considered likely applicants for citizenship. Second, Mexicans were needed for agricultural labor (Meeks 2007). During the Great Depression, the first national wave of anti-Mexican sentiment washed over the country associated with the economic devastation and fear that immigrants were taking jobs (*ibid*). During World War II, a period of economic growth and an increased demand for labor led to the creation of the Bracero Program and massive seasonal immigration associated with agriculture (Nevins 2002). A shift began in the postwar period where Mexican immigrants began to move to cities and take industrial positions in greater numbers while the relative importance of agricultural industries waned. During the Reagan administration, an amnesty program enabled many Mexican immigrants to begin the citizenship process and legalize their status (Magaña 2003).

Beginning in the 1990s during the Clinton administration, militarization of the border began in response to increased immigration numbers. This militarization was intended to shift migration traffic away from urban centers to rural areas (Nevins 2002). The premise for the policy decision was that immigration would slow once immigrants faced the harsh desert high country of Arizona and New Mexico. During the economic boom of the 1990s, migratory traffic maintained pre-militarization levels and may have even increased. The number of deaths in the desert began to skyrocket due to the border militarization in cities and the number of people crossing (Doty 2009). Since September 11th, the national focus has once again turned to the US–Mexico border. As a result, Ackelson argues that the focus has increasingly shifted to security instead of competing issues, such as economic trade, with the discourse largely centered on terrorism (Ackelson 2005). A growing number of private “border patrol” groups have sprung up seeking to enforce immigration policy, but many, if not most, also have political agendas associated with maintaining an “American culture” and way of life that they believe is threatened by the increasing number of ethnically Hispanic and Spanish-speaking immigrants (Doty 2009). In the wake of 9/11 and growing concern about terrorism near the border, George W. Bush’s administration waived environmental policies, known as the Chertoff Waiver, with the goal of expedient

border road and wall/fence construction along the US–Mexican border. While the government’s original intent was to use the waiver for expediency and then reassess the environmental impacts and provide mitigation efforts, the actual result has been to ignore environmental regulation (Sancho 2008). In effect, the power of border security has usurped all other agencies. As Mexican gangs and cartels increasingly control human immigration corridors, in addition to drug smuggling activities, the threat of violence has threatened to spill over into the United States causing distress and concern among the natural resource management community.

Natural resource managers’ perceptions of “the border”

Today, due to the push of undocumented migration from the urban centers of San Diego and El Paso, and even from the smaller urban border towns, migration largely occurs in rural corridors on extensive tracts of public land and across isolated ranches (Nevins 2002). Undocumented immigrants attempt to skirt patrolling Border Patrol agents and Border Patrol checkpoints located on state and federal highways approximately twenty miles north of the border. US border policy has primarily focused attention on increased field officers, intensified technology, and most controversially the construction of the border fence/wall and road. Because of the complexity of this issue and the nuance with which land managers discussed the subject, we categorized border impacts into four main topics—building the fence, militarization of the border, cartelization of drug and human smuggling, and increased levels of migration. We describe managers’ perception of the indirect and direct impacts on their land management activities and collaborations. Within each domain, managers expressed their frustration with federal policy and response, as well as the national rhetoric perceiving a difference in the local versus the national, or an “us versus we.”

Fence/wall

The choice of term, “fence” or “wall,” was one of the first indicators of an individual’s views about the construction of these human and vehicle barriers, which stretch for miles along the border. “Fence” respondents typically viewed the barriers as detrimental to biodiversity, while the “wall” respondents discussed the barriers not only in terms of environmental impacts but also with regard to the social effects between the two communities and countries. The miles of fencing and border roads constructed to increase the difficulty for crossing migrants and increase the ability of Border Patrol to patrol remote deserts fragments habitat, increases obstacles for crossings of threatened and endangered species, and shapes public opinion on both sides of the border. Additionally, conflict between Border Patrol and the federal land and natural resource agencies has intensified in part due to the wall/fence. Because of the Chertoff waiver, the Department of Homeland Security and Border Patrol proceeded to construct the wall with limited input from US Fish and Wildlife Service on environmental impacts as National Environmental Protection Act (NEPA) policies were waived in order to speed construction. Repeatedly, we heard from individuals with the US Fish and Wildlife Service, as well as ranchers that collaborate with USFWS, that they witnessed a marked decrease in respect of border patrol field officers to USFWS field officers after the Chertoff Waiver. This was explained as the waiver prioritized security above all else, particularly environmental policy; thus, Border Patrol agents became overtly disrespectful. These respective attitudes exemplified the shifting power

dynamics along the border and had direct ramifications on relationships. Complaints included failure to close gates on national refuges, driving off designated roads at all times (not just during chase), and general unwillingness to listen to the concerns of USFWS field officers. To a lesser extent, field officers with the Forest Service and National Resource Conservation Service expressed concern about the disrespect of Border Patrol agents, as exemplified by personal interactions between agents. More often, their concerns were discussed in terms of the lack of respect toward the rangeland through the Border Patrol agents inability to close fences.

Many respondents talked about the “failure” of the border road, which travels parallel to the fence with little regard for topography. The road frequently washes out (something long-time ranchers warned the Army Corps Engineers about), so in 2010, the government began placing costly concrete footing in the washes, yet Border Patrol still does not utilize the road. In fact, several ranchers claimed that the border road has become a corridor for smugglers who previously had to drive across desert, but now have a maintained and unpatrolled road to use. During ranch visits, we were shown multiple locations on the border road where the vehicle barriers have been taken down and repaired by the smugglers in an attempt to cover their tracks. Once the smugglers make it through the vehicle barriers, they use the border road to access ranch roads reducing the need and difficulty of traveling cross-country.

Likewise, numerous and diverse private landowners and NGOs expressed reservations regarding the expense and usefulness of the fence/wall, as well as the environmental costs (Sayre and Knight 2009). Some of these individuals have worked together to voice objections over the fence/wall and border road either in small meetings with engineers or publicly through letters of formal protest and lobbying. Ranchers loudly voiced objections to the fence and wall construction during our conversations; in their eyes, putting up a fence and constructing a road does not slow smuggling or migration. If one wants to slow the tide of illegal crossings, in the view of most of our respondents, increased monitoring is required instead of an unmanned, costly barrier. But perhaps more fundamentally, the system should change to reduce the demand for drugs and increase the ability of migrants to cross legally and safely through ports of entry instead of the remote range. The lack of respect by border agents in interpersonal relationships, the ignoring of local knowledge by DHS in the construction of the wall, and the attitudes that accompanied the environmental waivers all changed the atmosphere in a way not conducive to collaboration, which many believe is essential to reduce the environmental costs of the fence/wall and road construction.

Militarization

Respondents recognize, and have experienced, the challenges of “increased boots on the ground” in the borderlands. The militarization of the border, referring to the increased field officers and shifting priorities of Border Patrol, also caused a number of concerns such as the inexperienced, “green” officers driving all terrain vehicles (ATVs) and trucks across the fragile range and desert when in pursuit of migrants and more frustratingly, according to land managers, officers driving ATVs all over the land even when not in pursuit. Private landowners, especially ranchers, attempt to work with Border Patrol, but many noted their frustration with the continual rotation of field officers resulting in never-ending conversations about closing gates and remaining on roads when possible. The “revolving door” of new agents stymies attempts to build the rapport necessary for collaborative governance.

Because of the increased traffic associated with militarization, and failure of the Border Patrol to use the road expressly created for them, road maintenance on ranch roads and minor county roads is a major expense putting additional burdens on nearby landowners and the county. Likewise, the missions of the land management agencies and Border Patrol are quite different, but because of the militarization of the border and the increased drug cartel presence, management agencies are shifting their focus from preservation, conservation, and multiple uses to security and protection of visitors, officers, and leases. While this has created opportunities for land management agencies to partner with Border Patrol, the nature of the collaborations has shifted toward security objectives and away from natural resource management.

In 2009, most respondents were fairly derisive in their discussion of militarization efforts. They argued that Border Patrol was largely ineffective and caused grave environmental damage. The community was generally cohesive in these negative views, but a shift occurred during the spring of 2010 when Robert Krentz was murdered and violence escalated in Mexico, yet there was disagreement about the political reactions and militarization efforts. A good friend of Krentz stated that he was “the wrong guy, in the wrong place, at the wrong time” and that the extremely public meetings and statements by John McCain in the wake of the murder were simply “about reelection.” Another rancher stated that the borderlands were “no longer part of a sovereign nation” causing him to leave his home armed at all times because militarization was not effective. The majority of managers expressed concern about security and were supportive of militarization efforts, although they still were concerned about the costs of more boots on the ground within this fragile ecosystem. A minority, particularly environmentalists many of whom were located away from the border, still expressed a rejection of militarization as a means to deal with security concerns. Almost all of the respondents viewed militarization as one aspect of the policy solution, but also supported comprehensive immigration reform. The growing concern about security that markedly increased after the Krentz murder has increased the power of Border Patrol, although most respondents were unhappy with aspects of how militarization was operationalized in Cochise County. If this increased focus on militarization and concern about security continues among some of the natural resource managers, while some environmental groups argue for less militarization, we anticipate that collaborations between these diverse groups will begin to breakdown. As of yet, we have not seen this breakdown between existing collaborators occur.

Drug and human smuggling

Respondents frequently discussed migration in this region in the past 15 years versus historic migration. In the past 15 years, the tightening of the borders near major urban centers has pushed migration into the deserts of Arizona. Increased patrolling near the smaller urban areas in Santa Cruz and Cochise County further shifted migration into narrow corridors of public land, especially Arizona State Trust Land, US National Forests, and private ranch land. Historically, migration in this region was either “mom and pop” crossings of isolated family units or crossings of day laborers and migrant laborers from Sonora walking to nearby farming communities within Cochise County. The historic level of undocumented migration was low and seemingly an issue of little consequence to landowners and managers. Today, Cochise County is a major thoroughfare for undocumented migration, which occurs on rural corridors, especially the foothills and ridgelines of the Huachuca and Chiricahua Mountains. Smugglers with ties to the drug cartels control these narrow corridors leading to increases in vandalism and more aggressive encounters,

according to the natural resource managers. Field officers in the Forest Service, Bureau of Land Management, and Park Service are required to take armed law enforcement officers with them when working on isolated public lands. Because of the threat of encounters with armed smugglers and the increased pressure to work with Border Patrol on border security, public land managers have shifted personnel to law enforcement resulting in increased reliance on private support or volunteers to accomplish the day-to-day land management activities of their agencies. Private landowners and NGOs also expressed concern about the increased number of armed individuals, “coyotes” guiding migrants, but generally did not have resources to increase security or hire personnel to work specifically on security concerns. There was general agreement among managers that the nature of migration traffic has shifted throughout the county. This tragically was illustrated by the murder of rancher Robert Krentz, which still is unsolved, but the general view is that Krentz encountered a smuggler while traveling in a remote area on his ranch. Krentz’s friends and family believe that he thought the individual was in distress, based on his brief radio conversation with his brother. Krentz approached the man unarmed and unprepared for violence, which tragically took his life. A fellow rancher stated that the “border used to be a casual thing” with frequent crossings, but that is not the case anymore because of the violence. Ranchers who live in isolated areas throughout the county are increasingly concerned about their safety and the viability of ranching, which requires individuals to work and live alone in remote areas “where there is no one to call” in an emergency.

As migration has become big business for Mexican cartels, border policy, especially militarization, has become increasingly salient for the borderlands community. The diversity of opinions, as well as the heated rhetoric that swirls outside the community, potentially threatens the collaborations between dissimilar groups. Additionally, this shift has increased the power of Border Patrol within the community.

Increased levels of migration

Although migrants increasingly cross the Arizonan desert with “coyotes” linked to drug cartels, the natural resource managers talked about migrants as a different, albeit interrelated, dimension of the border issue. As mentioned previously, since the Clinton Administration’s policy of fencing and policing the urban areas in Texas and California, the flow of migration has largely shifted to rural areas in Arizona. This shift in migration has led to trash accumulation, the development of a network of illegal or unsanctioned trails, and deaths of hundreds of migrants on public and private lands. Migrants discard water bottles, clothing, and garbage along well-worn trails creating public health hazards, hazards for livestock, and environmental hazards. In an effort to access clean water, migrants damage stock tanks, generators, and pumps, resulting in equipment loss, as well as loss of water and declines in livestock health. Managers told us about the thousands of backpacks, water bottles, and food cans that are littered across the landscape. Some landowners were concerned about disease spread in trash and human waste and argued that it was not “healthy.” Numerous groups organized trash pickups on public and private land, but much of the burden has fallen on land managers. Unplanned trail systems increase soil erosion in a fragile ecosystem. The extreme temperatures, arid conditions, and the need to move surreptitiously have led to the death of the unprepared, the unfit, and the unlucky. Almost every rancher had horrific encounters with migrants that died on their land, and most had offered water, food, and medicine to migrants in distress. Yet, ranchers and private

landowners expressed a growing wariness when encountering migrants because of the increased involvement of cartels in migration.

In June 2010, a month prior to Arizona Senate Bill 1070 being implemented, the natural resource community regularly discussed immigration. Their views about SB 1070 were mixed from hearty support from one federal land management officer, an environmentalist's frustration over the racial overtones of the debate, and a rancher's perspective that this bill distracted the state and country from the need for fundamental immigration reform.

These views on immigration and the state's role, locally and nationally, simmered during a heated Douglas, AZ public meeting on border security. The hearing stemmed from the mayor's attempt to reach out to ranchers in the wake of the Krentz murder. But in a town that is predominately Latino and whose economy is tied directly to the neighboring Mexican town, Agua Prieta, there was little support from the city council or most Douglas residents for a resolution on border security. Ranchers from unincorporated Cochise County spoke passionately about security and its connection to immigration, as cartels now control migration corridors. One man stated that he was a fourth-generation rancher who "had mixed feelings" about current immigration enforcement reforms, such as Senate Bill 1070, because migrants were simply looking for economic opportunity, but felt something was needed to "keep the villains out of Arizona." Ranchers frequently invoked the issue of comprehensive immigration reform coupled with increased militarization to deal with smuggling. One rancher argued that only immigrants who were "college educated" and "could afford a lawyer" had a shot at legal immigration under the current system, so "Washington needs immigration reform." Their comments presented a fairly comprehensive view of the immigration issues with a need for security efforts, i.e., militarization, but also a need for policies that enable safe immigration through legal processes. Unlike much of the nation, or even the state of Arizona, the rhetoric in the borderlands is typically nuanced among long-time residents, while newer residents frequently invoked simple solutions such as shutting down the border with more surveillance and greater number of boots on the ground.

Perhaps, most strikingly, the issue of terrorism was largely absent during our conversations with natural resource managers. The only time we heard terrorism invoked was at the public meeting in Douglas, AZ, on the issue of creating secure borderlands. Here, a small, but vocal minority of both county residents and Douglas residents, most of whom migrated to the region from other parts of the country and none of whom were involved in natural resource management, rejected all suggestions for immigration reform due to the threat of terrorism. Yet, besides this isolated meeting, terrorism was largely ignored in the local debate, which stands in stark contrast to the national-level discourse (Ackelson 2005). Security related to cartels dominated the conversations with natural resource managers and the wider borderlands community, as did concern over militarization, increased migration, and fence and road construction. Smugglers, migrants, and the federal government's actions have changed the power dynamics and activities within the natural resource community and the collaborative institutions. The increased autonomy and lack of checks and balances on Border Patrol personnel have reduced levels of respect and tolerance in both directions between Border Patrol and natural resource management staff. The types of collaboration have shifted from natural resource management priorities to security-centered projects, and the levels of collaboration have been harmed by the reduction in staff available for natural resource management with reduced budgets and the necessary shift to law enforcement.

Discussion

Creation of collaborative institutions has always been difficult within traditional natural resource domains. As discussed earlier, the rich biodiversity of the region is well recognized by all managers, yet there are disagreements about the most successful means to reduce threats to biodiversity. Some private landowners are concerned about projects that may restrict their ability to maintain livelihoods, given past perceptions of United States Fish and Wildlife Service endangered species habitat requirements. While a minority perspective, one environmental group that is not generally involved in collaboration, the Center for Biological Diversity, is concerned about the effectiveness of cooperative agreements on private lands. Some landowners, especially ranchers, were skeptical of the motivations of environmental organizations involved in biodiversity protection, although the long-term commitment of main stream groups, such as The Nature Conservancy, and growing trust with the United States Fish and Wildlife Service field officers has increased willingness of many ranchers to enter biodiversity collaborative institutions. These issues of power and trust are well documented in the natural resource governance literature (see for example Wondollock and Yaffee 2000), but in this community as border issues in the region have increased, the balance of power as manifest in collaborations has shifted again affecting collaboration among natural resource managers and new collaborations between Border Patrol and the resource management community. Border Patrol has more money to share with other federal agencies, which shifts their priorities. Federal natural resource management increasingly must focus on security instead of environmental concerns, which also shifts their activities. These changes among the natural resource agencies reverberate through the collaborations with non-state actors.

Growing concern and disagreement in the natural resource community is associated with the relative level of environmental costs associated with migration itself and the accompanying militarization. It is clear that both issues create a burden on the local ecosystem. Border security places a heavy cost on public and private land managers affecting safety and resources for environmental, water, and land management. The natural resource community is split on this issue with some viewing the fence and road construction and accompanying militarization as far more detrimental to the ecosystem than the migration, trash, and illegal trails, while others held the opposite view. There was some concern that as ranchers and some land managers advocated for increased security through militarization, perhaps with less concern about environmental damage of militarization, that environmental NGOs that have focused their attention on the environmental costs of militarization would find it difficult to continue to work with the increasingly security focused ranchers and land managers. Some environmental groups have aligned themselves with human rights groups, such as No More Deaths, which have taken a practical approach, through provision of drinking stations, and a political approach through protests and lobbying toward demilitarization and increased humanitarian efforts, which has put them at odds with some of the more security focused natural resource managers and private landowners. So far, these tensions have not led to the breakdown of any collaborations, but most managers in 2010 discussed their concern that these differences would or could breakdown established institutional arrangements, again illustrating the effect of the shift in power and growing distrust.

The border has also spurred some collaboration, for example, the US Forest Service has found opportunities to collaborate with Border Patrol on fire management. Border Patrol uses security justifications (improved line of sight) for brush clearance and prescribed burns, while the Forest Service is able to obtain much needed resources for its primary

objectives. The priority areas for prescribed burns with Homeland Security dollars may not be the same as those identified by US Forest Service, but they may be able to shift resources toward priority areas with the influx of money associated with the security burns and brush clearance. This direct effect was positive, but managers also were concerned about the increased migrant traffic across their land and an inability to make sure that migrants were safely outside prescribed burn areas. There is also growing concern about fires that are intentionally set by migrants or smugglers to deter and distract Border Patrol, which creates an additional burden on the Forest Service. Furthermore, some foresters were frustrated that they were only able to meet their primary objectives through collaboration with Border Patrol because federal resources continue to shift away from the USFS, while the Department of Homeland Security's budget balloons. These frustrations and attempts to collaborate to meet primary objectives illustrate the growing power of Border Patrol in the region and the limited ability of natural resource managers to navigate this changing situation. Some new collaborations between Border Patrol and land managers associated with security, trash removal, and brush clearance have emerged, but it is unclear whether these collaborations will continue or disappear, especially given the shifting perception of security on the border, increased law enforcement focus of all public agencies, and the growing burden on all public and private land managers.

Beyond fire management, power dynamics also are key to understanding the changing relationships between Border Patrol and the Bureau of Land Management, Forest Service, and Fish and Wildlife Service after the Chertoff waiver. This waiver fundamentally changed the relationships between individuals on the ground in the federal and state land agencies and field officers with Border Patrol. According to our participants, this new "wall" between agencies was due to the lack of respect that many Border Patrol officers now have for land managers within the other agencies (and outside the agencies, too). Federal agencies with mandates for multiple land use (Bureau of Land Management), preservation of natural heritage (National Park Service), protection of biodiversity (US Fish and Wildlife Service), and use of forests and land (Forest Service) are often at odds with Border Patrol policies. Recently, through mediation and environmental mitigation, Border Patrol and Homeland Security have attempted to mend these relationships, although some managers are concerned that this is too little and too late. It is unclear how much damage has been done to these interagency and public–private relationships and to the sensitive ecology.

The most direct effects of the border on many of the non-state actors have been through growing concerns about safety of ranchers, volunteers, and employees in the field. The Nature Conservancy has followed the lead of many of the federal agencies and required or suggested that individuals work in pairs or groups when traveling in areas with known smuggling trails. The Malpai has largely been affected through the individual ranch properties; ranchers have shifted their activities away from known trails or away from the border when possible. All the ranchers we spoke with had personal interactions with smugglers, which had caused concern over the viability of ranching in the region over the long term. Sky Islands Alliance is physically removed from most of the border activities, so the greatest effects of the border were largely the concerns about the wall/fence construction and the ecological impacts on Sky Islands' priorities.

Border issues have made transboundary water partnerships quite fragile. In particular, the recent passage of Arizona State Bill 1070 increased Mexican NGOs and private landowners' reluctance to engage across the border. These challenges directly affect programs such as the Upper San Pedro USGS transboundary aquifer project, which attempts to map the aquifer and work toward sustainable water consumption. Interestingly, few talked about the direct links between immigration policy debate and water, although

the San Pedro flows from Mexico, so further breakdown between the countries potentially puts this critical natural resource at risk. This lack of discussion may be due to the highly formal agreements about international water flows via the Transboundary Water Commission, which largely take place with policy makers outside of the region. One prominent advocate of riparian restoration who collaborates with ranchers, private NGOs in the US, and NGOs and government agencies in Mexico mentioned how deteriorating relationships between the US and Mexico affected her work. These concerns were related both to the impacts and perceptions of US and Arizona policies in Mexico and cartel violence, which continues to displace rural people throughout northern Mexico. This mesh of informal collaboration and highly formalized agreements between the US and Mexico, especially within the water domain, creates distance between the local and the national, a discourse of “us versus we” (Johnson 1994), which may contribute to local feeling that the area and their concerns about the border and environment are largely ignored. Power dynamics have shaped, shifted, and sometimes weakened new and existing collaborative institutions; integrating these ideas of power with collective action allows us to better understand the emergence and evolution of collaborative institutions.

We introduced this study by looking at Moe’s (2005) critique of the rational choice school of institutional analysis and its frequent neglect of power and sought to expand the role of power beyond the bureaucracy and formal government to include public–private partnerships and relations within civil society. In the cases of collaboration on land management in the US–Mexico borderlands, we find numerous examples of collective action emerging without a privileged group or a hegemon to lead the movement. But collaboration has also been imposed from above, i.e., the Upper San Pedro Partnership. The mechanisms of collaboration are not power neutral, as some neoliberal institutionalists would suggest, whereby repeated interactions reduce transaction costs and sharing information lead to increased collective action. Instead, we see collaborators forming not only because of reduced transaction costs but also to shift the power dynamics between groups of people, as Moe posits. At the same time, collaboration is not entirely about power, and collective action in the region also emerges through efforts of federal agencies to partner together and find common interest in an era with ever-tightening budgets and staffing shortages.

We also see a need to expand Moe’s ideas of power in political institutions beyond formal government and bureaucracies. In collaborations between NGOs, groups of private citizens, and federal agencies, there was the implicit goal of shifting power from agencies to other groups, such as through the Malpai Borderlands Group. The Malpai fire institutions shifted the balance of power away from agencies and federal mandated land management practices to shared decision making; ranchers received new means to influence policy regionally, and eventually nationally, while foresters and range conservation officers were able to achieve more open communication about a variety of issues such as biodiversity. The Chiricahua and Huachuca Firescapes built upon the US Forest Service experience in Malpai, but more actively incorporated environmental NGOs directly in the negotiations with the Audubon Society leading the Huachuca planning efforts. Ultimately, collaboration changes the power dynamics through sharing agreements with regard to information, resources, or coordination of action.

Conclusion

This paper presents an effort to understand the multilayered, nuanced views of the border crisis from within an environmental governance network in the borderlands and

specifically the role that power plays in collaborative management when confronted by border issues and evolution of the network. Both government and civil society are central to these collaborative activities in the governance network. Based on interviews with ranchers, landowners, public agency representatives, and non-governmental officials and archival sources, we conclude that in the cases where there already were well-established relationships and trust, ties have strengthened during this period of increased stress. In contrast, relationships between diverse interests that are newly established seem to be more tenuous in the face of the crisis. Relationships between the federal land management agencies and Border Patrol have broken down because of environmental waivers and lack of respect for environmental issues and land management personnel. Our study highlights the issues associated with shifting power relationships among natural resource managers in the borderlands; it provides insights that are helpful for others seeking to overcome collective action problems in the wake of crises and changing political environments.

In addition to the empirical contribution to natural resource management and collective action, our work also informs the national and regional border dialog in two ways: First, it investigates the impact on rural communities and their efforts to solve environmental issues through collaboration. Second, our work evaluates the perception of a diverse group of individuals: private landowners, NGOs, and government officials on the border crisis. Although there are differences in natural resource managers' views about the border crisis, particularly whether militarization, migration, fence/wall construction, or smuggling, has had the greatest impact on natural resource management and their communities, we found a remarkable degree of agreement that all four of these issues were important and present. Their views were strikingly different than the national rhetoric, which largely paints the border crisis as simply an issue of immigration and security, especially terrorism. In looking at natural resource management in the shadow of the border wall, we explore when and where collaboration occurs moving beyond a presumption that institutional design purely reflects cooperative means to share information, lower costs, and build trust. We hold these ideals to be important motivators of institution building; however, we also recognize that the desire to create institutions and shape them in particular ways reflects goals of power accumulation. This study provides examples, not only from federal governmental agencies but also from state and local governments and civil society of attempts to shift power dynamics within a governance network. As this research moves forward, we recognize a need to test analytically a variety of hypotheses on the interrelations between power, the structural variables of institutional design, and the broader context in which collaborative institutions are built. To accomplish this task, future research includes social network analysis at both organizational and institutional levels to gain a fuller understanding of interrelationships between individuals, organizations, and collaboratives and their attempts to utilize collective action strategically.

The borderlands of southern Arizona present two intertwined policy arenas, the border and natural resource governance, where actors come together and are torn apart by simultaneously diverging and converging interests. The emergence and evolution of collaborative institutions in this region presents a dynamic, important governance network with relevance to the public and the academy. Collective action and creation of collaborative institutions present means to shift power in a policy arena, but power dynamics also transform existing institutions. By bringing together Moe's insights with existing collaboration and collective action literature, we better understand governance network dynamics. Collaboration does not occur in a power vacuum; rather, power is central to understanding attempts to bring individuals and interests together to solve collective action dilemmas.

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