Chapter 7: Conclusion

While cutting down trees to maintain the forest may initially seem counterintuitive, active forest management has given the two indigenous communities examined in this dissertation the tools they need to achieve multiple community goals, particularly territorial control and forest protection. Yet for both communities, active forest management has also brought challenges as tribal members struggle with economic and educational constraints. In a global economy, competitive forest management entails a host of expenses: trained foresters, modern mills, good roads, and expensive management plans. Integrating the perspectives of community members into sustainable forest planning can also be extremely challenging.

The Menominee and Guarayos forest management systems have developed in different ecological, cultural, historical, institutional, and legal contexts. The Menominee have harvested trees from their reservation since the 1850s and have operated a large commercial sawmill for over 100 years. The tribe has secure long-standing legal land tenure and forest management rights. The United States government officially recognizes the Menominee tribe as a sovereign nation. Like the Menominee, the Guarayos also have legal land tenure rights over their communal territories. However, the Guarayos secured these rights only recently, in the mid-1990s. Further, the Guarayos communities do not have the technical or economic resources to manage their forests independently. While the Guarayos community has a long history of manipulating and managing their forest resources, they do not have a long tradition of commercial timber harvesting.

Despite these differences, the Menominee and Guarayos communities share many similarities. For both communities, culture and history is intimately tied to their respective
forests and territories. Both communities believe that community health and ecological health are intertwined—they perceive little or no separation between people and the environment. In addition, both communities face similar challenges: they lack job and educational opportunities, and their communities have significant health problems. Each community views forestry as a way to alleviate some of these problems. Forestry has created individual job opportunities, provided for collective community welfare, improved community health opportunities, provided resources to increase educational opportunities, and allowed the communities to protect their territories and maintain their forests.

In this final chapter of the dissertation, I begin by exploring similarities in how the two communities have approached forest management. I then discuss differences between the two communities and examine the challenges each community faces. I conclude by outlining the lessons that other communities can learn from the Menominee and Guarayos forest management experiences.

Factors Affecting Community Forest Management in Menominee and Guarayos

Territorial Control and Forest Protection

For both the Menominee tribe and the Guarayos community, forestry has been an important tool for territorial control and protection. Forestry has allowed the Menominee tribe to exercise sovereign control over their resources and keep outsiders from taking Menominee resources. For example, in the 1908 La Follette Act the Menominee tribe actively pushed for the authorization to harvest their own forest rather than sell trees on the stump to outside loggers. The community saw forestry as a way to provide the necessary resources to protect their forests.
Menominee oral history interview participants often equated territorial control with tribal sovereignty. Tribal sovereignty explicitly involved control over the forest. Menominee participants indicated that the power to control their forest was important for tribal forest management because the tribe itself was able to set their own management goals and organize their own government to protect the forest and land. Sovereignty, as it relates to forestry, included controlling community forest resources and the cultural values associated with the forest. Tribal members also saw sovereignty as a way to protect Menominee forests and territory from outside forces and people.

Like the Menominee, the Guarayos community used forestry as a way to control their territories and protect their forests from outside threats. Community meeting minutes, management plans, and oral history interviews identified control and protection as explicit community goals. Further, engaging in forestry activities encourages community members to enter the forest to make maps, do inventories, oversee harvest operations, and maintain roads. When Guarayos community members are physically present in the forest, they personally observe what is occurring throughout their vast territories.

Territorial control has been successful for both the Menominee and Guarayos communities for several main reasons. First and most importantly, territorial control has been successful because it is a community goal rather than a goal imposed from outside the community. Second, legal and institutional structures at multiple levels support each community’s rights to land tenure. Finally, forestry has provided opportunities for each community to maintain their presence within their territories. Community members spend time in the forest compiling inventory information, creating maps, and overseeing harvesting
operations; their physical presence represents an expression of each community’s legal rights to their community lands.

**Forest Management Benefits**

Despite differences in cultures, ecosystems, the economic scope of their operations, and their historical experiences, the Menominee and Guarayos communities have similar perceptions of the benefits of community forestry. For both communities, the economic benefits are extremely important. Without the economic value of their forest management activities, the communities would have fewer of the social and political resources necessary to maintain control over their territories. Forestry provides jobs for individuals and revenue for community well-being. Because the job opportunities are within the community, members do not have to leave their communities to find work. For both Menominee and Guarayos interview participants, however, the economics of forest harvesting included not just individual and community gain, but also forest and ecosystem health now and into the future. The economic benefits realized through community forest management provide a base from which to combat the challenges faced by both communities with respect to a lack of opportunities for employment, education, healthcare, and infrastructure. According to interview participants in both communities, financial goals should not override goals related to community, ecological, or cultural well-being. In other words, respondents believed it was important for the communities to use forestry to create revenue, but that this revenue should not come at the expense of other community goals or benefits.

The community members believe that without the economic viability of the community forestry operations, they would not be able to realize other important community benefits
including increased opportunities for education. For example, forestry has provided the financial support for Menominee community education since the reservation was established, and for Guarayos, community education since the 1990s. Forestry profits fund teacher salaries, student tuition, and resources for students to attend classes at higher educational institutions. Forestry has also created opportunities for informal education and workshops on topics ranging from ecology, accounting, invasive species, and sustainable harvesting techniques. In sum, forestry has supported education at multiple levels in both communities.¹

Perhaps most importantly, for both the Menominee and Guarayos people, identity is intertwined with their forests. Both communities have used forestry to foster their respective identities and cultural connections, because active forest management protected the forest. In addition, forestry has provided each community with a way to protect their forests from outside incursion and large-scale land use changes (which would replace forestland with non-forested farm or ranch land). According to the oral history interviews, maintaining cultural connections to the forest and fostering community identity are important benefits of forestry. Without the forest, the Menominee and Guarayos communities would have challenges maintaining many of their cultural traditions. Further, forestry benefits the future generations of each community. Evidence from management plans, community meeting minutes, and oral history interviews suggests that community members believe that active forest management—harvesting trees—protects the forest and provides myriad opportunities for the future, which in turn provide cultural continuity—a strong value shared by each community.
National Laws

National legislation has played an important role in forest management in both the Menominee and Guarayos communities. For the Menominee, annual harvest limits were first codified in 1890. The Menominee tribe used the 1890 law to achieve their own goals of protecting the forest and providing economic resources for the community. Legislation passed in 1908 further codified the Menominee forest management goals of a limited harvest, forest protection, and community employment and welfare. The Guarayos community has used the 1996 National Forestry Law in many of the same ways that the Menominee used the 1890 and 1908 laws: to limit harvests, ensure forest regeneration, protect the forest, and provide economic resources for the community. While forestry legislation is not the only factor influencing Menominee and Guarayos forest management, in both cases the communities have used forestry laws and regulations to realize their own goals.

Oral history interviews from both communities highlighted the central role of forestry laws in each community’s perceptions of sustainable forest management. In the case of the Menominee interviews, participants often discussed the 1908 La Follette Act and the 20 million board feet harvesting limits (first codified in the 1890 law) as critical events for the tribe’s long-term forest management success. Guarayos interview participants discussed the 1996 National Forestry Law as central to their own understandings of sustainable forest management. In both cases, the emphasis interview participants placed on the legal structure within which they manage forests indicated that community members believe that these laws have allowed them to use forestry to achieve community goals.
The Challenges of Community Forest Management

Despite similarities in the factors affecting community forest management in the two communities, the Menominee and Guarayos peoples face different challenges. First, land tenure is not as secure for the Guarayos in Bolivia as it is for the Menominee in Wisconsin. The Guarayos governing body, which legally holds and manages the Guarayos Indigenous Territory, has become mired in a dispute between the national and regional governments over which body will control lowland territories and resources. During my 2009 field visit to Guarayos, community members reported that there were two separate groups declaring to be the official Guarayos entity in charge of the Guarayos Community Territory. One group is aligned with a regional movement dedicated to promoting “autonomous” control of regional departments, while the other is aligned with the Bolivian national government, which promotes national “indigenous” control. To further complicate the situation, Guarayos communities have become increasingly divided along the same political lines. The dispute complicates Guarayos forest management because there are two official groups claiming to have the legal authority to oversee management within the Guarayos territory, which has led to insecurity in community land tenure and may harm forestry management in the future.

A related challenge concerns the Bolivian national government’s transformation of the Forestry Superintendence into the Authority for Land and Forests (Autoridad de Tierra y Bosques or ATB). The Bolivian national government created this new authority in the late 2000s to integrate forest and agricultural land management. Because there is a strong connection between forestry and agriculture, this shift is potentially a positive step toward comprehensive land management. However, during visits to Guarayos, Bolivia in 2009, I observed that the
personnel in charge of forestry oversight for the Authority for Land and Forests did not have the necessary technical skills or institutional knowledge to support community forestry and enforce the law. In sum, the state’s oversight had decreased to a level that could lead to serious problems with sustainable forest management in the future. For example, the new personnel could explain neither basic forestry regulations nor their own job descriptions. This situation did not bode well for the enforcement or regulation of forestry law. During the same visit, I also observed that Guarayos community members had stopped a group of loggers who were trying to leave with a load of mahogany that they had harvested illegally from the Guarayos forestry management area. I arrived at the forestry management area four days after the community had stopped the truck and alerted the authorities. At that time, the community members had received no response from governmental officials and were beginning to grow pessimistic about the continued enforcement of the forestry law. At this point, it is unclear whether the Authority for Land and Forests will be able to increase their technical and regulatory skills—whether these events will be a small setback for Guarayos community forest management or harbingers of decreased enforcement and forestry support.

Another challenge for the Guarayos community is one that the Menominee community faced in the mid-1800s when their reservation was established: they lack practical experience in sustainable forest management. The Guarayos have few long-term examples of sustainable tropical forest management; Bolivian foresters do not know whether their forests can be harvested sustainability and protected over an extended period of time. While there are some tropical forestry experiences in other countries in Latin America that may benefit Guarayos management, tropical silviculture is still relatively new and has not been practiced for much
longer than several decades. It is unclear whether the forestry and silvicultural treatments employed in the Guarayos forest will perpetuate and regenerate the forests. The Guarayos communities believe that the techniques will prove successful, but have limited practical experience with forest management. In many ways, the current situation of the Guarayos community is similar to the Menominee community’s experiences in the mid-1800s when Chief Oshkosh famously outlined his view that forest management could be used to provide perpetual harvests while maintaining and regenerating the forest. Only time will reveal whether the Guarayos community’s forestry practices produce outcomes as successful as those attained by the Menominee.

The situation of the Guarayos people remains precarious because the community lacks economic, technical, and—to a certain extent—local political support for indigenous community forest management. Some researchers have suggested that the continued poverty in lowland Bolivia may indicate that sustainable forest management is not sufficiently effective as a method of community development. However, members of the indigenous communities managing forests in Guarayos did not express doubts about the effectiveness of sustainable forest management in their testimonies. Community members understood that benefits went beyond economics to protecting their territory and passing a cultural and economic heritage on to their children and grandchildren. Indigenous communities believe that they have the right to make a decent living, but they also assert that economic success is not the most important right for which they have fought. In the interviews, participants seemed to value the right to territory and cultural recognition more strongly than pure economic benefits. Interview participants argued that the land connects the past, present, and future in a tangible and practical way. Indigenous
communities recognize that to maintain their cultural relationships with the land, they must first have control over that land and the economic benefits will follow; if they lose control of their lands, there will be no opportunity for economic improvement.

Menominee community members outlined longer-term challenges that differed from the more immediate concerns of the Guarayos. First, the Menominee viewed climate change and invasive species as major issues affecting the sustainability of their forest management. Although the tribe did not cause climate change or invasive species, and they cannot stop either of these forces, they choose management strategies that will help the forest adapt to the effects of both. For example, Menominee foresters have begun to modify silvicultural prescriptions, increasing harvests of ash trees that might otherwise be devastated by the emerald ash borer in the near future.

The Menominee community is also beginning to discuss adaptation to possible effects of climate change. Climate change could fundamentally affect forest management for diversity—a long-standing forest management goal. Forest managers have not yet adjusted their management practices in anticipation of climate change, but they have engaged the Menominee community in efforts to plan for future changes. For example, the College of Menominee Nation has initiated a series of workshops and prepared educational materials (brochures, websites, and videos) designed to initiate a dialogue, raise awareness, and bring multiple perspectives into management decisions. Menominee oral history interview participants often discussed education and community involvement in decision making as factors that facilitated the success of Menominee forest management. Community climate change discussions are one example of the way the Menominee community is beginning to address this challenge.
Lessons for Indigenous Forestry from the Menominee and Guarayos Case Studies

Indigenous communities can take several lessons from the forestry experiences of the Menominee. First, the Menominee have been able to overcome community discord to foster community cohesion and community leadership over time. Second, strong internal and external governmental regulations and enforcement have promoted sustainable forest management over time. Third, the community has had a clear and consistent vision of sustainable forest management through the years. Historically, this vision was summarized in Chief Oshkosh’s famous quote; later it was codified in federal law as sustained yield forestry. Today, tribal law and the forest management plan articulate shared community goals for forest management. Fourth, the Menominee have had strong institutions that have promoted sustainable forest management. Fifth, the Menominee have a profound sense of place inspired by living in the area of the current reservation for thousands of years. Sixth, the tribe has maintained control of the resources on their reservation across time. Seventh, forest management is economically viable in the Menominee forest. Economic viability is important for the Menominee people because they manage a commercial forestry business. However, the community’s focus is not exclusively on commercial profitability, rather their forestry operations focus on community- and individual-level economic benefits, at times at the expense of commercial profitability. Finally, the Menominee have had access to technologies to implement sustainable management over time.

Indigenous communities can also take some lessons from the Guarayos experience. Some of the same factors facilitating Menominee forest management have also facilitated Guarayos success. First, there is strong community leadership in the Guarayos community. Second, the
1996 National Forestry Law has provided the Guarayos with governmental regulations and community enforcement of sustainable forest management. Third, the community articulates their vision of sustainable forestry through forest management plans that outline shared community goals. Fourth, the Guarayos community appears to have had strong community institutions over time. Fifth, forestry is commercially and economically viable for the Guarayos community. However, economics is only one of the important reasons the Guarayos manage their forests. Guarayos forestry operations also focus on community and individual economic benefits—sometimes at the expense of commercial profitability. Sixth, the Guarayos have access to the economic and technological resources to manage their forest resources.

Three main factors inhibited sustainable forest management in the Guarayos community before the 1990s. First, national laws did not recognize the community’s land tenure rights or the community’s right to legally harvest timber. Second, intense market pressures and community poverty increased demand for Guarayos timber. Finally, community cohesion decreased as legal pressures forced community timber harvesters into the shadows. The Guarayos could not base forest management on community visions and goals because there was no legal mechanism for community management. Historically the Guarayos community articulated their visions for sustainable forest management through a culture of respect toward the forest; this culture promoted land use practices that did not involve large-scale forest clearing. However, these Guarayos values were not strong enough to overcome the legal, social, and economic pressures for forest clearing during the mid-twentieth century.

The Menominee and Guarayos case studies suggest that indigenous communities need clear goals to guide forest management decisions. Forest management plans that incorporate
community goals can help define sustainability and provide clear objectives. These case studies also suggest that indigenous communities must use legal structures and constraints to foster their own visions and goals for forest management. The communities need access to economic resources and their timber operations need to generate revenue to support community goals. Strong community leadership is also extremely important for communities that seek to manage their forests in a sustainable manner.

Finally, one of the most important lessons other indigenous communities can learn from the Menominee and Guarayos case studies is that communities can use forestry to control territory and exercise sovereignty. Many academics and forestry practitioners have shown that secure land tenure is a necessary condition for sustainable forest management. The Menominee and Guarayos case studies build on this idea by illustrating that active forest management can actually support and foster indigenous land tenure and territorial control. Both the Menominee and Guarayos communities have used forestry to foster their own visions of territorial control and governance. Using forestry to control territory allows the communities to protect their forests, increase economic revenue, increase community well-being, and foster their forest-based cultures.

**Conclusion**

This dissertation adds to a growing body of indigenous and American Indian scholarship by explicitly highlighting Menominee and Guarayos perspectives on their own forest management. The project uses oral history interviews and historical documents to explore Menominee and Guarayos peoples’ conceptions of the importance of forest management in their communities and their underlying community forest management goals. In both communities,
the economic benefits of timber harvesting were important to provide individual employment as well as resources to foster community well-being. However, both communities believed that economic gain should not come at the expense of ecological or community health. Further, both communities viewed forestry as a way to protect their forests and enhance their territorial control. In the Menominee community, territorial control was embodied by the term sovereignty, while in Guarayos people explicitly discussed protection and control. While these two terms differ slightly and have different historical and legal contexts, the concepts are similar. In both cases, forestry has been a way to protect community forests in a manner consistent with each community’s cultural understanding of the land. Both the Menominee tribe in Wisconsin and the Guarayos community in lowland Bolivia have used forest management to foster territorial control, strengthen community well-being, and protect the forest in order to provide for cultural connections among past, present, and future generations.
Endnotes – Chapter 7


4 While both Guarayos communities have strong leadership, the leadership is not unified. San Juan and Cururú manage their forests under different management plans, which could hinder the future management of the Guarayos TCO if tensions arise between the communities or if forest management goals change.