Organizing Conservation and Development in China:

Politics, Institutions, Biodiversity, and Livelihoods

By

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Abstract

Tourism is an increasingly central element of biodiversity conservation, transforming protected areas worldwide. Building on participant observation and interviews with a broad array of participants, extensive document analysis, and a household survey, this dissertation investigates the creation of national parks in China's southwestern province of Yunnan and what it reveals about how actors contend to get their visions for tourism and conservation incorporated in protected area institutions as well as how those institutions influence conservation practices and rural livelihoods.

In the first half, I show how contention among state agencies with varied connections to extra-state actors has shaped Yunnan's national parks. The Nature Conservancy's limited ability to appeal to state bodies with leverage over protected areas constrained its effort to promote a new conservation model. Local governments have shifted from supporting community-centered tourism to consolidating high-volume attractions under state-affiliated companies. A case comparison of nine protected areas shows that local authorities channel the substantial revenues tourism yields toward funding government activities and maintaining scenic façades for tourists rather than intensive biodiversity conservation. Where strong conservation practices are adopted, it is due to intervention under central government priorities.

In the second half, I examine how national park institutions affect community residents. In Meili Snow Mountain National Park, community-centered tourism operations persist, while in Pudacuo National Park, residents have become park employees. Residents of each park express concerns about different issues, but they voice these concerns in similar terms, invoking moral economies of appropriate state action. I use household survey data and qualitative observations to examine the impacts of different forms of tourism participation on livelihoods and

community dynamics. Different tourism activities' demands for labor and inputs have stronger impacts than income on resource use. Not all community-based tourism is equal: income inequality is higher and cooperation less common where household entrepreneurship predominates, compared to communities where institutions equalize participation, whether under community management or as park employees. The consolidation of protected area tourism attractions brings challenges as park authorities attempt to manage residents, while its economic and environmental impacts have complex relationships with local economies and ecologies.

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Chapter 1: Introduction

In 2001, the Government of Yunnan Province and The Nature Conservancy jointly issued the Conservation and Development Action Plan for Northwest Yunnan. The plan identified a number of trends that threatened to destroy biological communities, squelch cultural heritage, and hobble long-term economic development in one of the world's most scenic, biologically diverse, and ethnically rich regions. Population growth and rural residents' dependence on natural resources were encroaching on habitat. Ill-designed infrastructure projects were degrading landscapes. Uncoordinated tourism development added to these pressures. Planned hydropower and mining projects threatened landscapes and livelihoods. Unless authorities identified an alternative development strategy to establish a virtuous cycle of environmental protection and enhanced human welfare, the region's riches would soon be forever lost. Among a variety of actions the plan urged adopting, the centerpiece was a new protected area conservation model that would fix flaws in existing models by making money through well-managed tourism to improve rural livelihoods, giving residents a say in landscape management, increasing government revenues, and supporting science-based conservation: establishing China's first national park (JPO 2001).

A decade later, five national parks had been established in China's southwestern Yunnan Province, including Pudacuo and Meili Snow Mountain National Park in Diqing Tibetan Autonomous Prefecture, the action plan's core area. They boasted surging tourism revenues, with thousands of visitors coming through each day to view mountains, lakes, and gorges. Residents' incomes were up. Local authorities proclaimed a breakthrough triple-win for biodiversity, communities, and economic growth. Yet conservation advocates lamented that blockbuster revenues were not supporting strong conservation management, while residents

watched with ambivalence as newly established tourism companies transferred most of the parks' revenues to local governments. Rather than making a break with broader patterns, these parks came to reflect a nationwide trend of turning scenic natural areas into high-volume tourism attractions pumping out revenues for local governments.

Tourism is bringing breakneck growth, social change, and new ways of managing landscapes to scenic places across China. In areas with pleasant vistas and ethnically diverse peoples, the state has mobilized people and capital to turn these amenities into revenue generators. Cities have been rebuilt, villages transformed, roads repaved, park gates erected, airports laid out and expanded. Rural communities have plunged into prosperity as tourists pour in, paying for lodging, meals, and treks. They have been transformed again as local states grant tourism companies rights to operate attractions, turning residents from collective entrepreneurs to employees. Other communities nearby have found market niches raising livestock and vegetables to sell to tourism attractions. Still other communities have been bypassed by tourism but have gained roads and services as governments spend tourism revenues, as well as off-farm employment for residents who go to the cities or use their vehicles to drive tourists from spot to spot—transforming landscapes, communities, entire regions in the process.

In Diqing Prefecture, national parks have taken shape in this context of rapid tourism growth, growing concern about nature conservation, and the increasing visibility of China's remote areas. Conservationists, local officials, varied provincial and national agencies, development experts, and tourism planners have jockeyed to get their priorities incorporated into development plans and implemented on the ground. The U.S.-based organization The Nature Conservancy (TNC) endeavored to promote the idea of national parks that might turn burdensome and under-resourced protected areas into tourism attractions that generate revenue and support rural

livelihoods while providing for professionalized conservation. As TNC worked with provincial agencies and local governments to realize this vision, the national park idea increasingly became bound up in projects for tourism growth and rural development that contrasted with TNC's goals.

This dissertation traces the emergence of Pudacuo National Park and Meili Snow Mountain National Park, showing how various groups from within and outside Yunnan pushed to shape them and how residents of rural communities have responded to the changes national park establishment has brought. Depicting the negotiations that gave birth to these parks, I show how global, national, and local forces have come together in making nature tourism attractions across the regions. Through observations of rural life in Meili Snow Mountain and Pudacuo National Parks, I show the varying ways community residents deal with new incursions in landscapes where tourism and conservation, along with other projects of development and management, jostle together with customary subsistence and religious uses of these landscapes. In the process, I show how changing conditions facing different state organs have influenced the organization of tourism and conservation and their effects on livelihoods and landscapes.

Conservation and Development in Protected Areas

Protected Areas and Globalizing Conservation

Protected area conservation raises fundamental questions about how people operationalize the idea of sustainable development. By marking spaces where economic objectives are subordinated to goals of protecting natural resources and processes, protected areas might be considered to act as embedding institutions, subjecting economic action to nonmarket values.

But in this politically charged process, the questions of what values, whose values, remain. Conservation advocates, state officials, rural residents, and other groups struggle over who will shoulder what responsibilities, burdens, and benefits associated with conservation and economic activity. In particular, how protected areas operate gives a view of the changing ways states act on mandates to promote economic growth and protect environments.

Protected areas are units of territory subject to special rules intended to ensure that objects of biological and cultural value can persist into the future. Most are established to protect some aspect of biological diversity, or biodiversity—the wealth of genetic variety, species, and communities of plants, animals, and other organisms. According to the World Conservation Union (IUCN), protected areas serve "to maintain functioning natural ecosystems, to act as refuges for species and to maintain ecological processes that cannot survive in most intensely managed landscapes and seascapes" (Dudley 2008:2). While challenges from landscape fragmentation to climate change make protected areas alone inadequate to accomplish goals of biodiversity conservation (Strange et al. 2011, Hansen and DeFries 2007), they will for the foreseeable future remain one of the key tools in efforts to sustain some portion of the world's biological wealth and the benefits it brings to humans.

The rules that define protected areas usually limit practices through which people use land and the organisms upon it, with the aim of lessening the damage these practices cause, constraining economic activity. This might mean forbidding clear-cut harvesting of timber or banning strip mines; it might mean cutting off people who depend on protected lands for food and fuel. The extent and nature of the restrictions varies. There are strict protected areas in which human incursions are forbidden. There are also "managed use" areas intended to facilitate use for extraction and recreation. Often one protected area comprises several zones with different

restrictions. State agencies administer most of the world's protected areas, but private entities own some, and communities manage others. Working out their rules and procedures draws conservation advocates, state agencies, businesspeople, rural residents, and other parties into dialogue and contention, weighing the livelihoods of marginalized people, pressures for economic growth, and the extension of state power against concerns for environmental objectives that are often abstract and brought to the table by outsiders with the prestige of scientific knowledge and the power of funding. People with different resources and capacities jostle over how to reconcile growth imperatives, environmental constraints, and residents' wants.

These contentions cross national boundaries. In the past few decades, countries around the world have scaled up protected area conservation. Propelled by a transnational epistemic community of conservation advocates, the spread of the conservation "regime" is a prime example of a globalizing effort. However, as the literature on globalization would lead us to expect, the replication of protected areas has proceeded unevenly (Zimmerer et al. 2004). Any close look shows how political contention, legal constraints, and resistance on the part of affected populations have led actual organizational structures and practices in protected areas to deviate from international prescriptions. Partly in response to these local complications, and partly due to changes in globally circulating ideas about conservation and rural livelihoods, the prevalent prescriptions for protected areas have also changed.

Protected areas were born out of a desire to protect nature from people. An abiding distress at the havoc wreaked on nature by the expansion of economic activity coupled with human population growth has long motivated conservation advocates. In the late 20th century, organizations like the World Wildlife Fund (WWF), based in the global North, pushed

governments to build and enforce protected areas and worked through United Nations agencies to propagate protected area standards, in relationships with neo-colonial tinges (Adams 2004). "Fortress conservation" in strict protected areas predominated, restricting rural people's resource use when not displacing rural populations entirely (Ghimire 1994, Brockington 2002). Other efforts at resource management often drew conservationists and states into alliances that worked to dispossess residents and make resources amenable to exploitation by state-sponsored firms (Peluso 1992). Resistance to appropriations of land from residents mounted in the 1970s and 1980s. In the negotiations that produced the Convention on Biological Diversity, representatives of countries in the global South, anxious to retain benefits related to their own resources, pushed for language that articulated sovereignty over biological resources. Meanwhile, research findings showing that rural producers often use resources in ways that do not undermine resource replenishment, or even are integral to maintaining landscapes and ecological communities, challenged exclusionary approaches to conservation (Stevens 1997). Conservation advocates began to change tack, partly because criticism hurt their legitimacy and funding bases, and partly because their strategies were not achieving conservation goals.

The 1980s and 1990s brought a succession of projects aiming variously to compensate residents for losses related to protected area policies, involve them directly in conservation, and pair conservation with rural development programs. Transnational conservation organizations dramatically increased the volume and funding of community conservation projects. These came under rubrics like integrated conservation and development projects, community-based conservation, and community-based natural resource management. The United Nations Environment, Science, and Culture Organization (UNESCO) introduced the Man and Biosphere Reserves program, aimed at building models of protected areas combining conservation with

sustainable rural livelihoods. The World Bank and other funding organizations made community involvement a criterion for project funding. Sometimes development efforts raised incomes and attracted migrants, intensifying demand for farmland and forest products and leading to greater pressures on protected landscapes. Disappointed conservationists called for different approaches that avoided this perverse outcome (Brandon et al. 1998); some called for renewed attempts at exclusionary conservation (Terborgh 2004). There has followed a protracted debate over how conservation might be squared with social justice, both in terms of enhancing the economic well-being of marginalized populations and in terms of ensuring that they participate autonomously in decisions about conservation and development (Wilshusen et al. 2002, Sanderson and Redford 2003, Brockington et al. 2004, Wilkie et al. 2006).

In the last decade the international conservation community has more or less reached a consensus that conservation efforts must accommodate rural livelihoods and participation. Updating its categorization of protected area types in 2008, the IUCN urged policymakers and protected area managers to "[d]eliver benefits to resident and local communities consistent with the other objectives of management" (Dudley 2008: 12). Major conservation organizations have rebranded themselves as in the business of participatory rural development.

Even with their pragmatic developmentalist makeover, conservation advocates have found protected area conservation an increasingly hard sell. Just as blowback over resident exclusion brought a shift in conservation thinking, opposition from extractive interests and reinvigorated Southern states has made conservation advocates revisit their strategies. The expansion of protected areas through the early 2000s has been met with a new trend toward downgrading, downsizing, and degazettement as governments reconsider earlier choices to protect lands from extraction (Mascia and Pailler 2011). Where a decade ago conservation organizations were

trying to engineer debt-for-nature swaps in which industrialized countries would retire debts in exchange for debtor countries establishing protected areas, in 2007 Ecuador's president Rafael Correa demanded that countries in the global North pay $350 million a year to hold off oil drilling in Yasuni National Park (Friedman 2012). Conservation organizations, often presented as agents of Northern or Western hegemony, find themselves entangled in relationships of negotiation and collaboration with national and local states (Pieck and Moog 2009). Their strategies increasingly involve linking conservation to enterprises intended to win support of state authorities by generating revenue and that of residents by enhancing consumption opportunities, all of this without further degrading ecosystems.

Tourism has been foremost among these endeavors. Conservation and tourism have long been bedfellows. Tourism concerns dominated management of U.S. national parks starting soon after the establishment of Yellowstone and Yosemite in the 19th century (Sellars 2009). It also played a transformative role in settlements around these parks (Machlis and Field 2000). The same can be said for parks worldwide, from safaris in Kenya's Maasai Mara National Reserve to ecotourism in Peru's Manu National Park to trekking in Nepal's Annapurna Conservation Area (Butt 2012, Ohl-Schacherer et al. 2008, Stevens 1997). For the past several decades, tourism volumes and revenues have grown rapidly worldwide, with nature tourism to protected areas ballooning in recently industrializing countries even as it stagnates in the global North (Balmford et al. 2009). Many countries in the global South have latched onto tourism as a labor-intensive development strategy with potential to bring in foreign currency. In remote areas where industry and cash crop cultivation are hard to establish, tourism can bring revenue and employment, potentially in ways that maintain or even enhance wildlife and scenic amenities. As a result national and local governments often put tourism at the center of conservation

strategies, aiming not only to raise funding for conservation management but, by providing jobs and other benefits, to underpin the legitimacy of conservation institutions that constrain local people's resource use and development opportunities.

But under what conditions does tourism promote effective conservation management and community development? Tourism brings some of the same complications that other efforts to pair local economic development with conservation do. Tourism can *increase* demand for agricultural commodities and forest products—as well as for wildlife and souvenir products made using resources people are trying to conserve. Thriving tourism attractions expand, leading to land conversion for hotels, shops, and attractions. Incursions of tourists into landscapes can harm wildlife and damage vegetation.

Socially, while tourism is a labor-intensive industry with the potential to diminish poverty by employing many people, tourism jobs tend to bring low wages and seasonal cycles. Tourism has been found to accompany higher rates of economic inequality compared to other rural development strategies (Leatherman and Marcouiller 1996). If tourism enterprises are not locally owned or tourism relies on products and services brought in from outside a locality, revenues may "leak" outside the local economy. In the global South, foreign ownership of hotels, airlines, and other enterprises intensifies leakage. Moreover, tourism transforms places and the lives of their inhabitants in ways that can alienate people from the places they live in. Residents may find tourism displacing them from spaces they previously used for other purposes (Butt 2012, Zhang 2008). On the other hand, by giving local culture and practices new value, tourism can also motivate people to explore, rediscover, and further cultivate cultural identities and customary practices (Hillman 2003a).

For both conservation and tourism, scholars increasingly look to institutional design to avoid pitfalls and bring desired results. Just as many see getting the rules and incentives right as the key to conservation governance, others claim that if tourism is set up in ways that facilitate resident involvement and give managers incentives to invest in monitoring and protection of resources, it might bring a virtuous cycle of development and conservation (Damania & Hatch 2005, Kirkby et al. 2011).

But whether the issue is setting up conservation management protocols or figuring how to make tourism commercially viable while spreading its benefits among rural residents, setting up institutions is a process of political contention. In the case of tourism in protected areas, conservation advocates, state officials, agents of extractive industries, tourism entrepreneurs, and residents (when they have a chance to take part) press to get their visions and interests incorporated into those institutions (Jamal and Stronza 2009). If conservation and development outcomes depend on how institutions work, they cannot be separated from the political processes that mold institutions.

The recent history of protected areas in China reflects these concerns: worries about insufficient conservation management, tensions over the roles of residents, struggles over where and how to designate protected areas, and the complications of incentive-based conservation. The genesis of Yunnan's national parks is a useful case for examining how transnational conservation advocacy articulates with state structures and the political economy of local development.

China has become a global focal point for biodiversity conservation and its relationship to economic development. Despite centuries of assault on ecosystems and species (Elvin 2004) and disastrous efforts to conquer nature in the twentieth century (Shapiro 2001), China continues to

harbor an uncommon richness of species and biological community types. Ranked fourth in the world in plant diversity, third in its complement of mammal species, and ninth in bird species, China has been called a "megadiverse" country (Mittermeier et al. 1997). This biological wealth is mostly confined to peripheral landscapes that until recently have been sheltered from the most severe transformations by their ruggedness and marginality. As resource extraction, commodity trade, and infrastructure construction have accelerated in even the remotest areas, conservation advocates have raised concern for ecosystems heretofore buffered from extraction.

As in many other countries, China has seen a rapid expansion of protected areas. While at the end of the 1970s China hosted fewer than thirty nature reserves, by the end of 2010, there were 2588 nature reserves, with terrestrial nature reserves covering 14.9% of China's land area (Ministry of Environmental Protection 2011), compared to 12.7% of terrestrial area under protected areas globally (Bertzky et al. 2012). These are complemented by over 600 national scenic areas, over 200 national forest parks, and an assortment of areas in categories like geoparks, reservoir recreation areas, wetland parks, seashore parks, and lakeshore parks.[1] According to the State Forestry Administration, in 2010, China's nature reserves and forest parks received 390,000,000 tourism visits, 18.8% of the country's total tourist visits that year, and that in the preceding five years visitation in these parks had grown faster than domestic tourism overall (Zhuang and Huang 2011). These figures amount to a sizable portion of global nature tourism. China's substantial efforts at protected area conservation are of global

[1] Nature reserve coverage, in terms of number and area, is densest in the Qinghai-Tibet Plateau and areas surrounding it; mean nature reserve coverage is 21.92% of land area in western China, compared to 7.80% in eastern and southern provinces and 11.12% in the northeast. Though eastern China has greater numbers of nature reserves, they are smaller in area than in the west. (Wu et al. 2011)

importance, and the impacts of tourism and other instruments used to promote conservation are points of both domestic and international concern.

The Conservation Regime Comes to China

China's economic opening happened at the same time that international conservation organizations' efforts to shape conservation in the global South were expanding rapidly. China's opening to development assistance in the 1980s and 1990s provided space for such organizations to engage the state on conservation, providing technical assistance and policy advice. The World Wildlife Fund began a program of wildlife research in western China in 1979. By the late 1990s, The Nature Conservancy and Conservation International had also started working in China. Along with other conservation organizations including the Wildlife Conservation Society and the International Crane Foundation, as well as bilateral and multilateral funders like the World Bank and the German development agency GTZ, they focused programming on building conservation capacity in protected areas.

These efforts responded to concerns about protected area management, many of which are common worldwide, and some of which are unique to China. While challenges vary in nature and intensity across regions and protected area types (Wu et al. 2011), some fundamental issues are shared across China's protected areas. Funding for conservation management has been inadequate, particularly in protected areas without national-level designation. Staff often lack knowledge and training necessary to keep track of the plants and animals they are assigned to protect. Management plans and procedures provide limited support for management practices that conservation scientists recommend (Harkness 1998, Xie et al. 2004). In the early 2000s, the central government initiated several programs aimed at remedying these problems, including the National Program for Wild Animal and Plant Protection and Nature Reserve Construction. This

program, investing RMB 1.128 billion between 2001 and 2005 and continuing thereafter (State Forestry Administration 2006), brought a funding boost to a subset of reserves. Government funding has expanded in some major nature reserves, though funding levels remain highly uneven across parks (Li et al. 2013). Still, these investments often support infrastructure projects rather than research and capacity building that underpin effective conservation management. Meanwhile, policymakers subordinate protected area conservation to other goals, issuing "aspirational laws" that do not provide sufficient legal force to support adequate conservation management (Harris 2008).

Many of these problems can be traced to bureaucratic arrangements for protected area funding and oversight. The lines of bureaucratic authority over protected areas are convoluted. Various ministerial agencies have authority over conservation, from the State Forestry Administration, whose subordinate agencies oversee most of China's nature reserves, to the Ministry of Environmental Protection, charged with protecting wildlife in line with China's commitments under the Convention on Biological Diversity, to the Ministry of Housing and Urban-Rural Development, which oversees scenic areas. Other agencies than the supervising agency often have jurisdictions within a given protected area. These agencies' mandates and interests around protected areas frequently diverge. Moreover, a multitude of protected areas are multiply designated, making administrators accountable to two or more agencies. For example, an area might be labeled both a nature reserve and a scenic area. At the same time, while ministerial agencies are responsible for supervising protected area administration, local governments at county or prefecture levels are responsible for staffing and operational funding. Local governments' decisions are crucial to the day-to-day management of protected areas. For local governments facing hard policy incentives to promote revenue expansion (O'Brien and Li 1999),

forgoing extractive economic opportunities within protected areas, while supporting staff and funding outlays for conservation, piles burden upon burden. As a result, at the level from which most protected area administrators are supposed to draw funding and political support, those resources are seldom forthcoming.

Finally, as elsewhere, contention roils over the role of residents in China's protected areas. Rural China, even its most marginal areas, is thick with human life. Just about any place a crop can be squeezed from the ground, you will find a settlement. Areas where crop cultivation is difficult are populated by people who have historically been nomadic herders. As a result establishing protected areas has almost always meant either gerrymandering zones around existing settlements or incorporating them, even in zones whose formal rules restrict human use. This reality has left a dual legacy. In many cases, onerous restrictions on subsistence and market activities incite dissatisfaction or conflict between residents and protected area administrators, sometimes erupting in sabotage (Herrold-Menzies 2006, Xu and Melick 2007, Yuan et al. 2008). In others, local governments have taken a relaxed approach to these formal restrictions, tolerating residents' use of protected lands, in some cases working with residents to manage resource use and support rural livelihoods (Albers and Grinspoon 1997, Mei et al. 2010, Weckerle et al. 2009). The extent to which resident-based efforts succeed in achieving conservation outcomes is difficult to gauge given the lack of systematic evidence on conservation outcomes, but such efforts at least foster conciliatory relationships between residents and protected area authorities (Herrold-Menzies 2006). Just as in broader conservation debates, exclusionist currents persist. For example, some Chinese scholars and officials still recommend resettlement of residents away from protected areas as an appropriate intervention (e.g. Xu et al. 2012).

Overall, the last two decades have brought a shift in China's protected areas from penal approaches to residents toward considering resident concerns in management decisions, a strategy that can defuse dissent and enhance resident cooperation with management. This is not to say that residents have substantial direct say in key decisions that affect them. They seldom do; residents are usually involved in ways that range, using Arnstein's (1969) typology of participation, between "informing" and "placation." Protected area administrators for the most part avoid actions likely to raise contentious opposition, and they often set up arenas through which residents' complaints can be voiced to protected area managers and redress or compromise can be negotiated. While protected area managers do not always proactively anticipate or respond to residents' concerns, pressure on local governments to minimize social unrest, especially in ethnic minority areas, has facilitated suppression in some cases but in others efforts to placate residents concerned about losing access to resources or opportunities.

Tourism has been front and center among efforts to incorporate residents. In the remote, mountainous areas where most protected areas lie, where other development paths are difficult to pursue, opening up the natural amenities of protected areas to tourism offered a boon for enhancing government revenues and rural livelihoods. Starting in the 1980s nature reserves, scenic areas, and forest parks across China welcomed ballooning numbers of visitors. Central and provincial governments supported tourism development with policy incentives and investments.

Amenity tourism has transformed these regions. Tourism towns in what had been some of China's poorest areas have become economic dynamos, propelled by state-led investment in tourism attractions and infrastructure. Hotels, shops, restaurants, bars, and theaters have sprung up in exploding urban areas. Counterintuitively, these transformations have not always

brought substantial improvements in poor people's lives. Benefits of tourism are unevenly distributed within regions, with localities close to attractions getting most of the gains (Zeng and Ryan 2012). Where tourism development has focused on small-scale village operations, it has had a much greater effect in alleviating poverty than where governments have targeted large-scale, high-volume attractions (Donaldson 2007, 2011).

By the late 1990s conservation advocates were regularly raising concerns that overcrowding, trampling, waste accumulation, and water pollution due to tourism were undermining conservation objectives (Harkness 1998, Han and Zhuge 2001). Authors of a study based on a 2008 survey of protected area administrators estimated that 75% of China's nature reserves hosted tourism operations, while another 23% were planning or initiating tourism activities (Liu et al. 2009). They cite problems that parallel the conservation management concerns listed above: poor legal and planning frameworks; conflicting jurisdictions among government agencies; lack of qualified personnel; inadequate inclusion of residents; poor design of tourism facilities; and inadequate reinvestment of tourism income into conservation. Of the nature reserves surveyed, only 24% were able to use income from tourism to finance conservation activities. Local government agencies in charge of tourism are often able to override reserve administrators (ibid.). Reports abound that authorities put more emphasis on building infrastructure to support tourism expansion than on conservation (Wang et al. 2011). Reliant upon tourism revenue and responsible for demonstrating economic growth, local governments often implement conservation mandates only insofar as they do not detract from tourism revenues (Wang and Buckley 2010). By fostering a state apparatus built around growing tourism, even as it turned protected areas into less of a burden, tourism expansion became a quandary for conservation advocates and protected area administrators.

At the same time, many other development efforts were picking up steam as well. Through the 1980s and the 1990s, the Chinese state favored eastern coastal areas in its economic policies under Deng Xiaoping's dictum, "Some areas, some people can get rich first, then bring along other areas, other people, to arrive gradually at common prosperity" (Deng 2006[1985]). Interior regions, rugged and distant from urban centers, faced barriers to industrial and agricultural expansion. Along with the coastal bias of economic policy, these conditions both hindered poverty reduction and sheltered biologically rich landscapes from economic expansion. In the 1990s, concerns about regional disparities mounted. At the same time, accumulating capital and state revenue made investing in infrastructure and resource extraction in remote areas more feasible. Gorges cut by surging rivers have summoned the world's most ambitious hydropower program. Untapped mineral lodes likewise beckoned for investment. In 1999 Deng's successor Jiang Zemin unleashed a collection of policies known as the "Great Opening of the West," intended to narrow the economic gap between eastern and western regions through investment support and natural resource development in interior provinces.[2] Roads, power lines, and telecommunications networks traversed the region.

At the same time, investments in natural resource management and rehabilitation, labeled "ecological construction" (*shengtai jianshe*) projects, proliferated. Authorities frame these projects in terms of providing market access in impoverished areas, exploiting resources in the public interest, rehabilitating degraded landscapes, and conserving vital natural resources—all ostensibly in ways that enhance production while limiting resource degradation. A series of

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[2] The program's official title, *xibu da kaifa*, is variously translated into English as "Open Up the West," "Go West!" "The Great Western Development," and more prosaically, "development of western China." For accounts of the policies and their impacts, see Holbig 2004, Yeung and Shen 2004, Yeh 2009, and Goldstein et al. 2010.

major forestry programs brought vast areas of land under tree plantations intended to diminish soil erosion, increase water retention, and avert wind erosion and desertification (Liu et al. 2008, Yin et al. 2010). Other projects have aimed to convert pastures to grasslands, transfer water from the Yangtze basin to parched watersheds in China's north. These projects have mobilized enormous funds and have dramatically altered rural landscapes and livelihoods. Their impacts have also been intensely debated, as poor people in upstream regions have been the primary subjects of intervention (Blaikie and Muldavin 2004), while attempts to settle pastoral populations have brought questionable social and environmental outcomes (Trac et al. 2007, Yeh 2009, Yu and Farrell 2013).

These ecological construction programs have brought dramatic changes in protected areas. The National Program for Wild Animal and Plant Protection and Nature Reserve Construction brought infusions of funds to many nature reserves. The Great Opening of the West also brought investment and policy support for tourism development. It also brought mining and hydropower expansion that raise threats to conservation targets within protected areas and beyond. A number of protected areas have been rezoned for road construction, to carve out areas with mineral deposits, and to facilitate dam construction. A recent decision to downsize the Upper Yangtze Rare and Endemic Fish Nature Reserve Yangtze Fish Reserve raised an uproar from domestic and international conservation advocates (Han 2011).

Arriving in Diqing Prefecture

Traversed by mountain ranges and situated between the tropical forests of southeast Asia and the temperate mountains and grasslands to the north, southwest China is home to a stunning variety of species, including many plants and animals that exist nowhere else. Conservationists, politicians, and promoters vaunt Yunnan Province in particular as China's pre-eminent center of

biological and cultural diversity (Yang et al. 2004, Ma et al. 2007). In northwestern Yunnan, the rivers Nu (also known as the Salween), Lancang (Mekong), and Jinsha (Yangtze) flow through valleys gouged between mountain ridges. A panoply of ecological communities proceeds upslope, from riverside scrub to forests to rhododendron thickets, alpine tundra, and glaciers. Experts affiliated with Conservation International identified the mountains of southwest China a "biodiversity hotspot," a place where a particular concentration of unique creatures faces threats from rapid economic expansion (Boufford and van Dijk 1999). WWF also identified the area as one of a "Global 200" ecoregions selected for rich biodiversity and representation of ecosystem types (Olson and Dinerstein 2002). The area's human populations are equally diverse, with a large number of groups who maintain distinctive livelihoods and identities. These attributes have made Yunnan a focal point for conservation advocates and tourism developers alike.

Yunnan was an early mover on tourism development, the first province to count tourism among its central development strategies (Donaldson 2011). The provincial government, with the central government's encouragement, mobilized resources to promote tourism development through the 1990s. In 2004, it issued a new set of policies urging accelerated privatization of state-owned tourism enterprises, tax breaks for tourism investment and technology, infrastructure construction, and a number of other provisions to foster market-led tourism development. Between 1998 and 2010, domestic arrivals rose from 27.9 million to 138 million, and foreign arrivals from 761 thousand to 3.3 million, with total tourism revenues growing from 13.7 billion to 100.7 billion *renminbi* (Yunnan Province Bureau of Statistics 2003, 2010)—astonishing rates of growth, even by recent Chinese standards. As in many other places in the world, tourism developers' strategies stress capitalizing on the market potential of scenic landscapes, wildlife, and picturesque cultures.

Yunnan was also the first province in China to open up to international conservation organizations on a large scale. WWF began working in Yunnan's nature reserves in the 1980s, and by the late 1990s, many other conservation organizations had opened offices in Yunnan. In 1998, TNC, based in the United States, established its China Program office there and began working with provincial and local agencies on conservation and development policy. Targeting the scenic and biologically rich northwestern part of the province, TNC and its local partners urged that a "national park," the first of its kind in China, be established there. Through well-managed tourism and professionalized conservation, this conservation model, which they argued would be new to China, would provide economic benefits for people in this impoverished region while preserving its natural and cultural resources.

The proposed park would center on Diqing Tibetan Autonomous Prefecture (see Figures 1a, 1b, 1c). Bordered to the northwest by the Tibetan Autonomous Region and to northeast by Sichuan province, Diqing Prefecture covers 23,870 square kilometers, a land area somewhat larger than the U.S. state of New Hampshire. Its three counties span a jumble of peaks and valleys studded with villages. To the east, settlements of Han, Naxi, and Bai farmers along the banks of the Jinsha and Yi and Tibetan villages lodged on mountainsides and dispersed across the plateau make up Shangri-la County. In the middle of the county, the ridges ease into the Zhongdian basin, where Jiantang Town, once a station along the packhorse trade route linking China, Tibet, and India, now a surging tourism hub, spreads out below Songzanlin Temple's golden spires. The valley around yellows each spring with oilseed flowers, and as the weather cools, black-necked cranes arrive to sojourn on the nearby Napahai wetland. To the west, over the Mountains of a Thousand Lakes and past the gorge of the Jinsha, Weixi and Deqin counties,

predominantly populated by Tibetan and Lisu people, traverse the Baima range, the canyon carved by the Lancang River, and the climb up to the crest of the Nu range.

Figure 1a. Location of Yunnan within the People's Republic of China.

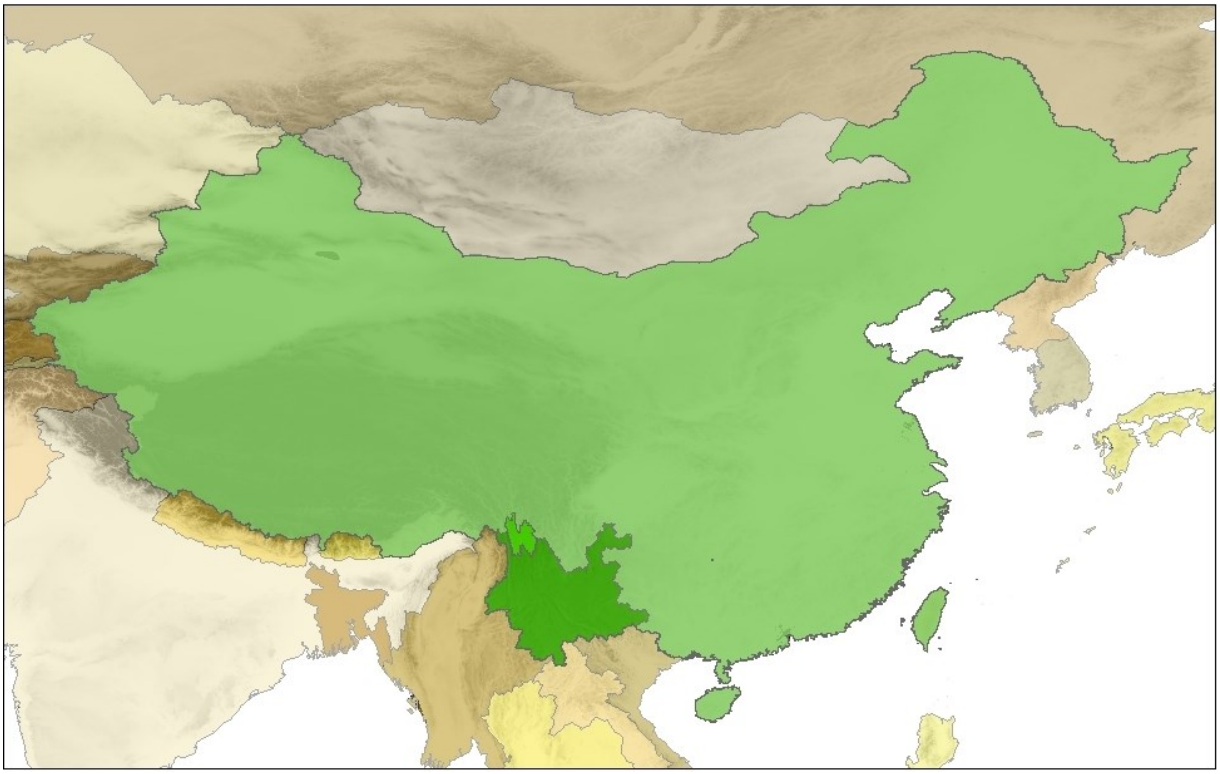


Figure 1b. Location of Diqing Prefecture within Yunnan Province.

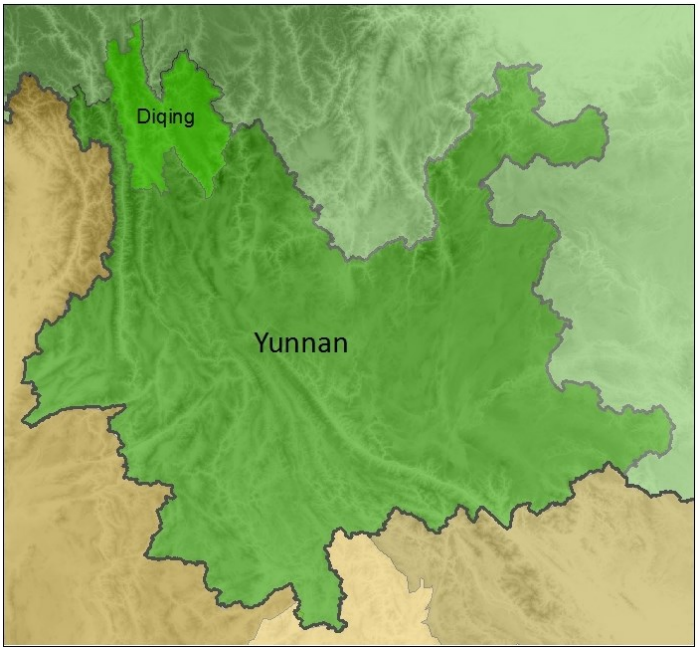
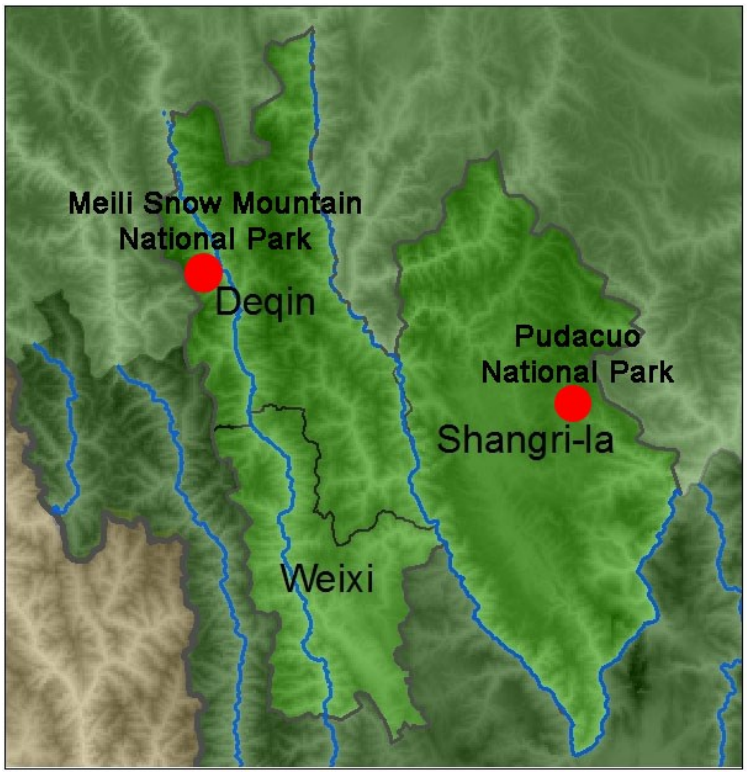


Figure 1c. Counties and National Parks of Diqing Prefecture



Through its history, this region has been a periphery between various cultural centers. Over the centuries it has fallen under the rule of Tibetan Tubo monarchs, the Nanzhao kingdom centered in Dali to the south, Naxi suzerains from the southeast, and a series of Chinese dynastic, republican, and communist regimes. The "Tea Horse Roads" linking Yunnan and Sichuan with Tibet and lands beyond brought goods, traders, and cultural exchanges through the region. Trade contracted with the Second World War and virtually disappeared with subsequent border closures after the Communist revolution in China. The revolution brought a decade of tumult as former landlords revolted and the consolidating state fought them off. (Many Tibetans I met spoke of how their parents fought on the side of the new government.)

In the late 1970s, Diqing began a career as a different kind of frontier. Logging teams traveled great distances from northeastern China's logged-out northeastern provinces to harvest the area's old-growth forests. Through the 1980s, state-run logging operations cleared swaths of forest, and a timber processing industry took root.

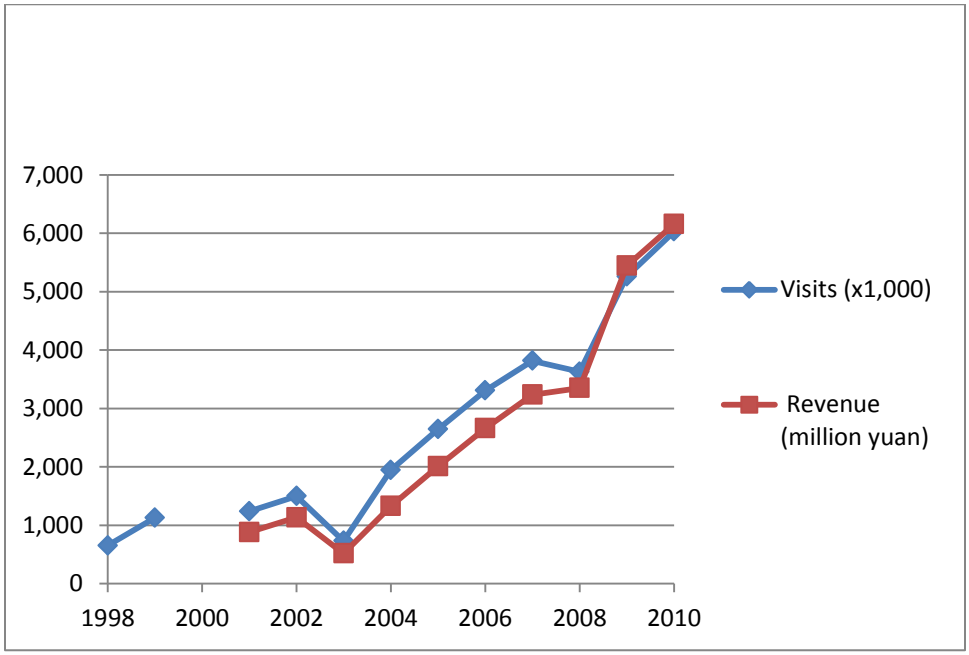
People doing research on conservation and development in northwest Yunnan have propagated a narrative about how Diqing abandoned forestry and became Shangri-la, the tourism paradise. It goes like this: through the 1980s and 1990s, impoverished Diqing became dependent on exploiting its forest resources to meet residents' needs. Then the nationwide ban on commercial timber harvesting that followed the 1998 Yangtze floods cut the development lifeline, and residents and authorities scrambled to find a new one. Tourism presented itself as a way to turn forests that would otherwise be razed into scenic amenities for the sustainable enjoyment of tourists. Shangri-la was born (Hillman 2003a, Xu and Wilkes 2004, Li Honggu 2007).

The actual course of events was more complicated. By the early 1990s, timber volumes began falling as accessible stands dwindled. The central government was already pushing to reduce logging in the Yangtze watershed. While forestry did provide most of local governments' revenues—they even coined a phrase, "log finance" (*mutou caizheng*), to describe the situation (Xu & Wilkes 2004, Diqing Prefecture Bureau of Finance n.d.)—it employed a small proportion of the prefecture's residents, and its contribution to the region's economy was dwarfed by farming and animal husbandry. In 1996, the domestic environmental group Friends of Nature exposed illegal logging in Baima Snow Mountain National Nature Reserve in Deqin County. When the issue raised national media attention, local officials moved to curtail major logging operations (Guo 2009). Logging had begun to diminish well before the ban.

Efforts at tourism development were already underway. County and prefecture leaders were pressing tourism development at least as early as 1994 (Ni 2001), the year the region was opened to tourism. In the 1980s, Tiger Leaping Gorge, a satellite to the growing tourism center in neighboring Lijiang, began attracting streams of backpackers. In the mid-1990s, Diqing took its place after Xishuangbanna, Dali, and Lijiang, already major tourism destinations, on the provincial government's list of priority areas for tourism investment. In 1997, the provincial government mobilized to make the case that Diqing was the location of the events described in James Hilton's novel *The Last Horizon*. These efforts bore fruit when, in 2001, a central decree announced the official renaming of Zhongdian County as Shangri-la (Hillman 2003a, Litzinger 2004). In 1999, the year the logging ban took effect, tourism had already taken off, as activities associated with the World Horticultural Exposition in Kunming, the capital of Yunnan, brought visitors to the prefecture's newy completed airport. In 2001, the number of tourist visit-days recorded in the prefecture surpassed one million.

From that point on, tourism soared. From the late 1990s to 2010, tourist visits and revenues grew at an average rate of over 20% each year (see Figure 2). In 2003, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) ordained a World Natural Heritage Site called the Three Parallel Rivers of Yunnan Protected Areas World Natural Heritage Site, most of whose components lie within Diqing Prefecture. Diqing and Yunnan authorities committed to preserve the scenery and biological diversity for which the site was designated. The notoriety this designation won interlocked with efforts to make Diqing a premier tourism spot. The prefecture's strategy is summed up in a policy statement setting as its goal "taking direction from the market, relying on Diqing's unique tourism resources, to develop an international tourism destination ... centered on Tibetan culture and the 'Shangri-la' brand" (Diqing Prefecture Government 2006:212).

Figure 2. Tourist Visits and Tourism Revenue in Diqing Prefecture, 1998-2010



Sources: Diqing Prefecture Tourism Bureau qtd. in Hillman 2003b, Diqing Prefecture Government 2006, Diqing Prefecture Bureau of Statistics 2004-2011.

That is still not the whole story. With less fanfare, mining operations have multiplied. A copper mine in Geza township of Shangri-la County (an area that had to be excised from the original territory of the Three Parallel Rivers World Heritage Site) and copper and iron mines in northern Deqin County, among others, are among the country's largest mining operations. In 2009, the contribution of mining to Diqing' economy was ¥130 million, about one-fourth that of tourism (Diqing Prefecture Bureau of Finance n.d.). Tourists share prefecture's roads with trucks bearing ore to smelting facilities. Meanwhile, in 2007 UNESCO issued a warning that if current trends of hydropower development continued, heritage site status could be revoked. Construction on planned dams on the Jinsha and Lancang rivers had yet to begin at the time of my fieldwork, but with recent central decisions to ramp up hydropower development (Jacobs 2013), they are likely to proceed soon. Meanwhile, some areas have seen rapid expansion of livestock husbandry as demand for meat skyrockets, raising concerns about rangeland degradation (Brandt et al. 2013). Tourism is an important part of Diqing's economy, but neither is it the only significant sector, nor has it fully offset extractive use of resources.

Diqing's quest for sustainable development has brought a complicated mix of results. The state has made commitments to strengthening environmental protection. The phase-out of logging and subsequent reforestation efforts have led to reports of dramatic improvements in forest cover. Yet aggregate gains mask declining quality as the area of old-growth forest continues to shrink (Brandt et al. 2012). While local incomes are still below national averages, they have increased dramatically in a prefecture all three of whose counties were listed as national poverty alleviation targets in the 1990s (State Ethnic Affairs Commission 2006). Market access and job prospects have grown as infrastructure construction and tourism have opened up opportunities. Yet these benefits are unevenly distributed. The rural poverty rate in Diqing remains around 35%

(Diqing Prefecture Poverty Alleviation and Development Office 2009). Expansion of tourism may be aggravating inequalities. Finally, conservation advocates and staff of the region's protected areas, while acknowledging that the prefecture government has given conservation increasing attention and resources, lament that bureaucratic contradictions and limited capacity inhibit effective park management.

The transformations that have accompanied tourism growth are bedazzling. The seat of Shangri-la County turned from a few streets lined with dull concrete structures attached to a dilapidated cluster of earthen houses into a honking, zooming conglomeration of hotels, restaurants, and shops spangled with stylized Tibetan décor, anchored around the cobbled square of Old Town where each evening visitors join women in pink headscarves in a rhythmic circle dance to amplified electronic music amid shops bearing knives, bells, stone and silver jewelry, yak jerky, stuffed yak dolls, yak skulls, Tibetan-themed pop music on CD in Mandarin, and a many other kinds of souvenirs.

When tourists, those who have joined the dance and those who have watched from under the wooden eaves, rise in the morning, many climb into package tour buses that take them on a half-hour drive to the east. The buses deposit them at the gateway to Pudacuo National Park. Passing through the grand hall of the stone-faced visitors' center, they board another bus, this one painted brilliant green. While they peer at the pines and the meadows, glimpsing great Tibetan houses as the bus rolls by, an announcer lists the virtues of China's first national park: *Shangri-la Pudacuo National Park combines state-of-the-art tourism facilities with high-level conservation management to ensure utmost protection of the park's forests, meadows, and alpine lakes, including Bita Lake, a wetland of international importance under the Ramsar Convention. At the same time, through preferential employment and*

eco-compensation it provides real benefits to villagers, preserving traditional culture while ending villagers' dependence on resource extraction.

Along with several other protected areas in Yunnan that have since assumed the label, Pudacuo is in part an outcome of TNC's efforts to promote a "national park" model for conservation. These efforts, at least initially, dovetailed with the local drive to grow tourism. Simultaneously, TNC conducted projects in rural communities promoting alternative energy and fuelwood use reduction, environmental education, and community-based ecotourism. The official opening of Pudacuo National Park in 2007 appeared to be the successful consummation of a decade of appeals to various local and provincial agencies, field surveys, international fact-finding visits, and policy consultations.

But the park turned out very different from the blueprints TNC helped draft. In contrast with plans for low-volume backcountry tourism activities, the bus tour serves thousands of tourists a day. Where proposals featured concession-based tourism operations, a state-owned company under the prefecture government's investment platform runs the attraction. Rather than directly providing tourism services as guides and hosts, community residents receive compensation for relinquishing such activities and the option of sanitation employment in the park. Participatory institutions giving residents a say in management decisions have been partially realized in a consultative arena for addressing residents' concerns. Where tourism revenues were expected to underwrite professionalized conservation, revenues have been channeled to infrastructure projects and other local government investments, and as a result only rudimentary conservation management protocols had been adopted. The park potentially conserves a notable concentration of biodiversity over most of its 300 square kilometers, but little is known about the state of ecosystems in most of this area. Meanwhile, the larger, biologically richer site to the

northwest that TNC and its partners in the provincial government originally proposed as the site of Yunnan's first national park still has not been designated for protection.

Two years later, prefecture officials announced the launch of Meili Snow Mountain National Park in Deqin County, surrounding Kawagebo, a sacred peak that attracts pilgrims from across the Tibetan Plateau. While the company set up to run the park ramped up entry fees, residents continued to run pre-existing community-based tourism services within the park. No bus route was set up; while officials expressed intentions to build a cable-car and other high-volume tourism infrastructure, concerns about how they might affect the area's status as part of the Three Parallel Rivers World Heritage Site appeared to be holding these projects at bay. However, many of the concerns about resident involvement and conservation management that have arisen at Pudacuo National Park have also emerged at Meili Snow Mountain, raising questions about just what underlies these issues.

Yunnan's national parks instantiate a broader trend as protected areas across China are transformed into high-volume tourism destinations. Their story raises a number of questions about efforts for environmental protection and rural development in southwest China. These questions come from two directions. One set concerns how institutions for conservation coupled with development get established: how transnational conservation advocates and domestic actors interact in efforts to remake protected areas. While TNC's vision of national parks showed a clear intent of realizing current international standards for conservation in China, working through China's political system to realize these aspirations brought TNC into engagement with a number of actors, some who broadly shared its vision and others who did not. The course these events provides material for examining how the roles and resources of foreign organizations working in China have changed in the past decade. It also opens up a view

to the ways different government agencies and other actors—scholars, tourism planners, domestic conservation advocates—interact on the changing terrain of conservation governance in China. The consolidation of protected area tourism operations in Yunnan reveals major political economic changes afoot in rural China that have complicated implications for rural development and conservation efforts.

It is important to note here that while I take TNC's changing proposals as a point of departure for discussing these parks, this dissertation is not a vehicle for affirming or disparaging TNC's actions. Studies of NGO activities have erred both in the direction of lionizing NGOs as virtuous agents of civil society and in the opposite direction, seeing them as unaccountable vehicles of imperialism or neoliberal globalization. In this and many other cases, aspects of both of these perspectives can be identified. As with other categories of actors, I treat TNC as one organization among many advocating policies and practices around conservation and development, its members promoting their own and their organization's interests and ambitions. My concern is to account for how TNC's efforts articulated with other forces shaping conservation and tourism development in southwest China.

Where national parks have been established, another set of questions arises concerning how these institutions "behave" in context. Undertaken with the professed aims of changing rural residents' livelihoods while reinvigorating traditions of stewardship, tourism and conservation in these parks have played a major part in ongoing rural transformations. How are efforts to change rural livelihoods transmitted through local institutions to protected area field staff and local residents? How do they experience and respond to these efforts? The different ways that residents take part in tourism at Pudacuo and Meili Snow Mountain National Parks, embodying respectively the increasingly predominant model of protected areas centered on high-volume

tourism operations run by state-affiliated firms and a legacy of community-based tourism operations, have had major impacts on livelihood strategies and community dynamics, but not always in ways we might expect. How these different tourism models play out has important ramifications for communities facing tourism transformations across China and beyond.

Diqing Prefecture is a good site for this research project for several reasons. First, it typifies the combination of paired tourism growth and conservation projects that is being used to promote "sustainable development" in peripheral areas of China. It also provides a long view of conservation organizations' efforts to influence conservation institutions, which have in the last decade spread across the entire country. Finally, the variation in tourism practices present in its national parks, with the nationally ascendant form of concentrated tourism firmly established in Pudacuo National Park, while residents still run tourism operations in Meili Snow Mountain National Park, allowed me to make a comparison with important ramifications as governments across China contemplate scaling up tourism operations.

A Methodological Preview

In this dissertation, I convey the history of Diqing's national parks as institutions tied up in social and socio-environmental relationships. This account revolves around two questions. First, how did Yunnan's NPs turn out the way they did? To answer this question, I examine how people in various government units, The Nature Conservancy, and tourism firms introduced, negotiated, and revised blueprints for national parks, aiming to understand what made the parks take the shapes they did and what this means for understanding general trends in tourism development in China's protected areas, interactions among units of the Chinese state, and the role of transnational conservation organizations. Second, given the forms these parks have taken,

how do residents perceive and respond to the institutions set up to manage their activities? To answer this question, I draw from qualitative observations and a household survey in several communities in both Pudacuo and Meili Snow Mountain National Parks. Because Pudacuo National Park has replaced resident-run tourism services, while Meili Snow Mountain National Park has incorporated community tourism operations, I can compare community impacts across these models—as well as among the different community models within Meili Snow Mountain National Park.

This study draws the critical and relational approach of political ecology into dialogue with sociological institutionalism through case studies and comparisons at several levels. At each stage I focus on understanding the impacts of institutional structures on both human welfare and conservation practices, in the context of social relationships of support and struggle that surround those institutions. Just as in the discussion above I stress the importance of connections and interactions across communities and government units, so in the comparisons I treat different units of analysis as "relational parts of a singular … phenomenon," taking an approach with analogues to what McMichael (1990, 2000) calls "incorporated comparison," though departing from his world-systemic framing. Together, the following chapters comprise a multi-sited ethnography (Marcus 1995), seeking to understand the meanings and consequences of efforts to link conservation and development through protected area tourism from a number different vantage points. Separately, each addresses a particular set of questions that the establishing and running of national parks raise.

The varied questions the empirical chapters address necessitate different methodological approaches. Still, all of them are rooted in the interpretation of intensive interviews and participant observations. Over the course of three months in the summer of 2008, one month in

the summer of 2009, ten months in 2010, and three months in the summer of 2011, I conducted a total of 174 interviews. I conducted unstructured or semi-structured interviews with local and provincial government personnel, protected area administrative and field staff, staff members of conservation organizations, tourism operators, residents of rural communities, conservation scholars, and tourism planners. Interviews were tailored to the situation of the interviewee.[3] Most interviews were conducted in Mandarin, except for a small number of cases in which a respondent asked to be interviewed in English. I also had the opportunity to record observations in a variety of situations, from meetings concerning conservation projects or tourism planning to taking part in the potato harvest in Lawzong village and helping run a shop at the trailhead in Meili Snow Mountain National Park. These interviews and observations give insights into how people in different situations relative to the national parks have taken part in the parks' establishment and operations, as well as how they interact with and talk about one another. Each chapter incorporates these observations in different ways. Within each empirical chapter I provide a more detailed discussion of the methodological tools applied in that segment of the analysis.

In exploring how different actors' visions got incorporated into national parks, I examine how the changing structure of the Chinese state and its changing relationships with other actors affects its engagement with efforts to promote rural development and biodiversity conservation. In examining parks' impacts, I ask how particular state bodies exercise mandates for conservation and tourism development, and how these efforts articulate with the lives of rural

[3] The 144 total interviewees, some of whom were interviewed multiple times, included 5 province-level officials, 37 officials in prefecture governments or below (of which, 17 protected area administrators and 8 protected area field staff), 41 rural residents, 20 staff members of international NGOs, 8 staff members at domestic NGOs, and 23 academics. The numbers do not add up exactly because some fell into more than one of these categories, as, for example, with rural community residents who also worked as field staff for a protected area.

residents. The role of the environmental state provides a useful conceptual starting point for working through these processes. In Chapter 2, I address theories of the environmental state coming from environmental sociology and geography. I find a disaggregated, contextualized approach to the environmental state of use in identifying conditions under which state organs constrain economic activity in the name of environmental protection. Two conceptual apparatuses are of particular use in accounting for patterns of protected area governance in China: pluralizing fragmented authoritarianism and meso state corporatism. Under pluralizing fragmented authoritarianism, the distribution of resources and authority among administrative agencies and regional governments shapes opportunities for extra-state actors to promote new policies. These conditions create openings for organizations like TNC to influence policy, but these policy entrepreneurs' success depends on mobilizing as allies state bodies that have leverage on the policy target. In the case of protected areas, this task is increasingly shaped by the consolidation of authority over protected areas, and particularly tourism enterprise therein, within prefecture and county governments. Within a pattern I call meso state corporatism, these governments manage key sectors of local economy through state-affiliated firms, converting key links in those sectors into points of revenue generation and industrial regulation. Because its organizational center is organized formally as a firm and located at a higher administrative level than under what Oi (1999) called "local state corporatism," the ties through which local state corporatist enterprises were held accountable to residents' preferences are weak or absent. Efforts to raise the profile of conservation and promote the involvement of rural residents must engage with local states' motivations to scale up and standardize tourism operations.

The next two chapters put Yunnan's national parks in historical and comparative context. Yunnan's national parks came to be out of a convergence of organizations whose members brought different blueprints for conservation and tourism in northwest Yunnan's landscapes. These blueprints underpinned different prescriptions for what should be done on these landscapes and signified organizational interests in different ways of organizing people's use of them. The idea of "national parks" worked like a boundary object (Star and Griesemer 1989): a thing whose broad attributes gave a variety of people in different social locations points to grasp onto it and work together around it, even as they saw different things in it and sought different outcomes. In Chapter 3, I recount this process, starting with TNC's entry into Yunnan, tracing its engagement with different state agencies, and showing how local governments capitalized on national park efforts, while provincial agencies vied for authority to regulate these protected areas, and TNC was increasingly sidelined. The initial years of Diqing's national parks show the increasing concentration of power over protected areas within local governments, whose focus on increasing revenue and narrow view of resident participation constrain social and environmental commitments. It also shows a relative loss of influence for a transnational organization due not so much to effacement of politics as to hitting obstacles when its offerings no longer served the plans of particular state authorities. This chapter probes the coherence of the state as different units tied to different external groups vie to set the direction of national parks. It foregrounds the other chapters by detailing the emergence of different tourism models at Pudacuo National Park and Meili Snow Mountain National Park.

In Chapter 4, building on the experience of Diqing's national parks, I make a broader comparison to show how their practices of tourism development and conservation management relate to those of other protected areas. A qualitative comparative analysis of patterns of tourism

development and conservation management in nine protected areas across southwest China shows that revenues from tourism operations have little effect on the quality of conservation management practices. Where tourism attractions are upgraded, managers invest in the maintenance of surface features that are central to tourism attractions but seldom invest revenues in efforts to monitor and respond to the status of biodiversity conservation targets. Where park administrators do undertake active conservation management practices, it follows from resources associated with central and provincial policy focuses on charismatic species like the giant panda.

Chapter 5 introduces the sites and methodological framework for my studies of communities within Pudacuo and Meili Snow Mountain National Parks. It presents the communities and the context of the participant observations, interviews, and household survey. The bulk of this chapter is devoted to explaining the comparative frameworks orienting the succeeding chapters. Variation in tourism participation crisscrosses with variation in agroecological conditions that condition livelihood practices. At the same time, social and economic interconnections among communities limit the utility of an approach to comparison that relies on independence of observations and controlled variation. I address these concerns through a dialogue between quantitative data from a household survey and qualitative data from participant observation and interviews conducted earlier, comparing at household and community levels of analysis and linking communities with tourism operations to communities with similar agroecological conditions but without tourism operations.

As local states consolidate the management of tourism in these two parks, tensions arise as new rules and directives run athwart the expectations of rural residents. In Chapter 6 I draw on interviews with residents and park administrators and field staff to account for the kinds of

conflicts that have emerged in Pudacuo National Park and Meili Snow Mountain National Park. While I had expected sharp differences based on contrasting community-centered and centralized tourism formats, the contrasts turned out to be superficial. Conflicts concern different issues, following from different practical challenges in the two parks—in particular, garbage management and infrastructure in Meili Snow Mountain, and compensation levels at Pudacuo. But residents voice concerns in similar terms, in both parks expressing these issues in terms of failures of the state to come through on what they perceive as its responsibilities or to provide what residents see as rightful benefits from tourism operations on lands they occupy. Despite the fact that residents by default conduct forest conservation on collective lands within the parks through community institutions, their statements are less in line with the pro-environmental attitudes expected in an "environmentality" framework than with a perspective based on situated moral economies.

In Chapter 7, I explore how taking part in national park tourism has affected livelihoods and community interactions in four communities at Meili Snow Mountain National park and one in Pudacuo National Park. Officially, national parks are supposed to draw rural residents away from resource-based activities, making them less "resource-dependent." Theoretically, participation in tourism could either substitutive for other activities, with households reducing resource-based activities as they shift to tourism, or complement them, with other activities continuing alongside tourism. Beyond simple substitution or complementarity, how residents take part in tourism, in terms of activity types or organization, may influence activity choices. Drawing from qualitative observations and a household survey, I compare livelihood activity patterns in communities with different tourism institutions, including two without direct involvement in tourism. I measured effort toward and income from agriculture, livestock

husbandry, non-timber forest product collection, tourism, and other off-farm activities. Regression models, bivariate comparisons, and interview data show that the specific content of tourism activities and how they are organized help to explain differences in resource use, income levels, and income inequality. I also explore patterns of cooperation in these communities. These results highlight the importance of considering social and agroecological context when promoting alternative activities. Some tourism activities have greater impacts on resource use activities than others. Moreover, not all community-based tourism is equal. Whether tourism institutions are designed to equalize participation or to promote household entrepreneurialism appears to matter more than whether tourism activities are community-based.

By accounting for different facets of the making and implementation of Diqing's national parks, these chapters illustrate the ongoing adjustment of state approaches to conservation and tourism in Yunnan over the past decade as well as the reconfiguration of different state bodies' relationships with extra-state actors. International organizations have increasingly adjusted their approaches to maintain footholds in China as the resources they provide diminish in value to domestic collaborators. Intensified tourism brings mixed results for conservation. Meanwhile, centralized tourism operations consolidate the political and economic power of local states while bringing substantial economic benefits but increasing practical constraints to rural residents and affecting regional economies in complicated ways.

Chapter 2: The Environmental State, Tourism, and Conservation in China

It would seem that a book about national parks should provide an account of policy-making and enforcement at the nation-state level. That would make my task easier, for there is an extensive literature on national-level policymaking in China and central-local tensions in enforcement, including around environmental issues. But unlike national parks in most other countries, the national parks of Yunnan did not originate in an act of China's central government. An international organization based in the United States promoted the concept, and local and provincial governments demarcated and organized the parks. Central agencies have been involved at a remove, working out tensions over protected area jurisdiction through locally implemented projects. While the provincial government and Forestry Department affirmed the enterprise, leading to national park pilots in several locations across Yunnan, prefecture authorities defined the shape of tourism and conservation in these parks, increasingly in ways that raised concern among conservation advocates and tourism attraction planners who took part in promoting national park establishment.

Yunnan's national parks have drawn state organs into relationships with a variety of constituencies and projects, giving birth to parks that achieve a kind of tourism and a kind of tourism development that do not quite match any of these constituencies' visions. Conservation advocates push for the incorporation of global standards of conservation into domestic institutions. Central and provincial environmental agencies pursue mandates to conserve national resources and establish a world-class protected area system, in a context of overlap and competition. Local and regional governments in China's rugged, biologically diverse, and economically peripheral southwest face obligations to exploit resources through mining and hydropower development as well as tourism expansion, mandates to improve rural livelihoods

through community development, and missions to do all of these sustainably while preserving or enhancing forests, biodiversity, and water resources. Residents assert their stakes in the face of changing rules and shifting economic opportunities within landscapes thick with cultural meanings that are transforming with the expansion of tourism and conservation.

I aim to account for how changing relationships among these actors gave Diqing's national parks the forms they assumed as well as how these institutions for tourism and conservation have shaped conservation management, rural livelihoods, and interactions between residents and park authorities. To do so, I must untangle how varied state organs mobilize resources and link with different constituencies to promote goals for conservation and tourism; trace how the practices of tourism and conservation management embodied in national parks affect landscapes and communities; and identify the links between tourism practices and residents' livelihood strategies.

What kind of theoretical framework can encompass these relationships among disparate actors across scales and issue arenas? To be frank, I doubt that a single conceptual apparatus can accommodate all the scales and qualities of interaction involved. Or, if I might devise such an apparatus, it would necessarily be so diffuse as to tell very little about the specific patterns that have arisen. Since the questions raised by different aspects of these processes put me in dialogue with different literatures, each empirical chapter that follows has an introduction that situates it in an applicable body of theory. However, a theoretical account of environmental state behavior in China will help to draw these accounts together into a single picture, while occasioning middle-range theorizing that might further understandings of the environmental state. Theory of the environmental state is underdeveloped, particularly with regard to how the ways different segments of the state relate to environmental issues and concerned constituencies affect the

making and implementation of environmental policy. Theories of the environmental state also poorly specify how states confront trade-offs and synergies between development and environmental protection as well as how these considerations vary across different economic activities and environmental issues. Efforts at protected area tourism and conservation in the context of expanding extractive development promise to shed light on the ways state organs handle pressures that are in tension with one another and how these efforts affect the institutions they set up.

In the following pages, I outline several theories of the environmental state and some problems they face in accounting for empirical phenomena. In particular, I focus on tensions between development and environmental protection as sources of legitimacy and the importance of disaggregating both the state and "society" to understand the bureaucratic element of struggles over environmental protection and economic development. The dispersion of accountabilities among state organs with different organizational interests creates space for action on environmental concerns of varied kinds even as agencies and extra-state groups with contrary interests constrain such action.

Next, I situate these concerns in China's political economy. While the issues I have raised are not unique to China, the changing structure of the Chinese state and its changing relationships with extra-state actors have important influences on how they play out. First, what following Mertha (2009) I call pluralizing fragmented authoritarianism provides spaces for extra-state actors to influence policy, but these influences are conditioned by the context of bureaucratic contention within the state, across issue areas and levels of administration. Second, aspects of tourism economies and authority over protected areas in the context of resurgent state involvement in economic operations have made prefecture, and to a lesser extent county,

governments a particularly powerful node with respect to protected areas. These governments have used finance platforms and state-affiliated companies to upgrade tourism attractions and channel revenues therefrom. I discuss how this phenomenon, which I label meso state corporatism, has enabled prefecture or county governments to dominate key aspects of protected area management, creating high-volume tourism attractions with an emphasis on superficial forms of conservation management while government relationships with protected area residents have shifted from community promotion to community management.

Disaggregating the Environmental State

I use the term "environmental state" to refer to those agencies and activities through which state organs actively take environmental concerns as a domain of policy making and enforcement. In this sense, the environmental state is nothing new. Managing resource flows, waste disposal, and health impacts of human activity have always been parts of statecraft. The ways these things have been conceptualized and addressed in policy have changed over time, though. It is only within the past century that on a large scale states have intensified resource management and economic regulation in ways that constrain rather than intensify extraction, emissions, and landscape transformations in dominant economic sectors. In the latter half of this time frame states have adopted discourses of "environmental protection," in contrast to earlier conceptions of dominion, reclamation, conservation, and so on, and have constructed bureaucracies committed to environmental protection. At the same time, pre-existing agencies charged with regulating resource extraction, agricultural and industrial production, and other activities have increasingly taken environmental protection as part of their mandates. The portion of the state apparatus charged with some form of environmental protection has expanded dramatically.

Environmental States, Developmental States

Observing these patterns, theorists of ecological modernization and world society or world polity argue that environmental protection is increasingly becoming an independent pillar of state legitimacy, with the result that more and more nation-states have institutionalized environmental protection. World society researchers claim that the growing prevalence of environmental bureaucracies and institutions like national parks worldwide follows from the diffusion of a culture of state legitimacy that defines environmental protection as a defining responsibility of nation-states, within a framework of international agreements and organizations (Frank et al. 2000). Ecological modernization theorists go beyond institutional forms, claiming that the social and economic consequences of environmental harms and risks force states to reckon with the impacts of modernization, with the outcome that states adopt a reflexively modernizing rationality (Beck et al. 1994) that demands the internalization of hitherto externalized costs of production (Spaargaren and Mol 1992). Environmental reform emerges with a "new politics" of collaboration between industry and state actors built around shared goals of internalizing environmental costs. Different variants of ecological modernization theory restrict their focus to changing processes of state regulation and firm production or link these processes to pluralization and democratization of political processes (Christoff 1996). Ecological modernization theorists share with world society theorists the assertion that spreading "institutionalization of ecological interests" has had meaningful impacts on environments and is likely to continue in the future due to broad forces shaping nation-states (Mol 2006).

But the existence of institutions for environmental protection does not guarantee that these institutions have their intended effects on environmental situations (Buttel 2000b). For example,

China's proliferation of protected areas, elaboration of bureaucratic agencies charged with biodiversity conservation, and accession to international conservation treaties signal the institutionalization of conservation. Yet extinctions of state-designated protected species like the Yangtze River Dolphin, the uncovering of major poaching operations, and complaints of inadequate logistical support for protected area managers stand in tension with claims of effective conservation. The decoupling of organizational forms from institutional outputs is highly consequential, not just as it reveals ritualism in organizations (Meyer and Rowan 1978), but because it represents a failure to people concerned with material impacts of organizational behavior (Stinchcombe 1997). Conservation advocates are interested not just in whether nation-states establish national parks and associated organizational machinery, but to what extent the design of national parks and implementation of their rules help biotic communities flourish.

Theorists of the treadmill of production argue that just such decoupling is fundamental to the environmental state, at least under capitalism. Treadmill theorists argue that the state faces imperatives to foster accumulation by assisting firms in enhancing profits and to achieve legitimation by bringing material improvements to the lives of citizens. Reliant on tax revenues to operate and on the growth in wages and employment to satisfy the populace, states tend to make and implement policies that favor growth. Environmental problems pose additional legitimation issues, but responding with regulation threatens growth, so states tend to do so only when legitimation threats are extremely severe or key business elites accede (Gould et al. 2004, 2008). Treadmill of production scholarship highlights how environmental reforms tend to be piecemeal and toothless, shift environmental harms geographically and socially rather than eliminate them, or replace one type of environmental harm with another.

Environmental concerns do raise all sorts of problems for states. When people raise environmental concerns, they raise questions of legitimacy, suggesting the state is not living up to its duties. Citizen groups call on states to mitigate health hazards, citing the state's responsibility to ensure not just opportunities to obtain food and shelter but protection from harm. Property owners assert that contamination or disamenity violates property rights the state is bound to uphold. Organizations representing conservation advocates claim that if the state does not preserve rich landscapes it is remiss in its duty to maintain national heritage or ecosystem services that underpin other activities. Ecological modernization theorists and world society theorists aptly recognize that regulating activities that use or degrade environments is a key element of state legitimacy. If officials fail to give the impression that they are acting on such concerns, they may risk unrest or revolt or, in liberal democracies with attentive publics at least, getting voted out of office.

But acting on these claims raises conundrums. Regulating pollution can be costly, either to firms that generate emissions or to a state that finances clean-up and levies taxes to cover costs. Either approach might impact capital accumulation. Treadmill of production theorists do give legitimacy threats based in public concerns about environmental issues a place in politics but claim that states are less likely to proactively respond to the substance of these concerns than to manage legitimacy concerns in the interests of capital. They argue that even if environmental regulation does not bring about a fiscal crisis by strangling accumulation, political opposition from capitalists will hamstring effective regulation, limiting it to superficial fixes necessary to stanch unrest. Ecological modernization theorists claim these conflicts are not as stark as they seem. As states adopt more collaborative approaches to dealing with environmental problems

and rework incentives to make environmentally harmful activities costly, clean production can become profitable, and political obstacles environmental problems can be overcome.

It is increasingly clear that both of these sets of claims are partially true. Threats of environmental regulation bring resistance from some fronts and fruitful collaboration on others.

As a result, neither of these currents of scholarship satisfactorily accounts for patterns in the making or the effects of environmental policy, which vary across nation-states, within nation-states across environmental issues, and over time (Fisher and Freudenburg 2004, Jorgenson and Clark 2012). Recent scholarship has focused increasingly on identifying the conditions under which states regulate economic activity in the name of environmental protection. Such research focuses on the complicated tensions involved in reconciling economic imperatives with environmental grounds of legitimacy (among other legitimacy concerns). Trade-offs as well as synergies have been identified, rather than the stark contradictions of the treadmill of production or the rosy synthesis of ecological modernization, contingent on political-economic context and the environmental issue in question.

Some of these efforts to theorize the conditions for environmental action by states respond to Buttel's (1998, 2000a) suggestion of building on Evans' (1995, 1996) conception of embedded autonomy, which outlines conditions under which states are likely to be effective in mobilizing other actors toward goals. Evans (1995) argues that state-driven industrial growth transformations depend on the presence of a competent, rationalized bureaucracy on one side and salutary, institutionalized relationships with entrepreneurs on the other. An autonomous state—run by a competent bureaucracy bound by rule of law and able to resist appeals by partial social interests—can focus its efforts on developmental goals and facilitate

administrative tasks to support those goals, rather than act as an extractive tool of a predatory elite. But if a state is too autonomous, it will lack the connections to entrepreneurial classes necessary for mobilizing investment and innovation. So an effective developmental state must be embedded, with social ties that allow it to work responsively with business groups, as well as autonomous enough to steer those groups toward state objectives.[1] If embeddedness and autonomy make possible state "effectiveness" in corralling business interests through industrial policy, they may also be necessary, if not sufficient, for effective environmental regulation (Buttel 1998, Rudel 2013). This proposition has clear connections to ecological modernization theory's claims about the importance of collaborative links between the state and business (Buttel 2000a).

It is clear that the conditions that underpin developmental states are not sufficient for effective environmental protection. The industrial transformations developmental states facilitate cause enormous environmental damage, even as governments in countries like Japan and Taiwan have also implemented pollution regulations and established protected area systems. Meanwhile, growing production and consumption in these countries contribute to resource depletion, anthropogenic climate change, and other global environmental problems. Clearly further elaboration is needed to evaluate the utility of concepts of embeddedness and autonomy for understanding environmental state behavior.

The embedded autonomy framework, like treadmill of production and ecological modernization theories, leaves out several important factors that affect state action in general and

[1] Alliances and contestations among social groups shape how these transformations take place. Evans gives thick accounts of the ways historical legacies shaped the experiences of Korea, India, and Brazil, but the take-away is that states aren't always bad, and in fact recent evidence suggests that states that successfully implement industrial policy produce most economic miracles.

environmental policy in particular. Recent research specifying conditions under which states enhance environmental regulation highlights the fragmentation of business interests and the roles of social movements and civil society groups. First, the abstraction of "business interests" poorly reflects the complicated terrain of state-corporate relationships. While Evans refers even more abstractly to ties between the state and "society," the actual social connections described are between agencies charged with implementing industrial policy and firms and business associations in targeted industrial sectors. Firms in different industries face deep conflicts of interests, and unity across capital is a highly contingent phenomenon (Mizruchi and Bey 2005). Regulatory action in particular often divides firms, for reasons that issues of environmental regulation make especially clear. Neither do the costs of environmental regulation fall on in a uniform way on capital, drawing consistent resistance, as treadmill accounts suggest; nor does the environmental state engage undifferentiated "industry" in efforts to internalize costs and restructure production. As Buttel (1998) argues, different economic sectors are differently implicated in different kinds of environmental damage, and different segments of capital have different interests concerning environmental reform. In any given case, some firms may stand to gain from regulation. In the case of greenhouse gas controls, manufacturers of efficiency-enhancing equipment and alternative energy technologies find big benefits. Other firms stand to lose as their current production practices are regulated, as with coal producers and owners of aging coal-fired plants. It matters which sets of firms are able to use ties with the state to call for favorable policies.

In addition, how political institutions facilitate, hinder, or defuse the incorporation of environmental movements into policy processes over time plays an important role in patterns of making and enforcing environmental policy. In countries where states actively include extra-

state interests in policy-making, and at times when broader social unrest pressures states to open up to environmental concerns, environmental advocates can find openings to get their preferences incorporated into policy and administration (Dryzek et al. 2004). Shwom's (2011) work on energy efficiency highlights how social movements and party politics interact with state-business relationships. States may be more likely to strengthen environmental regulation when key state bodies are controlled by parties or individuals who are open to pressure from environmentalist groups, when the state has a record of applying regulatory pressure, and when business interests are divided among themselves (Shwom 2011). Theories of developmental states give little space to social movements; after all, developmental states are generally authoritarian regimes that resist social movement pressures (Kohli 1999). The same is largely true of civil society groups in general. Despite Evans' (1996) effort to extend his conception of state embeddedness to include connections to local civil society groups, even in these cases it appears to be connections to local political and economic elites that predominate; as Buttel notes, "Evans's notion of state-society synergy is actually fairly similar to what Logan and Molotch [2007] term the *urban growth machine*, which … has many adverse implications … for the quality of life and environment" (1998: 273).

These observations about ties with business and social movements raise important questions about what interests states represent when they implement environmental policy. All of the authors cited above have in mind a general interest in a clean and livable world, that might be articulated through idealized democratic institutions and which is more or less in tension with the interests of firms. Accounts of the actual propensities of the state vary along a spectrum from Marxian claims that the state is structurally compelled to serve the demands of capital through "relatively autonomous" views of a state that can challenge capital in certain circumstances to a

neo-Weberian picture of a state that acts with a high degree of autonomy from capital. Treadmill of production accounts present the state as beholden to power elites that compel growth-assisting policy and resist meaningful environmental regulation (Gould et al. 2008). Buttel (1998), following Block (1988), faults treadmill of production theorists for not giving adequate attention to the ways states serve to "rationalize (albeit often only partially) the chaotic character of private accumulation" (269). In the immediate sense Buttel refers to, such "rationalization" merely concerns solving collective action problems by regulating economic behavior, thereby holding off crises unabated competition would otherwise lead to, thus preserving state revenues. He suggests, though, that beyond rationalizing capitalism, states may exercise roles of embedding economic activities in the Polanyian sense of subjecting economic exchange to social interests to which the neoliberal commodification of everything is inimical (Polanyi 2001). In neo-Weberian theory, states are presumed to have some degree of autonomy from economic elites, and this autonomy is closely related to the role of the state in regulating social and economic activity. Evans takes a neo-Weberian approach, arguing that the extent to which states are embedded and autonomous determines what social interests they serve. States that lack autonomy become predatory. States that have too much autonomy become insular and ineffective, preoccupied with bureaucratic self-renewal. States that balance embeddedness and autonomy are able to train economic actors toward general goals of developmental transformation, advancing those actors' interests in the process. The extent to which states are responsive to broader social interests may have to do not only with political institutions of democratic accountability but with the extent of embedded autonomy and state-society synergy: alternative institutions also make states responsive to other actors' concerns.

These pictures of states contrast with critical views of the state that emerge in political ecology scholarship. Scholarship in political ecology and related fields has made clear that rationalization facilitated by states tends to work in the favor of particular social interests (Tania Murray Li 2007, Peluso 1992), though which interests these are varies. Scott's (1998) depiction of the "administrative ordering of nature and society" and Foucauldian perspectives on governmentality and anti-politics show a less sanguine picture of state autonomy. Scott (1998) argues that imperatives inherent in the consolidation of rule propel states to attempt to make landscapes and human activities "legible" through "state simplifications," practices of mapping and organization of activities that subject people and landscapes to control and calculation. Where authoritarian state projects weak civil society, states undertake "high modernist" projects that collapse in the face of irreducible social and ecological complexity. But even in the absence of such mega-projects, state conduct revolves around ordering landscapes and their use. These efforts at "rationalization" can have repressive consequences irrespective of the role of capital. Foucauldian perspectives take a less unitary (but often vague) view of the state, focusing how states accomplish "the conduct of conduct" through techniques of government that guide subjects into forms of conduct consistent with state imperatives. Inadvertently, as a result of the imperatives that drive states and other development organizations, in executing Tania Murray Li calls "the will to improve," projects of sustainable development may do more to extend state machinery and subjugate populations and landscapes than to achieve stated goals of development and environmental protection (2007; see also Ferguson 1994).

Because of their diffuseness, Foucauldian approaches are not very helpful in accounting for variation in state behavior around environments, but along with Scott's work on administrative ordering, they highlight state interests that are distinct from those of capital and those of civil

society, as well as mechanisms through which states actualize those interests. In contrast with assertions that neo-Weberian states or embedding states tend to apply bureaucratic machinery in the service of broader social goals, these accounts draw attention to ways state coherence and rationalization may serve repressive purposes and environmental regulation may not always serve broad social interests.

All of the approaches I have discussed so far share to a greater or lesser extent a tendency that sharply limits what they can explain in terms of either development or environmental protection: the tendency to agglomerate "the state" conceptually. Yet a glance at how a given environmental or developmental issue plays out makes clear that actions and interactions of subnational state units are extraordinarily important for understanding these processes. Take just a few facets of efforts at biodiversity conservation. It is one thing for a central or federal government to sign the convention on biological diversity, another to pass laws concerning protected area management, another to provide funding support for these protected areas, another to clarify legal ambiguities or adjudicate disputes in ways that enhance protected areas' conservation and community mandates. How state or provincial governments are involved in these processes depends on the structure of federalism in a nation-state. Bureaucratic agencies with different mandates, core policy beliefs, and resources act as nodes of coalitions with civil society groups, competing over conservation policies. The history of conservation in the United States illustrates how the complexity of the environmental state affects policy and implementation, with the Bureau of Land Management and the National Park Service sparring over successive projects, each linked to specific constituencies; state officials extracting promises to limit national park expansion; and local citizen groups mobilizing for and against park expansion (Machlis and Field 2000, Nicholson-Crotty 2005, Sellars 2009). Since "sustainability issues involve decision making fora

and levels of analysis that extend to the most decentralized locations or levels of the subnational or local state" (Buttel 1998: 267), an adequate explanation of anything other than the grossest manifestations of environmental policy must attend to the attributes, interests, and behaviors of governments at different subnational levels.

Yet while relevant scholarship frequently asserts the state's complex, conflicted nature and the importance of subnational state organs, little theorizing is done about how these work and relate to one another and to extra-state actors. There are understandable reasons for this. Historically the term "the state" has referred to the sovereign nation-state (Poggi). Nation-states are the fundamental unit of sovereign government and basic unit of world political affairs, while laws and policy orientations at the nation-state level set the parameters for what happens at lower levels of administration. Yet in a world of states that are variously federated, divided into provinces and counties, and internally clustered around metropolitan areas, all of which organize administration and make and implement policies on their own while also influencing national state policies in response, intra-state dynamics need theoretical treatment.

Environmental sociology research continues to focus on nation-state unit of analysis and thus policymaking and enforcement at the national state level (e.g. Jorgenson and Clark 2012, Shwom 2011), alongside a growing contingent of studies relating nation-states to world systems or other conceptions of globalization (Bonds and Downey 2012, Roberts and Parks 2007), and has not generated a strong body of theory concerning the internal dynamics of states. On the other hand, a growing body of scholarship in geography and other fields examines state-environment interactions microscopically, yielding studies that illuminate differentiated state behavior within particular situations and issues but provide little leverage in understanding how disaggregated units act in relation to one another and to other social actors. Political ecological

scholarship based in actor-network theory, emphasizing heterogeneity in human-biophysical networks in and taking important step of refusing to assume hierarchies *a priori* (Whitehead et al. 2007), can uncover connections that would otherwise have been missed but can also hinder recognition of the important role of organizations, including state agencies within bureaucratic hierarchies, in patterning human-environmental phenomena.

Rudel (2013) makes an ambitious effort to overcome this disjuncture. Contextualizing ecological modernization, treadmill, and developmental state processes through a historical sociological lens, Rudel argues that the administrative level at which states address environmental issues corresponds to the scope over which environmentally oriented social movements effectively apply pressure in response to focusing events, episodes of environmental disruption that sensitize publics to an environmental issue. A state's ability to act on these issues is linked to state capacity conceptualized in terms of embedded autonomy: the coherence of state administration, which gives it the ability to effectively institute policy, and ties to social movements and firms through which state agencies might effectively lure these groups into coalition behind environmental reform. The nature and timing of action would follow from patterns of public concern and media exposure, which in turn relate to historical priming and current political economic situations. Environmental problems occur on different scales, and states address them at different levels of administration. Sometimes these scales and administrative levels roughly correspond; sometimes they do not. This account adds nuance to the theories outlined above, but still gives limited insight into the particulars of how internal complications within state bureaucracies affect these processes.

We can better understand these tensions and how they play out if we take a disaggregated view of the state, attentive not just to bureaucratic hierarchy but to the organizational interests and

resources different state units act upon as well as their variegated connections to other social groups. This means specifying the policy interests of different agencies, the policy and fiscal resources available to them, their authority relationships with one another, their respective connections to variegated business and civil society interests, and how all of these change in response to changing political and economic contexts. I take this move toward organizational and institutional politics not to escape into depoliticized pluralism but in order to get a clearer picture of contention, which is not adequately represented by over-arching categories.

One key issue I have kept in the background so far: just as state units and state-society connections are variegated in their relationships to environmental issues, so the phenomena that fall under the umbrella of "environmental" and the associated political dynamics are extraordinarily diverse. The the above theories have been applied to environmental concerns such as recycling facilities (Pellow et al. 2000), national and global greenhouse gas emissions (Fisher and Freudenburg 2004, Schofer and Hironaka 2005, York et al. 2003), industrial waste emissions (Freudenburg 2005, Sonnenfeld 2000), the adoption of energy efficiency standards for appliances (Shwom 2011), the establishment of protected areas (Meyer et al. 2000), endorsement of environmental treaties and conventions (ibid.), land cover change (Rudel 2009), and many more. Not only are these issues subjected to different social constructions, but they involve different networks of state and extra-state groups as well as biophysical processes that articulate with socioeconomic processes in different ways. This is important for social reasons—for example, an industry association might be more tightly organized and better resourced in efforts to resist regulation than a dispersed population of small farmers; for ecological reasons—for example, the ecological impacts of greenhouse gas emissions are global and gradual, in contrast from the local and immediate as well as global impacts of deforestation events; and for

reasons that combine both—as immediately recognizable local environmental and health impacts from chemical spills draw different social responses from less tangible phenomena like climate change. Yet available theories tend to treat "the environment" as singular and thus drastically oversimplify—and potentially misspecify—the ways varied aspects of environments are governed (Buttel 1998).

Key things to consider in PA conservation

Theorizing extensively how different biophysical and socioenvironmental characters of environmental issues influence how institutions for environmental protection and development take shape and how these institutions impact local politics and livelihoods is beyond the scope of this work. Rather, here I aim to identify key aspects of conservation and development processes relevant to this inquiry.

[Conservation with development] brings into view a number of goals that are in tension with one another and which different actors prioritize differently. These goals involve state bodies in relationships of accountability, formal or informal, to different constituencies. Biodiversity conservation links implementing state bodies to global and domestic activist communities asserting values of a global conservation regime as well as domestic law and conservation agencies charged with overseeing conservation efforts, each of which may emphasize different indicators of effective conservation management and have different capacities to make claims on implementers. Biodiversity conservation mandates also implicate residents' resource use, about which more below. Development mandates have at least two sides: local demands for community development as well as broader imperatives to promote multisectoral growth. Community development brings up specific state-society relationships around a protected area, framed around residents' cooperation with or resistance to protected area policies. Interested

parties have different views of what constitutes community development, ranging from provision of income-earning opportunities to self-directed participation in decision-making. Growth pressures, in contrast, relate to broader grounds of accountability—to resident populations beyond the vicinity of a protected area, as well as, potentially, to other state agencies. How these accountabilities work depends on national and local political institutions. Finally, staff of involved state organs address all these goals in the context of trying to advance their own organizations. How a state organ pursues organizational advancement depends on its mandate and fiscal and staff resources as well as contingent relationships and events that shape its staff members' resources and their conceptions of their interests and opportunities.

Protected area conservation in landscapes inhabited by humans means dealing with resource use by humans on multifunctional landscapes. Efforts to link conservation and development in protected areas almost always aim to influence residents' resource use activities, based on presumed or discovered impacts on conservation targets. such activities are connected to, among other things, household-level economic decisions (Liu et al. 2001), community institutions (Ostrom 1990), and the political-institutional context within which residents' activities and institutions are supported or regulated (Baird and Dearden 2003, Rudel 2011, Agrawal and Ostrom 2004), as well as how all of these relate to agroecological and ecological processes. The characteristics identified by Peter Evans (1996) and Woolcock (1998) as comprising synergy—social capital within communities, coherence of state agencies, and salutary connections between resident collectivities and local states—may play key roles here. However, in the context of bureaucratic contention, multifarious state-society ties, and concerns with both development and conservation goals, the impacts of such ties becomes more complicated than state-society synergy accounts anticipate.

The distribution among state bodies of authority over land use and commercial activities in protected areas, the relationships among state bodies with authority in related spheres, and their respective links to extra-state groups, from conservation advocacy organizations to rural communities, play important roles in determining the shape of protected area institutions.

Modes of conservation management in protected areas vary enormously, with important implications for the efficacy of biodiversity conservation, bureaucratic requirements, and implications for human resource users. A detailed treatment of all relevant aspects is not possible here, but with respect to the management of biological targets of conservation, Sellars' (2009) distinction between active conservation management and "façade management" is helpful. Enhancing the function of ecosystems and supporting the thriving of the populations and communities therein requires regular collection of information about biological populations and the human activities that affect them, feeding into "adaptive management," in which decisions about conservation actions dynamically respond to changes in understandings of the state of biological communities.[2] In contrast, under façade management, protected area managers are occupied with "protecting and enhancing the scenic façade of nature for the public's enjoyment, but with scant scientific knowledge and little concern for biological consequences" (ibid.:4-5). Under façade management, park authorities work to maintain cosmetic features like foliage, scenery, and water quality, while objects of biological value that few tourists perceive get lower priority. This is not to say that façade management interventions are trivial. Maintaining water quality, forested views, and intact trails can have salutary effects on natural resources. Nor does active

[2] This attentiveness to human activities distinguishes active conservation management from a fence and fines approach in which restrictions on human activities are based on assumptions rather than research and adaptive response. The extent to which management is proactively or democratically responsive to resident concerns is a separate but related issue.

management rule out the maintenance of façades. As they influence management priorities, choices about what aspects of landscapes are presented to tourists are of major importance.

Conservation organizations, including both non-government organizations (NGOs) like The Nature Conservancy and units of inter-governmental organizations like the IUCN and UNESCO play major roles in shaping both protected area policy and the forms of particular protected areas, particularly within the global South (in which, due to historical relations of extraction and exclusion with European and North American countries, China may be included). How they do so depends on their engagement with state organs as well as other extra-state actors.

Wrap-Up

Starting from the idea of multiple state organs with different competencies and connections, all involved in efforts concerning environmental protection and development, rather than a monolithic environmental state, makes it hard to make over-arching claims but opens up many directions for identifying contextualized patterns of environmental governance. The pressures that state organizations face around both environmental protection and economic development and the opportunities that arise through relationships with other state and extra-state organizations shape the institutions that these organizations set up. We might expect developmental state action to be accompanied by strong conservation measures when the state bodies with greatest leverage over protected area institutions have a high degree of coherence and substantial fiscal and policy resources as well as strong links to extra-state environmental groups. These links will also influence which aspects of conservation and development protected area institutions favor. To specify this admittedly weak set of propositions, we must cover key aspects of the political economy and organizational ecology of conservation in China that frame organizational interests and interactions.

The Environmental State, Tourism, and Conservation in China

China is a sensible place to pursue these questions, both because it has become a focal point in efforts to resolve the toughest problems of environmentally sound development and because it is central among countries exerting a state-led approach to development and environmental protection that stands as an alternative to neoliberal prescriptions. China is presented both as a model and a monster of sustainable development; the tensions of the environmental state burgeon. Desertification, deteriorating air quality, water pollution, soil contamination, mounting greenhouse gas emissions, and biodiversity loss elude efforts to contain them. Yet the Chinese state has effectively mobilized resources to tackle major environmental issues. State industrial policy has helped make China a leading producer and user of wind and solar technologies. The Chinese state is capable of responding to pollution accidents with punitive measures for businesses and administrators. The focusing event of the catastrophic 1998 floods of the Yangtze and Songhua River basins catalyzed dramatic land use reforms aimed at curbing soil erosion. Important concerns about forest quality notwithstanding, through major programs of compensated afforestation, China has reversed domestic forest loss.[3]

The capacity of the central state in China to mobilize resources and broader social forces around environmental issues perceived to affect national interest, alongside its demonstrated capacity to foster nation-spanning industrial transformations through industrial policy and incentive adjustments, buttresses claims that the Chinese state has the coherence of a developmental state—and might become what Rudel (2013) calls a "sustainable development state." Yet the prevalence of local contraventions of central policies, particularly the uneven reach of

[3] To some extent, this domestic success has displaced demand for forest products to imports, likely contributing to deforestation in neighboring countries (Lang and Chan 2006).

environmental policy implementation, provides grist for critics who claim that, while it has certainly engineered developmental transformations, the Chinese state is not autonomous from economic elites, while tight interlock with capital deviates from broader public interests embeddedness is supposed to foster. Critical accounts present the proliferation of state-led environmental projects as of a piece with state projects of control of territories and populations (Blaikie and Muldavin 2004, Yeh 2009).

Such general claims obscure the complexity and variety of state-society interactions unveiled by nuanced studies of politics within China. As Tilt observes in his study of the management of polluting, small-scale industry in rural southwest China, "[i]n the context of environmental protection and sustainable development, the Chinese government can in fact be viewed as multiple states, each promoting its own model of sustainable development" (2010: 143). The central state promotes a picture of "idealized sustainable development" consistent with global discourses of sustainability through nation-spanning policies intended to rationalize accumulation through regulation and standardization of industry. Yet where the rubber hits the road, local governments entangled with industrial interests and facing fiscal pressures and imperatives to support rural livelihoods take shortcuts on environmental enforcement that are pragmatic responses to contradictory conditions. Local environmental regulators, short of staff, funds and equipment and dependent on local governments, are limited in their capacity and will to enforce pollution regulations strictly (ibid.).

Pluralizing Fragmented Authoritarianism

These conditions around environmental enforcement, documented in a number of studies (Jahiel 1998, Economy 2005), typify tensions associated with the administrative structure of multi-level governance in China, which Lieberthal (2004) terms "fragmented authoritarianism."

Fragmented authoritarianism is centered on the tensions of the "strand-block system" (*tiao-kuai zhidu*). "Strands" (*tiao*) of authority relationships leading from central ministries through provincial departments to prefecture and county bureaus coexist with "blocks" of authority associated with spatial units of government, particularly provinces, prefectures, and counties. Ministerial agencies at the heads of different stands compete with one another for resources and jurisdictional turf and negotiate the terms of central policies, while they and their subordinate agencies struggle to realize policy goals at lower levels.[4] Strand agencies at provincial level and below are under the authority of both their respective ministerial bureaucracy and the government of the block unit; for example, a prefectural forestry agency responds to directives from a provincial forestry department, which in turn reports to the central State Forestry Administration (strand), but does so under the authority of the government of the prefecture (block) in which it resides. Because at a given level block units have primary authority over **budgetary allocations, cadre allocation**, and **revenue collection, they have substantial leverage over strand agency conduct**, though in some fields China has experimented altering these authority relations to strengthen strand agencies (Mertha 2005). As strand agencies negotiate with block authorities to achieve policy mandates,

> policy made at the centre [sic] becomes increasingly malleable to the parochial organizational and political goals of various vertical agencies and spatial regions charged with enforcing that policy. **Outcomes are shaped by the incorporation of interests of the implementation agencies into the policy itself.** Fragmented authoritarianism thus explains the policy arena as being governed by **incremental change via bureaucratic bargaining.** (Mertha 2009:996)

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[4] "In theory, 'line' [strand] administration ensures that higher-level government decrees are implemented smoothly and uniformly. 'Piece-' [block] or *kuai*-based leadership relations help local governments achieve a degree of independence from external influence, enhance sensitivity to local conditions in the policy process, and facilitate co-ordination between functional departments" (Mertha 2005:797).

This description sounds familiar in any discussion of environmental policymaking, often caught in horse-trading among agencies connected to varied social interests, as well as implementation, which often involves administrative agencies working in tension with governments that are tightly tied to groups undertaking activities agencies are supposed to regulate. The particular types of authority relationships and their implications, however, are peculiar to the Chinese political systems. These relationships become even more complicated in the case of protected areas, which, as mentioned in the previous chapter, are often characterized both by multiple designations connecting protected area administrations to two or more strand agencies each, as well as the exercise of jurisdiction by varied agencies over activities within protected areas. Different strand agencies may impress competing mandates on protected areas, while block governments control key fiscal outlays and personnel decisions, giving protected area staff strong inducements to toe the local government's line.

Although the fragmented character of China's governance has often been adduced as a cause of institutional paralysis where strand and block organs clash, while its authoritarian character limits input from civil society groups, this setup also provides opportunities for policy entrepreneurship both within and beyond state bodies. Mertha (2009) identifies the "pluralization of fragmented authoritarianism" in the increasing instance of policy entrepreneurs exerting impacts on major policy decisions. Officials whose purview might appear marginal to an issue, journalistic activists, and NGOs have been able to influence policy in cases in which they have effectively framed issues in ways that arouse media attention and drawn agencies with related interests into issue arenas. They have done so by "adopting strategies necessary to work within the structural and procedural constraints of the fragmented authoritarianism framework" (ibid.:996). Based on research concerning environmental and HIV/AIDS advocacy organizations

in China, Hildebrandt (2013) argues that in response to constraining opportunity structures, organizations to adopt "self-limiting" strategies, in which an organization "strategically limits its actions to assure its continued existence and minimize state repression." In this context social organizations and the state may be codependent, with organizations needing the state to give them room and resources to operate, while "the state needs social organizations to plug gaps in governance and solve pressing problems," (ibid.:15). Such co-dependency is highly asymmetric, and being granted space to operate often depends on the extent to which a group's activities are in line with local government interests. The context of these interactions varies with issue area, which state bodies are concerned, and changing policy imperatives over time.

As foreign-based actors in a context of wariness about foreign interests transmitted through social organizations, international conservation organizations like The Nature Conservancy face these issues with particular intensity. In the "boomerang model" of transnational advocacy networks, international NGOs are expected to employ confrontational information politics to press refractory states to respond to concerns of domestic constituencies (Keck and Sikkink 1998). The limiting opportunity structures of the authoritarian state militate against this strategy, limiting the effectiveness of transnational mobilization over contentious issues (Khagram 2004). Where international NGOs succeed in engaging state bodies, it is through non-confrontational approaches, such as sharing information, providing policy advice, and collaborating in research and implementation (Wu 2005).

The arc of TNC's effort to promote a new protected area shows how that organization engaged with the fragmented authoritarian state in an effort at policy entrepreneurship that met with hollow success: parks were established, but the resident involvement and professionalized conservation at the center of TNC's proposals were not prioritized. In the next chapter I will

describe how TNC modified the framing of national parks in order to conform with the demands of interested government agencies. Still, despite the fact that the Yunnan Forestry Department and the policy research arm of the government of Yunnan Province largely bought into TNC's vision of national parks, they were not immediately able to realize it. Despite the fact that the sustainable development framing that TNC introduced prevailed and continues to prevail in discourse surrounding Yunnan's national parks, TNC was unable to use this framing to promote the specific policies for conservation and resident involvement that were at the center of its proposals. TNC engaged in self-limiting behavior, but also in efforts to ratchet up its impact and build further-reaching alliances with state agencies. To account for these outcomes requires examining interactions among the state bodies involved in conservation and tourism in northwest Yunnan in a dynamic way attentive not just to relationships between social organizations and the state, but among state bodies with different resources and allies, as these conditions have changed over time. The waning of TNC's involvement in national parks was not a matter of the organization's self-limiting conduct but of obstacles that arose over time, particularly an increasing divergence between TNC's visions and the intentions for conservation and tourism of regional governments that were consolidating authority over protected area tourism attractions. To understand this process we must turn our attention to the changing dynamics of block units in the emergence of what I call meso state corporatism.

Local States, Firms, and the Emergence of Meso State Corporatism

Both economic and environmental aspects of protected area projects, which concern general policies but focus on spatially delimited territories where conservation and tourism are to take place, take us to the changing roles of local and mid-level states in development and conservation. China has seen a shift from the efflorescence of rural enterprises sponsored by

local states in the 1980s and 1990s, through a period of shake-down in which many small rural firms were privatized while major enterprises consolidated with close state guidance, into a resurgence of state-directed enterprise development under formal separation of government ownership and enterprise management that does not sever underlying informal ties. In rural areas of southwest China in particular, prefectural centers have played a major role as administrative centers and transportation hubs. In amenity-rich areas, prefecture governments have used state-owned firms and financing platforms to consolidate and upgrade tourism attractions, propelling officials' individual prospects, the organizational advancement of prefecture governments, and the growth of regional tourism economies. As a result, tourism attractions, including Diqing's national parks, have become major revenue generators, resulting in a shift from community promotion to community management in tourism enterprise and the adoption of limited conservation practices to maintain tourism façades.

When TNC began working in Diqing in the early 2000s, the ground looked promising for community-centered tourism activities. Nearly all rural tourism attractions in the prefecture were run through some combination of community-based rotating service provision and household-based entrepreneurial service provision governed by community regulations. But something different was in the works. As TNC and its successive partners in provincial strand agencies generated proposals for small-scale backcountry tourism with local resident guides, overseen by professional conservation managers monitoring changes in conservation targets, local authorities were formulating plans to build a high-volume attraction to anchor the prefecture's growing tourism industry, looking to major attractions like Jiuzhaigou and Zhangjiajie. The transformation of Bita Lake into Pudacuo National Park was accompanied by the transfer of management authority to the Diqing Prefecture Tourism Investment and

Development Company. This set-up enabled the company, under the guidance of the prefecture government, to use prospective ticket revenues as collateral for bank loans to fund infrastructure construction and investments in upgrading other tourism attractions. Where a decade before the Zhongdian (later Shangri-la) County government had assisted residents of several communities in organizing rotating tourism services, now the Pudacuo National Park Tourism Services Company and the Pudacuo National Park Administration Bureau focused on providing employment opportunities and managing concerns residents brought up.

This phenomenon is not limited to Diqing Prefecture. Examining other tourism centers across southwest China, a pattern emerges. Starting in the early 1990s and accelerating in the first decade of the twenty-first century, prefecture and, to a lesser extent, county governments presided over the upgrading of attractions previously centered on community-based tourism services into high-volume, integrated tourism operations run by state-affiliated firms. Early on county and prefecture governments, short of capital, sought to mobilize outside investment to build up tourism attractions. As a result, in areas that scaled up earlier, private tourism operators run attractions or attraction components on a contract basis, sometimes coexisting with state-owned firms that control ticket sales. These transfers of assets in nationally designated protected areas raised a great deal of criticism from people who saw them as privatization of national heritage, culminating in a ruling by the Ministry of Housing and Urban-Rural Development that local governments could not transfer operations in the core of scenic area attractions to private entities by lease or contract (Tang 2006). By the middle of the last decade, attraction upgrades were increasingly being undertaken by firms owned by governments, usually at the prefecture level. These firms, often organized as holding companies, resemble the financing platforms that have been engines of urban real estate and infrastructure

development nationwide (Feng 2011). Through them, governments are able to direct core economic activities in line with their objectives. These governments' capacity to control key assets, particularly urban land and protected areas, facilitate these strategies by facilitating the use of administrative authority over assets to convert them into development poles and revenue engines as part of state-led development strategies. Ethnic autonomous area status, common among prefecture and county units in southwest China, can also facilitate these processes because the Law of the People's Republic of China on Regional National Autonomy grants governments of ethnic autonomous areas authority to make certain legislative acts to suit local circumstances. Within meso state corporatism, prefecture (and sometimes county) governments mobilize state-owned assets to direct development processes and generate revenue streams that support government activities.

Why the prefecture level? In the reform era, administrative restructuring that gives prefectural units formal authority over counties has turned the prefecture from an "administrative arm of provincial power" into a unit with substantial capacity and interests of its own, able to assert influence in relationships between provinces and counties (Donaldson 2009). Urbanization policies aiming to channel population growth away from megacities to lower-tier cities and policies aiming to enhance development in regional centers have also contributed to the consolidation of prefectures. Prefecture governments have seen dramatic increases in political reach. Prefectures also aggregate substantial fiscal resources and territorial extent of jurisdiction at a time when policy and competitive pressures favor enterprises of greater scale.

I call this pattern meso state corporatism in contradistinction to "local state corporatism," a term coined by Jean C. Oi (1992, 1999) to characterize a form of state-led development associated with township and village enterprises (TVEs) in eastern China in the 1980s and 1990s.

Meso state corporatism differs from what Oi observed in a number of respects, of which two are particularly consequential. First, meso state corporatism works through actual corporations overseen by the governments in question rather than a metaphor for local governments as corporations. Second, I use the term "meso" because the locus of decision-making and ownership is located on a higher rung of the state hierarchy, the prefecture, which is the midpoint of the five levels of formal state hierarchy in China (center, province, prefecture, county, township). As a result, decision-makers have a more distanced relationship to rural residents. This distancing is due both to being at a higher administrative level and to the fact that lower rungs (county, township, village) are less tightly involved in management and thus do not exercise the mediating role they do in local state corporatism. The metaphorical sense of the state as a multi-level corporation does not fit well.

The economic impacts of firms based in rural communities—the much-vaunted town and village enterprises (TVEs)—which played a vital role in China's economic growth in the 1980s and 1990s, spurred inquiries into how economic growth could take off in a context of public ownership of firms in a planned economy. Oi's (1999) institutional analysis held that rule changes, particularly concerning fiscal decentralization, by granting local authorities rights to the residual from local state-owned firms, revolutionized the incentive structure local officials faced. Local officials' motivations switched from performance and quota satisfaction under the Maoist system to profit maximization in enterprises under their control, as a result fostering local development across myriad localities. This form of organization was "corporatist" in two ways. First, in a context of persisting collectivist institutions, local officials organized economic governance in a way that resembles a multi-level corporation, with the county government corresponding with corporate headquarters, the township as profit center, and the village as a

subsidiary company. Second, it was corporatist in the sense of a political arrangement in which the state manages social activities by limiting the space available for interest groups not attached to state projects, in this case with reference to private capital.

By the middle of the 1990s the conditions supporting local state corporatism were eroding. As firms outside the plan system proliferated, competitive pressures tightened. At the same time, central government policies increasingly favored larger firms. In an effort to control pollution, the central government mandated the closure of small firms in heavily polluting industries (though many firms avoided closure in the short term). Under the policy of "grabbing the big and letting go of the small" (*zhuada fangxiao*), governments were to facilitate the competitive demise of small enterprises, asserted to be inefficient and difficult to regulate. As local states faced fiscal crunches, they sold off productive assets and met with varying success in managing privatization in a way that maintained revenue flows and power bases (Oi 1999, Tilt 2010). Commitments made in China's preparation to join the World Trade Organization added to pressures to privatize. It appeared to many that, in response to neoliberal pressures or pursuit of strategic advantage in a global economy, the Chinese state had embarked on an inexorable retreat.

Tilt describes this process as "saying farewell to communal capital" (2010:44). Local state corporatism arose in the context of persisting collectivist institutions, and discussions of local state corporatism and related forms has revolved around the extent to which economic incentives or extra-economic social commitments predominated. These discussions have broadened in research on accountability and provision of public goods. Oi's account of local state corporatism does note that local officials act out of concern not just for economic benefits but attending to rural residents' welfare by providing employment, subsidizing agriculture, and

redistributing revenues through community infrastructure and public services. But Oi presents these as the rational actions of officials shoring up their "power bases."

But economic action is always embedded in social ties of some sort (Granovetter 1985), and there is evidence that nonrational dispositions rooted in social ties and shared ideas of legitimacy have considerable influence on local officials' conduct within the economic sphere. Xiaoshuo Hou (2011, 2013) argues that such ties are central to the "community capitalism" of villages that have maintained successful collective enterprises long after the purported demise of collectivism. In community capitalism, common values, bounded solidarity, kinship and "pseudo-family" networks bind community elites to manage capitalist transactions on the market in ways that conform with values of collective benefit. Residents are able to hold leaders morally accountable due to tight social ties codified in village regulations (*cunguiminyue*). Lily L. Tsai identifies a similar pattern in research on public goods provision across east-central China, finding that where "solidary groups that are both encompassing and embedding" are present, local officials are most likely to provide public goods like roads, schools, and running water. Encompassing groups are open to all residents of an area; embedding groups "incorporate local officials into the group as members" (Tsai 2007:356). Involvement groups that have both qualities makes leaders part of a moral community whose concerns they cannot easily ignore. Both studies provide evidence that tightly binding social ties make states prioritize concerns of residents beyond economic expansion.

These accounts explain aspects of local state responsiveness that Oi's rational actor explanation cannot account for. They also suggest points upon which we might expect to see contrasts in a meso state corporatist context. Located higher on the government hierarchy than counties and townships, prefecture officials have more diffuse relationships with residents in general. The

kinds of social ties that exert binding force at the village level do not operate at this level of aggregation.[5] While subsidiaries charged with running particular protected areas may provide channels for articulating residents' concerns, concentration of decision-making power in a prefecture-owned company distances decisions from local social ties.

Prefecture-level concentration has another important implication: it may constrict the spread of benefits, both at the level of particular protected areas and more broadly. This point is suggested by two recent studies that converge on the thesis that in reform-era China, where and when state policy has promoted the concentration of business control, it has constricted the spread of benefits from economic growth. Each begins with a different approach to disaggregating statistics regarding economic growth and poverty reduction.

In *Capitalism with Chinese Characteristics*, Yasheng Huang (2008) observes that commentators often cite as evidence of the success of China's development model the dramatic decrease in the number of people living in poverty in China in the decades after 1978. Yet this decrease has been uneven across time and space (Ravallion and Chen 2007). If one looks separately at the 1980s and 1990s, the picture changes. Poverty reduction was much faster in the 1980s than in the 1990s. Huang contends that this gap was not simply due to the fact that the first decade's growth alleviated easily addressed "low-hanging fruit" of poverty, as a number of measures of the distribution of welfare show corresponding contrasts across the two decades. Rather, it resulted from a broader institutional shift. Huang stresses that liberal reforms enabling private entrepreneurship drove the broadly beneficial development of the 1980s. In contrast, in the 1990s,

[5] In southwest China, particularly in Tibetan areas, one might expect ethnicity and religion to work as encompassing and embedding ties. However, in Tsai's work these concepts operate in tightly bounded solidary groups. In contrast, regional ethnic and religious ties, while they might be encompassing and embedding in a loose sense, are much more diffuse than the membership implied in church parishes, temple groups, or lineage societies.

central government policy restricted financing to rural private enterprises, and state ownership expanded. Just at the time that many smaller TVEs were failing or being privatized, a resurgence of state ownership through equity, centered in cities, was underway. Huang attributes the subsequent decoupling of growth from poverty reduction, decrease in labor income as a share of GDP, and growth in income disparities to the concentration of business ownership and constriction of opportunities for private entrepreneurship. On a broad scale, Huang argues, a shift toward concentration of ownership and increasing state direction of business diminished the ability of growth to contribute to broad welfare improvements.

In contrast to Huang's temporal framing, John Donaldson (2007, 2011) breaks down the same phenomenon of poverty reduction spatially, with a cross-sectional comparison of two provinces.[6] Donaldson asks what enabled Guizhou, ranked China's poorest province and lagging behind neighboring Yunnan in its rate of economic growth, to be among the country's leaders in poverty reduction in the 1990s, while in Yunnan, where economic growth rates were much higher, the poverty rate increased during the same period. Both provinces were historically impoverished, far from the capital and other economic centers, rugged, weak in transportation infrastructure, poor in farmland, and rich in ethnic diversity and scenic amenities. His analysis is particularly consequential for this study because it focuses on differences in the structure of tourism, a major development priority in both provinces.

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[6] Huang also highlights regional variation in the concentration of ownership, in particular identifying policies concentrating state ownership with the "Shanghai model" based in large cities, but also attributing poverty reduction in rural provinces to the prevalence of private enterprise. His arguments to this effect resonate with Donaldson's; like Donaldson, he takes Guizhou as a central case of "virtuous capitalism" in rural areas. However, the main thrust of Huang's argument is historical, concerning the switch in policy at the center that precipitated the shift from broad-based entrepreneurialism to state-led centralized capitalism, leading to a call for further liberalization in order to make capitalism more broadly beneficial.

Donaldson identifies the cause of contrasting trajectories of growth and poverty reduction in fundamentally diverging approaches to development policy across the two provinces. Yunnan undertook policies consistent with the model of a developmental state, promoting key industries through directed investment facilitated by ties between the state and industry. Investment in tourism and other core industries as well as transportation infrastructure was directed geographically toward non-poor areas, and concentrated industry structures limited the ability of rural residents to access income where growth was taking place. Guizhou, in contrast, was able to reduce poverty "by increasing economic opportunities for poor people without contributing to rapid increases in productivity through economies of scale" (Donaldson 2011:17). In tourism and other industries, Guizhou authorities encouraged small-scale, low-tech, non-capital-intensive development. For example, in contrast with Yunnan's emphasis on high-profile mass tourism attractions and luxury hotels, Guizhou pioneered community-centered "joyous village life" (*nongjiale*) tourism sites dispersed among communities in poorer parts of the province. Donaldson labels this form of state engagement the "micro-oriented state," presented as an alternative to other state-led and market-led approaches to development. The micro-oriented state views poverty as technical problem and zeroes in on it with varied, flexible tools. As governments focus on promoting widely spread opportunities for rural employment and market access, broad reduction in poverty results, even amid low rates of growth. In contrast, where governments support large-scale, concentrated economic activity, while rapid economic growth may ensue, the rising tide does not lift all boats. Donaldson attributes Guizhou's and Yunnan's disparate policies to divergent patterns of decision-making by officials in each province, which in part followed from different messages from central leaders.

Both authors, then, converge on the idea that enterprise dispersed among communities benefits residents more broadly than concentrated enterprise, one comparing across time and the other across space. Yet, focused on provincial and national scales, neither of these authors concentrates on the local context of institutions and relationships through which broader policies translate through local institutions and relationships. Donaldson provides numerous examples of broadly beneficial local enterprises, but limits his analysis to the economic effects of provincial policy inclinations. At the same time, while Donaldson overall makes a compelling explanation of puzzling differences across the two provinces, in accentuating differences in the structure of tourism Donaldson's case selection and interpretation overstate differences and understate commonalities.[7] Huang's mantra is that *private* entrepreneurship characterized the broad benefits of rural-centered growth in the 1980s. Yet what Huang sees as the "directional liberalism" of the 1980s might be an instance of the micro-oriented state activity, opening up opportunities for small-scale enterprise embedded in community relationships.

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[7] Donaldson overstates the prevalence of community-excluding tourism in Yunnan. Donaldson's claims about Shangri-la tourism attractions do appear to well reflect the state of affairs that was becoming cemented in 2010. But at the time of his fieldwork his observations in Diqing did not support his claims. Of the four locations in Diqing he mentions, one, Bitahai, observed when a bus route was in place but before being renamed Pudacuo National Park, has a history of community-centered tourism that Donaldson omits, while the other two host community-centered operations that directly benefit residents. Donaldson (2007) highlights how community-centered and high-volume tourism coexist at Tiger Leaping Gorge. Donaldson claims that Bita Lake "is similar in structure to others in Shangri-la; although poor people live adjacent to the sites, very few of them benefit significantly from it, even indirectly" (2011:124), ignoring that several other destinations that had become popular at the time of his fieldwork, such as the White Water Terrace and the attractions of Meili Snow Mountain National Park, were community-centered attractions. It is not clear what other attractions besides Songzanlin temple exemplify the pattern Donaldson claims dominated in Shangri-la. On the other hand, his picture of Guizhou exaggerates in the opposite direction. For example, while lake tourism in Caohai, one of the cases discussed in Chapter 4 of this dissertation, is operated by community residents, this operation has been at the center of great conflict, as one well-situated community dominates tourism participation, and the county government has attempted to suppress the operation due to concerns about unstandardized tourism services. At the same time, Huangguoshu Waterfall and Longmen Cave, two of Guizhou's most prominent attractions, are high-volume operations run by state-owned companies with limited direct benefits to rural residents. These anomalies raise questions about the extent to which Donaldson's case selection and presentation shape his argument. Furthermore, while his study identifies and accounts for important province-level contrasts, they obscure both sub-provincial spatial heterogeneity and common processes of consolidation over time that are apparent in the protected area tourism cases examined here.

Assessing Huang's claims about the extent to which private entrepreneurship dominated among town and village enterprises is beyond the scope of this study. However, we might more fully understand the phenomena he seeks to explain if, in light of the arguments about social ties outlined above, we acknowledge that whether owned privately, collectively, or by government agencies, local enterprises are more likely to focus on spreading benefits among residents and attending to residents' broader concerns if they are embedded in community-level social ties. It could be that early reforms opened the way not for countless atomized private entrepreneurs but for millions of small and medium enterprises, some further on the continuum toward collective ownership and others further toward private ownership, that pursued profit in the context of collective institutions that constrained private gain to the service of collective benefit. Rather than only private entrepreneurs being motivated just by expectations about the future, perhaps at the time one might have observed entrepreneurial individuals and groups, some officials and some not, pursuing profit in the context of commitments to the collectives to which they belonged, which in-depth accounts suggest to have been encompassing and embedding groups (Chan et al. 2009). The policies that Huang sees as spurring private entrepreneurship might just have well, in the context of collectives that have reoriented around collective governance of household production through the household responsibility system (see Tilt 2009), have enabled the proliferation of community-embedded enterprise.

These speculations run somewhat afield, but the issue of how local states' enterprise promotion strategies intersect with community social structures and resident welfare cuts to the heart of this study. Meso state corporatism appears to be closely in line with the concentrated tourism development Donaldson finds to be problematic as well as the state-directed growth that Huang claims has narrowed the spread of economic gains. Leaders in meso state corporatist

administrations do not treat local governance like the management of a corporation; rather, their concerns as owners or managers of actual corporations take a central place among the motivations they act upon in the conduct of administration.

The ways they approach corporate management are shaped by policy directives issued by superior bodies of government. In the case of tourism in Yunnan, the provincial government's blueprint for tourism development, issued in 2004, prescribes shifting "from coarse (*cufangxing*) to intensive (*jiyuexing*) development [and] from scattered, small, weak, and poor operations to large and strong or small and high-quality operations" (Yunnan Provincial Committee 2006:4). Such prescriptions represent not only criteria upon which officials are judged in cadre evaluations but a broader discourse evident in "grabbing the big and letting go of the small," which privileges size and bureaucratic management in business operations. High-powered incentives to promote growth embedded in criteria for cadre promotion and demotion (Whiting 2004) exert additional pressure to make tourism operations pay off. These coercive and mimetic mechanisms (DiMaggio and Powell 1983) promote isomorphism building high-volume tourism attractions, which generate concentrated and easily channeled revenue flows, under the aegis of state-affiliated firms.

These operations transform relationships between state authorities and local residents. The tasks of managing legitimacy and maintaining social stability remain alongside business imperatives. In almost every case in which a tourism attraction has undergone an upgrade, it has happened in the context of pre-existing tourism services run by residents of communities within and around the protected area. Authorities face the challenge of incorporating residents in the new tourism scheme. Resident-run tourism activities are small in scale, varied in nature, and subject to individual and community concerns that may conflict with the preferences of guests

or park authorities. Compelled to realize a particular version of high-quality tourism—standardized, clean and neat, fast-moving—state authorities tend to approach this issue by incorporating residents into the hierarchy of tourism firm operations. This can happen in a number of ways, such as through direct employment, operating shops and hotels as concessions, and shareholding. Residents' expectations in these arrangements are shaped by their participation in community-based operations, which had previously received support from the state. Their interests in maximizing their share of revenues, coupled to perceptions of ownership in landscapes in which their habitation and collective tenure predate the establishment of new attractions, create the potential for conflict with park authorities, whose interests are in streamlining tourism operations and providing residents with the minimum conditions and portions of revenues sufficient to avert conflict. Meso state corporatism replaces relationships of community support in which local governments assisted communities in self-directed provision of tourism services with hierarchical relationships of community management.

Under meso state corporatism in tourism, the state does not dominate the entire tourism industry. Rather, meso corporate states focuses on upgrading attractions and making them anchors of tourist circuits. They regulate private tourism firms—travel agencies, hotels, entertainment venues, and transportation firms, often requiring them to funnel tourists into central attractions. Meso corporate states have commensal relationships with the private firms that bring tourists to attractions and that demand tourism sites that attract their customer bases.

In its environmental conduct, the meso corporate state also tends toward promoting façade conservation. Park authorities are likely to put high priority on maintaining scenic features that are at the center of high-volume tourism attractions, committing resources to waste

management, facility beatification, and protecting features like forest cover and bodies of water. However, the high-volume nature of these operations limits the extent to which the complex and often subtle attributes that conservation professionals prioritize can be central to tourist attractions. The tasks involved in understanding the conditions of conservation targets and responding to new information in management practices require staff time, expertise, equipment, and funds. Prefecture and county governments face clearly defined imperatives to upgrade attractions and grow revenues. While they are also required to promote sustainability and biodiversity conservation, requirements on these accounts are less specific and carry weaker consequences. State officials and park authorities in meso state corporatist administrations may not actively resist the implementation of active conservation management if other organizations provide the necessary resources, but they are unlikely to actively commit resources to conservation management, either.

Meso state corporatism is not dominant everywhere. There are pockets of southwest China where micro-oriented states foster community capitalism and other forms of community-centered development. However, over the past two decades meso state corporatism has grown more prevalent, particularly in areas with major tourism attractions, and the case studies that follow illustrate the forces that cause meso state corporatism to displace micro-oriented development strategies. Nor is meso state corporatism limited to tourism attractions, though due to the authority that county and prefecture governments exert over protected areas, tourism attractions within them are especially expedient instruments of state-led accumulation, and they illustrate its mechanisms and impacts with particular clarity.

Summary

These two features of the Chinese state, pluralizing fragmented authoritarianism and meso state corporatism, play a central roles in influencing how efforts to transform protected area governance proceed. Protected area governance is a key locus at which entrepreneurial agencies with varied mandates of conservation and regulation jostle among themselves and with meso corporatist states concerned to maintain revenue streams while containing social disruption. These actors bring different resources and social ties to the table. While block governments grasp key nodes of authority over protected area governance, they do so subject to legal constraints and regulations implemented by strand agencies, and egregious violations can bring consequences. Strand agencies, even those with seemingly complementary mandates of environmental protection, compete to control jurisdictional turf and take credit for policy innovations. In Diqing, TNC's inability to maintain strong links to local block authorities limited its influence on the form national parks have taken, although its efforts to promote training regulations in concert with the Yunnan Forest Department may result in enhanced conservation management over time. Meanwhile, the advance of centralized tourism operations has brought a shift from community promotion to community management, with complicated implications for residents' livelihoods and their interactions with park authorities, as the following pages will illustrate.

Chapter 3: Making National Parks in Yunnan: Shifts and Struggles within the Environmental State

The inauguration of Pudacuo National Park in 2007 added a jewel to Diqing Prefecture's Shangri-la brand. Proclaiming it China's first national park, promoters hailed Pudacuo as a new model joining tourism development to effective conservation and community involvement. The effort to set up national parks in northwest Yunnan grew out of endeavors of The Nature Conservancy (TNC) to encourage governments and other constituencies to adopt new models for conserving the area's biodiverse landscapes. Yet when established, they emerged as mass tourism attractions that little resemble TNC's proposals, while the process of creating them transformed relationships among groups interested in northwest Yunnan's landscapes.

This story reveals a succession of alliances that grew up around efforts to set up China's first national parks in Yunnan. When TNC first arrived in China, it catalyzed a remarkable coalition of local residents, religious figures, local governments, and conservation organizations, mobilizing to halt mountaineering at the sacred peak Kawagebo (Litzinger 2004). By 2010, this coalition had dissolved. Local governments assumed a more powerful role, employing national parks to promote tourism but diluting provisions for resident participation and active conservation management. TNC retreated from direct engagement with local governments and communities, and sought new government counterparts as initial partners cooled on the national parks effort. The introduction of a new protected area category exploited ambiguities in law concerning protected areas, leading provincial and national agencies to vie over the legitimacy of Yunnan's national parks. TNC increasingly watched from the sidelines as these parks became wound up in struggles within the state.

Nothing shows the extension of the environmental state in China more tellingly than the transformations of protected area tourism attractions. Across the Tibetan plateau and beyond, local governments have repackaged nature reserves and scenic areas to support high-volume tourism attractions. Concentrating management authority in state-affiliated enterprises, local governments have turned these parks into powerful revenue generators while extending state oversight of land use within. Diqing's national parks, dressed up in signifiers of Tibetanness—stone-faced visitor centers, cairns festooned with prayer flags, residents pasturing yaks—exemplify efforts to remake places to present a picture of a harmonious Shangri-la. At the same time, the title "national park' provided a way to distinguish Diqing's scenic attractions in competition for tourists, in particular bolstering claims of cutting-edge conservation. Yet the mandate for active conservation management envisioned by the initial proponents of national parks, while central to local states' discourse, gets meager financial and institutional support. Meanwhile, extralocal agencies charged with resource management, competing to raise their profiles and expand or defend their jurisdictions, have vigorously disputed the status of Yunnan's national parks.

These contentions warrant a careful consideration of the environmental state's coherence or lack thereof. The "ecological construction" programs transforming western China's biophysical and social landscapes give an impression of massive and coordinated extension of state power to manage resources (Yeh 2009). But the history of Yunnan's national parks complicates this picture. Rather than the coherent expansion of a singular project of state-building, these processes expose conflicts among strand agencies and government blocks at different levels, contending over the meaning of green development and the control of the organizational machinery for directing conservation and tourism. Agencies link with one another and with

nonstate actors in ways that suit perceived organizational interests, building relationships that shape how those interests develop further. Whose efforts win out at any given juncture has major ramifications for how people and landscapes are governed. To get an adequate picture of the environmental state in China requires taking a disaggregated view, examining how agencies with different purviews, support bases, and resources pursue varied goals.

Working within this context requires an international advocacy organization to be nimble. In China, the extent to which a social organization's efforts further the interests of relevant state organs has a great bearing on the organization's fate (Wu 2005, Hildebrandt 2013). Keeping state favor is particularly demanding for international NGOs. While they often have greater financial and personnel resources than their domestic counterparts, their political situation can be tenuous, as there is always the threat of an operation being closed down if a group makes a wrong move. Few international NGOs, particularly in the environmental sphere, have strong domestic constituencies to bolster them. They may link environmental issues to community development concerns and try to build support among domestic environmentalists, but their core target is environmental management within the state. As a result, their space to operate depends on the ability to demonstrate that their activities further the agendas of state organs they appeal to or provide resources these organs demand. Changing policy priorities and fiscal and personnel endowments among state organs challenge such organizations to adapt their offerings in order to maintain favorable connections with state allies.

Given these considerations, that TNC's initial vision for national parks is only patchily incorporated into actual parks should be no surprise. Indeed, it exemplifies the friction through which engagement with local situations transforms transnational projects (Tsing 2005). In northwest Yunnan, rich not only in biodiversity but also in mineral deposits, hydropower

potential, and tourism amenities, the national park initiative, with its aspirations to expand protected area coverage, empower protected area conservation agencies, and broaden residents' roles in management, aligned with some state projects, but ran athwart others. To understand how the ideas and resources TNC introduced into these engagements were transmuted in the making of the national parks requires delving into the changing configuration of a heterogeneous and conflicted environmental state.

This task necessitates methods that take into account the changing motives of and relationships among state agencies, enterprises, non-government organizations, and collectivities of citizens. Working from interviews and observations with people in local and provincial governments, NGOs, national park administrative bureaus, tourism operators, several villages in two national parks, conservation scholars, and tourism planners, I sketch a narrative of key actors and arenas in the making of national parks. I complement interview material with sustained attention to proposal documents and policy statements that show how different actors' stances and proposals change over time. One hazard of depending on such documents is that they overrepresent people and organizations that produce proposals and reports. So I continuously move between these documents and the contexts of interaction they are embedded in. No picture can show all relevant perspectives or happenings, but, by providing accounts from varying participants, I highlight key patterns of engagement of different state agencies with other actors in these efforts, sketching the changing shape of the environmental state in protected area governance in southwest China.

In addition to showing how changing configurations of state bodies shaped the establishment of national parks in Yunnan, this chapter sets the stage for the succeeding chapters by outlining the process through which the community-centered tourism operations of Meili Snow

Mountain National Park and the concentrated tourism operation in Pudacuo National Park emerged. In the 1990s and early 2000s, authorities in Shangri-la and Deqin Counties promoted tourism activities centered in communities. These operations required minimal capital, relying on existing trails and household investments in beasts of burden. Capital improvements, such as trail upgrading, were accomplished through collective efforts with county government support. Community members regulated tourism activities collectively through village institutions and obtained the bulk of economic benefits therefrom. The establishment of Pudacuo National Park replaced community-centered tourism at Bita Lake, but community-centered operations persisted after the naming of Meili Snow Mountain National Park, in tension with park authorities' efforts to raise the profile of the attraction.

Origins of National Parks in Yunnan

When the TNC China Program was initiated, its staff started by appealing to experts and policymakers to take part in the Yunnan Great Rivers Project, aiming first to demonstrate the importance of the region's resources and thus the necessity of setting up institutions to conserve them and second to compile a basis for systematic conservation planning. A process of consultation with scientists, cultural experts, and local governments and residents culminated in the Conservation and Development Action Plan for Northwest Yunnan (JPO 2001, hereafter Action Plan).

The Action Plan sets out a vision for turning northwest Yunnan's protected areas into centers of revenue generation and professionalized conservation through the adoption of a new protected area model, the national park, in a context of conservation-friendly institutions with broad stakeholder involvement. National parks are framed in six principles: enabling legislation for

each park; a management agency with unified authority within park territory; broad participation of multiple stakeholders; separation of park oversight and business operations; systematic management according to IUCN (World Conservation Union) guidelines; and coordination and benefit-sharing with nearby communities, urban centers, and protected areas (JPO 2001:25-26). The accompanying Ecoregional Assessment identifies five priority areas for conservation action: Lashi Lake, a wetland near Lijiang; Laojun Mountain, a region west of Lijiang home to red sandstone outcrops, alpine lakes, and Yunnan Golden Monkeys; Shangri-la Gorge, a swath of northern Shangri-la County; Meili Snow Mountain, an area along the Lancang River in Diqing Prefecture including Kawagebo;[1] and the gorge of the Nu River west of Diqing (YGRPPT 2001:9). The Action Plan proposes that northwest Yunnan be designated a Special Conservation Zone in the spirit of the Special Economic Zones that have had a famous role in coastal China's economic ascent. This Special Conservation Zone would have several committees and councils dedicated to coordinating conservation and development; a comprehensive protected area management system; community-based co-management efforts; secure forest tenure; "green tourism" fostered through improved policies and capacity building; and efforts to constrain environmentally destructive industries (ibid.:25-34).

The Action Plan invokes international and domestic policies as sources of legitimacy. It calls for adopting internationally recognized forms and practices, citing the IUCN categorization of national parks and examples of national parks in the United States and elsewhere.[2]

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[1] Meili Snow Mountain is a translation of the commonly used Mandarin name for the area around Kawagebo. Government actors have promoted the use of this name, while it does not correspond with local residents' conceptions of these places. For more on these names, see Litzinger (2004) and Guo (2009).

[2] These versions of national parks have complicated relationships to one another. IUCN categories refer mainly to the types of land use allowed in a protected area, presuming management "through legal or other effective means" (Dudley 2008: 8). In this context, the U.S. national park "model" concerns organizational traits, particularly unified

Simultaneously, the Action Plan is presented as "a practical implementation blueprint" that seizes opportunities provided by the Great Opening of the West (on this policy program, see Chapter 1). It invokes forest conservation under the Natural Forest Protection Program and Sloping Land Conversion Program; technological innovation to raise industrial energy efficiency and control pollution; consolidation of polluting industries in large, efficient enterprises; nature tourism development; and transportation infrastructure and urban construction. The authors justify their proposals by tying them to existing policies and aspirations to international model status.

The Action Plan gives conflicting pictures of residents. Residents were by default treated as threats to biodiversity in TNC's Conservation Action Planning standards, complicating the efforts of the TNC China Program to join conservation of biodiversity and culture. The predominance in state circles of a narrative seeing residents as profligate resource users compounded these difficulties. As a result, the Action Plan, while asserting that residents should have a role in decision-making, advocates changing residents' "crude production practices" to reduce dependence on natural resources rather than supporting resource use practices that do not harm ecological integrity, much less asking residents what they prefer to do. TNC's subsequent proposals validate resident-led resource conservation, but this narrative of destructive resource dependence would remain in later government pronouncements.

While persuading Yunnan authorities to issue such a plan was a landmark achievement, building on the plan and the relationships built through it would prove difficult. For the

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oversight by an agency like the National Park Service, commercial operations subject to concessions policies, and outreach and negotiation with surrounding communities (Machlis and Field 2000, Sellars 2009). TNC and government agencies in Yunnan strategically draw on both IUCN and U.S. National Park rubrics for different purposes.

agencies TNC was working with, the conservation aims of the Great Rivers Project were accessory to other goals. During the Great Rivers Project, TNC's main government partner was the provincial Planning Commission (*jihua weiyuanhui*, renamed the Development and Reform Commission, *fazhan yu gaige weiyuanhui*, in 2003). The Planning Commission refused promised funds for a subsequent project, creating difficulty for partners TNC had recruited. One of these partners, a conservation scientist, attributes the Planning Commission's renege to its preoccupation with economic growth and lack of genuine concern for conservation issues. The Nature Conservancy's next major collaboration took a similar trajectory. Between 2002 and 2003, TNC worked closely with the Yunnan Province World Heritage Office of the provincial Department of Housing and Urban-Rural Development (HURD; *zhufang he chengxiang jianshe ting*), providing assistance in the successful application for World Heritage Site status for the Three Parallel Rivers region. This partnership, too, was short-lived. While as late as 2005 national park proposals indicated HURD as the central implementing agency, the provincial HURD Department was uninterested in that vision for protected area management and did not support the new category.

TNC was also intensifying its work with local governments. Representatives of numerous prefecture and county government agencies in northwest Yunnan had provided inputs for the Great Rivers Project. TNC set up several local offices that served as bases for field operations and enabled TNC to maintain a continual presence in local policy discussions.

Meanwhile, local governments were consolidating efforts around new development strategies. Since the late 1990s, the Diqing Prefecture Government has mobilized around four "pillar industries," mining, hydropower, biological products (farmed and wild products that can be

gathered or cultivated for sale), and tourism, with the idea of "turning Diqing's resource advantage into economic advantage" (Li 2000, Diqing Prefecture Development and Reform Commission 2008). Tourism is central among local government priorities because, in contrast to mining and hydropower development, whose revenues are subject to requisitions by higher levels of government, tourism revenue can potentially be kept entirely within the prefecture. Well before the 1998 logging ban, local leaders had begun urging a shift in development focus from extraction to tourism. The Diqing Prefecture government's resolution to convert scenic and cultural resources into high-quality attractions meshed with TNC's wish to promote national parks. However, efforts to scale up biological products, hydropower, and especially mining would raise hurdles to achieving TNC's vision of conservation at an ecoregional scale.

Planning for Nature Tourism

Following the Action Plan, TNC facilitated further efforts to study and discuss the biological and cultural resources of northwest Yunnan. These projects focused on the Shangri-la Gorge area, a rugged stretch of northern Shangri-la County where fieldwork found high concentrations of vegetation, natural forest, and plant diversity targets (YGRPPT 2001:59). In 2002, the government of Shangri-La County signed a memorandum of understanding with TNC on biodiversity conservation and sustainable development in Shangri-la Gorge. With partners at research institutions in Yunnan, TNC staff undertook baseline surveys of geology, soils, vegetation, wildlife, and residents' resource use practices. The resulting feasibility report, like the Action Plan, depicts a landscape of extraordinary biological value and entrenched poverty and urges in response the designation of Shangri-la Gorge as a Special Ecological Zone and the introduction of national parks (BCSD Program Team 2003).

This report further elaborates a vision for national parks, in which a national park protects the environment, conserves biodiversity, supports recreation that benefits the local economy, gives rural residents a prominent role in decision-making bodies, and promotes scientific research and environmental protection education. It makes specific suggestions for the organizational components of such a park, urging the establishment of a set of decision-making bodies, including "grass-roots local participatory management bodies" (ibid.:27). This scheme has important offerings for governments at county and, particularly, prefecture levels. First, while an administration agency would have overall authority over park affairs, local governments would have a stake in the park and potential to obtain revenue from tourism operations. Second, "[t]he successful implementation of this program will mark a new phase of China's conservation cause," creating a model that might be imitated throughout the region, thus raising the profile of Diqing and its leaders (ibid.:18).

As TNC intensified its focus on Shangri-la Gorge, while continuing efforts at Meili Snow Mountain and Laojun Mountain, changes were taking place within the organization. TNC expanded the Yunnan office into an official China Program in 2002. Also, the national parks project involved TNC increasingly with the Research Office of the Yunnan Provincial Government. This agency is charged with conducting research about a variety of topics, mainly concerning economic development, and providing reports to the provincial government to provide empirical foundations for policy decisions.

At the direction of provincial leaders, the Research Office worked with The Nature Conservancy to produce a report on the prospects for establishing national parks in Yunnan. The *Comprehensive Report on Establishing National Parks in Northwest Yunnan* (Research Office and The Nature Conservancy 2005a; hereafter Comprehensive Report) follows the same narrative arc as

the other documents reviewed here—great biological riches, underdevelopment, urgent threats, national parks as a win-win synergy of conservation and development—but this report reads very differently. The hand of the Research Office shows in the repeated invocation of policy formulas like "scientific developmentalism" (*kexue fazhan guan*) and recent policy initiatives like the *2004-2010 Action Plan for Redoubling Tourism in Yunnan*. The Comprehensive Report also accentuates the eagerness of local governments to adopt the national park model and the potential of this model to make the region stand out in China and become a world-renowned tourism destination. More than the preceding reports, this one speaks to government agencies in their own terms and, by envisioning a national parks coordinating office staffed by multiple agencies, gives them each a stake. Working with the Research Office made TNC more able to articulate the national park project in language officials were ready to receive.

The Comprehensive Report was accompanied by specific proposals for five national park units,. These proposals emphasize the separation of oversight from business operations, stakeholder participation, integration with the surrounding region including resident communities, and granting a national park administration bureau overall authority to manage and oversee activities within each park. They also suggest a major support role for TNC in park management. The plans divide each park into a set of functional zones, including a Special Conservation Zone limited to scientific research use; a Special Scenery Zone with ecotourism, basic research, and "ecological experience"; a Backcountry Recreation Zone including settlements where residents would run guesthouses; and a Belt Conservation Zone containing a visitor center and other facilities. There is no mention of whether or how residents might continue farming, herding, and gathering activities, though pasture sightseeing is to be part of the attraction. The main visitor facilities envisioned are hiking trails, visitors' centers, resident-run guesthouses, and service

stations along the trails. The proposals provide for business operations to work as concessions granted by the administration bureau, subject to its oversight and paying a proportion of revenues to support conservation management (Research Office and The Nature Conservancy 2005b, 2005c).

Alongside these proposals and countless discussions, TNC also took officials on a fact-finding trip to Yellowstone National Park in the United States. By the end of 2005, senior officials in Yunnan had "endorsed plans to begin building a pilot national park system in northwest Yunnan" (TNC China Program 2007). The Research Office and TNC prepared a book of sixty questions and answers about national parks, copies of which were distributed to various government agencies in Yunnan as part of a campaign for support.

While TNC was honing its proposals and winning support among provincial leaders, regional authorities were elaborating their vision of an upgraded tourism economy in northwest Yunnan. In January 2004 a committee of provincial Tourism Bureau personnel, tourism industry figures, and scholarly experts on tourism issued a *Development Plan for the Northwest Yunnan Shangri-la Eco-Tourism Area* (hereafter Ecotourism Plan) as part of a broader initiative to reinvigorate Yunnan's tourism economy (Working Group on Drafting the Development Plan for the Northwest Yunnan Tourism Region 2004). Like the Action Plan, this plan represents an effort to coordinate across northwest Yunnan over a broad issue area. However, its emphases are quite different. The Ecotourism Plan pushes upgrading and coordinating tourism in an environment of competition with other regions. Whereas national park proposals situate northwest Yunnan in a biodiversity hotspot at the confluence of different ecological zones, the Ecotourism Plan emphasizes northwest Yunnan's location within the Shangri-la Eco-Tourism Region crossing western Sichuan and eastern Tibet, in competition with these other areas to attract tourists.

The Ecotourism Plan speaks from the mindset of the tourism industry, in terms of brands, products, routes, attractions, and accommodations. It calls for moving beyond sightseeing tourism to cultural, natural, and recreational products that keep tourists staying and spending in the region in order to raise northwest Yunnan's competitive profile, and specifies attractions to be developed, including sites TNC had urged for national parks, as well as management agencies for them. Whereas the TNC-facilitated national park proposals recognized unplanned or poorly managed tourism as a problem, this plan specifies areas of management to be developed and ways to develop them. However, it is less specific on environmental protection and resident involvement. While the Ecotourism Plan states emphatically that environmental protection measures need improvement and names nearly every proposed project a "conservation and development project," it does not indicate what conservation measures will be undertaken. Meanwhile, the Ecotourism Plan recommends increasing residents' participation in the economic benefits of tourism, "thus raising their activeness and conscientiousness about protecting tourism resources and supporting the development of the ecotourism region" (ibid.:22). It emphasizes resident participation as a pecuniary exchange to induce cooperation in large-scale tourism development.

The Ecotourism Action Plan brings into view the intensification of tourism planners' involvement in national park initiatives. The governments of Diqing Prefecture and Shangri-la County had been hiring tourism planning specialists since the end of the 1990s to develop prospectuses for particular attractions and for the general sweep of tourism development in Diqing. These planners are usually teams headed by professors in tourism management departments at universities or staff at planning consultancies.

Planners gather a broad array of information and synthesize it into workable plans that set what must, can, and cannot be done at a given location over a certain period of time. An overall plan for a protected area generally includes an introduction indicating the goals, scope, and justification of the plan; a description of the landscape and its geology, topography, and ecology; a catalogue of conservation targets; a description of human settlements and the living conditions of their residents; an outline of conservation measures; a list of measures for treatment of residents; a set of general prescriptions for tourism practices and their locations; prescriptions for infrastructure; and guidelines for management of various objects and issues. Planning teams consult with local authorities about intentions for the site. They ensure that plans accord with relevant laws and regulations. They conduct archival and field research on the biophysical and social contents of a project area. They do surveys of residents to ascertain their skills and aspirations related to conservation and tourism and market surveys to assess visitor demand. They compile maps and draw up tour routes and layouts for facilities. They research the construction and cost requirements of transport routes, built structures, waste disposal systems. When a plan is drafted, it undergoes review by relevant local authorities and approval by the next-highest level of government, in the case of national parks overseen by prefecture governments, the province.

Holding the keys to getting the plan composed and approved, the heads of planning teams are quite influential. A head planner is a licensed expert who brings knowledge about tourism operations in other places and has the potential to bring in profitable elements that local authorities might not know about. A head planner is usually well connected, having worked on a succession of projects across a region or province and hired by local officials who are keenly interested in her work, as it sets guidelines for what is intended to be a major revenue-

generating vehicle. Over the course of a year or more, through meetings, conversations, meals, and site tours, she builds a working relationship with local leaders. Tourism planners are able to draw on their expert status and trust sedimented through past projects to exercise discretion. They may insert elements in a plan that reflect their own inclinations, whether trends in tourism products, conservation measures, or ways to involve residents. Planners would play a key role in translating national park proposals into working attractions, though their ability to persuade local authorities to adopt conservation and participation measures was limited.

In 2006 the Government of Yunnan Province commissioned the Research Office to draft a report addressing concerns about national parks' impacts on other industries. The *Summary Report from Research on Relationships between National Parks and Industrial Development in Northwest Yunnan* (Research Office 2006) highlights the complicated relationships between national parks and the region's major industries, tourism, forestry, hydropower, and mining, as well as transportation infrastructure. It claims that insufficient management measures for tourism have caused unneeded environmental damage, while unclear division of responsibilities over tourism development causes suboptimal utilization of tourism resources. National parks, it follows, provide precisely the tools that would solve these problems, raising the quality of tourism and ensuring the protection of scenic resources—and establishing a new brand for tourism in northwest Yunnan. The proposed national park boundaries have little conflict with roads, rail, and reservoirs, though there might need to be zoning adjustments for planned hydropower development. National parks might even provide employment for people displaced by big dams. Finally, while some overlaps with mining might emerge in the area proposed for Shangri-la Gorge, these would be minor and easily remedied.

The report concludes that overall national parks would have a synergetic relationship with infrastructure and industry; there are no unresolvable contradictions. It is hard to see how it could conclude otherwise. This report illustrates how efforts at promoting conservation have to contend with powerful interests in resource exploitation. Provincial officials are under pressure to realize a vision of technological, industrial development. Conservation promoters had to do apparently uncomfortable maneuvering to show how national parks might be reconciled with that project.

These claims of accord notwithstanding, as governments prepared to turn proposals into actual parks, tensions surfaced. The first hint of these came with the appearance in the Comprehensive Report and the Ecotourism Plan of an additional national park site, Bita Lake-Shudu Lake.

Community-Centered and Concentrated Tourism

Bita Lake and Shudu Lake are alpine lakes surrounded by wetlands, the former designated a wetland of international importance under the Ramsar Convention, just over twenty kilometers east of the seat of Shangri-la County. Both had been receiving visitors since the early 1990s. At Bita Lake, residents of surrounding communities gave visitors horse rides around the wetland and sold them refreshments. The Bita Lake Provincial Nature Reserve Management Office, subordinate to the county government, set up a ticket office and assisted residents in organizing horse ride services into a collective enterprise. Over the next decade there were halting attempts to privatize tourism management. In 2004, the county initiated plans to reconstruct the attraction. The next year the Diqing Prefecture government set up an administrative bureau to oversee the park and a tourism company to manage its assets. Construction of new roads and a visitor center commenced (Tian & Yang, 2009). The newly formed Diqing Prefecture Tourism

Development Investment Company (TDIC),[3] a financing platform that enabled the prefecture government to leverage funds to invest in tourism attractions, assumed control of tourism operations. The prefecture government hired planners from the Ecotourism Faculty of Southwest Forestry College in Kunming to draft a plan for the new attraction. In summer 2006 the area reopened as Pudacuo National Park. Visitors to Pudacuo National Park shuttle through a vast entrance hall and board buses painted green to remind visitors that they meet stringent European Union emissions standards. On the bus, park employees with microphones recite facts and stories about the park's geography and animal, plant, and human occupants. At two points, visitors can leave the buses to walk raised wooden walkways along the wetlands, and at another they can disembark to view residents pasturing yaks on an alpine meadow.

The Pudacuo National Park Tourism Services Company, a TDIC subsidiary, operates the attraction. Within Pudacuo National Park, the Pudacuo National Park Administration Bureau is responsible for conservation and community affairs. Though charged with overseeing tourism operations, it is unable to make effective claims on the Tourism Services Company. While both have the same administrative rank, when disputes arise between them, the TDIC receives preference, resulting, for example, in delayed compensation payments to residents and limited funding for conservation. Officials at Pudacuo, while not revealing precise figures, say that a small proportion of the park's tourism earnings are expended on conservation management. Bita Lake Provincial Nature Reserve receives funding from national environmental protection and forestry agencies for wetland conservation and from provincial agencies for projects to identify and monitor specific species, as well as through facilitating research by visiting scientists.

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[3] In 2012, the TDIC (*diqing zhou lüyou kaifa touzi youxian gongsi*) was reincorporated as Diqing Tourism Development Group (*diqing zhou lüyou fazhan jituan*).

In contrast, the park makes substantial façade management efforts. The reconstruction of Pudacuo National Park included environmental protection measures to enhance visitor experiences. Less than 3% of the park's area is designated for tourism uses, and the rest is intended to be free of tourism's influence. To reduce trampling, the park replaced horse trails with buses and walkways. In 2010, the park employed residents to dig up an area near the tour route for an artificial pond to be stocked with native fish to provide an additional vista for visitors.

Residents' role has also changed substantially. Residents were incorporated into the new national parks as employees and recipients of compensation. In return for relinquishing the right to provide services directly to tourists through the horse-ride cooperative, park authorities employ members of resident households from four communities as sanitary workers. Additionally, in several communities within and surrounding the park, each household receives an annual payment based on the number of household members. In 2009, the total compensation issued to residents was RMB 3.04 million, 2.6 percent of the park's ticket revenues for that year. Counting income from sanitation employment, that year residents' portion of park income was less than 5%. A Community Affairs Committee composed of representatives of communities, the Tourism Services Company, the Administrative Bureau, and township and county governments has provided an arena for consultation and negotiation with residents about compensation levels and permitted activities. Residents have been allowed to continue farming and gathering fuelwood, green fertilizer, and non-timber forest products in collective lands, and several households pasture yaks and cattle as tour buses shuttle by.

These changes have drawn varied responses. At Pudacuo National Park, initially residents were unhappy with losing their rights to provide horse rides, and they found the compensation the

park offered too meager. In 2008, the park raised the level of compensation. Even after this some discontent remained. Some residents see their share of the take from the national park, totaling less than five percent of annual revenues, as unfairly small. Others express faith that the national park management will make good in time. Some of these returns have already come to pass; by 2012, Pudacuo National Park had followed through on promises to provide running water to each household and had begun construction on a hotel that residents could take part in running.

Pudacuo National Park was an immediate commercial success. The new bus route configuration enabled the cycling of thousands of tourists through the park daily. The TDIC was authorized to require travel agencies operating package tours in Diqing to take tours to Pudacuo National Park, ensuring a steady stream of visitors. In 2007, the park sold over 566,000 tickets. In 2009, there were 657,700 paying visitors and RMB 117 million in ticket sales, far exceeding the 253,100 visits in 2002 (Ye, Shen and Li 2008). Of the RMB 118 million in profits Pudacuo realized between 2006 and 2009, RMB 75 million were transferred to prefecture government finance, in addition to RMB 17.7 million in taxes (Diqing Prefecture Tourism Development and Investment Company 2010). Based on these figures, 78.6% of the company's profits were transferred to the local government, equivalent to 7.9% of the prefecture government's budgeted revenues for the same period. While figures on internal expenditures are not publicly available, respondents claim that over half of these revenues were submitted to the prefecture government budget, and most of the remainder went to paying down loans for development projects, so it is defensible to infer that the proportion of revenues allocated for operational expenses is small.

Pudacuo's performance did not go unnoticed. The governor of Yunnan Province attended the official unveiling of Pudacuo National Park in June 2007, and further promoting national parks was put on the provincial government's work agenda for 2008. The provincial government's

blueprint for tourism development for 2008 to 2015 put national parks among five attraction types slated for concerted efforts (Yunnan Province Tourism Bureau and Yunnan Development and Reform Commission 2008). Diqing Prefecture surged ahead in promoting national parks, unveiling two more parks, Shangri-la Yunnan Golden Monkey National Park and Meili Snow Mountain National Park, in late 2009.

Meili Snow Mountain National Park spreads from the summit of the 6,740-meter peak Kawagebo toward the banks of the Lancang River over 4,000 meters below. The area's forests and alpine meadows harbor a wealth of plants and animals as well as pastures used by community residents. Sixteen communities, with a total population of over 13,000 people, fall within Meili Snow Mountain National Park's official boundaries (Yunnan University Tourism Research Institute 2008).

Despite the designation of Meili Snow Mountain as a national park, community-centered tourism operations persist there. These activities began in the late 1990s at Mingyong, which sits at the base of a glacier that billows down below the Kawagebo summit.[4] As at Bita Lake, as increasing numbers of tourists visited the area, residents of Mingyong village began providing mule rides up to the temple and lookout point over the glacier. Residents pooled money, with assistance from the county government, to widen the trail to the glacier. A number of households built hotels or expanded their homes into guesthouses. Mingyong was soon the richest village in the county. In 2003, the pivot of a sixty-year ritual cycle brought an especially large influx of pilgrims circumambulating Kagagebo, joined by a large crop of tourists. These

[4] The influx of tourists to Mingyong came after mountaineering expedition to top Kawagebo, which ended in the death of all participants in an avalanche, brought heavy media exposure of the area. Local residents saw the effort to climb Kawagebo as a desecration of the sacred mountain. The aforementioned effort to ban mountaineering at Kawagebo, in which TNC collaborated, grew from this concern.

visitors went not only to Mingyong, but to Yubeng, a community nestled in a high valley. The county government provided funding and logistical support for widening the trail to Yubeng to facilitate access for tourists and pilgrims, employing community members' labor. With encouragement from the county government, residents of Yubeng and neighboring Xidang organized mule-ride rotations to carry tourists to Yubeng and the waterfall and ice lake above it, while several Yubeng households began providing accommodations. A number of TNC's community projects focused on cultivating community-based tourism and reducing fuelwood demand in these communities by assisting residents in installing fuel-efficient stoves and biogas and solar water heating apparatuses.

Meili Snow Mountain was designated a scenic area as part of the Three Parallel Rivers World Heritage Site in 2003, and its administration bureau was established in 2005. Following the commercial success of Pudacuo National Park, the Diqing Prefecture Government rechristened the area Meili Snow Mountain National Park and designated a subsidiary of the TDIC to run ticket operations. Conversion into a high-volume tourism attraction did not immediately follow. Along with the viewing station at Feilai Temple, outside the park's gates, Mingyong and Yubeng remain the park's central attractions. The necessity of going through these communities to get to core scenic spots and the centrality of staying in a bucolic village to Yubeng's appeal to tourists complicate efforts to intensify tourism development. In addition, the area's World Natural Heritage Site status obstructs efforts to expand tourism infrastructure. While the local government decided to build a road into the park in 2008, the project was vetoed at a higher level, and designs to build a bus route or cable car line to intensify tourism have been held off due to concerns about potential impacts on the site's World Heritage designation. By the summer of 2011, local authorities had submitted to the Ministry of Housing and Urban-Rural

Development, which oversees World Heritage Sites, two proposals for scaling up the attraction, one involving a road and the other involving a cable-car. The ministry had not yet issued a decision.

As a result, community-centered tourism operations remain, though in increasing tension with park authorities' efforts to standardize and scale up tourism in the park. Park authorities intervened when Mingyong residents, unhappy with the distribution of ticket revenues, began charging a separate entry fee (Meili Snow Mountain National Park Administrative Bureau 2012). In Xidang, village officials charge that the Tourism Services Company had not paid the village rent for administration station facilities. Some residents complain that while the national park collects ticket fees from every visitor, it has not invested this income in beneficial infrastructure in the park. Similar frictions between park authorities and residents of Xidang and Yubeng are the subject of chapter 6. As in Pudacuo National Park, an administration bureau charged with conservation is effectively subordinate to the National Park Tourism Services Company, whose revenues do not support systematic conservation efforts.

Each of the parks set up organizations to mediate with rural residents. Pudacuo National Park established a community affairs committee with representatives from villages around the park, local government offices, the tourism company, and the Administration Bureau. At Meili Snow Mountain, administration stations charged with regulating tourism services and conservation efforts have become points of contact between the park and communities. Some station personnel are drawn from those communities. These personnel attend village council meetings and relay concerns from communities to national park management and vice versa. In both, residents continue to farm, graze, gather forest products, and gather fuelwood and timber from collective forests, as in communities outside the parks. As the parks lack conservation

management capacity, by default residents are the primary implementers of resource management. In some cases, as with the accelerating use of timber to build guesthouses in Yubeng, residents raise concerns about tourism's impact on beliefs and institutions that had once constrained resource use—the very beliefs and institutions that TNC's initial efforts had aimed to nurture.

Responding to National Park Development

The choice of Pudacuo as the site for the initial national park was a disappointment for TNC staff. According to one former staff member,

> TNC was trying to get protection where it didn't exist already, in order to extend protected area coverage to key biodiversity-rich areas, so we had not sought national park status for Bitahai, which was already a reserve. We pushed . . . to get Shangri-la Gorge made into a national park. But the Diqing government had its own considerations. (090604A, TNC former staff, male)

TNC's strategy for promoting national parks focused on expanding the region's portfolio of protected areas by securing conservation designations for new sites. As noted above, field research had found Shangri-la Gorge to have one of the richest concentrations of biodiversity in northwest Yunnan. But the local government was moving in another direction. According to an official from the Pudacuo National Park Administration Bureau,

> [Shangri-la Gorge] is 102 kilometers out of Shangri-la, and there was no infrastructure, so it would be really hard to set up tourism there. In terms of tourism amenities, it might be good for whitewater rafting and backpacking, but it's not well situated for mass tourism. (090701A, Pudacuo National Park Administration Bureau staff, male)

Local authorities wanted to build a high-volume tourism operation. The vision of low-volume, backcountry tourism presented by TNC and the Research Office did not mesh with their

priorities. The overlap of the proposed Shangri-la Gorge National Park with a major copper seam gave the local government further reason to demur on that site.

Pudacuo National Park looks quite different from the hiking trails and backcountry bed-and-breakfasts proposed by TNC and the Research Office, and it has not instituted the independent, unified oversight that they endorsed. Looking to practices in places like Bita Lake, Mingyong, and Yubeng, TNC and its collaborators had promoted national parks as a way to build on existing community-centered tourism institutions. Instead of taking backpacking treks, visitors ride buses. While the new park limited tourism use to less than five percent of its area, dedicated facilities for conservation have not been built. While local authorities have set up a separate administration bureau and tourism company, staff at the administration bureau are unable to make effective claims on the tourism company because the tourism company, granted the same bureaucratic rank, has greater clout. Minimal funds from tourism revenues are directed to conservation activities, and the administration bureau's operating expenses come out of the prefecture administrative budget. This set-up is very different from the concessions system envisioned in the Comprehensive Report, in which an administration bureau would be empowered to define the scope of tourism operations and collect a proportion of revenues as a concession fee to be used for resource conservation. The Bita Lake Provincial Nature Reserve Administration Office continues to facilitate patrolling, monitoring, and research, without substantial added support. Multi-stakeholder decision-making committees are absent. While the national park has revolutionized tourism at the site and made it much more profitable, it is not clear that it has added anything to the practice of biodiversity conservation or resident participation in decision-making or conservation.

While the realized park was far from TNC's visions, planners had moderated some of local officials' plans. For example, while local leaders had wanted to construct a set of small dams along a wetland stream to artificially replicate the cascades of Jiuzhaigou, an attraction in northern Sichuan, the head planner persuaded them that this was an undue modification of the area's scenery (20110724A, male, tourism planner). Also, planners drafted a two-stage plan, designating areas away from the bus route for low-impact, backcountry tourism activities envisioned in TNC's proposals, to be developed once the mass tourism route was established.

With the commercial success of Pudacuo National Park, the prefecture government put national parks at the center of its tourism development plans. The chief of the Diqing Tourism Bureau declared,

> Based on the successful experience of establishing Pudacuo National Park, Diqing will rapidly promote and boldly explore national park construction, management methods and standards, as well as innovative tourism development and management methods, to make national parks become a key pillar of the Shangri-la tourism brand. (Liu 2009:1)

In the competitive market sketched in the Ecotourism Plan, local governments strive to make their localities' tourism attractions more visible. Seeing this potential in Pudacuo National Park, leaders in Diqing seized on national parks to advance the area's prospects.

Pudacuo National Park created a challenge for TNC. Some staff members did not want to support an operation that departed so sharply from the organization's vision. In the end, the decision was made to provide support in order to try to push Pudacuo toward something more like that vision and to ensure that TNC could remain involved in further efforts around national parks. TNC provided assistance for staff training and developing interpretive materials. Its staff worked with prefecture authorities on drafting legislation. Finally, TNC staff and the Ecotourism Faculty of Southwest Forestry University conducted a participatory rural appraisal

to identify residents' skills and needs applicable to directly providing tourism services in the park, including traditional handicrafts, performances, and accommodations. Park authorities did not adopt the resulting report's recommendations for enabling residents to co-manage and directly provide tourism services (TNC China Program and International Ecotourism Research Center 2009).

A leadership transition in 2008 brought major changes within the TNC China Program. Yunnan native Rose Niu, who had led TNC's efforts in China since their initiation in 1998, was replaced by Sean Zhang, a technical expert who had worked on policy projects based at the TNC China Program's Beijing office. This transition cemented a shift in focus from Yunnan toward regional and national projects. While following the 2008 economic downturn the TNC China Program's funds fell by about half, two-thirds of Yunnan staff were cut, including several who had led place-based projects in northwest Yunnan. Several field offices in northwest Yunnan closed. People who had long-term relationships with TNC before the transition report that these relationships were damaged by the departure of experienced staff. Especially for relationships with the local cultural experts and governments TNC had been working with since the 1990s, TNC's organizational shift was profoundly disruptive.

TNC continued to promote national parks, its efforts shifting to shaping incipient national parks at Meili Snow Mountain and Laojun Mountain and engaging provincial agencies on policy and oversight. In 2007, TNC obtained co-financing from the European Union-China Biodiversity Programme for a project aimed at developing and implementing legislation for these parks, establishing functioning organizational structures, building management capacity, facilitating participation of local communities, and promoting awareness and advocacy for replicating the new model.

In Diqing, while national park development surged, policy lagged. Establishing national parks brought into being administration bureaus and business operators whose organizational interests conflicted with those of many other agencies. As a staff member at the Pudacuo National Park Administration Bureau reports,

> Within the prefecture, forestry, tourism, land resources, and hydrology departments as well as Tourism Development Investment Company all want a hand in what's going on [in the national park].. . . . Forest management is in the purview of the Forestry Bureau. So Forestry employees regularly go into the park to do their work. Tourism and other bureaus send special guests, demanding that they not be charged for tickets. But if there's an accident in the park—say, a tourist gets injured—everyone points their fingers at the National Park Administration Bureau. We need them to facilitate our work; right now we have no power to fine people for infractions or get other departments to work along. (090701A, Pudacuo National Park Administration Bureau staff, male)

Staff at National Park Administration Bureaus struggled to assert the roles that national parks' founding statements prescribe. While local leaders boldly declared new national parks—ahead of provincial agencies' approval—they showed less eagerness to issue regulations that might constrain tourism and other endeavors.

Provincial agencies also contended over the new category. As of 2008, TNC had a new ally in advancing national parks, the Yunnan Province Forestry Department, which had previously been chary of the national park effort. The Forestry Department's about-face followed events in Beijing and Kunming. In 2007, the chief of the Yunnan Forestry Department was replaced, and when the new chief did a fact-finding visit to Pudacuo, he was impressed (interview, planning expert, 9 May 2010). In May 2008, TNC co-sponsored the China Protected Area Leadership Alliance Project, aimed at building management capacity at model national nature reserves. Twenty-seven participants from across China, including seven from Yunnan, took part in classroom training at Tsinghua University, two weeks of field study in the mainland United States including visits to several national parks, and a week of workshops at the University of

Hawai'i. At that point the Yunnan Forestry Department applied to the State Forestry Administration to allow Yunnan to pilot national parks. In June 2008, the State Forestry Administration issued the "Notice on Approving Designating Yunnan Province as a Pilot Province for Constructing National Parks," authorizing the Yunnan Forestry Department to undertake work on a national park model and to set up an office for that purpose (State Forestry Administration 2008). Shortly thereafter the Nature Reserve Administration Office of the Yunnan Forestry Department assumed the added title of National Park Administration Office (NPAO). In July Southwest Forestry College held a conference on national park development, at which the Yunnan Forestry Department took a central role. TNC, the Research Office, and tourism planners at Southwest Forestry College had helped garner substantial support from the Forestry bureaucracy.

The NPAO began working with TNC, the Research Office, and tourism planners to build national park policy and management capacity. In 2009 the Yunnan Forestry Department released a long-term plan for developing national parks, emphasizing the importance of comprehensive management authority within parks for national park management agencies that would now be supervised by the NPAO. This plan set out an agenda for establishing twelve national parks across the province by 2020 (Yunnan Province Government 2009). By the end of 2009, plans for four, including a new plan for Pudacuo National Park, had been approved by the Yunnan provincial government. With assistance from TNC, the NPAO facilitated three training workshops and conferences for staff at current or planned national parks. By putting the NPAO in repeated contact with current and prospective national parks' administration bureaus as a management resource, these activities worked to consolidate its role as the main agency in charge of national parks.

Local governments contest the NPAO's efforts to influence national parks. Having taken the initiative to make national parks happen on the ground, they assert a prerogative to make decisions about park administration. Responding to these challenges, the NPAO has pushed to advance national park policy within the province and to get involved in the day-to-day affairs of each national park. The Yunnan Forestry Department and the Research Office issued a report in 2009 affirming the potential of national parks to mitigate conflicts between resource use and conservation. It identified problems concerning overlap with nature reserves and scenic areas; disconnects in provincial agencies' oversight of local government agencies; national parks' inadequate provision for community development; tourism's contributions to meaningful conservation actions; and a lag in legislation that might resolve these issues (Yunnan Province Forestry Department and Yunnan Province Government Research Office 2009; see also Research Office 2010a, 2010b). Provincial legislation faces hurdles similar to those impeding local legislation, as agencies balk at encroachment on their jurisdictions. The NPAO also commissioned four teams of attraction planners to draft technical standards for national parks, which required approval from a provincial bureau but did not need to pass through the legislature. With these standards, the NPAO asserted the authority to bestow or revoke the label "national park"; to require regular, science-based assessment of biological and cultural resources and the impacts of activities within a park on them; and to stipulate where construction is allowed and how it must be approved.

The NPAO worked to get involved in the practical management of national parks through on-the-ground programming. Trainings not only acquainted park personnel with a conservation-oriented vision of national parks but drew them into continued interaction with the NPAO. Likewise, in 2010, the NPAO initiated biological surveys at several national parks. These surveys

were intended to provide baseline data for longer-term monitoring of vegetation and wildlife. Through these actions, the Forestry Department has worked to demonstrate continual engagement with management agencies at national parks.

The Yunnan Forestry Department has pursued these efforts forcefully because as a new program with shaky legal foundations and the potential to impinge on various government agencies, the national parks initiative is quite vulnerable. Efforts around national parks have met with resistance from other provincial agencies, whose staff fear encroachment on their spheres of authority. In addition, national parks' lack of grounding in national law makes it hard for their administrators to make claims on other agencies. Park personnel avoid making strong statements about the administrative status of national parks, particularly any that would raise hackles with other agencies that provide them with support. Asked about the possibility that the national park project might not survive, one participant asserted that even if the title "national park" were eliminated, the forestry department would have set a foundation for stronger conservation management in these areas, which he says is important in itself.

Meanwhile, TNC retreated from on-the-ground work in northwest Yunnan. Its Shangri-la office closed in 2009, and TNC's last action at Pudacuo was the presentation of several flat-screen monitors to display the park's wonders in its entrance hall. After the departure of the head of the Deqin Office, interns struggled with local political convolutions around removing trash from rural tourism sites and a short-lived project to enlist villagers to monitor wildlife and poaching. When provincial agencies commissioned a new Action Plan for Biodiversity Conservation and Sustainable Development in Northwest Yunnan in late 2009, TNC did not participate.

Conclusion

The making of Yunnan's national parks illustrates how different state organs mobilize around protected areas and how the roles of international conservation organizations have changed over the past decade, showing how divisions within the environmental state convolute its actions. Because of their leverage in protected area management, local governments' development priorities have predominated in shaping national parks. Strand agencies competing for funds, jurisdictional turf, and prestige have made scenic landscapes terrain for pursuing differing organizational goals. TNC's approach has changed as its proposals have met obstacles and different government actors have seen or dismissed a role for TNC in achieving their goals. Meanwhile, other participants in the coalition TNC catalyzed early in the decade, particularly local residents and religious figures, have had little say in major decisions about these landscapes.

National parks have become a site of contestation within the environmental state as government units with divergent mandates compete for prestige and control. Local governments hold the controls of practical management of protected areas, but, competing to build high-profile attractions, they are not well disposed to support active conservation or resident involvement. The Diqing government seized on the national park idea to build a distinctive brand while at the same time mimetically replicating the mass tourism operations of places like Jiuzhaigou and Zhangjiajie-Wulingyuan. While protecting nature is at the center of local state discourse in northwest Yunnan, conservation actions are subject to priorities of tourism revenue and resource extraction. Meanwhile, strand agencies, especially at the provincial level, compete to acquire and maintain organizational turf. Development-oriented agencies have resisted the constraints TNC's proposals entail, while the Yunnan Forestry Department has found in this new model a chance to expand its purview and make visible accomplishments in protected area

management. But the disarticulation of its conservation goals from the aims of local governments has constrained the Forestry Department in strengthening park management. Local governments responding to pressures for tourism-led growth have become central actors in environmental management.

The establishment of national parks has recast the terms on which local residents and governments work with one another around landscapes. Whereas early in the 2000s threats to the sacred landscape had brought these groups together to demand that activities accord with this sacredness, the growth of tourism changed the stakes. In the 1990s, local governments assisted communities in what would become Pudacuo and Meili Snow Mountain National Parks in setting up cooperative tourism services that residents ran and from which residents obtained the majority of benefits. With the advent of national parks, local governments found a revenue interest in channeling visitors into high-volume attractions, an interest in tension with that of residents in maintaining autonomy in and a share of income from tourism in these landscapes. Because local authorities conceive of participation narrowly as economic benefit, they have incorporated residents through employment and compensation schemes. Management takes residents' concerns into account though in reactive response to complaints rather than offering proactive involvement in decision-making. Local governments have worked to cultivate and constrain residents' activities and wishes as much as promote them, and relationships between residents and park management have taken on a character of negotiation and, often, contention. At the same time, since local authorities have not invested in conservation management, residents have by default become, or continued to be, resource managers, but there have not been active efforts to understand and learn from their practices. In this context, TNC's proposals, while limited from the perspective of democratic participation, were groundbreaking,

and so they did not get very far with the local state. The national parks project worked to divide these parties among themselves as much as bring them together.

The obverse of these changes in the environmental state is a shift in the focus of international conservation organizations and a relative decline in their capacity to influence local practices. As domestic capacity for development and research have grown, what TNC has to offer has changed. In the late 1990s, the scientific studies and rural development assistance TNC brought met demands local and provincial governments had difficulty fulfilling, while its planning programs fit in with efforts of local governments and development-oriented agencies to identify natural and scenic resources. With these offerings TNC worked to win favor for its vision of national parks. A decade later, as domestic financial, scientific, and planning capacity grew and local government tourism agendas solidified, it became harder for TNC to promote a conservation model that constrains economic activity. Nonetheless, TNC's resources for policy consultation, helped by ties to the Yunnan Provincial Research Office, appealed to a Forestry Department working to raise its profile in protected area management.

The course of TNC's involvement in Yunnan shows an organization learning about the environmental state, working across scales to promote a conservation agenda, and adjusting that agenda in responses to changing signals from state agencies. As extractive interests in northwest Yunnan grew, TNC had to withdraw from a vision of coordinated, constrained development across an ecoregion and focus on specific national parks. TNC's vision for national parks diverged from local government agendas, straining relationships with local governments. TNC staff adapted their visions to respond to changing situations at national park sites and to appeal to changing government counterparts. New partners adjusted TNC's proposals, bringing in elements reflecting their roles in mediating with other agencies. Still, TNC clung to several

points, in particular empowering administration bureaus to oversee parks, subjecting business operations to concessions policies, and participation of residents in decision-making bodies, even when it became clear that local governments would not adopt them. Park planners incorporated elements of TNC's visions into designs that could satisfy local government authorities. The NPAO's vision, building on foundations laid by TNC and the Research Office, reflects national parks' roles in efforts to build forestry agencies' power and influence.

This unfolding of events raises important questions about international conservation organizations. It has been amply documented that these organizations' projects often yield perverse consequences due to the complications of on-the-ground engagement. Scholars often present such organizations as anti-politics machines that turn value-laden issues into technical problems their prefabricated toolkits can solve (Ferguson 1994, Tania Murray Li 2007). TNC's application of such a toolkit and struggles with local politics have some things in common with this picture, but its pursuit of political changes to prioritize active conservation management and resident involvement aroused local state resistance. Weak connections to the communities involved constrained TNC's advocacy. While this account does not claim that TNC was entirely benign toward residents, TNC staff have been aware of power differentials and actively worked to expand the involvement and autonomy of rural residents. Meanwhile, its efforts to promote active conservation ran up against local state agendas, and higher-level allies have little leverage to achieve this goal. In this narrative we see the staff of an organization realizing, however incompletely, the political implications of their efforts, but colliding with the countervailing projects of state actors and the limitations of their own ability to assist civil society stakeholders.

Chapter 4: Tourism and Conservation Management in Protected Areas across Southwest China

If you search for publications on protected area conservation in China, you are likely to encounter a passage like the following:

> the main challenges to the efficient functioning of nature reserves are the management regime, extremely strict regulations, conflicting responsibilities of various levels of government, finance mechanisms, land tenure arrangements and management, use of natural resources, ecotourism, conflicts between nature conservation and development of the local economy, human communities living in the reserves, poaching and illegal logging. (Xu et al. 2012: 558)

Nearly identical passages can be found in a long list of reviews of protected area management in China in the past two decades (Han and Zhuge 2001, Harkness 1998, Liu et al. 2003, Quan et al. 2011, Xie et al. 2004, Xu and Melick 2007).

These reviews tell us a great deal about the difficulties around conservation in China's protected areas. Yet they tell us very little indeed. These sweeping statements suggest that reserves' situations are uniform. Managers at a great variety of protected areas do, indeed, face these problems. But these parks exist in a broad variety of landscapes. Some are very small, while the largest span hundreds of thousands of square kilometers. Some are in densely populated areas, while others are sparsely populated or uninhabited. They lie within landscapes ranging from estuaries and wetlands to lakes encircled by farmland and towns to tropical rainforests to grasslands to temperate forests to deserts. They vary in levels of funding and policy support, what government agencies are in charge of them, and the type and intensity of tourism activities they host. While some of the reviews cited above complement sweeping statements with accounts from particular protected areas, most gloss over variation, identifying general problems with general policy solutions. This makes sense if your intention is to affect general policy—and

many of these authors do appeal to the central state to increase funding, clarify lines of authority, change conservation priorities, or introduce new legislation. But it may be that particularities across different protected areas affect how conservation gets done in ways that matter for how such policy changes should be considered.

I cannot address all of the important concerns raised in the above reviews. This study addresses a hypothesis that has been at the center of efforts to promote tourism at protected areas across China and beyond: under what conditions do scaled-up tourism operations support active conservation management? Across China, local administrations have replaced community-based tourism practices with high-volume tourism attractions, often in the name of improving conservation management. Proponents argue that these attractions, dependent on natural scenery, will close the "tourism-conservation loop" (Kirkby et al. 2011), in which the dependence of tourism operations on biological features ensures a virtuous cycle of effective conservation and increasing tourism benefits. Through a comparative analysis of qualitative data from nine protected areas in southwest China, covering a range of provinces, protected area types, and conservation targets, I examine the extent to which these claims are corroborated. In the process I uncover a set of mechanisms that contribute to active conservation management and another related to the ways governments approach tourism.

Before proceeding, I must make some distinctions concerning different varieties of conservation management. Conservation can mean different things to people with different concerns, and different conservation activities can have vastly different impacts on their targets. In recent decades, protected area conservation efforts have shifted from fencing off areas to be kept in presumably pristine states to actively intervening to avert threats and rehabilitate species and ecosystems. Such "adaptive management" requires identifying conservation targets and threats

to their flourishing, setting objectives concerning the status of targets and threats, monitoring indicators of those statuses, and responding to monitoring results in management decisions (Margoluis and Salafsky 1998). Active information-gathering and responsive decision-making require trained staff, funds, and authority to execute interventions. Lack of funding, political support, and authority often hinder such practices (Naughton-Treves et al. 2005). In the case of protected areas to which tourism operations are central, features of landscapes that attract tourists may preoccupy park authorities, and their efforts to maintain these features may or may not correspond to the goals of adaptive conservation management. In the early history of the U.S. National Parks, Sellars describes a pattern of *façade management*: "protecting and enhancing the scenic facade of nature for the public's enjoyment, but with scant scientific knowledge and little concern for biological consequences" (2009 [1997]: 4-5). Park authorities worked to maintain features like foliage, scenery, trails, and water quality, while giving lower priority to monitoring and managing objects of biological value that few tourists perceive. This is not to say that façade management interventions are trivial. Maintaining water quality, forested views, and intact trails requires funds and staff capacity and can have salutary effects on other natural resources. Active conservation management does not rule out preservation of façades but makes it subject to consideration of impact on conservation targets. But active conservation management practices require greater funding, staff time, and expertise in conservation science.

Readers may question the apparent acceptance of the perspective of conservation scientists represented here. Thoughtful critics urge that a reliance on professionalized, science-based conservation management can play into the subjugation of marginalized people and can backfire on conservation goals, too. These criticisms ring particularly clearly regarding the Tibetan plateau, where syncretized animist and Tibetan Buddhist customs of landscape veneration

manifest in keeping sacred sites and upholding taboos around various activities, while states and market hack away at indigenous people's livelihoods and identities. There is a curious asymmetry in arguments holding that science is reductionist and limited and therefore often wrong because of its social context, whereas traditional ecological knowledge usually (or always) gets it right. It is not that these are wholly untrue. But they fail to give due attention to the liabilities of relying wholly on traditional ecological knowledge in working out landscape management, as well as the useful things conservation science does. Conservation science and traditional knowledge are both often helpful in their domains of explanation, sometimes wrong in these domains, and frequently wrong beyond them. Statements about social and natural worlds based on disciplined observation and interpretation vetted through peer review provide insights that can contribute to humane conservation efforts. Likewise, in times and places of rapid change, too rigid an attachment to traditional ecological knowledge can distract from the ways the holders of that knowledge change in their practices and perspectives. Knowing a bit about each, I try to acknowledge the value both bring while maintaining a critical eye. In the case of conservation science, that means that I acknowledge the value practices like monitoring to understand biological systems and how human activities affect them as well as making management decisions in light of local residents' concerns as well as broader considerations of conservation goals.

Bringing up management decisions raises an even thornier issue: the political uses of science. In much of its history, conservation has brought the exclusion and oppression of marginalized people by elites armed with scientific findings. Of course, scientific practice is always suffused with politics, and claims of objective scientific imperatives are a handy tool in domination, but practices of citizen science, in which laypeople use measure and compare things like exposure to

environmental hazards using scientific tools for purposes of self-empowerment, show that people can make choices about how to use scientific knowledge, within a context of political constraints. Still, in suggesting that common prescriptions for conservation management be incorporated into China's protected areas I tread a delicate line. This analysis rests on the premise that devoting funds and staff to monitoring and patrolling of biodiversity targets and human activities that affect them, and making management decisions in response to information produced by these activities, are appropriate elements of conservation management. These are standard prescriptions in conservation biology literature (see Groom et al. 2006). But empowering professional conservation managers through scientific-professional machinery could mean consolidating state power in ways that disempower rural residents. This liability is pronounced in China, where authorities brandishing "scientific approach to development" (*kexue fazhan guan*) often bowl over customary activities and conservation managers resist incorporating traditional ecological knowledge (Tang and Gavin 2010). I must emphasize that I see these practices as appropriate in the context of conservation management that meaningfully involves residents, beyond token or consultative participation. A political ecological approach sensitizes me to these concerns and the political contestations around them, as the preceding and subsequent chapters make evident.

In the following pages I attempt to account for variation in conservation management at protected areas in southwest China, some of which fit a façade management pattern and others of which adopt a more active approach to conservation management. I treat these as two ends of a spectrum, with one end representing an exclusive concern with facades and the other a broader set of conservation targets and corresponding investment in monitoring, patrolling, and responsive decision-making. Upgraded tourism attractions bringing massive revenue are not

sufficient to bring about active conservation management. In fact, in few cases do revenues from such attractions contribute directly to conservation management efforts. In cases where active management is present, it follows from interventions by agencies external to the local state. Meso state corporatist governments' drive to foster high-grossing tourism attractions limits the commitment of resources to practices that do not contribute to revenue generation, including conservation measures that require funds and staff time. However, in protected areas that host high-profile flagship species, higher-level government bodies commit resources to conservation, setting off processes that build conservation capacity, irrespective of tourism activities. I conclude with a discussion of the ramifications of meso state corporatist tourism concentration for regional conservation and for communities within protected areas, as a bridge to the succeeding chapters.

Methods

The claims presented above are based on surveys of managers of many protected areas or case studies that draw their conceptual tools from such surveys. But to identify what patterns might exist beneath the percentages requires a different research strategy. One possible direction is statistical analysis of data from a large sample of reserves. Such an approach would provide a basis for statistical generalization but might give little guidance concerning the particular situations that generate patterns of variation. In contrast, a case-based approach, while narrower in its scope of generalization, can identify patterns in a more contextualized fashion, identifying clusters of factors that influence outcomes while probing mechanisms within and across cases. I conducted a qualitative-comparative analysis to examine how varied conditions of protected area administration affect conservation management. This approach necessitates a

limited scope of analysis but has the potential to yield insights about the processes underlying situations that vary more than the common general statements admit.

This study builds on the cases of national parks in northwest Yunnan through comparison with other protected areas across southwest China. In selecting protected area cases, I aimed to maximize variation on key attributes that might be expected to impact the outcome of interest, conservation management practices (Miles and Huberman 1994). I began with an extensive literature review on protected area conservation in China and consultations with contacts involved in conservation management. I reviewed primary and secondary documents on a multitude of protected areas, including management reports, gazetteers, scholarly studies, and newspaper articles. I limited this search to protected areas with national or internationally recognized designations. Because Chinese state authorities devote more resources to active conservation management at protected areas with such designations (as opposed to provincial or sub-provincial designations), this decision gives this study a conservative bias with respect to the outcome of interest.

With a primary concern of identifying impacts of tourism operations on conservation management, I started by identifying protected areas with different types of tourism operations and without tourism operations. The latter are scarce, as most protected areas in China had commenced tourism operations by a decade ago (Han and Zhuge 2001). Noting that provincial government policy can have an important impact on tourism practices (Donaldson 2007), I selected protected areas in several provinces. Strands of administrative authority associated with different protected area designations might bring different priorities and resources for management, so I sampled protected areas with different designations, including nature reserves, scenic areas, forest parks, and geoparks as well as internationally recognized categories of

World Heritage Site and Wetland of International Importance. As noted in Chapter 1, multiple, overlapping designations are common among China's protected areas; in sampling I aimed to cover a variety of combinations. Over the time a protected area exists, staff may accumulate experience and protected area management may become more institutionalized, so I drew from protected areas established across a range of dates, from 1958 to 2003. Finally, variation in conservation targets may affect management effort. In particular, authorities in China have emphasized protecting charismatic fauna like giant pandas, snub-nosed monkeys, and elephants (Harris 2008). Therefore, I sampled protected areas with a variety of focal conservation targets. Table 1 summarizes these attributes.

This study draws on fieldwork conducted between 2008 and 2010, described in the preceding chapter, as well as data gathered in 2011 and information from published materials. During fieldwork in Yunnan in 2010, I conducted semi-structured interviews with local and provincial policymakers, tourism managers, and park administration staff at Pudacuo National Park, Meili Snow Mountain National Park, Baima Snow Mountain National Nature Reserve, and Xishuangbanna National Nature Reserves, as well as officials in the Yunnan Province Forestry Department. Interviews contained open-ended questions about tourism operations; conservation management; community affairs; sources of funding, including the extent to which revenues from tourism are used to support conservation management; and interactions with local governments, national governments, and non-government organizations. These interviews lasted between thirty minutes and two hours and were conducted in Mandarin Chinese unless the respondent indicated that she preferred English.

Table 1: Key Attributes of Case Study Sites

Site	Categories	Province	Year Established	Area (km^2)	Focal Conservation Targets	Mass Tourism Operation	Visitors*	Ticket Revenue*
Pudacuo	Provincial Nature Reserve, World Heritage Site, National Park, Ramsar Wetland	Yunnan	1984	301	Alpine Lakes, Wetlands, Forest, Scrub	present	657,700	¥117,000,000
Meili Snow Mountain	Scenic Area, World Heritage Site, National Park	Yunnan	2003	961	Alpine Forest, Alpine Meadow Ecosystems	absent	***	¥5,450,000
Zhangjiajie-Wulingyuan	World Heritage Site, National Forest Park, National Nature Reserve, National Geopark	Hunan	1982	369	Forest Ecosystems and Karst Formations	present	4,987,000	¥692,187,000
Caohai	National Nature Reserve, Man and Biosphere Reserve	Guizhou	1982	120	High-Altitude Wetland, Black-Necked Crane	absent	n/a	n/a
Jiuzhaigou	Nature Reserve, World Heritage Site, Man and Biosphere Reserve	Sichuan	1978	720	Forest Ecosystems, Wetlands, Giant Panda (limited)	present	1,700,297 (2010)	¥310,328,800 (2010)
Baima Snow Mountain	National Nature Reserve, Model Nature Reserve	Yunnan	1981**	2816	Subtropical Forest, Alpine Meadow Ecosystems, Snub-Nosed Monkeys	absent	n/a	n/a
Xishuangbanna	National Nature Reserve, Model Nature Reserve, National Park, Man and Biosphere Reserve	Yunnan	1958	2425	Tropical Rainforest, Elephants, Gibbons	present	980,000 (2008)	¥52,399,700 (2008)
Wolong	National Nature Reserve, Model Nature Reserve, Man and Biosphere Reserve, World Heritage Site	Sichuan	1975	2036	Giant Panda, Forest Ecosystems	partial	235,500 (2006)	¥42,400,000 (2006)
Wanglang	National Nature Reserve, Model Nature Reserve	Sichuan	1965	323	Giant Panda, Forest Ecosystems	absent	8,000	¥25,000

*2009 unless otherwise indicated

**expanded in 2000

***figures not available

In 2011, following on the case selection process outlined above, I returned to the Yunnan sites and visited Zhangjiajie-Wulingyuan, Caohai, Jiuzhaigou, and Wanglang. At the Yunnan sites as well as Zhangjiajie-Wulingyuan, Caohai, and Wanglang, I conducted interviews with protected area administrative staff. I also interviewed researchers and conservation professionals who had done extensive work concerning conservation at Caohai, Jiuzhaigou, Wanglang, and Wolong. In addition, I conducted semi-structured interviews using an interview script covering various aspects of tourism and conservation management. The script is included in Appendix 1. Interviews took between thirty minutes and one hour and were conducted in Mandarin Chinese. In total, this chapter draws from 38 interviews. For each protected area, I also consulted print materials including studies published in books and journals, reports issued by protected area administration agencies, and other government documents relevant to each protected area. Such reports are especially plentiful at Wolong and Wanglang, the two sites at which I was unable to contact administrators or field staff.

Visitation and tourism income at these protected areas vary dramatically, from numbers so small the Caohai Nature Reserve administration does not systematically record them to nearly five million visits to Zhangjiajie-Wulingyuan in 2009. Every site with more than 500,000 visitors in one year has undergone a transformation into a high-volume attraction resembling that described for Yunnan's national parks in the preceding chapter. In some, state-owned enterprises run tourism operations, while others are run by private companies with close local government connections, paying substantial royalties for operating rights. The timing of these transformations has also varied. (See Table 3 below.) After analyzing data from interviews and documents for themes, using an adaptation of a comparative method based on Boolean logic (Ragin 1987), I examined the presence or absence of upgrading projects that established high-

volume operations; the organizations overseeing tourism and conservation and the authority relationships among them; the kinds of environmental protection practices undertaken and the resources devoted to them; and the status of residents and their involvement in tourism before and after such transformations.

These comparisons are intended to account for the quality of conservation management. Biodiversity conservation involves complex relationships across landscapes over time, and it is hard to compare protected areas in different settings and with different targets. It is challenging, for example, to commensurate quantity and quality of wetland habitat for migratory birds with the numbers and movements of a population of elephants or the abundance of key plant species in a forest understory. Moreover, rigorous, comparable information on the status of conservation targets in China is sparse. Much that is gathered is not publicly available. However, as discussed above, monitoring and patrolling that feed into management decisions are important for conservation of any kind of target. Therefore, I focused on the extent to which each case shows evidence of regular monitoring and patrolling procedures and the use of information therefrom to inform management decisions. I assessed whether protected area authorities conduct regular monitoring of biodiversity targets, whether they feel staff have adequate capacity to analyze monitoring data, and whether these data are used in a meaningful way to influence management decisions. In some cases, there was partial evidence of these practices; for example, monitoring is undertaken within only a portion of Pudacuo National Park, and at Jiuzhaigou and Caohai, the use of monitoring data in management decisions is limited due to limited analytical capacity. Based on these indicators I constructed a three-value measure of conservation management. Protected areas where none of these items is fully realized, in which preservation practices are primarily oriented toward tourism façades, are designated as instances of façade management.

Cases that realize all three are labeled "active management," and cases in which at least one but not all three are fully realized are labeled "intermediate." Values for the three indicators and the final measure are presented in Table 2. While this method cannot definitively measure the effectiveness of conservation management, which would necessitate measures of the status of conservation targets over time, it identifies practices that are preconditions for effective management and shows distinct variation across protected areas.

Table 2: Construction of Conservation Management Variable

Site	Regular Monitoring Undertaken	Capacity to Analyze Monitoring Data	Monitoring Data Used for Decisions	Conservation Management
Pudacuo	½	0	0	Façade
Meili Snow Mountain	0	0	0	Façade
Zhangjiajie-Wulingyuan	0	0	0	Façade
Caohai	1	0	1	Intermediate
Jiuzhaigou	1	0	1	Intermediate
Baima Snow Mountain	1	1	1	Active
Xishuangbanna	1	1	1	Active
Wolong	1	1	1	Active
Wanglang	1	1	1	Active

In the following section I present the nine cases. For each case, I note the timing and nature of tourism attraction upgrading if it has occurred, the roles of residents, the level of commitment of resources to conservation, the kinds of conservation practices undertaken, and the actors that support conservation management.

Cases

Pudacuo

Pudacuo National Park is the result of an attraction upgrade that turned Bita Lake into a high-volume attraction. Since the upgrade in 2005-2006, the TDIC, fully owned by the government of Diqing Prefecture, has operated the park through a subsidiary. Within Pudacuo National Park, Bita Lake National Nature Reserve staff undertake water quality monitoring within the territory of the Bita Lake National Nature Reserve. They also monitor for aquatic wildlife. As discussed in the preceding chapter, while interviewees would not specify the level of spending on conservation, they were in agreement that the amount was small, not sufficient to make an appreciable contribution to conservation management. The Pudacuo National Park Administrator, charged with overseeing conservation management, receives only enough funding from the prefecture government to cover its personnel allocation (*bianzhi*) and basic day-to-day expenses. The Nature Conservancy assisted with planning efforts and a study of community capacities. Some staff members also attended training seminars TNC sponsored, but there was little intensive interaction concerning conservation management. Zhou and Grumbine find that at Pudacuo "the local government has focused most of its attention on tourism, not conservation" (2011:1317).

Meili Snow Mountain

At Meili Snow Mountain, visitor numbers have steadily risen over the past decade, but not to the levels present at Pudacuo or Zhangjiajie-Wulingyuan. Residents operate community-based tourism services within the park. Staff at administration stations in each community mediate between the Meili Snow Mountain National Park Tourism Services Company and community

residents. As in Pudacuo National Park, an administration bureau charged with conservation is effectively subordinate to the National Park Tourism Services Company, whose revenues do not support systematic conservation efforts. The Nature Conservancy conducted community projects in Meili Snow Mountain National Park over the course of a decade and jointly funded an effort to remove garbage from Yubeng village in 2008. As for conservation management, administrative bureau staff report that they do not have adequate staff for that task. Forest enforcement is left to the forest police, which are responsible for enforcing forestry law across the county. In late 2010, the National Park Administration Office of the Yunnan Forestry Bureau conducted a baseline survey for long-term monitoring at Meili Snow Mountain National Park, but there is not yet provision for monitoring at shorter intervals than five years or integration of these practices into park management.

Baima Snow Mountain

Baima Snow Mountain National Nature Reserve lies between Meili Snow Mountain National Park and Pudacuo National Park, occupying a swath of Deqin and Weixi Counties. This sprawling reserve is home to several populations of the Yunnan Snub-Nosed Monkey, which inhabit upland forests, as well as a large human population. Starting in 1996, WWF collaborated with reserve administrators on several projects, including an integrated conservation and development project that extended to 36 communities between 2000 and 2003. These projects included the provision of fuel-efficient stoves, assistance in adoption of new crop varieties, efforts to assist communities in collectively managing NTFP withdrawals, and training in resource patrolling (Baima Snow Mountain National Nature Reserve Editorial Team 2008, Weckerle et al. 2010). The reserve's 11 township offices and 16 administration stations coordinate teams of community members in patrolling activities. These residents have been

trained to record wildlife traces and vegetation conditions on their regular patrols. The information thus gathered is entered into a database and analyzed by staff at the reserve's Shangri-la headquarters as a key step in conservation management efforts.

Caohai

Caohai National Nature Reserve in northwestern Guizhou province was the target of one of China's first efforts to integrate conservation with efforts to improve rural livelihoods. In the 1980s the local government decided to restore the Caohai wetland, a wintering ground for black-necked cranes, inundating reclaimed farmland and placing restrictions on fishing and leading to conflicts with affected residents. Microcredit loans and efforts to set up a negotiating relationship between the reserve administration and residents relaxed tensions (Herrold-Menzies 2006). Residents of a community adjacent to the seat of Weining County sell boat rides to some thousand tourists each year. The reserve administration tolerates but does not sanction these operations and plans to develop a large-scale tourism operation in the coming decade. Central government commitment to protecting the black-necked crane, coupled with financial and logistical support from the International Crane Foundation, sustain intensive efforts to monitor crane populations and behavior, though reserve administration staff lack the technical capacity to analyze and act on monitoring data.

Zhangjiajie-Wulingyuan

One of the first nature attractions to adopt a bus-centered tourism operation run by a state-affiliated company was Zhangjiajie-Wulingyuan in Hunan Province. Zhangjiajie's spectacular karst towers (which locals claim inspired imitation in the film *Avatar*) earned this former logging district the distinction of being named China's first National Forest Park in 1988.

County and municipal governments were reorganized around the attraction. In 1992, when authorities of the newly formed Zhangjiajie Municipality applied for designation as the Wulingyuan World Heritage Site, the agency overseeing the site invested in a bus system. During the 1990s, many residents opened accommodations for tourists. In 1998, inspectors from the United Nations Educational, Scientific, and Cultural Organization raised concerns about the proliferation of shops and hotels and impacts of tourism on scenery and water quality. This warning spurred major changes. Most accommodations inside the park were closed, and many residents were moved to outside areas and provided with space to operate businesses there.

Private sector involvement in Zhangjiajie-Wulingyuan is substantial, but the local state has remained its driving force. In the 1990s, short of capital to invest in attractions, Zhangjiajie Municipality and Wulingyuan District governments sought private investment in attraction infrastructure. Companies from Hong Kong and Taiwan invested in cable-car lines in return for rights to operate them for several decades, and a joint venture built and operates an elevator up a karst promontory. While researchers have claimed that outside investors pressured the local state into building the elevator (Zhong et al. 2008), a local tourism industry figure reports, "The local government originally had this intention. The company came with the bid, and the government gave them the rights to operate for 45 years." Although private companies run these components, the local government operates the attraction through a state-owned company. The bulk of the income the attractions generate comes from ticket fees this company collects—RMB 924,985,000 in 2010 (Wulingyuan District Bureau of Statistics 2011). Local and provincial governments split these revenues. In 2005, 59% of Zhangjiajie Municipality's tax revenues came from tourism, up from around 20% in early 1990s (Zhong et al. 2008).

New policies and infrastructure have changed the roles of residents. While there are still some guesthouses within Zhangjiajie-Wulingyuan, most resident-supplied accommodations are outside the park. Cable-cars have replaced residents giving visitors rides on sedan chairs (ibid.). The park has compensated residents for requisitioned land and provided employment for over 800 residents, as well as cash incentives for residents to migrate to work elsewhere (Zhangjiajie Municipality People's Government 2011).

The transformation of Zhangjiajie-Wulingyuan was aimed to mitigate environmental impacts of tourism, particularly deteriorating water quality. Yet local governments aggressively promote tourism, giving more attention to economic than environmental impacts (Zhong et al. 2008). While the Zhangjiajie Environmental Protection Bureau measures air and water quality, management agencies do not regularly monitor plant and animal communities (Wang et al. 2009). Park management has mitigated environmental impacts that affect visitor experiences, while investments in conservation management lag.

Xishuangbanna

Xishuangbanna National Nature Reserve hosts five of mainland China's remaining patches of rainforest. Tourism began to take off here in the 1980s. In the early 1990s, the local government issued a new tourism plan and set up a Forest Tourism Development Company to invest in attractions and run tourism operations. As in Zhangjiajie-Wulingyuan, Xishuangbanna authorities contracted with a private company to build a cable car; a joint venture with a Thai company also set up a performing elephant troupe. After several years of losses, in 2003 the Forest Tourism Development Company's assets were sold to a private corporation. Several attractions are operated by private companies that pay management fees to the reserve and receive its oversight. Over 1,000 residents are employed doing retail, sanitation, or dance

performances at these attractions (Xishuangbanna National Nature Reserve Administration Bureau 2010). How residents participate is subject to the decisions of company management (Yang and Wall 2008).

Home to China's only extant elephant population, Xishuangbanna is a national model nature reserve and has received massive domestic and international attention. With the central government's encouragement, numerous intergovernmental and non-governmental organizations have provided technical support and training to reserve staff. As a result, Xishuangbanna has intensive programs for monitoring elephants and other focal species and incorporating monitoring data into management decisions.

Jiuzhaigou

Managers at Pudacuo point to Jiuzhaigou, in northern Sichuan province, as a model for Pudacuo's transformation. Starting in the 1980s, visitors would stroll Jiuzhaigou's opalescent pools and stay in residents' homes. Residents organized to provide accommodations, and guesthouses proliferated, while the reserve management office collected ticket fees. In 1992 Jiuzhaigou was designated a World Heritage Site, and the management office set up a company to organize visitor services, working to facilitate residents' guesthouse business. At the end of the 1990s, management was consolidated under the Aba Prefecture government. A state-owned company invested in tour buses, roads, and walkways. Residents were asked to abandon farming, grazing, and providing accommodations within the park. In return they received a portion of ticket proceeds and the option to buy shares in a company running restaurant and shopping concessions. By the mid-2000s, Jiuzhaigou had become one of China's premiere attractions, with over 2.5 million visitors and RMB 520 million in ticket sales in 2007. Following

the 2008 earthquake in nearby Wenchuan, visitation plummeted, though by 2011 it rebounded to over 2 million visits.

The prefecture government has consolidated control over Jiuzhaigou. In 2006 the Aba Prefecture government folded assets at four attractions including Jiuzhaigou into a state-owned holding company. The budget for Jiuzhaigou is part of the Aba Prefecture budget, its funds overseen by the prefecture finance bureau. For the main tourism season, 30% of ticket revenues go to the prefecture government, 8% the county government, 59% to the Administration Bureau, and 3% to resident households (Aba Prefecture People's Government 2006). Within the Administration Bureau, a science office and forest office obtain appreciable portions of ticket revenues, though still dwarfed by the portions invested in tourism operations and façade maintenance.

Initially residents resisted the prohibition of farming and accommodations within the park. In the early 2000s, management committed to providing employment, and by 2004 the attraction employed half of residents from within Jiuzhaigou. Residents of communities within the park have far higher incomes than those in surrounding areas. At the same time, between the 1990s and 2007, residents' proportion of the attraction's income fell from 42% to 6% (Tian 2010).

Environmental protection at Jiuzhaigou is primarily oriented toward visitor experiences, but the park has made efforts to monitor conservation targets. While Jiuzhaigou is included among a network of giant panda reserves in Sichuan, giant panda have been detected in Jiuzhaigou in only a handful of instances, and the creature is included in the tourism attraction. Jiuzhaigou's main claims to improved environmental protection are reducing automobile and hiker traffic, better managing waste, and ending residents' resource withdrawals (Li et al. 2006, Tian 2010). Still, researchers have found that planted monocultures and scrub succession are replacing

biodiverse meadows grazing helped maintain. In 1998, Jiuzhaigou set up several environmental monitoring stations, and according to policy, monitoring should drive decision-making. As a Man and Biosphere Reserve, Jiuzhaigou receives considerable attention from the central government and academic researchers. The park's science office conducts water quality and wildlife monitoring, though researchers active there report that these practices are not done systematically enough to provide reliable data. In a recent assessment, the Chinese National Committee for the Man and Biosphere Programme raised concern that "the administration of the Jiuzhaigou Administrative Bureau revolves entirely around tourism expansion, and activities like infrastructure construction and outreach are mainly oriented toward increasing visitor numbers" (2009:3).

Wolong

Located in the same prefecture as Jiuzhaigou, Wolong National Nature Reserve is China's best-known giant panda reserve. Concerns about deteriorating habitat (Liu et al. 2001) have led to intensive effort to ramp up conservation here and in other panda reserves. A center of efforts to advance the monitoring and active management of giant pandas and their habitat, a task in the area's designation as part of the Sichuan Giant Panda Sanctuaries World Heritage Site, Wolong has attracted national government funding as well as research and support from scholars and conservation organizations. Along with nearby Wanglang, Wolong has instituted ongoing monitoring of large mammals, not limited to the giant panda, and has been included in a recent photo-monitoring effort using infrared-triggered cameras across the giant panda's range (Li et al. 2010).

Wolong has also become a target for tourists interested in seeing giant pandas. In the 1990s, the reserve administration sold tickets while residents and entrepreneurs from elsewhere provided

tourism services. In 2005, Wolong's tourism assets were incorporated into a company owned by Aba Prefecture and managed by the Jiuzhaigou Administrative Bureau. Wolong was hit hard by the 2008 earthquake, and reconstruction brought major, though delayed, investments in tourism infrastructure. A recent study found that a decision to change the park's zoning to accommodate tourism infrastructure in an area formerly in the park's core conservation area, while rezoning another area into the core, tests the efficacy of zoning policies intended to ensure that development does not encroach on panda habitat (Hull et al. 2011).

Residents' livelihoods have been a focal point at Wolong (Chen et al. 2012, He et al. 2009, Liu et al. 1999, Viña et al. 2007). Initially, residents and non-local entrepreneurs provided most tourism services, running hotels, restaurants, and souvenir shops. Surveys conducted in the mid-2000s found that non-locals tended to dominate more profitable occupations and preferred to hire other non-locals, leaving local residents doing activities with lower earnings (He et al. 2008, Xu et al. 2009). Following the earthquake, Wolong began implementing a plan to remove residents to concentrated settlements.

Wanglang National Nature Reserve

In Wanglang National Nature Reserve, a giant panda reserve southwest of Jiuzhaigou, the conservation organization WWF facilitated an integrated conservation and development project intended to establish ecotourism. Beginning in 1998, consultants worked with Wanglang staff to design a tourism operation as well as conservation and monitoring protocols. Small groups of tourists stayed in the guest center and hiked within the reserve. In 2006, the local government brought a private company to manage the attraction. Two years later, unsatisfied with the company's meager investments, the local government established the Wanglang Ecotourism Development Company, headed by reserve administrators. Tourist visits

peaked at 26,000 in 2006 and plummeted following the Wenchuan earthquake. There are no settlements within Wanglang, and the growing tourism industry in the area has focused on communities outside the reserve.

Province-wide great panda conservation efforts, supported by national initiatives, as well as collaborations with universities and conservation organizations, underpin an intensive conservation management program. As a national model nature reserve, Wanglang was required to draft a management plan that starts with monitoring, habitat management, and environmental education, rather than infrastructure planning. Monitoring mainly targets giant pandas and their habitat, but staff also record traces of ungulates, rodents, reptiles, and other wildlife.

Analysis

I assembled information from interviews and documents to compose a truth table. In qualitative comparative analysis, one examines what consistent combinations of explanatory variables are present in cases with a common value of the outcome variable, in distinction from cases with another value of the outcome variable (Ragin 1987). This application is somewhat unorthodox because the outcome variable has three values rather than the usual binary form. However, the logical of analysis is essentially the same, variation in patterns across three rather than two outcomes. The case comparison is summarized in Table 3.

Table 3: Case Comparison

Site	Province	Designations	INGO Project	INGO	Flagship Species	Attraction Upgrade	Time of Upgrade	Tourism Operation Ownership	Substantial Tourism Funds to Conservation	Conservation Management
Pudacuo	Yunnan	PNR, WHS, NP	1	TNC	0	1	2005-2006	SOE	0	Façade
Meili Snow Mountain	Yunnan	WHS, NP	1	TNC	0	0	n/a	Community + SOE	0	Façade
Zhangjiajie-Wulingyuan	Hunan	NFP, WHS, NGP, WGP	0	n/a	0	1	1992; 2000-2002	SOE + Private	0	Façade
Caohai	Guizhou	NNR, MAB	1	ICF	1	0	n/a	Community	0	Intermediate
Jiuzhaigou	Sichuan	NNR, WHS, MAB	1	WWF	½	1	1999-2002	SOE	1	Intermediate
Baima Snow Mountain	Yunnan	NNR, MNR, WHS	1	WWF	1	0	n/a	n/a	0	Active
Xishuangbanna	Yunnan	NNR, MNR, NP, MAB	1	WWF, GTZ, others	1	1	mid-1990s	Private	½	Active
Wolong	Sichuan	NNR, MNR, MAB, WHS	1	WCS	1	½	n/a	SOE	0	Active
Wanglang	Sichuan	NNR, MNR	1	WWF	1	0	n/a	State Ecotourism	0	Active

Table 3 contains a great deal of noise: predictors expected to be influential but which do not show clear patterns across any category of the outcome of interest. In the condensed version presented in Table 4, several variables without consistent patterns are removed to make the analysis clearer. In addition, I disaggregate the "designations" category into indicators for national nature reserve (NNR) status and model nature reserve (MNR) status.

Table 4: Case Comparison, Condensed

Site	NNR	MNR	INGO Project	Flagship Species	Attraction Upgrade	Substantial Tourism Funds to Conservation	Conservation Management
Pudacuo	0	0	½	0	1	0	Façade
Meili Snow Mountain	0	0	1	0	0	0	Façade
Zhangjiajie-Wulingyuan	0	0	0	0	1	0	Façade
Caohai	1	0	1	1	0	0	Intermediate
Jiuzhaigou	1	0	1	½	1	1	Intermediate
Baima Snow Mountain	1	1	1	1	0	0	Active
Xishuangbanna	1	1	1	1	1	½	Active
Wolong	1	1	1	1	½	0	Active
Wanglang	1	1	1	1	0	0	Active

First, let us look at what features cases of active conservation have in common. Of Baima Snow Mountain, Xishuangbanna, Wolong, and Wanglang, all are national-level nature reserves that have been designated as model nature reserves. Model nature reserve status is a result of relatively effective conservation practices but also a cause of further improvement, as it has been followed with major infusions of funds by central and provincial conservation agencies mandated for use on advanced conservation practices. In each of these protected areas,

administrators have worked with one or more international NGOs on conservation-related projects, though the organizations involved vary, and such efforts were present in every case examined but Zhangjiajie-Wulingyuan. To the extent that such projects are an important factor, their particular character may be crucial. Finally, each of these protected areas is home to a prominent flagship species. It is also notable that, while the management of Xishuangbanna National Nature Reserve is able to use some funds from tourism contracting fees for conservation purposes, for none of these reserves does tourism revenue make a substantial direct contribution to conservation management.

In contrast, the protected areas categorized as instances of façade management show two traits in common, one of which distinguishes them from the cases in the other two categories. None has a focal flagship species. They are not barren of wildlife, but neither the monkeys of Zhangjiajie-Wulingyuan nor the pheasants and endemic fish of Pudacuo possess either the policy priority or the tourism draw of elephants, cranes, or giant pandas. In addition, each of these is part of a World Heritage Site, though they share this status with Jiuzhaigou and Wolong.

Two sites showed partial realization of active management practices and were categorized as "intermediate." Each of these sites shares some but not all of the distinguishing attributes of the protected areas showing active conservation management. Both are nationally designated nature reserves, and biosphere reserves, though neither has been designated a model nature reserve. Conservation efforts in Caohai revolve around the black-necked crane, an endangered species of first priority in China. Jiuzhaigou was rated partial on flagship species because the giant panda is scarce in the reserve and peripheral to its administration.

It is unlikely that these patterns are due to different orientations on the part of provincial or prefecture governments. While all four instances of active conservation management are in either Sichuan or Yunnan, these two provinces are also represented among the other two categories, so it does not appear that provincial policy is a determining factor.[1] At the prefecture level, Pudacuo National Park, Meili Snow Mountain National Park, and Baima Snow Mountain National Nature Reserve are all located within Diqing Prefecture, yet they show very different patterns of conservation management. Xishuangbanna, also within Yunnan, shows heavy investment in conservation like Baima Snow Mountain. It might be that the way Diqing Prefecture has gone about managing national parks for tourism plays a role in these parks' limited conservation action, in contrast with Xishuangbanna, where the national park title has been bestowed on a reserve with a long history of fostering conservation capacity. Jiuzhaigou and Wolong, both located within Aba Prefecture of Sichuan, also show contrasting patterns—though there is evidence that efforts to advance mass tourism there may be adversely affecting conservation management.

Crucially, the presence or absence of a mass tourism operation, or the contribution of funds from tourism to conservation practices, does not show a consistent pattern across either cases of active conservation management or cases of façade management. Furthermore, only at Jiuzhaigou is there evidence of a substantial direction of tourism revenues toward conservation activities. While tourism transformations are often justified in terms of their potential contribution to conservation—a particular aim, for example, of World Heritage Site

[1] That the cases from Sichuan all show either intermediate or active conservation management suggests that something about this province promotes conservation. Indeed, the three Sichuan cases are all located within a belt of giant panda reserves within Sichuan, Gansu, and Shaanxi provinces. The giant panda is, of course, among the flagship species whose protection receives highest priority. It might be instructive to include a park from outside this belt, such as Emeishan, in a broader analysis.

designation—on their own, they do not bring about this result. Nonetheless, it does not appear to be inimical to conservation efforts, either.

Revenues from upgraded tourism operations have not had a strong role in conservation in most of these protected areas, primarily because meso state corporatist administrations do not direct tourism revenues to conservation efforts. Within protected areas, they concentrate on managing attraction façades, while substantial revenues are channeled to projects and expenditures beyond a protected area.

Rather, the presence of flagship species in instances of intermediate and active conservation and its absence in instances of façade conservation appears to be a key factor. While the presence of flagship species is not sufficient to lead authorities to cultivate capacity to do wide-ranging biodiversity monitoring and incorporate findings into responsive management, it is associated with the establishment of national nature reserves. This is unsurprising, as the national Regulations on Nature Reserves stipulate that reserves be established to protect key species (State Council 1994). Where declaration as a model nature reserve brings added scrutiny and resources, reserve administrators are able to cultivate staff capacity and adopt conservation practices. INGO projects are often invited for these purposes, though NGOs have worked outside of such reserves as well. The provision of resources from outside, particularly due to higher-level state policies on conservation, supports active conservation management.

Discussion

The data presented above suggest a narrative of the processes at work in protected areas that undertake active conservation management. The presence of flagship species that are the focus of national conservation policy draw policy and funding support from conservation agencies at

central and provincial levels. In the case of Xishuangbanna, in addition to herds of elephants, the only extant tropical rainforest within contiguous mainland China serves as a charismatic landscape as well. These traits also draw attention from international conservation organizations, whose efforts have been welcomed at locations the success of whose conservation efforts are of particular concern to central and provincial authorities. These efforts contribute to the practices that earn model nature reserve status, bringing additional resources. In Chinese protected areas, charismatic species create positive feedback cycles more through state conservation efforts than through tourism appeal. These efforts are rooted in agencies outside local jurisdictions, at provincial capitals, in Beijing, and in the offices of international conservation organizations and increasingly domestic organizations as well. Block governments and strand agencies at subprovincial levels, where direct authority over protected area administration is concentrated, focus their efforts on maintaining features central to protected areas' functions as tourism attractions. People should be skeptical of claims that tourism upgrades on their own are likely to bring about improved conservation measures.

While tourism expansion is not directly underwriting active conservation management, attraction upgrading has had dramatic consequences where it has occurred. These transformations concentrate authority over tourism and conservation under prefecture-level governments, build infrastructure for high-volume tourism operations, and often establish state-owned enterprises to operate attractions. They have built portfolios of attractions to support growing tourism industries that include privately owned hotels, travel agencies, restaurants, entertainment venues, and vendors. Whereas in the 1990s local governments supported collective operations run by residents, more recently high-volume operations have displaced direct provision of tourism services by residents, reincorporating residents as employees.

Greater involvement of private capital in some cases appears to have to do with timing: between the late 1990s and the middle 2000s, during a nationwide wave of privatization of state-owned concerns, local governments moved to privatize tourism operations. Thus in Xishuangbanna and Zhangjiajie-Wulingyuan, where tourism intensification took place earlier than at other sites, private operations persist. Increasingly in the 2000s, local governments have asserted control of major attractions through state-owned tourism holding companies, allocating large proportions of revenues to government investments. These companies also regulate travel agencies, ensuring attractions get high levels of visitation. Meanwhile, respondents from government agencies at Zhangjiajie-Wulingyuan speak with regret of turning to private capital to finance attraction development in the 1990s, before local governments acquired tools to mobilize capital and control returns through tourism holding companies. Locked into long-term contracts, they watch as governments in other localities extract greater proportions of the returns from their attractions (110704A, male, Zhangjiajie Municipality official).

Authorities at these attractions focus intensive environmental protection efforts on features that are central to visitor experience: water quality, waste removal, visible scenery. Accounts of the transformations at these parks emphasize how they represent a turn from a sole focus on expanding tourism to emphasize nature protection (Tian 2010; Li et al. 2006; Ye et al. 2008). Nonetheless, in Pudacuo, Meili Snow Mountain, and Zhangjiajie-Wulingyuan there is little evidence of active conservation management. At Xishuangbanna, Baima Snow Mountain, Wolong, Wanglang, and to some extent at Caohai and Jiuzhaigou, managers conduct biodiversity monitoring that feeds conservation management decisions.

The limited number of cases does raise question about the transferability of this study's findings. While maximum-variation sampling ideally lessens bias by accentuating likely causes of

variation, while maintaining sample sizes small enough for nuanced comparison, it is still possible that patterns are biased due to the small size of the sample. However, these findings are consistent with a growing body of case studies, suggesting similar patterns beyond southwest China. At Shennongjia National Nature Reserve in Hubei Province, growing tourism revenue has facilitated investments in tourism infrastructure over ten times greater than conservation investments, which have primarily gone to building facilities and removing residents, rather than active management (Xiang et al. 2012). Moreover, the meso state corporatist pattern documented here in nature tourism sites appears to have an analogue in urban historical attractions in China. Researchers have found local states spearheading the transformation of heritage sites into high-volume, high-profit tourism operations, fundamentally altering the contents of urban historic sites and rural towns developing historic attractions in ways that estrange residents from places they live in (Feng 2008, Zhang 2008, Wang and Bramwell 2012). In Lijiang, Yunnan, neighboring Diqing Prefecture to the southeast, a state-owned tourism holding company transfers most revenue from the city's Old Town to the municipal government, investing little in maintaining the cultural heritage site (Su 2010). While understanding any particular attraction's trajectory requires careful attention to context—indeed, the attentiveness of qualitative comparative analysis to different combinations of factors is directed at such nuance—these findings provide a useful starting point for understanding how tourism and conservation practices relate elsewhere in China, and perhaps in other contexts as well.

This study focuses on a narrow set of indicators of conservation management practices. Neither do these practices ensure effective conservation of biodiversity targets, nor do they come anywhere near to exhausting the aspects of protected area management and design that are important for effective conservation. Among others, such factors include size and placement of a

protected area, coverage of different landscape types, connectivity with other areas of habitat, understanding of human activities within and around protected areas, and responsive consideration of residents' activities and concerns. Nonetheless, accurate and continually updated knowledge of conservation targets, and decision-making processes that respond to such knowledge, is an important element of any protected area conservation strategy, and where it is lacking, other aspects may also be missing as well.

Finally, while these analyses leave residents in the background, there are some clear analogues between conservation management and resident affairs. As with conservation management, community affairs entail "soft" policy targets in comparison to the numerical criteria and consequences for promotion attached to building tourism revenues (barring the eruption of large protests, which can destroy cadres' careers). As a result, under meso state corporatism protected area authorities tend to take reactive rather than proactive stances on community members' concerns.

Yet community affairs are not necessarily addressed by species and ecosystem conservation measures, and as a result, the interventions that bring active conservation management often do not bring corresponding action on community concerns. Hence the four protected areas undertaking active conservation management show disparate patterns of community engagement. At Xishuangbanna, damage to livestock and crops by elephants and other wildlife has been an ongoing point of contention, most recently bringing park administrators together with a major insurer to devise a wildlife damage insurance scheme (Hathaway 2007, Pettigrew et al. 2012). At Wolong, local residents have trailed outsiders in access to benefits from tourism, while efforts to manage residents' farming activities and schemes to relocate communities have also raised concerns (He et al. 2008, Xu et al. 2009). Baima Snow Mountain has had some

success with community co-management around forest resources (Weckerle et al. 2010), as well as employing residents in patrolling, though information on this reserve is limited. At Wanglang, there are no resident communities within the reserve.

Other cases that have been documented confirm the weak orientation of concentrated tourism enterprises toward residents. In Yangshuo, Guangxi province, the county government assumed control of boat tours among the area's rock formations. Residents whose farmland was appropriated for tourism often work illegally as guides for lack of satisfactory legitimate job prospects (Qin, Wall, & Liu, 2011). Kang (2009) recounts how tourism intensification at Huanglong, a site near Jiuzhaigou renowned for both scenic vistas and Bön (an animistic Tibetan religion) and Daoist temples, tourism intensification led by the county government has remade religious sites and limited residents' role in the interpretation of religious and natural heritage, raising contestation from residents. In Changbai Mountain National Nature Reserve in the country's northeast, tourism overseen by the reserve administration bureau has aroused discontent among rural residents, who receive scant benefits (Yuan et al. 2008). Following state-led reorganization of tourism attractions, residents' incomes grow, but their options for engaging in tourism service provision narrow, their autonomy to use land they have inhabited diminishes, and their proportions of revenues decline. In the coming chapters, I will examine, in the context of varying resident involvement in tourism in the national parks of Diqing Prefecture, how tourism concentration affects residents' livelihoods and their relationships with park authorities.

This study has shown a more nuanced picture of conservation management in China than is common in the published literature, while using case comparison to gain greater explanatory leverage than is the case with either undifferentiated surveys or individual case studies. On one

hand, in contrast with recent critiques of flagship or umbrella species conservation as hindering broader conservation objectives (Andelman and Fagan 2000), it suggests that flagship species have played an important role in at least some of China's protected areas not just in attracting narrow attention to their habitats but in building resources that support conservation with a more comprehensive focus. The mechanism is central: rather than other parts of landscapes being conserved as a byproduct of focus on a charismatic species, a political and administrative process of building conservation capacity that begins from policy focus on flagship species. This process may not work in the same ways in other locations. Finally, this pattern raises a conundrum concerning protected areas without flagship species. A shift toward more putting ecologically informed priorities (which are present in existing regulations) into practice, as Xie and colleagues (2004) and Harris (2008) call for, might broaden the scope of central policy support for protected areas. On the other hand, raising the profile of conservation in cadre evaluation and promotion, in line with repeated calls of national for going beyond GDP in personnel assessments (Xinhua News Agency 2013), might have the potential to alter, at least somewhat, the incentives embedded in meso state corporatism in a way that encourages broader conservation efforts. Recent shifts in national policy emphasis on nature reserves from infrastructure projects to conservation management alongside initiatives afoot at the provincial level may indicate a turn in this direction.

Chapter 5: Introducing Community Comparisons

The preceding chapters have outlined the ways people in local and higher-level state organs engage with one another and with extra-state actors in organizing tourism and conservation at protected areas in southwest China. We have seen how local governments' drive to scale up tourism, characterized as a manifestation of meso state corporatism, has dominated these processes, with mixed results for conservation management. Now we move to another set of facets of the environmental state, concerning what happens locally where particular institutions for coordinating tourism and conservation are set up. The changing conservation strategies of the environmental state in China raise questions about the politics that tourism and conservation generate, their impacts on livelihoods and resource use, and changing patterns of inequality and social capital. A close look at communities within Pudacuo and Meili Snow Mountain National Parks illustrates the impacts and challenges that consolidating protected area management is bringing across southwest China. In this chapter I outline the core questions orienting my community fieldwork, explain the methods through which I address them, and introduce case study sites.

Worldwide, as states have reorganized protected area policies to incorporate residents, with a great diversity of types and gradations of involvement, new challenges have arisen over the terms upon which residents are involved. The balance of benefits and burdens parks bring for residents on one hand and their extent of participation in

decisions concerning these benefits and burdens can be expected to influence the levels and types of conflicts between residents and park administrators.

The national parks of Diqing have incorporated residents in complicated ways. Tourism services companies or administration bureaus that report to the government of Diqing Prefecture make major decisions. Both parks have established arenas for negotiating residents' concerns, but concerns are addressed in a reactive rather than pro-active way. At the same time, authorities have ensured that residents get substantial economic benefits from tourism. How this happens varies: at Meili Snow Mountain, residents participate in community-based tourism activities, while at Pudacuo National Park residents receive direct compensation and sanitation employment under the park. However, rules for conservation do not vary substantially in the two parks; in both cases, communities are required to conform to applicable laws and regulations, maintaining forest patrols and limiting members' harvests of wood. Conservation-motivated requirements of park residents differ little from the rules communities outside the parks face. Rather, as the preceding two chapters show, in these parks local authorities aim most of their energies toward enhancing returns from tourism. The varying involvement of residents in tourism as well as the constrained opportunities for participation they have in common can be expected to affect the kinds of politics that emerge in communities in these parks. These observations raise the question of just how these arrangements shape residents' engagement with park authorities.

These parks, in both their developmental and environmental protection aspects, are intended to influence residents' livelihood activities. Income from tourism is supposed to transform residents' livelihoods, leading them to withdraw less fuel, fodder, and marketable products from lands surrounding their communities. Scholarship on rural livelihoods suggests alternative scenarios, in which households diversify income sources and labor demands play a more important role. Different ways of organizing tourism make different demands on labor and other household assets, with varying implications for different resource uses, like livestock grazing and fuelwood gathering. Just how, then, do the different forms of tourism organization in these parks affect patterns of resource use?

Finally, changes in inequalities and social dynamics are major concerns in studies of rural development. In some cases, tourism has been found to heighten local inequalities (Leatherman and Marcouiller 1996). The transformations tourism can bring may also bring stress and competition, eroding capacity for collective action. One might surmise that community-based tourism would be more likely to build social capital and less likely to intensify inequalities than employment under outside managers. But community-based tourism at Meili Snow Mountain National Park takes different forms, yielding sharply different patterns of inequality and social interaction. Moreover, the uneven distribution of tourism attractions among communities affects inequalities and social ties between communities. What, then, are the most important aspects of tourism

organization for understanding these patterns, and how do they impact social relationships within and among communities?

The following two chapters focus on these three questions—what politics these protected area institutions foster, how they affect rural livelihoods, and what they mean for social relationships in rural areas. Each requires looking at these processes from a different angle, using different combinations of methodological tools. Viewing them together necessitates an integrated comparative approach. In an approach analogous to McMichael's (1990) conception of incorporated comparison in world systems, taking different "cases" as relational parts of larger, changing, historically situated processes, I compare residents' responses to park institutions within different communities in the two parks. While my point of departure for each analysis is the distinction between community-based tourism in Meili Snow Mountain National Park and concentrated tourism in Pudacuo National Park, observations in the field made me realize a more involved comparative framework was necessary. In accounting for livelihood patterns, community dynamics, and relationships with park authorities, I focus on the different attributes of each place, particularly in terms of how tourism is organized, but also the social ties and political economic contexts that link them together.

Making Comparisons: From Two National Parks to Three Tourism Models

It makes intuitive sense that the different ways resident participation in tourism is organized should influence political interactions among residents and park authorities.

Community-based tourism at Meili Snow Mountain National Park may foster greater commitment to the park among residents who capture significant benefits and have some autonomy in decision-making. However, it also creates the potential for community management of tourism to conflict with the goals of park authorities. At Pudacuo National Park, where residents work as employees and receive compensation subject to park authorities' decisions, one might expect less commitment to authorities' goals. Contrarily, differences might be conditioned on residents' perceptions of the material benefits and costs of tourism and conservation practices, or on their participation in collective conservation practices.

Initially I aimed to examine how different park management structures affected residents' collective institutions for resource use. I made several conjectures on this front. First, I thought different forms of tourism organization would lead park administrators to ask different things of residents. The concentrated, high-volume tourism format that I saw at Pudacuo seemed to make likely more restrictive treatment of residents' resource use, as park managers more closely managed park façades, including tourists' encounters with residents. I also conjectured that different relations of production in tourism might lead to different levels of commitment to resource management, resulting in resource management institutions with different qualities.

To move beyond conjecture, I undertook open-ended qualitative observations in communities in Pudacuo and Meili Snow Mountain National Parks. During exploratory visits in 2008, I visited several communities to get initial pictures of how residents took

part in tourism and what they thought about national park development. A short time in the field proved these notions wrong; both parks relied on communities to manage forests in ways that differed little from forest governance outside the parks. The central issues people voiced concerned duties and benefits around tourism. At the same time, it became clear that just comparing across parks would be insufficient. Community-based tourism at Meili Snow Mountain National Park showed markedly different patterns in different communities. So I turned to the question of how interactions around tourism affect people-park relationships.

A few notes on how I conceptualize community are in order. Critiques of simplistic conceptions of community in development and conservation highlight the incomplete and contested nature of community (Agrawal and Gibson 1999, McCay and Jentoft 1998). This study highlights divisions and disparities as well as commonalities within communities of place. Likewise, by detailing connections across communities, it acknowledges the blurriness of community boundaries. Nonetheless, the communities in question are stable and distinguishable units, in part due to the ways households have clustered in landscapes with scarce arable land, and in part due to state practices that define and stabilize communities. The units I refer to as "communities" are all defined as "natural villages" (*zirancun*) in official parlance.[1] A "natural village" is a

[1] It is important to note that the English-language term "community" does not have a historical counterpart in the Chinese language, and the term most frequently translated as community (*shequ*) emerged in the 1980s as the Chinese state looked for a successor term to *danwei*, or work unit, in urban neighborhoods as work units diminished in prevalence. The term has since been adopted as the equivalent of "community" in development parlance. While

cluster of households defined by geographic proximity and shared identity; members generally conceive of themselves as a unit and are recognized as such by outsiders.[2] Local government in China is administered in "administrative villages" (*xingzhengcun*). An administrative village is composed of a collection of teams (*she*). Natural villages could be recognized at either of these two levels, though they often lie in between. For example, one community in this study, the natural village of Xidang, is divided into Xidang Upper Team and Xidang Lower Team. The natural villages of Xidang (2 teams) and Yubeng (2 teams), and Rongzong (3 teams), compose Xidang Administrative Village. When people talk colloquially about Xidang, they are usually referring to the natural village.

I chose to focus on three sites, two in Meili Snow Mountain and one in Pudacuo National Park: Xidang, where community-based tourism takes the form of a rotating mule-ride service that gives every household an even chance to participate; Yubeng, where a mule-ride rotation coexists with guesthouses run by entrepreneurial households; and Lawzong, where residents receive compensation payments and work for the park as sanitation employees.

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government officials, scholars, and conservation advocates well versed in this discourse employed the term *shequ*, rural residents I spoke with seldom used the term.

[2] Hou (2013) suggests the apt translation "spontaneously formed human settlements" (2013:26).

Xidang: Collective Tourism

During my stay in Xidang, I spent a lot of time at the trailhead, helping to run a shop just below the hitching post. Every day the mule pullers gathered, sitting on wood slats and cinderblocks awaiting loads of tourists, new arrivals cycling in as others took their charges up toward the pass. Minivans and sport utility vehicles showed up now and then, stopping on the dirt before the shop to unload a clump of tourists with fiberglass hiking sticks and telephoto cameras, or else a passel of pilgrims with bamboo poles topped with juniper fronds and bags of buns and salt ham and butter to eat on the trail. Tourists ordered mules to carry persons or packs. The team leader notified the mule puller from the next household in the rotation. Puller and tourists would proceed to a platform where the tourist could climb into the saddle, and then they would lurch up the trail. The scene would quiet down for a while, then repeat. A man from another village would arrive with a pack of mules, loading them with freight: cases of noodles, eggs, vegetables, liquor, soda and bottled water; wood slats; sometimes a television or two—provisions for the shops and guesthouses of Yubeng. In the afternoon, groups of tourists would begin to emerge coming downhill. In the evening, Xidang residents would trickle back down, some tromping straight from the pass, others strolling out of the woods with knapsacks loaded with mushrooms.

The mule-ride system has brought steady income to residents of Xidang. The rotation, with each of the community's 74 households given a number, ensures that each household gets an even chance to participate. In 2009, each household earned about

¥20,000 from mule rides, an amount considerably greater than the mean household income of Diqing Prefecture. There are also other, more entrepreneurial tourism opportunities. Each year in a meeting of household heads, residents bid for the right to run each of three shops, one at the trailhead and two at stops up the trail. The winners can keep profits over the bid paid to the collective. In some years the community has used proceeds from these fees to fund a journey to Lhasa for a group of residents. In addition, three households run guesthouses within the community. These guesthouses get very few guests, though, as most visitors pass straight through Xidang to Yubeng.

Yubeng: Entrepreneurial and Collective Tourism

Nestled in a valley with no motor road, Yubeng draws increasing numbers of visitors seeking to get away from noisy, crowded mass tourism sites. These tourists join a stream of pilgrims from across the Tibetan plateau who pass through Yubeng to visit several sites of religious importance, then continue on the trek around Kawagebo. To get to Yubeng one must take a strenuous hike over a 3,800-meter pass. Less hardy than pilgrims, most tourists take mule rides. Within Yubeng, visitors stay in guesthouses run by resident households. Visitors stroll among the wood frame houses and barley fields below ridges thick with forest and snowy crags beyond, and many go on to visit the sacred waterfall alongside the pilgrims or to climb to an alpine lake. Between late spring and autumn a steady stream of tourists rolls over the ridge, with larger numbers on national holidays in May and August. In 2005, the number surpassed 10,000. Between 2007 and 2009, there were 30,000 to 40,000 per year.

For trips to the waterfall or lake or back toward Xidang, Yubeng households run a mule ride rotation as in Xidang. Because Yubeng has 34 households to Xidang's 74, any given number of tourists brings much more tourism-related work per household than in Xidang. A growing number of households also operate guesthouses. In the late 1990s, a couple of households began providing lodging and simple repast for Tibetan pilgrims. By 2010, 17 households had guesthouses, with beds for 800 guests. Others open their houses to guests during peak season when guesthouses fill up. Tourists pay ¥20 to ¥100 a night for lodging. They must also pay high prices for food, as rice, vegetables, noodles, meat, and eggs all have to be hauled over the ridge. Likewise, getting provisions and building materials from outside is costly for Yubeng residents. Since tourists started coming, incomes have grown phenomenally. In 2009, the mean income reported by Yubeng respondents was ¥80,000; the median was ¥59,000. Income is concentrated among households that run guesthouses, particularly three households that each reported earning over ¥200,000.

Entrepreneurial tourism in Yubeng's guesthouses has stretched out inequalities among households, in spite of collective efforts to rein disparities in. Initially, households set up a rotation for taking guests. This system collapsed and has been followed by successive efforts to redistribute a portion of income from guesthouses. (I will discuss these efforts at greater length in Chapter 7.) The prospect of wealth has driven competitive expansion of guesthouses, whose construction and fuel demands have propelled wood harvesting. While Yubeng's isolation is the foundation of its appeal for

tourists, residents are burdened by the lack of infrastructure, which underpins claims they make on park authorities. Meanwhile, the concentration of wealth in Yubeng arouses envy in residents of other communities while also fostering demand for labor and provisions that surrounding communities provide.

Lawzong: Tourism as Employment

Unlike Meili Snow Mountain National Park, which hosts 19 settlements, Pudacuo National Park has only one village within it, though several surrounding communities that formerly provided services to tourists at Bita Lake partake in compensation and employment. From the middle of the 1990s to 2005, members of Lawzong's 33 households pulled visitors on horseback around Bita Lake, in rotation with nearby communities. With the establishment of Pudacuo National Park, the bus route supplanted horse rides. In exchange for relinquishing the right to directly provide services to tourists, residents receive employment as sanitary workers and annual compensation payments from the Pudacuo National Park Tourism Services Company. In 2008, when I first visited Pudacuo National Park, residents and visitors came into contact in other ways, too. At a bench on this walkway along Shudu Lake, a man in a cowboy hat stood by a rack of gaudy cloaks, offering to take photos of tourists dressed as Khampa nobles. At the bus stop above Bita Lake, a row of people stood behind grills roasting meat skewers and potatoes and cauldrons boiling corn and eggs. The following year park authorities prohibited these activities. Later residents were granted one

station in a new building between the park gate and the parking lot where tourists are funneled through a line of shops run by outside vendors.

Even without these activities, sanitation employment and compensation for relinquishing horse rides provide them cash income well above the regional average. Based on our survey, Lawzong's per capita income in 2009 was around ¥5,500, a good deal above the official figure of ¥3,026 for rural residents of Shangri-la County that year. Income from compensation and sanitation employment is evenly spread. Compensation depends on household size, with each household receiving annually a base of ¥5,000 plus ¥2,000 per household member. Sanitation employment rotates, with half of households each providing one person to do sanitation one year, earning ¥1,200 per month, and the other half the next year. As in Xidang and Yubeng, tourism accounts for most of nearly every household's income.

These three modes of participation in tourism reflect the two major forms of community-based tourism common in China's nature tourism attractions—collectively organized and built around household entrepreneurialism—as well as the predominant way residents are incorporated in the increasingly dominant high-volume tourism model, as employees and recipients of compensation.[3] Since they are all present within

[3] Some protected area attractions, such as Zhangjiajie-Wulingyuan and Jiuzhaigou, incorporate a substantial portion of residents through concessions, such as renting souvenir stalls or running small-scale hotels.

one prefecture, under the same administrative jurisdiction, and in communities with similar demographic and ethnic profiles, it is tenable to make inferences about the different effects of tourism institutions. That is not to say that these are independent cases. On the contrary, these communities are connected by economic and social ties, and when discussing their concerns and aspirations, residents of each community talk about the others, and about what they have heard about other protected area attractions in the region.

This comparison will yield insights into trade-offs surrounding the shift from community-based to concentrated tourism models. In a sense, community tourism at Meili Snow Mountain is a vestige from an era in which local states were more strongly inclined to foster community enterprise. That does not mean that it shows what things were like a decade ago. These communities have undergone countless changes, some of which tourism can account for and many it cannot, as they show in communities with and without tourism operations alike. At the same time, while Meili Snow Mountain has not converted the area to a high-volume attraction, the National Park Tourism Services Company has consolidated its influence over tourism in other ways. As noted in Chapter 3, local officials are clear that their intention is to foster higher-volume tourism operations, but they have so far been kept from doing so by budget constraints, planning timelines, and concerns about World Heritage Site status. So this part of the study is a current comparison of concentrated tourism involvement with different varieties of community-based tourism under a legacy of state support during a time

when the state is actively promoting tourism intensification. It provides chances to understand the effects of different kinds of state-led institutional changes, justified in terms of conservation and development, not just in terms of those stated goals but as they affect lives and landscapes in other ways.

During the summers of 2008 and 2009 and all 2010, I conducted qualitative fieldwork in communities in each of these parks, as well as intensive interviews with government officials, tourism managers, scholars, and conservation advocates involved with Yunnan's national parks. During an exploratory field trip in 2008, I visited the area essentially as a tourist. A tourism operator in Shangri-la put me in contact with a person from one of the communities in Deqin who drives tourists to their destinations in a passenger car. He introduced me to people in several communities. In 2009 and 2010, I made more such acquaintances, several of whom I asked whether I would be welcome to stay for a longer time. In the summer of 2010 I spent over a month in the area, based in Xidang and traveling frequently to Yubeng and other nearby communities. I returned for another month that autumn. I also spent two ten-day periods in Lawzong. At each place, I asked to help with work, hoping to make my presence more of a benefit than a burden. This helped me learn about farm and tourism work as well as to meet people and build rapport. I introduced myself as a researcher and explained my interest in learning about tourism and other parts of their livelihoods. While working and during times of rest I sought out chances to talk. These conversations were generally informal

and open-ended, contrasting with the semi-structured interviews I did with government officials, businesspeople, and conservation advocates.

Interview contents depended on the respondent. Interviews with residents were usually open-ended and conversational. These interviews touched on residents' perceptions of the parks and their management, their experiences taking part in tourism, community affairs, and their reflections on farming and other livelihood activities. Nearly all residents are ethnically Tibetan and speak a dialect of Tibetan as their first language, but with continual exposure to Mandarin Chinese in schools and media as well and over a decade assisting Mandarin-speaking tourists, nearly all men and most women under age fifty speak fluent Mandarin. As a result I was able to converse with most people smoothly, though my inability to speak Tibetan, not to mention my identity as a foreigner from the United States, placed limits on the depth and nuance of my understanding of local life. The vast majority of my conversations were with males, and I am conscious that my accounts underrepresent women's experiences. When I interviewed officials, scholars, and businesspeople, it was usually in their offices, and I used a semi-structured format. While specifics depended on the respondent's position, these interviews generally covered the respondent's role in regard to national parks, their observations about tourism and conservation management in the parks, and their ideas about the roles of residents. All were conducted in Mandarin Chinese. All names I present with interview data are pseudonyms.

Just as in the research that yielded the previous chapters, I followed advice about interviewing and observation in publications like Charmaz (2006) and Duneier (2004). I took detailed notes in spare time after conversations. Now and then I reviewed my notes and composed memos on themes that arose in interviews. I coded interview data iteratively, incorporating themes I identified into subsequent interviews. My approach differed from the radical openness of grounded theory in that I arrived with orienting questions based in literatures on community development and conservation. Still, I kept the frame of inquiry open, and my questions changed as research progressed, shifting over time from collective forest management to tourism politics and broader livelihood impacts.

Livelihoods and Inequalities

Residents and their livelihoods are at the center of tourism and conservation in both Pudacuo and Meili Snow Mountain National Park. But their places in the parks are complex and contradictory. National parks are supposed to bring income and amenities that draw residents away from farming and natural resource extraction. Yet protecting traditional activities is also among the main goals stated for these parks, and working landscapes are at the center of the tourism attractions. How residents' activities are actually changing is an open question that likely has to do with particular ways tourism articulates with other livelihood activities.

Local authorities' approach to community development in national parks is shaped by the modernizationist focus of development efforts across China on weaning rural populations off of agriculture and coaxing them toward urbanized lives. (Granted, many need little coaxing.) "Alternative livelihoods" thinking on community involvement in conservation applies this reasoning specifically to extractive resource use: by providing an alternative way to meet their needs and aspirations, income from tourism will lead people to abandon extractive activities. Just as promoters of national parks predicted that tourism revenues would support active conservation management, they also predicted that nature tourism in national parks, by bringing economic benefits to communities, would lead residents to reduce their reliance on activities that depend on withdrawing natural resources from forests and meadows within these parks. With income from providing tourism services, residents would choose to spend their time on tourism rather than farming. They would take fewer cattle to alpine pastures, reducing the impacts of high-intensity grazing on meadow vegetation. They would buy fuel on the market rather than schlepping up mountains to gather fuelwood.

At the same time, official statements around the national parks put supporting Tibetan people doing "traditional livelihood activities" at front and center. The great wood-and-earth houses, the barley racks, the fields glistening with heads of grain, and the yaks and huts of the pasture are among both parks' main draws. Tourists come to see scenery as well as to see people living in a working landscape, which is also a hallowed landscape. In line with the mythos of Shangri-la, visitors come to gaze at people living

in harmony with nature, people with grounded religious beliefs, people whose lives of rural work might have a genuineness and moral clarity that they feel China's urban scramble lacks (see Su 2013). For this reason and, equally importantly, in order to avoid the complications that arise when parks remove residents or restrict their activities, park authorities in Diqing have actively encouraged residents to maintain some resource use activities, like cropping and husbandry, while refraining from restricting others, like harvesting mushrooms and medicinal products.

Household livelihood decisions take place in the context of collective institutions and relationships, and patterns of household decisions in turn affect these relationships. The descriptions above suggest contrasting patterns of inequality in Xidang, Yubeng, and Lawzong. These patterns appear to follow from the different ways tourism is organized in these communities, which may also shape patterns of other activities at household and community levels. For example, in a community in which benefits from tourism are unequally distributed, households with little access to tourism benefits might specialize in other activities more than in communities in which tourism benefits are more evenly distributed. In addition, it is commonly asserted that inequality can undermine solidarity and collective action (Das Gupta et al. 2004), though where elites expect benefits they may promote the provision of collective goods (Ruttan 2006). It is of interest, then, how the different tourism institutions in these communities relate to patterns of cooperation among residents in these and other arenas, and what role economic inequality following from tourism institutions plays in these relationships.

The questions of how tourism institutions affect residents' livelihood decisions and patterns of inequality and cooperation, then, are both practically and theoretically important. Spending time in Lawzong, Xidang, and Yubeng, I became aware of marked differences in residents' farming practices, livestock herds, non-timber forest product (NTFP) gathering, and fuelwood use. Although ten years earlier, residents of Yubeng and Xidang had gotten nearly all of their income from selling mushrooms and medicinal products, by the time of my fieldwork few Yubeng households gathered NTFPs, while most households in Xidang continued to supplement mule-ride income with mushroom gathering. On the other hand, Yubeng households had substantially larger numbers of yaks and cattle than in Xidang, and Lawzong's herds were even greater in size.

These differences could be due to income from tourism, the labor it demands, or a number of other things. While those observations gave me strong impressions of differing livelihood patterns, I realized that integrating quantitative data with qualitative observations could help me to understand these variations in a more encompassing way, in particular giving me clearer ideas of how household attributes interact with community tourism patterns. So, after completing my qualitative fieldwork, I asked colleagues at Southwest Forestry College in Kunming, the capital of

Yunnan, who had worked extensively at northwest Yunnan's national parks, to work with me to conduct a household survey to compare communities.[4]

Comparing patterns of resource-based activities across these communities raised a methodological conundrum. In the complex topography of the eastern Himalayan range a few hundred meters in altitude makes a substantial difference in agroecological conditions. In Xidang, at about 2,600 meters above sea level, residents can alternate wheat and corn over two growing seasons each year, and some cultivate grapes as a commercial crop. In Yubeng, at 3,100 meters, households grow one crop of barley in the village and plant corn in an area several kilometers downhill. Meanwhile, at 3,700 meters above sea level, Lawzong, like most other communities in the basin around Shangri-la, has one short growing season, during which residents plant barley, potatoes, oilseed, and turnips. These communities face growing seasons of different length, different times of peak agricultural labor demand, and different opportunities to market farm products. They also have access to lands with different endowments of non-timber forest products (NTFPs). These conditions can be expected to affect how people make choices about tourism and other livelihood activities.

Even were agroecological conditions uniform across sites, focusing solely on communities with tourism operations raises another problem: one cannot adequately understand how tourism (or any other economic activity) affects communities in a

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[4] In the following and in Chapter 7, when I employ the first person plural, I am referring to these collaborators.

region without reference to communities beyond those hosting tourism operations. First, failing to examine communities without tourism operations can lead to faulty inferences about the impacts of tourism where it is present. Studies of tourism in China and elsewhere often adduce increases in income and changes in farm activities in single locales over time to demonstrate tourism's impacts (Yang and Yang 2009, Yang et al. 2011). But across China rural incomes are rising and activities are changing in communities with or without tourism. Communities without tourism operations have undergone their own economic transformations. Without including them in a comparison, one runs the risk of asserting, as a hypothetical example, that a change in reliance on NTFPs is due to tourism when in fact NTFP reliance is declining overall for other reasons. Similarly, a focus on high-profile economic activities like tourism may distract from other activities adopted simultaneously, giving undue importance to the high-profile activity. To understand how tourism participation affects communities in ways similar to or different from other changes afoot, one has to look at how it relates to other processes going on.

Second, if I limited my view to communities with tourism operations, it would constrict the understanding of national park management's impacts that I arrive at. On one hand, the impacts of tourism and other economic activities go beyond the communities where they take place. Tourism generates income that people spend outside their communities, demands goods and services that people in other communities might use, and competes with other activities for people's labor and attention. On the other hand, communities

are not hermetic units, and the impacts of differences in economic activities on relationships among communities are relevant for understanding what happens in individual communities and of interest in their own right. The same arguments apply to inequality and collective social capital: comparison with communities that lack tourism operations will illuminate social patterns in communities dominated by tourism, and considering them all together will illustrate conditions across communities affected by national parks. Since a minority of communities in the region have substantial tourism operations, this approach gives a fuller picture of where tourism fits in among a variety of livelihood patterns.

These concerns about the impacts of agroecological variations and integrated comparative analysis made it necessary to identify communities without tourism operations for comparison, preferably communities that otherwise have a lot in common with the first three. In designing the household survey, we attempted to pair each tourism-centered community with a community that had little tourism participation but was otherwise similar, particularly with respect to social and agroecological conditions. Pairing tourism-centered communities with comparable communities without tourism facilitates rigorous (if not fully controlled, as independence cannot be assumed) comparisons to assess whether tourism-centered communities differ from other communities in systematic ways. Enabling us to look at similarities and differences in how different tourism-centered communities compare with non-tourism communities, this approach also gives firmer ground for making

inferences about the differences among tourism-centered communities. At the same time, tracing the connections among these communities, related by ties of kinship as well as exchange, we can see how these patterns are connected, as outflows of tourism ripple across the area. Due to time and logistical restraints, we were able to conduct the survey in two communities with conditions corresponding to Xidang and Yubeng respectively, but we were not able to survey a companion community to Lawzong.

Sinong

Sinong, a few miles upstream from Xidang and at similar elevation, is located within Meili Snow Mountain National Park, but few tourists visit it. The glacier above Sinong's pasture, a daylong hike up the mountain, attracts the odd group of backpackers, who hire someone in Sinong to lead them up for a night on the pasture. While residents await the day when news comes of a decision in county offices to open up tourism in their community, in the mean time they take advantage of a number of other opportunities the tourism economy has opened up. Some drive passenger vehicles; others join the touring troupes that showcase their customary dances. Cash crop agriculture is also a central strategy. As in Xidang, Sinong residents rotate maize with wheat or barley as their main grain crops. In both communities, most households cultivate walnut trees, selling walnuts for cash. Sinong differs from Xidang, though, in the prevalence grape cultivation. The Deqin county government has aggressively promoted grape cultivation in communities along the Lancang valley, providing subsidies for converting existing cropland to grapes. Residents are obligated to sell their

grapes to agents who convey them to a state-owned wine factory. Every household in Sinong cultivates grapes, which account for a substantial portion of household income.

Zhila

On a ridge high above the Lancang, north of Sinong, lies Zhila, which until 2009, like Yubeng, did not have road access. I did not visit Zhila in 2010, but the household survey took us there the following year. Residents of Zhila and Yubeng, at over 3,000 meters above sea level, mainly plant wheat and barley near their villages and also grow maize on hillside fields. These communities have more land per household than the downhill communities, but face a single, shorter growing season. In research conducted in 2003, Salick and colleagues (2005) found a high prevalence of "traditional" crops, including barley and buckwheat, in villages with situations resembling these two, compared to villages with lower altitude and greater road access. These communities also have a rich endowment of NTFPs. While many Yubeng households have stopped gathering these products for sale, Zhila households still get a sizable amount of their income from NTFPs. Zhila residents earn little income from any activities related to tourism, and at this elevation grapes do not grow. However, as is increasingly common elsewhere on the Tibetan plateau, residents in a majority of Zhila households "go for income" outside their home village (Goldstein et al. 2008). They do not migrate to coastal manufacturing centers but to county and regional centers for manual or office work, or to farms and construction sites in nearby counties.

Community and Household Comparisons

The five study sites include the three models of tourism participation common in protected areas of southwest China, as well as two communities without tourism operations. Their key features are summarized in Tables 1 and 2. In Table 1, the vertical axis distinguishes communities with and without tourism operation. Horizontally, communities are arrayed by elevation (with associated agroecological conditions) *as well as* tourism model and national park location. Three different agroecological regimes are represented: a low-elevation regime in the same park represented by Xidang and Sinong, a high-elevation regime at Meili Snow Mountain National Park represented Yubeng and Zhila, and Pudacuo National Park's different high-altitude regime represented by Lawzong.

Table 1. Study Sites by Tourism Model, National Park, and Elevation

	Meili Snow Mountain National Park		Pudacuo National Park
	Low Elevation	High Elevation	High Elevation
High Tourism	Xidang	Yubeng	Lawzong
Low Tourism	Sinong	Zhila	

Table 2. Summary of Community Attributes

Community	National Park	Elevation (m)	Main Crops	Tourism Operation
Lawzong	Pudacuo	3700	Barley, Potatoes, Turnips, Rapeseed	Park Sanitation, Compensation
Xidang	Meili Snow Mountain	2400	Wheat, Maize, Grapes, Walnuts	Mule Ride Rotation
Yubeng	Meili Snow Mountain	3100	Barley, Maize, Wheat	Mule Ride Rotation, Guesthouses
Sinong	Meili Snow Mountain	2400	Wheat, Maize, Grapes, Walnuts	None
Zhila	Meili Snow Mountain	3100	Barley, Maize, Wheat, Buckwheat	None

Accounting for livelihood activities, inequalities, and cooperation in these communities necessitated a two-tiered framework of comparison, within which I put survey responses in dialogue with observations from my qualitative fieldwork. Livelihood activity patterns are most visibly differentiated at the household level.[5] Land access is distributed at the household level; household members pool resources and thus share common lots; and the state treats households as basic accounting units. At the same time, the processes affecting household choices are differentiated at the community level, and outcomes of interest are patterned at the community level. From the perspective of environmental impacts, it is the aggregate impacts of livelihood activities that are of primary concern. For example, the same amount of withdrawal from a landscape may occur if one household grazes 100 head of livestock or if ten households

[5] While decision-making and labor allocation within households are power-laden and problematic processes, for the purposes of this study the outcomes of these processes appear more relevant than the internal mechanisms.

graze ten head each. (The spatial and temporal patterning of these impacts is also of concern and might vary with different distributions of activities.) Patterns of inequality in a community are measured through aggregating household figures. Likewise, it is in the aggregation of practices among the households that one can observe a pattern of cooperation or its lack in a community.

It is important, then, to compare both at the household level and at the community level. Households differ in their endowments of labor, land, education, and other assets, and these differences likely affect livelihood choices. By paying attention to variation among and relationships between households, I avoid naturalizing community, treating communities as undifferentiated wholes. At the same time, conditions that characterize a community—overall land endowments and agroecological conditions, the character of tourism operations, and other community institutions—can be expected to condition household livelihood activities, inequalities, and social cooperation in patterned ways. The survey gathered information at the household level regarding household demographics; labor allocation to and income from tourism, farming, and other activities; and patterns of labor exchange. (I detail the measures in Chapter 7.) In some analyses I group household data to compare across communities with different tourism models and agroecological regimes. In others, I use inferential statistics to compare at the household level, regressing on attributes that vary at the community level. By keeping community factors in view I keep from atomizing households. In all analyses, I continuously put survey data in dialogue with observations from qualitative fieldwork.

Rather trying to make either stand alone, I built the survey on the basis of qualitative observations, and I use each source of insight to question and illuminate the other.

The following chapter begins with an inquiry into patterns of politics across communities with tourism operations. Chapter 7 follows, presenting findings concerning livelihood activities, inequalities, and patterns of cooperation.

Chapter 6: Not Really the Government? Working out Responsibilities and Benefits

With the spread of centralized of protected area attractions, community-based tourism operations are increasingly being displaced by operations run by state-affiliated firms, incorporating residents through employment or compensation. These changes reorganize relationships between residents and park authorities, impacting the distribution of costs and benefits from tourism as well as how decisions concerning practices within tourist attractions are made. In this chapter I draw from interviews with community residents and staff of park administration bureaus and tourism service companies to understand differences and similarities in the concerns that have arisen in Diqing's national parks. The practicalities of coordinating tourism activities and other aspects of park maintenance differ at Meili Snow Mountain National Park, where tourism is community-centered, and in Pudacuo, where it is concentrated. As a result concerns arise over different issues in each park: around trash management and infrastructure in Meili Snow Mountain National Park and around compensation levels and forest patrolling in Pudacuo National Park. These engagements often involve concerns relating to environmental protection, but not the ones most commonly discussed in the literature on people and parks, like hunting bans, harvest restrictions, and wildlife damage to crops and livestock (Pettigrew et al. 2012). However, the ways residents in both parks talk about what is wrong and what would be appropriate in the ways park authorities engage them are similar across sites. I address what these findings mean for thinking of these national parks through the lenses of environmentality and moral economies of legitimacy.

The Environmental State and Communities in Conservation

Efforts to understand the micropolitics of conservation revolve around two visions of the environmental state: one that emphasizes the state's repressive nature and one that highlights the ways states cultivate self-governing or consenting subjects.[1] The former revolves around how states use coercive machinery to reorder landscapes and practices to make landscapes and populations amenable to control, emphasizing the role of moral economies—understandings of appropriate distribution and reciprocity—in mediating state-society relationships. The latter, building on Foucault's conception of governmentality, stresses how states apply non-coercive techniques to guide people into behavior and attitudes consonant with state goals. In particular, efforts to foster community-based conservation initiatives can be seen as instantiations of environmental governmentality, or "environmentality," that cultivates subjects who accomplish through community governance tasks of resource management that elude hierarchical and coercive governance. The community turn and the advance of market-led approaches in conservation globally, as well as changing practices of government in China, invite explanation in terms of governmentality. Yet the uneven involvement of communities in Yunnan's national parks raises questions about the adequacy of governmentality explanations. The tension between local state interests in consolidating tourism management and community members' concerns about distribution and participation generate a situation in which governmental

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[1] The institutionalist approach to common pool resource management could be considered a third conception. However, this body of literature has an underdeveloped conception of the state, viewing its role as primarily external, providing or failing to provide property rights protections, adjudicative institutions, and other contextual elements that promote or fail to promote collective action among resource users (Johnson 2004). The bodies of thought addressed in this chapter articulate visions of state goals, state conduct oriented toward those goals, and relationships between the state and rural residents conducive to accounting for how protected area institutions take form and how state agents and residents respond to the situations that arise in practices around these institutions.

interventions fail to take root. Moral economies of legitimate balances of duties and benefits take front stage as residents respond to top-down tourism management.

In Scott's (1976) seminal account, peasant moral economies are rooted in claimed rights to subsistence and norms of reciprocity that the advance of nation-state power and capitalist enterprise often undermine. These ideas of rights and reciprocity are oriented to the past, with reference to concrete institutions that specified responsibilities of elites toward subalterns. Peasants are likely to reject the legitimacy of authorities if these conditions are undermined, and to revolt if in addition they have the collective capacity to rise up. In her work on labor protests in northeastern and southeastern China, Ching Kwan Lee shows how patterns and discourses of labor resistance are grounded in moral economies based in local histories of state-society relations but also go beyond these past-oriented mindsets to "a repertoire of multiple worker subjectivities transformed through workers' participation in ongoing institutional transformation" (2006: 121). Current experiences and relationships condition how people draw on remembered conditions. While these works focus on how moral economies manifest in acts of resistance, moral economies are also evident when rural people comply with authorities or negotiate terms of exchange. They still often describe situations in terms of appropriate exchange, sometimes overtly, sometimes indirectly.

As a state-sanctioned effort to reorganize residents' livelihoods within productive landscapes, protected area management hits at precisely these intersections of identity and reciprocity. When protected area authorities cordon off residents' activities from conservation targets to protect wildlife or present fetishized versions of nature for tourists, it can reinforce divisions between "nature" and "culture." Through practices of enforcement and evasion, park authorities and residents form oppositional identities that suffuse conflicts over resource use (Neumann

2004, Butt 2012). While residents may think of concessions they make for conservation as an exchange for benefits they understand as "development," conservation authorities may fail to recognize or respond to such concerns (West 2006). Residents and park authorities differ on what they consider appropriate rights and responsibilities concerning resource use as well as tourism, and they express these conceptions in terms of legitimate or illegitimate exchange. To comprehend protected area conflicts, one must understand these moral economies and the histories and identities in which they are grounded.

The evident but uneven shift from coercive conservation to community-involving practices suggests that conflict-oriented approaches may not be adequate to account for changing patterns of resource governance. Drawing on Foucauldian concepts of governmentality, Agrawal (2005) argues that efforts over the last century to involve communities in conservation have generated three objects that change the ways residents relate to the state and to the environment. The decentralization of conservation has given rise to *governmentalized localities*, in which members of communities act as conduits of state projects for environmental management rather than simple objects of state domination. Communities accomplish environmental management as *regulatory communities* with various members having stakes in enforcing conservation rules. Finally, through participation in conservation, residents become *environmental subjects* who understand conservation as contributing to their own well-being. Practices that bind state, community, and subjects together in conservation change the politics of resource management, blurring the state-society dichotomy evident in the moral economy perspective.

Agrawal suggests that the proliferation of community-based resource governance might make these kinds of dynamics increasingly dominant in resource management. Yet efforts to establish

community-based natural resource management falter for various reasons, often generating conflict. Sometimes this is due to poor estimation of community politics. State agencies may be loath to devolve relevant aspects of resource governance or may re-centralize some aspects even as they decentralize others (Ribot et al. 2006). State efforts to map and partition resources can incite counter-mapping, through which residents assert claims contrary to the state's envisioning of landscapes (Brosius et al. 2005). Governmental interventions are incomplete, and in their uncomfortable coexistence with conflicting goals and coercive apparatuses, top-down management and contestations grounded in reciprocity claims persist.

Protected area tourism has been related to both tendencies. Where residents are excluded from decisions around and benefits accruing from tourism, conflicts often ensue. In many situations, when tourism revenues grow in importance, protected area authorities and the state prioritize tourist satisfaction at the expense of residents' livelihoods and preferences, and not necessarily with a direct relationship to conservation outcomes. The commodification of landscapes and wildlife in the African safari industry, leading to restrictions that are insensitive to residents' productive activities in these places, alienates residents from landscapes and generates conflicts with park rangers (Butt 2012). But in other instances tourism has been part of arrangements that bring residents and protected area authorities to accord (Kirkby et al. 2011). In such situations, tourism can be seen as part of governmental strategies that urge residents to adopt conservation in their own interests. What forms of participation might be adequate to produce such accord—some level of economic reward, a part in co-management and decision-making, a sphere of autonomy for residents in decisions directly affecting themselves, a combination of these, or something else—is unclear. In any given situation, it is likely contingent on local histories and political institutions.

It is frequently argued that state-society dynamics in China have taken on a governmental quality. Indeed, state organs have reconfigured their ways of regulating behavior, guiding people to emphasize child "quality" over quantity in reproduction (Greenhalgh and Winckler 2005), cultivating conduct in a variety of other realms of life (Jeffreys 2010), and fostering environmental subjectivities linked to national imaginaries (Coggins and Yeh in press).Yet these processes of governmentalization are uneven and intermingled with coercive and disciplinary actions. This unevenness provides a window for understanding how and with what consequences different qualities predominate in practices of government.

The differing but connected institutional frameworks in Meili Snow Mountain and Pudacuo National Parks provide a useful context for exploring the mechanisms and tensions of local environmental governance in the context of tourism development. Given the affinity of governmentality with institutions that devolve responsibilities to individuals and communities, we might expect to see different patterns in these parks. In Meili Snow Mountain, where residents collectively maintain and enforce institutions for running tourism and managing the landscape, we might expect to see strong pro-environmental attitudes, as residents recognize through practice their stake in protecting environments visitors value. In contrast, in Pudacuo National Park, where residents' participation in tourism is directly subordinated to the National Park Tourism Services Company, we might expect to see a more oppositional approach to the park.

However, while these parks contrast in how tourism activities are coordinated, both have undergone meso state corporatist efforts to extend state coordination of activities through tourism management. Even in Meili Snow Mountain National Park, directives from national park authorities increasingly work to constrain communities' actions around tourism and

natural resource use in the interest of rationalizing national park management and enhancing revenues for the Meili Snow Mountain National Park Tourism Services Company. Expansion of administrative bureau and tourism service company authority and increases in ticket prices have shifted the balance of burdens and benefits in both parks, though to a greater degree at Pudacuo. At the same time, park authorities transmit directives to communities through community household heads' councils (*jiazhanghui*) and the Pudacuo National Park Community Affairs Council, which formally involve community representatives in negotiations over park policies, while directing collectives to pull community members into line around decisions and enforce rules for resource use and tourism. These arenas have different mechanics, but they share in being arenas for corralling residents' efforts through community institutions.

Given these differences and commonalities across the two parks, several questions may be relevant. First of all, in what sense do the differences in tourism participation predominate in accounting for the kinds of attitudes and conflicts residents and park administrators discuss? If differences predominate, it is of consequence how they play out—given the community locus of tourism and waste management, do Meili Snow Mountain residents show stronger "environmental subjectivity" than Pudacuo residents? If commonalities dominate, do community involvement mechanisms manifest effects that are more consistent with governmentalization, with residents managing themselves to produce outcomes in line with the state's tourism and conservation projects, or is contestation more salient? In either case, how?

As I proceed, I will focus on the narratives residents and park authorities present, in particular environmental and ethnic narratives. Environmental narratives are codified discourses concerning how certain groups of people impact environments. They assert causal sequences of events that implicate particular social groups in environmental destruction or protection and

suggest which responses are appropriate (Fairhead and Leach 1995). One such narrative is that of the environmentally destructive peasant, who is driven by poverty and resource scarcity into cycles of environmentally destructive resource use. States often employ this narrative to justify privatizing land tenure, change agricultural practices, or restrict residents' resource withdrawal activities. Another, seemingly contrary narrative, is also at play, that of the ecologically noble savage (Redford 1991, Hames 2007). Representatives of the state and of business interests use narratives strategically to support interventions to redirect or manage residents' activities, restricting rights and imposing duties (Scott 1998, Yeh 2009); rural residents also invoke narratives to support their own claims. These elements of discourse can be powerful instruments in struggles over the nature and implications of residents' practices, yet they often have problematic relationships with actual practices and their human and environmental impacts.

These contrasting narratives of rural resource use are both prominent in Yunnan's national parks. They connect to "civilizing projects" in which ideological presentations of peripheral peoples underpin relationships of domination. The ideology of China's civilizing project defines peripheral peoples as backward, requiring tutelage in rational forms of production and social organization (Harrell 1995). These narratives' implications situate resource use within a broader conception of cultural hierarchy. Their descriptions of resource use reveal their tension and contradiction. On one hand, official statements and tourism promotion literature in China represent officially recognized ethnic groups, especially Tibetans, as having an essential affinity with nature, resulting in primeval ways of living that protect resources. Even as afforestation and agricultural development programs build on the environmentally destructive peasant narrative, the region's tourism industry and conservation authorities also hail the area's

residents as ecologically noble savages who live in perennial harmony with nature. Meanwhile, the destructive peasant narrative is a central theme in programs aimed at protecting and rehabilitating environments in China's periphery (Blaikie and Muldavin 2004, Zackey 2006, Yeh 2009). Both narratives relate to observable practices and beliefs around resources. But local authorities use them in abstracted ways rather than start from the particular practices and relationships through which residents use landscapes, sustainably or not. Either narrative can deflect attention from the more complicated ways people relate to their environments under changing political-economic conditions.

The people to whom these narratives apply may invoke them as well. The proliferation of narratives of indigenous stewardship provides opportunities for rural residents to strategically invoke them. Members of an indigenous group may base claims of rights to access resources on assertions that they are intrinsic stewards of nature (Acciaioli 2008). The relationship between narrative and practice is no less complicated in these situations than it is when a state agency or conservation organization is voicing them. It can be extraordinarily difficult to disentangle pre-existing cultural practices and dispositions from ways of talking that people have cultivated in response to conservation advocates and tourism promoters proclaiming primordial Tibetan environmentalism, to pursue their own interests. On top of these ambiguities, people in northwestern Yunnan refer to The Nature Conservancy in shortened form as "*daziran*"—the Mandarin term for "nature"—with the result that I sometimes had to clarify whether they were talking about the socio-biophysical phenomenon or the organization. This slippage illustrates just one of the complications of dealing in concepts that are being translated across social words. In working through respondents' statements, whether residents or park authorities are speaking,

I do my best to reflect the content of each statement accurately while drawing attention to the interests and concerns that contextualize it.

Different Issues, Similar Concerns

The issues that raise tensions among residents and park authorities differ across the two parks. What issues come to the fore in each park has to do with the different challenges that community-based tourism and company-based tourism present for park authorities' efforts to steer residents' activities. In Meili Snow Mountain National Park, where community organizations regulate tourism activities, park authorities work at one remove, accessing residents through the mediation of administration station staff. Concerns arise around park authorities' attempts to urge residents to manage garbage and tourism practices, to which residents respond with claims that the state has not provided benefits and infrastructure investments commensurate with its requests and with the revenue it extracts from the park. In Pudacuo National Park, in contrast, residents' living space is more peripheral to the tourism attraction. Park authorities manage tourism façades directly, overseeing residents as sanitation employees. The main issues that arise concern compensation levels and restrictions on residents' entrepreneurial activities. Different particular issues raise common themes in both parks, as residents respond to efforts to direct their behavior with assertions that the local state is not adequately respecting norms of reciprocity.

Meili Snow Mountain: Garbage, Infrastructure, and Forests

Since a road to Yubeng has yet to be built, everything that comes into or goes out of the village must take the path over the pass. Provisions for lodging and feeding tourists—not to mention anything residents consume—take a long, costly path. Daily, two mule teams led by men from

Ninong, a few kilometers down the Lancang River, haul loads of dried noodles, vegetables, other cooking ingredients, and cases of snack foods and beverages. One day the mules climb laden with compressed wood wallboards. The next day they carry batches of bricks, their owners strapping televisions to their backs. These mule drivers' fees contribute to the price of everything residents and visitors consume. The contents of their packs, wrapped in disposable packages, bring another burden: garbage.

Garbage had not been much of an issue in Yubeng before tourists started coming. Residents consumed the produce of their farms, pastures, and surrounding forests, along with goods and aid grain transported from outside. They reused containers; most of what was not reusable would decay. The arrival of tourists in the late 1990s corresponded with an influx of stuff in glass and plastic containers. Wrappers and bottles began piling up on trails and behind guesthouses. Residents had no institutions for removing trash. Burning it was out of the question: it would desecrate the sacred mountain. Communities all around have seen garbage pile up, but the flow of tourists and pilgrims multiplies Yubeng's accumulation.

Visitors began filing complaints about unsightly piles. Park authorities worried that these complaints would hurt tourism business. In 2009, TNC and the Deqin County Environmental Protection Bureau addressed community members concerning garbage. A series of meetings of the council of household heads yielded a plan: each household in Yubeng would be responsible for maintaining a segment of trail, gathering trash and placing it in a basket labeled with the household head's name. There would also be a trash collection area in the village. TNC and the county assembled funds to pay each household by weight for the trash they collected. They also arranged for the garbage to be trucked away. In October of 2008, over 40 tons of trash were removed from Yubeng and environs.

After the garbage had been trucked off, the labeled baskets stayed hung along the trails. A signed agreement stipulated that residents of Yubeng and neighboring Xidang would tend their assigned sections of trail. Yet over time litter began to reappear. No one was paying for residents to haul their baskets to the trailhead anymore. Should one take one's basket to the holding area, there was no provision to truck the garbage to the county waste facility. Complaints started coming in again. This time the Tourism Services Company directed the staff of the Yubeng Administration Station to get villagers to take responsibility for gathering trash.

When the Yubeng Administration Station and its counterparts in Xidang and Mingyong were transferred from the Meili Snow Mountain National Park Administration Bureau to the Tourism Services Company, staff became occupied with two main tasks: checking tickets to ensure all tourists had paid their fees and regulating tourism services provided by residents to ensure quality and minimize complaints. Yubeng Administration Station staff members attend meetings of Yubeng's Household Heads' Council, conveying requests from company management regarding mule rides and guesthouse management. While the station chief is from Shangri-la County, the assistant chief is a resident of Yubeng, belonging to a household that runs a profitable guesthouse. Several other staff members come from nearby communities. As a Yubeng resident, the assistant chief mediates with community members.

The request that residents take responsibility for trash removal aroused opposition. The assistant station chief recounts,

> From villagers' perspective, recently the main issue has been that the village lacks infrastructure. People want a road, electricity, and a health clinic. The villagers say, we can pick up our own garbage, but we cannot provide the funds to take it to Xidang. They want the company to undertake that. If there was a road, of course they could haul garbage out, but without a road it is difficult. (100813A, Yubeng resident, male, administration station staff)

Yubeng residents repeatedly stipulated to me that they must get a road and consistent electricity as preconditions for undertaking garbage removal. Some also mentioned a health clinic or cell phone service. Yubeng residents rely for electricity on a collection of micro-hydropower generators that provide power erratically and halt when streams dry up and freeze in the winter. Many want reliable electricity year-round from the grid. They present the road as a practical issue: removing garbage would be easier if garbage could go out on a motor vehicle rather than over the pass on mules. But the underlying issue is a perception of desert. On one hand, residents claim that some of the revenues Tourism Services Company collects selling tickets at the trailhead should be invested in things that benefit Yubeng residents. On the other, road access, electricity, and telecommunications, amenities that are promised to all villages in China under the central government's "three connections" (*san tong*) policy, and residents claim the local state is remiss in not providing them—particularly given that it has capitalized on the national park and made demands of them. They portray this as an issue of fair exchange.

Relaying these concerns to management, the assistant chief did not get a favorable response.

> [The manager] says you take care of the community's garbage, and we will take care of tourists' garbage. I say, then you come over and look at the garbage here, tell me how to tell which is from tourists and which is from locals. Saying we should sign an agreement, you take care of yours and I take care of mine, just couldn't work. There's no way to tell the two apart. (100813A, Yubeng resident, male, administration station staff)

In the assistant chief's view, the company's demands are disconnected from the realities of the community. Company authorities claim they should not be responsible for trash that pilgrims and Yubeng residents deposit, since this waste does not result from tourism operations. Similarly, the company declines to pay for removing trash on the trail to the ice lake because the company has not declared the ice lake officially open for visitors—despite the fact that it implicitly allows travel to what has become one of Yubeng's primary attractions. Yubeng

residents claim the Tourism Services Company offloads costs of maintaining the attraction onto them. Conversely, company staff members claim residents are trying to shift burdens to the company. One says,

> Tourists have strong environmental awareness. Originally, we hoped they would bring the community along. Now Yubeng residents don't have the awareness to protect resources. Before, they had it hard. Now, several households are millionaires, and there are others that get ten or a hundred thousand a year…. The problem is that people in Yubeng don't want to take the effort to pick up trash. They aren't willing to cooperate. The problem is the "three connections" issue. (100825B, male, Meili Snow Mountain National Park Tourism Services Company staff member)

The respondent starts by claiming this is an issue of awareness: that Yubeng residents do not understand the importance of environmental protection. That they have persisted despite exposure to tourists' enthusiasm for nature suggests that residents are obstinate. A number of park personnel expressed such views. Yet, in this and other cases they went on to acknowledge that residents' recalcitrance relates to their perceptions of policy commitments around infrastructure (the three connections). Still, given that Yubeng residents have far higher incomes than people in surrounding area—one official said that Yubeng may have the highest average income of any village in Diqing Prefecture—Tourism Services Company staff claim it is reasonable to expect them to shoulder the burden of removing trash. Park authorities invoke a variant of the destructive peasant narrative to justify frustration with residents, but these claims are in tension with their acknowledgement that residents' concerns have a degree of legitimacy.

By the middle of 2010, Tourism Service Company authorities were getting nervous. A July deadline for removing trash had come and gone. The peak tourism period the week of National Day, at the beginning of October, was approaching. When an intern from TNC asked residents about their thoughts, while reiterating their conditions for removing trash for the company, some asked, "When is The Nature Conservancy going to come and take the garbage out again?"

Yubeng village leaders and the Tourism Services Company signed a contract with a man from Ninong, granting him ¥30,000 to gather all the trash from Yubeng and pack it out and paying the community ¥10,000 as well. This stopgap resolved the issue temporarily, but a long-term solution remained out of sight.

Yubeng residents' demand for a road links them with the local state in a complicated wrangle over transportation access. When I first visited the area in 2008, residents of Xidang and Yubeng were abuzz over the prefecture government's recent decision to construct a road into Yubeng. People from Yubeng sighed that finally they would be able to come and leave easily. Xidang residents fretted that their main source of income, mule rides, would be obliterated and resolved that they would extract compensation from the park. A year later, the project had vaporized. A government body higher up, apparently following entreaties from The Nature Conservancy and other environmentalists, had vetoed the road due to concerns that the impact of cutting a road could threaten the area's World Heritage Site status.

This did not settle the issue. Residents continued to debate the merits of building a road to Yubeng, while officials discussed the alternative of building a cable-car over the ridge:

> "Soon we are going to research a project to erect a cable-car to Yubeng. We have also brought up building a road to Yubeng. We think a cable-car is better than a road, fewer trees will get cut. When old people come to Yubeng, they don't have the energy to hike or ride a horse. Through scientific means, we will take them to Yubeng in an environmentally friendly way. Then, local horse owners will get shares in the cable-car company. This way residents' income won't decrease." (100921A, male, county official)

Local officials see the cable-car as a means to expand tourist volumes to meet pressures to increase revenues from Meili Snow Mountain National Park. They present this as an issue of access, enabling less physically robust tourists to visit Yubeng. They profess that environmental harms will be minimized and that residents will get a share.

Residents of Xidang have varied opinions. Asked about the possibility of a cable-car, some worried that with a cable-car there would be no more horse-pulling, and they would lose out on income. Others said they would welcome a cable-car—provided Xidang residents get a take:

> I opposed building the road. If they built a road from there to Yubeng, then we wouldn't have any income. At the time we made a demand to the government, if you build a road, then give us compensation, thirty to fifty thousand per household. In the county, they only care about making money for themselves. They don't think about peasants' income. Now they are going to build a cable-car. They already have a plan; they sent specialists in [to survey the area]…. My thought is, they should build this cable-car, then make sure that Xidang villagers get part of the money, thirty to fifty percent. These days horse-pulling is no good…. Tourists reach 250 a day. Taking three trips, a person gets tired, and your horse gets tired, the horse will refuse to go. Once the road from Shangri-la to Deqin is finished, there will be even more tourists… horse-pulling won't be able to keep up, so they will have to build a cable-car. (100905B, Xidang resident, male)

This resident focuses on three concerns: income, labor, and the reliability of local state authorities. Along with other respondents, he says that any acceptable course of action must secure Xidang residents' income from tourism. The community-based mule ride rotation has made Xidang prosperous, and people fear a road or a cable-car could undermine this state of affairs. Yet giving mule rides is taxing work. With the expected growth in visits, residents foresee a point at which they will not be able to keep up. Many say they can accept a cable-car, if a satisfactory compensation regime is set up. Yet there is tension in their statements about the agencies that would set up such a regime. On one hand, the resident quoted above asserts that county officials are only concerned with making money for themselves. On the other, he expresses assurance that residents would get a cut if a cable-car were set up. That assurance may be connected to his sense that the cable-car is a foregone conclusion; the incongruity with the preceding statements indicates tension. Here as with garbage removal in Yubeng, residents are concerned that in efforts to scale up tourism, park authorities are more concerned with enhancing revenues and the prestige of the attraction than with community residents' interests.

Garbage is central in discussions of "environmental protection" among residents, the local state, and environmentalists at Meili Snow Mountain National Park. This emphasis contrasts with the biodiversity conservation mandate with which Pudacuo and Meili Snow Mountain National Parks were founded. What conservation advocates value in northwest Yunnan are its expanses of forest, meadow, and alpine mosaic of scree and scrub (Yunnan Great Rivers Project Planning Team 2001, Yunnan University Tourism Research Institute 2008). Garbage accumulation can threaten these landscapes, especially if it affects wildlife. However, since garbage appears in concentrated areas frequented by humans, it is a relatively minor issue in biodiversity conservation.

Given the broader conservation mandate of the park, affirmed in park managers' *ad nauseam* repetition of the mantra, "Protection first!" it is noteworthy that residents seldom mention any efforts on the part of park authorities to manage the use of forests and meadows. When residents spoke about forest protection, usually it was in response to my probing, but in a few instances respondents brought it up on their own. However, talking about garbage and infrastructure, two respondents from Xidang drew direct connections to forests:

> Duji: If I were in charge, I would build a small road, and eco-trucks could haul the garbage out—small trucks, no bigger than that minivan over there. The government can give every household a little money, and they will gather the trash. In addition to this road, they must connect Yubeng to the grid; people in Yubeng have to cut firewood to boil rice in the winter. Cutting down trees is the other issue with Yubeng. Every household wants to build or expand a guesthouse. The big ones already have several buildings apiece. . . . And everyone else sees them making money and in turn has started building guesthouses.
>
> Lobsang: They've already cut all the way up the mountain. The big, tall trees are already all gone. If it keeps going this way, the whole slope will be clear-cut in another ten years. They've also cut a lot in the area near the holy waterfall. That area used to be off limits for cutting, and the forest there was really nice. Now a lot has been cut down. Not too long ago the council of household heads made an agreement not to cut over by the waterfall. . . . We'll see how it plays out. We used to be like that, too. When we didn't have any money, we

> lived off the mountain and had no choice but to cut trees and sell the wood. Now that hasn't happened in eight years or so. Look at this mountain: before we would cut as we pleased, just about cut it clear. But then horse pulling started. Once we had income from horse pulling, we had no need to cut over there. To solve the wood and trash problems, the government has to give villagers a little money. Then they will protect, and the government can control [the problem]. (100910A, Xidang residents, both male)

Duji and Lobsang connect the trash issue and infrastructure demands to the concerns about forests that are central to official discourse about environmental protection. Residents of Yubeng, they say, are loath to remove trash because they have not gotten a road and reliable electricity. At the same time, lack of steady electricity drives firewood consumption. Other respondents report that tourists who come in the winter complain about the cold and darkness. The implication is that if residents got electricity, they would be able to reduce timber withdrawals. It is an issue of moral economy—giving residents what they claim to deserve as terms of cooperation. Lobsang suggests that any restraint residents take in resource use depends on a legitimate deal with park management. Yet it is also an issue of practicality in meeting the needs of residents and guests. These two mix together in complicated ways; in almost the same breath, residents say that income frees people from the necessity of relying on resources and residents' willingness to cooperate depends on the provision of benefits by the state.

But there is another element. In response to Lobsang's claims about wood use, I noted that Yubeng households generally make a good deal more money each year than Xidang households and asked why, given their great income, Yubeng residents still use so much timber. Lobsang responded, "Because they see a couple guesthouses making all the money. But a lot of the other villagers are making less. So everyone else is building a guesthouse now" (100910A, Xidang resident, male). The expansion of construction is not unique to Yubeng. In the summer of 2010 nine guesthouses or additions to existing guesthouses were under construction in Yubeng. In the previous year, eight households in Xidang had built new homes, and several more were

under construction in 2010. Many of these households took advantage of the Settled Housing Program, under which households across the Tibetan Plateau received subsidies toward building new homes or additions (Goldstein et al. 2010). All in all it appears that greater income leads to more house-building, and that this happens regardless of whether income is from tourism or something else.[2] The scale of the structures being built is greater in Yubeng, but Yubeng also has access to great swaths of forest, and measurements of forest cover and structure over time in each community's collective forests are not available.

For the purposes of this discussion, though, two things are particularly significant. The first is that inequality in benefits from tourism differentiates resource use patterns across communities. I will examine this issue in the next chapter. The second is the anxiety about the impacts of timber and firewood use on sacred forests. While no one mentioned any conflict with park authorities over forest use, the impacts of tourism on sacred landscapes worry many residents. Respondents in Yubeng echo Lobsang's claim that timber and firewood demands are impinging on sacred forests where residents had previously avoided extracting wood.

Community tourism raises challenges for park authorities at Meili Snow Mountain National Park. Park authorities struggle to get their goals for orderly tourism activities in a tidy attraction realized through community institutions. Authorities' efforts to amplify revenues from the park

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[2] As in rural areas around the world, in Diqing most households' first response to an infusion of cash income is to spend on housing. In Shangri-la County Van Den Hoek (2012) linked accelerated house-building to continuing forest degradation in spite of the ban on commercial forestry. Van Den Hoek found house-building to be particularly pronounced in a community with greater income from tourism—though Arora (2008) noted that a preceding wave of house-building in the region followed an influx of income from mushroom harvesting, and Van Den Hoek also observed substantial house-building in an area of Shangri-la County with little tourism but several new mines (personal communication, 2011).

make this more difficult. Seeing progressive increases in ticket fees at the park gate,[3] residents question why the funds collected do not come back in the form of infrastructure improvements. Facing demands for behavior change from park authorities, residents claim that park authorities should be responsible for undertaking burdens like garbage removal as well as providing infrastructure amenities and income security for residents.

Pudacuo: Compensation, Activities

In Yubeng and Xidang, residents commonly brought up examples of other places where they thought state-led tourism expansion brought a good or a bad deal. Notably, people who brought up Pudacuo National Park said it provided residents with a good deal. Yet residents at Pudacuo gave mixed reports. Changes in the tourism activities residents are allowed to undertake and compensation for ending some activities have been sources of tension. A staff member at the Pudacuo National Park Tourism Services Company recounts:

> When activities like horse-pulling were halted, people didn't like it, so we had to do a lot of community work. I was the first to do community work, every day haggling with the residents. They signed a three-year contract, every household got three thousand *yuan* in compensation. Then they quieted down. After three years, they signed a new contract. The villagers started making a scene again. They wanted the three thousand per household not to change, and on top of that two thousand for every person. (100621A, male, Pudacuo National Park staff)

This official presents residents as intent on making demands, making a scene (*nao shi*) and haggling with park authorities. His language resembles that of Meili Snow Mountain staff quoted above. Residents do indeed make claims that the current distribution of benefits from the park is unsatisfactory. A man in his fifties says,

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[3] In 2010, a typical visitor might pay ¥185 for a mule ride to the pass, ¥50 for two nights in guesthouses, ¥155 for a mule ride to the ice lake or ¥135 to the sacred falls, and ¥100 for food and drink, while paying ¥160 in ticket fees.

> We get a bit of money from the national park. Out of ten bucks, villagers get one buck, and the government gets nine bucks…. I think, if the government took 50% and villagers took 50%, that would be reasonable. Because we have always been here, and we still have to live off the mountains and streams…. The national park's money has all gone to the town. Originally there wasn't any money around here…. Now they've built a big city! (100928B, male, Lawzong resident)

He sees the park's operations as extracting benefit from an area where local residents, with local government support, had previously been enabled to run tourism services collectively. These respondents based claims for greater compensation on a sense that the opportunity to extract income from these places through tourism belongs to them, a property that relates to their history in this place, depending on the landscape for their livelihoods. Another resident said, "The government said they would develop community tourism in three years. It's been three years, and there's no development.... [and] grilling and dress-up photos have been canceled" (100928C, male, Lawzong resident). Respondents speak of the prohibition of provision of refreshments and photo opportunities as a deprivation for which they have been inadequately compensated. As in Yubeng, feelings that park administrators have failed to follow through on promises, in Lawzong's case to set up community-run guest accommodations, compounds claims of distributive unfairness.

Pudacuo National Park faces somewhat different issues from Meili Snow Mountain. Park authorities, primarily the Tourism Services Company, directly coordinate tourism activities and waste management. The park avoids potential friction between tourists and resident providers of tourism services by minimizing contact between residents and tourists. As of 2010, no interpreters on tour buses were residents. Working for the park in sanitation, and in a handful of cases as bus drivers, residents take part in tourism on the Tourism Service Company's terms. Thus the consolidated tourism operation internalizes waste management and tourism quality

concerns. From an organizational perspective, this could be considered an efficient solution to a coordination problem by incorporating these activities into a hierarchy.

But this act does not eliminate complications. As in Meili Snow Mountain, residents see a gap between the current distribution of duties and benefits and what they believe is appropriate. Residents differ on just what would count as a reasonable deal, but for all of them it entails a balance between economic benefits for residents and demands made on them. But these conceived balances involve a host of concerns. They concern not just willingness to accept payments to do protection but congruity of economic benefits with allowed activities and required duties, revolving around tourism, in the context of perceived commitments to rural communities.

Managing Communities

In either park, getting to an acceptable deal is a challenge because residents' ideas of acceptable deals tend to conflict with those of park authorities. Park authorities, after all, are under pressure to maintain high-earning tourism attractions consistent with prevailing tourism models. They describe parks in terms of generating revenue through establishing orderly tourism operations, contrasting with what they often describe as disorderly (*buguifan*) or unruly (*luan*) community-managed practices. In this picture residents are recalcitrant bargainers, ill-informed and unreasonable, if understandable in their self-concern. By contrast, park authorities present themselves as aware of broader situations and applying "scientific" rationality to ensure conservation through high-quality tourism.

Park authorities often frame residents' recalcitrance in terms of lack of knowledge or awareness of the implications of their activities. Take the account of Xiong, a tourism company staff member at Meili Snow Mountain:

> Services are inadequate, and . . . accommodation facilities are at a low level. We have a plan to improve sanitation. . . . Outsiders can make big demands, saying people should be able to make food and how much the price should be. But local folks are not the same. We have to do a long period of service training, continually raising the quality of service, improving their attitudes. Only in this way will more guests come and income increase. . . . with new things, at the beginning, folks get apprehensive. They say, we haven't done this before; why do we have to do it now? Then, seeing their neighbors get more guests and income, they do their own analysis and change their methods. (100921A, male, staff at Meili Snow Mountain National Park Tourism Services Company)

Getting residents to cooperate is a matter of patient guidance toward people presumed to lack knowledge and resist change. Like other officials talking about conservation or tourism, he emphasizes that residents will respond to paternalistic guidance once they perceive the economic benefits of preferred practices.

The accounts in preceding sections suggest that residents' understanding of the issues at hand is a good deal more complicated than Xiong suggests. So does the account of Sina, an administration station staff member charged with doing the aforementioned guidance:

> Before, people from the company said community work is very simple. But the process of making villagers understand things is slow. With horse-pulling business, you should say nice things to visitors, be polite to them. You can't just shout at them to get on and get off the horse. People here do not recognize this. … [The company managers] don't know what community work is like. They want to develop; I think that in doing construction you must deal with residents. They say community work is simple. But the garbage program was an enormous hassle. . . . In the past few days the company said to me, we don't need to tend to the community. The community can tend to the community's affairs, and the company will tend to the company's. We have to earn money from the attraction. (100813A, Yubeng resident, male, administration station staff)

On one hand, Sina—a Yubeng resident himself—also sees residents as recalcitrant to the messages park management wants them to assimilate. But he sees this recalcitrance from a different perspective. Earlier, I quoted him claiming that residents would cooperate in garbage

removal if the government came through on infrastructure investments. This concern about reciprocity is echoed here. Similarly, he criticizes the company's effort to sequester affairs relating to tourism services from community affairs. He finds the company's demand to identify residents and pilgrims' garbage and separate it from tourists' garbage preposterous: all the trash gets mixed together. Likewise with the demand that residents take responsibility for trash in areas that are not formally open to tourists: visitors buy tickets with the goal of visiting these spots. Again, Sina sees this as effort on the part of the company to use formal distinctions to remove itself from issues that cannot be disentangled from the tourism operations it oversees.

Circulating Discourses of Legitimacy

Sina's account highlights inconsistencies in park authorities' efforts to regulate residents' activities. It also reveals as a gap between how park authorities and residents perceive the appropriateness of park arrangements. In both parks, community members question the balance of benefits and duties between residents and park authorities, articulating a distributed moral economy rooted in residents' belonging in these places. Their statements about resource use relate to these concerns. Despite the fact that residents patrol forests within community-based institutions, they speak of forest protection not in terms of internalized pro-conservation attitudes so much as a service they provide for the park, an element in the moral economy of tourism development and conservation. Residents in both parks speak in similar terms and mention protected areas elsewhere in the region, referencing what may be a more broadly circulating discourse of legitimacy around community-encircling tourism attractions.

As I conversed with Duji and Lobsang in Xidang, we spoke about van-driving, and the conversation moved to foreign travelers. Duji said that, in contrast with cautious domestic tourists, foreigners seem to seek out dangerous situations. Since a few years ago when an Israeli

hiker had fallen to his death from a slippery boulder, the park had declared the path from Yubeng to Ninong off limits—but tourists still take it now and then, while residents use the path on a regular basis. I asked, "Now that the national park is taking care of it all, will this kind of thing be avoided?"

Duji huffed, "They've been blowing hot air for five or six years now! They gave the national park to a private boss, and they're just out to make money. They haven't developed anything." Lobsang followed,

> If it were the state (*guojia*), it wouldn't be this way. The state would put out money, and it would take care of the villagers? Pudacuo's method is good. Households there get a portion of the ticket proceeds. Also, villagers are sanitary workers, and there are some who drive eco-buses. A lot of us drive cars—there's basically no one who can't drive. But they haven't done those things here. Pudacuo has done well because it's the government doing it. For private bosses, once they've eaten their fill they're happy and don't bother about anything else. They focus on the investment company and don't bother with us folks. They just want to make money.

Lobsang's statement that the company is privately owned confused me. Formally, the Meili Snow Mountain National Park Tourism Services Company is a subunit of the Diqing Prefecture Tourism Development Investment Company, which is wholly owned by the government of Diqing Prefecture. It submits revenues to the local government, and the Diqing Prefecture Bureau of Finance remits funding for expenses. Several of its executives are former county officials, and they work closely with government agencies to maintain a profitable attraction. Thinking I had misheard, and I asked, "Isn't the investment company associated with the government, and isn't Pudacuo National Park also run by such a company?" Lobsang replied,

> Now it is, but Pudacuo was originally done by the government. The government ran it for a few years and then gave it to the company, and the government makes sure it has to take care of folks (*laobaixing*). Here, the government hasn't run things, it's always been this investment company. . . . [When they announced road-building plans,] we raised conditions, saying they can build a road to Yubeng, but they have to give us 25,000 per household, and then we'll do protection. Really, if they build the road, it would be harder to do protection. With a road, it's

> easier to cut down trees along the roadside. Then people came and opposed it, and The Nature Conservancy also demanded that they not build the road. This is our mountain. It's fine if the company wants to develop here. But if we don't get something, we'll have to keep harvesting.

Puzzling these statements over, I came to the conclusion that they were talking about the way the government *should* act. Their judgment that the park is run privately represents a normative vision of a government that should ensure benefits for residents rather than running things in a way that profits narrow interests. If it is not acting that way, it is people acting in their private interest rather than as a government working in people's broad interest.

This interpretation helped me to make sense of many other things people said to me. I have noted that residents' disaffections often revolve around questions of fair distribution of tourism profits or appropriate demands' of residents' efforts. In making claims about these issues, residents draw on conceptions of the state as responsible for supporting residents' livelihoods. In addition, they also draw on a variant of the "destructive peasant" narrative, one that does not claim peasants are inevitably driven to degrade resources, but that they are likely to do so unless provided with livelihood alternatives. This narrative is common in programmatic statements from both TNC and state agencies discussed in Chapter 3. Rural residents have incorporated this narrative into their claims, arguing that they require a sufficient share of benefits to cooperate with conservation.

In making these claims, residents of both Pudacuo and Meili Snow Mountain National Parks call up ideas about other parks for comparison. One Lawzong resident, who had not been to Jiuzhaigou but had been shown materials about it, said, "They should develop this park like Jiuzhaigou, and then we will use less wood. At Jiuzhaigou, villagers run hotels and can take in guests. They don't have to plant crops. They have all gotten rich. This way, villagers don't

destroy forests" (100929C, Lawzong resident, male). Asked about how life in Meili Snow Mountain National Park might change in the future, a Xidang resident said,

> Maybe they will have us stop farming, turn all the cropland into a flower garden, then move us all out. Isn't Jiuzhaigou in Sichuan this way? The villagers all moved out. The livestock aren't tended by the villagers anymore, they are just willy-nilly on the mountain. (100902A, Xidang resident, male)

Duji, quoted above, referred to two other attractions in Yunnan: "Have you been to Jizu Mountain? There, from the attraction's ticket revenue, villagers all get a part, twenty or thirty percent. Laojun Mountain is like that, too: there are regulations on ticket revenue, every village has to get a portion."

The mobility of residents who spend tourism income taking their own families on vacations and others who drive passenger and freight vehicles has taken them across Yunnan and the Tibetan Plateau. Many visit tourism attractions around the region, and others are linked into regional social networks. At the same time, in an effort to persuade residents of the virtues of upgraded attractions, Diqing Park authorities have taken groups of residents from Meili Snow Mountain National Park to Pudacuo and from Pudacuo to Jiuzhaigou. By taking them to other places and making claims about the parks' prospective benefits, park authorities provided residents with rhetorical resources that get used in making appeals.

Residents also reference other locales' experiences in discussing how to respond to state efforts. As noted above, the information residents get about other places is colored by how they have heard it and the purposes for which they interpret it. How residents speak of Yading, a nature reserve in Sichuan less than 200 kilometers from Shangri-la, provides an illustrative example.

In Yubeng, while most favor building a road, whether a thoroughfare for tour buses or a smaller access road only accessible for residents and park personnel, a vocal minority sees things differently. One afternoon, a guesthouse owner and a tour guide from outside the village had the following exchange:

> Owner: The government will definitely set up a cable-car company to make money, and they definitely won't let the peasants in. . . . If they do a road into Yubeng, then they'll bring in the eco-buses, with the government selling tickets. The state has all sorts of means to make money.
>
> Guide: Yading is like this, too. Now that the eco-buses have gone in, horse-pulling is just a few percent. The government did this by force. If you want compensation, the government won't give it to you. They take in all the ticket fees.
>
> Owner: Look at Meili Mountain's tickets. Originally they were all 50 bucks. Now it's 80 bucks for Yubeng, 80 bucks for Mingyong. But the villagers don't get any of the money. However many tourists there are, however many tickets, we don't see a penny. The reasoning is simple enough.
>
> Guide: Yading's Tibetans have no way to take on this kind of development. Can that tiny little village beat the government? When the villagers protested, the government sent people over. [Shapes his hand into a gun.] *Pao*! Their strength is great, and the villagers' strength is small. (101028B, Owner: Yubeng resident, male; Guide: van driver and tour guide from outside Yubeng)

In Yading, when the local government prepared to upgrade the attraction with a bus line, residents tried to block construction, resulting in a violent confrontation. Continuing, these two brought up Jiuzhaigou, also in Sichuan. According to their account, when a bus line was built at Jiuzhaigou, residents were initially assured jobs, but later people started getting laid off. In addition, they discussed Mingyong, a community one ridge up the Lancang River from Xidang, at the bottom of a glacier. When tourism took off in Mingyong a decade ago, residents invested in building hotels. But when the road there was improved, hotels sprung up at a viewing point across the river, and tourists started making Mingyong a day trip. Guesthouses and hotels in Mingyong sit empty. Some Yubeng residents fear that this might be the fate of their community

as well. Based on their assessment of what has happened in other locales, they project a loss of income and autonomy for Yubeng residents if a road or cable-car arrives. Given the owner's and the guide's account of Yading, however, it is unclear what course of action residents who oppose such developments might take. They assert that opposition would be suppressed, potentially with violence.

Other residents assert that there are ways to make effective claims. Kang, who has represented Lawzong residents in the Pudacuo National Park Community Affairs Council, raises the example of Yading from a different angle.

> Kang: Officials are like this: if villagers don't act up, they don't do anything about things. So we have to raise issues to get them addressed. It's not really acting up: you have to go and talk with them. In Yading they acted up, doing it that way is no good, things have to be consulted over. Talking with them, you must speak reason.
>
> Me: What kind of reason do they listen to?
>
> Kang: You have to make demands. For example, in Yading they built a cable-car, and people were concerned about income from horse-pulling. Before work got started, the villagers should have talked with them, demanding that management find a way to compensate them and protect villagers' interests. (101116A, Lawzong resident, male)

The Yubeng guesthouse owner and his interlocutor see in Yading's experience the danger of state take-over of tourism services where community members had provided them in the past. Kang, on the other hand, thinks that Yading residents made a tactical error and that residents can secure outcomes they want, provided they observe restraint. While he shows ambivalence, first saying that residents need to act up (*naoshi*) to get park authorities to respond, then stressing the importance of reasonable negotiation, he affirms that park authorities can be reasoned with. Residents who do not have a place in deliberative bodies like the Community Affairs Council, are less confident that their wishes can be incorporated into park policy. Several in Xidang, for example, pointed to the fact that surveyors had come through to check potential

cable-car routes, without any notice from the local government, as evidence that the government had decided to build a cable-car. In both parks, most residents said that future development plans—opening up other communities as tourism attractions, for example—depend on the decisions of government authorities, which they see themselves as having no power to influence. The lesson they drew was to go along and hope that future government decisions would give them opportunities for benefit.

Conclusion

Tensions in the national parks' organizational mandates to build high-profile attractions and to facilitate resident participation generate tensions. National parks are central to prefecture leaders' ambitions to make Diqing Prefecture a world-class tourism destination in competition with other local administrations across the region. Park authorities are first and foremost responsible to make sure each park runs smoothly, generating high numbers of satisfied tourists. Including residents is also part of the park's mandate. Still, superior inclusion of residents is one of the purported advantages of the new protected area model these parks embody. Pressure to maintain social harmony, particularly in light of unrest in other predominantly Tibetan areas from 2008 on, intensifies the importance of mechanisms to contain discontent.

The mandate to maintain a high-quality tourism attraction requires regulating residents' activities in line with prescriptions for the conduct of tourism services. To do so, in both parks, authorities have, to different extents, incorporated community tourism participation into a hierarchy under corporate management. This process resembles the process of corporate agglomeration identified in the institutionalist literature on markets and hierarchies: incorporating a set of activities into your organization to reduce risk and make the supply of key

inputs predictable (Williamson 1975). In this case, the inputs are not supplies of parts but the labor of maintaining attraction features. At Pudacuo, community-based tourism is supplanted by employment and compensation; at Meili Snow Mountain community-based activities persist but have come under the oversight of administration stations of the National Park Tourism Services Company. In each case, community activities are subordinated to goals of generating government revenue from tourist streams and building the prefecture's brand.

Participation of residents in decision-making, then, is constrained. As techniques of campaign mobilization no longer possess the legitimacy they did in the time of a planned economy, state agencies are limited in using disciplinary techniques. Instead, they use institutional forms that appear more consonant with governmentality: arenas for participation and negotiation through which community representatives articulate residents' interests and mediate with village councils. In practice park authorities use these arenas to train residents into line with goals of regulated tourism. "Community work" is difficult because the needs and affairs of rural residents extend beyond tourism but are inextricably bound with it, as their own activities are central to the tourism attractions. It is also difficult because residents perceive the terms of participation in ways that conflict with park authorities' mandates to streamline tourism. While they may not agree among themselves about the particular balance of benefits and costs, residents join together around demands and deficiencies that affect them all, like garbage and infrastructure. Park authorities address residents' concerns in a reactive rather than pro-active way, and participation takes the form of consultation or placation (Arnstein 1969). They delegitimize residents' behavior as unruly and irrational in contrast with park authorities' scientific management. This approach contains conflict, but it limits the capacity of park authorities to respond to residents' concerns, not to mention facilitate bottom-up governance.

On the surface, there is variation in the kinds of concerns voiced in each park, which have to do with practical issues that arise from how tourism is set up. In Meili Snow Mountain, tensions arise as residents resist calls to remove trash to maintain the park's façade. This is not an issue in Pudacuo National Park because Pudacuo has incorporated waste management within the concentrated organization of its tourism operation. Infrastructure concerns in Meili Snow Mountain National Park stem in part from the combination of Yubeng's inaccessible location and constraints posed by World Heritage Site status. But residents in other Meili Snow Mountain communities also raise concerns that roads have not been upgraded, whereas the upgrading of Pudacuo National Park to a high-volume attraction also brought the construction of a paved road through Lawzong, a gesture residents appreciate. Delayed action on the promised development of community tourism, on the other hand, raised Lawzong residents' concern.

Still, beneath these differences in subject matter, conflicts in both parks are ultimately based in divergences between residents and park management over the distribution of benefits and duties that national park centralization has facilitated. As described in preceding chapters, in both areas, before national park consolidation, county governments had supported communities in setting up community-based tourism institutions. Communities experienced relatively self-directed tourism activities, through which economic benefits accruing from tourism in and near villages mainly accrued to local residents. The shift from community promotion to community management embodied in the national parks has disrupted that state of affairs, partially in Meili Snow Mountain and more thoroughly in Pudacuo National Park. Across different issues, residents express a similar language of moral economy, emphasizing that when the state extracts revenue from tourism operations surrounding their communities, the state ought to

provide substantial compensation and take responsibility for infrastructure and waste management. These expectations are rooted in ideas that legitimate state behavior involves promoting rural communities' interests as well as their past experiences of community promotion by the state. They gather force as residents partake in circulating discourses about state legitimacy, relating residents' experiences in these parks with those of other communities across the region.

When expressing these expectations, residents incorporate language of environmental protection strategically as part of moral economy narratives. Claims about Tibetan environmental culture made by TNC and other conservation advocates as well as state spokespersons and tourism promoters have given residents rhetorical tools for making claims regarding their roles in environmental protection. In some cases, residents assert primordial Tibetan environmentalism in their long-standing sustainable use of resources. In other cases, they combine destructive peasant and alternative livelihoods narratives, arguing that their protection of forests is contingent on getting benefits from the park.

These statements contrast with the "environmentality" phenomenon that has been observed in some cases of community-based resource management. Agrawal (2005) argues that to the extent that states devolves responsibility for forest management to communities, regulatory communities emerge, and participation in self-regulation fosters pro-environmental attitudes and behaviors among community members. But in Diqing's national parks, rather than internalizing environmental messages, residents deploy these messages strategically in making moral economic claims on park authorities. While residents continue to have direct responsibility for forest management, taking part in forest patrolling through community institutions, concerns that arise from top-down relationships centered on national park tourism

dominate residents' accounts of conservation. Residents sense that they are being asked to protect forests and other landscape features for the park rather than for their own purposes, whether these be their use in livelihood activities or the sacred aspects of the forests, or for the greater good. It is hard to say what actual impacts these changes have on forest use and condition, though reports about forest use in Yubeng raise concern for forests as well as residents' relationships with these landscapes.

This chapter has shown how the press for tourism upgrading embodied in meso state corporatism at national parks raises tension around community inclusion. While residents undertake resource management collectively, and in Meili Snow Mountain National Park residents still collectively manage most aspects of community tourism operations, tensions related to duties and benefits surrounding tourism dominate potential governmentality or environmentality effects. While these tensions seldom erupt into open confrontation, they complicate interactions between residents and park authorities. These cases show some of the limitations of a governmentality approach in the face of the persistence of top-down governance alongside and mixed in with community-based approaches to conservation and tourism. They also illustrate the strains that meso state corporatist tourism expansion in China brings into relationships between protected area authorities and residents.

Chapter 7: Tourism, Livelihoods, and Resource Use

with Yang Jianmei, Xue Ximing, and Cheng Hai

Resource use in rural households and communities has long been a focus of conservation policy and research worldwide (Coggins 2003, Naughton-Treves et al. 2005, Xu and Wilkes 2004). While scholars recognize that a great deal of landscape transformations are due less to household activities than to organized undertakings of corporations and states, the impacts of household activities on forests, watersheds, and grasslands—positive, negative, and complex—are evident at a number of scales. As a result, household activities and their aggregations at community, landscape, and regional scales are of crucial importance for understanding environmental change and making appropriate policies.

Patterns of resource use activities and their relationships with other ways people obtain their livelihoods relate to a number of social and economic concerns. Variation in what households do for a living is connected to patterns of inequality and conflict in communities (Ellis 2000, Childs et al. 2008, He et al. 2008). Tourism may provide benefits for all community members, or elite households may capture the lion's share of income. Inequality is a concern in its own right and due to its potential to bring conflict or undermine the legitimacy of tourism operations. Tourism is also part of broader projects to tighten rural communities' ties to markets and, in many cases, to promote de-agrarianization, encouraging rural residents to shift from primary production to employment in industry and services. Such shifts can make rural residents' lives increasingly dependent on outside forces and bring profound cultural changes. How and under what conditions tourism brings these results is not well known.

So far I have been writing as though there is just one thing called "tourism". But as the accounts in the preceding chapter suggest, tourism takes different forms, with varying implications for resource use and community life. Experts acknowledge these points, but comparative analyses of the impacts of different ways of organizing tourism are rare. Even rarer are studies that effectively integrate examinations of both resource use outcomes and socioeconomic impacts of different tourism activities. In the following pages I put qualitative observations and survey data in dialogue to show how different ways of participating in tourism articulate with other aspects of rural livelihoods and relationships within communities and regions.

This study addresses most directly the literature on how tourism and other off-farm activities impact household resource use practices. Much of this research starts from questions like this: Under what conditions does income from tourism provide an effective incentive for residents to reduce reliance on resource use activities? This question follows from claims frequently made by proponents of providing income alternatives as a way to promote conservation. The "alternative livelihoods hypothesis" assumes off-farm income is a *substitute* for income and subsistence benefits people derive from resource-based activities. The idea is that if a household gets extra income from tourism, household members will choose to shift effort away from farming, grazing, and gathering forest products and replace what they get from those activities with products bought on the market.

Empirical findings have raised questions about this hypothesis. A number of studies have found that tourism and other development activities at protected areas have failed to restrain resource use. Development efforts in protected areas can backfire, with new opportunities attracting in-migrants and accelerating resource use (Brandon et al. 1998). With regard to tourism, many studies have documented qualitative changes, but often without precisely measuring resource

use. Some empirical studies have found a significant substituting effect of tourism on resource-dependent activities (Garcia-Frappoli et al. 2008), while others have found ambiguous impacts of tourism on resource use (Forsyth 1995, Yang et al. 2009). Still others have found complex variation in livelihood structures across communities engaged in tourism (Illukpitiya and Yanagida 2008). Stem and colleagues (2003b) found that households involved in tourism engaged less in hunting and in forest product withdrawal than other households, but their evidence suggests that indirect benefits from tourism, like infrastructure and education, had stronger impacts on conservation activities than income from tourism.

One specific line of critique, coming from the literature on payments for ecosystem services, holds that for tourism to induce effective conservation, financial benefits need to depend directly on the state of some resource or at least the performance of some conservation activity (Ferraro and Kiss 2002, Ferraro and Simpson 2002, Kiss 2004, Kirkby et al. 2011). Otherwise, indirect inducements to conserve constitute what Ferraro and Simpson (2002) call "conservation by distraction," providing an incentive that is inefficient in bringing conservation because it is not conditional on performance. This critique suggests that off-farm income could be complementary to resource use activities, with households continuing those activities and enjoying the added benefit of tourism employment. Since, as discussed in Chapters 3 and 4, benefits of tourism in northwest Yunnan are connected more to scenic façades than to whether or not biodiversity targets are effectively conserved, this study cannot speak directly to that line of argument. But its emphasis of the possibility of tourism income complementing resource use and the necessity of attending to specific mechanisms connecting tourism and resource use raises important questions given the claims that are frequently made for alternative livelihoods.

Scholarship on rural livelihoods in developing countries raises further questions about how and under what conditions off-farm income may substitute for *or* complement resource use activities. Livelihoods research has shown that looking only at income is misguided because rural households make decisions based on subsistence benefits as well as cash income, are risk-minimizers rather than utility-maximizers, and make decisions about labor allocation subject to constraints of available household labor (Ellis 2000). Rural households often diversify their livelihood strategies, allocating labor to various on-farm and off-farm activities, in order to hedge against risks (ibid., McSweeney 2004). The literature on livelihoods raises the question of whether labor demands from tourism better account for patterns in other activities than income does. Wunder (2000) found that labor substitution was the main mechanism through which tourism offset resource use in rural communities engaged in ecotourism in Ecuador. One might expect that where households have surplus labor, labor allocation to tourism could be a complement to allocation to resource use activities.

There is a twist, though. Not all tourism activities make the same kind or intensity of labor demands. Depending on the labor they require, different kinds of tourism activities may be more or less complementary to resource use activities. We would expect tourism activities that require a great deal of household labor to have a substitutive relationship with resource use activities, while tourism activities with smaller labor demands would be more complementary.

In addition, questions of income and labor, while they draw attention to some important aspects of rural residents' choices, are not adequate for understanding what is going on in these communities. Tourism activities may be connected to other activities through other things than labor allocation per se, like the feeding requirements of mules used to give rides and the spatial distribution of tourism activities in relation to other resource use activities. So we will highlight

the particular demands of different kinds of tourism activities as well as expand our view to patterns of organization and agroecology across communities.

We need also to attend to scale, looking at how household-level and community-level patterns vary, as well as how these relate to connections across communities. Household-level and community-level patterns may not be consistent. For example, if households respond to tourism income by reducing the size of their livestock herds and the resultant grazing pressures on forests and meadows, that might be taken as a reason to promote tourism participation to lessen grazing pressure. But if tourism income is unequally distributed within a village, households with little tourism income may discover advantages in specializing in livestock and building larger herds. As a result, even if at the household level tourism participation appears to substitute for livestock husbandry, at the community level the presence of specializers could dampen this effect. Similar patterns might take place at the level of settlements, with some communities specializing in tourism while communities without tourism ramp up primary production activities. Conservation efforts generally pursue landscape-level reduction of threats to species, communities, and habitats. In this regard it is vital to understand how tourism affects resource use on these different levels. Aggregate impacts are crucial, regardless of what resources different households use. But knowing patterns is also important, as it facilitates understanding what people's experiences are, how they make decisions, and whether different interventions are likely to achieve particular results. If a small proportion of households account for most resource withdrawals, the implications for conservation policy are very different from if all households are withdrawing a resource.

My discussion up to now has focused on questions from the sociology of natural resources and rural livelihoods. But tourism development and resource use are connected to patterns of

inequality and social capital within and across communities. In the latter section of this paper, I will illustrate the different patterns of inequality that have arisen from the different ways communities engage in tourism—differences not just between community-based and company-based tourism operations, but between different ways of organizing community-based tourism. I will show as well how marked differences in cooperation and mutual assistance among community members differ by how a community is involved in tourism. Scale is also an important factor in socioeconomic patterns, as patterns of inequality within communities contrast with inequalities across communities and as tourism operations in some communities gives rise to markets for goods and labor from other communities.

By examining these questions in sequence and together, this study addresses several gaps in research on how tourism (as well as other rural development efforts) relates to rural resource use and socioeconomic outcomes. Much of the literature on these topics addresses nature tourism or ecotourism. This literature is bifurcated between, on one side, studies focused on management, marketing, and revenue patterns, and on the other case studies of community experiences of ecotourism. Scholars have noted critical shortcomings in the subfield, such as in examining the ways institutions and organizations affect the character of ecotourism, the extent to which "greenwashing" occurs,[1] and the impacts of external social and ecological environments on the character of ecotourism (Weaver and Lawton 2007).

Case studies of specific attractions (e.g. Ohl-Schacherer et al. 2008, Xu et al. 2009, Ruiz-Ballasteros 2011) have illuminated the impacts of tourism in particular locales, but the scarcity of

[1] The term "greenwashing" refers to the institution of practices that are claimed to have environmental benefits but whose environmental impacts do not match those claims, or the making of claims of environmental benefit when no demonstrable environmental benefit exists.

comparative work leaves open questions about how varying conditions around tourism affect conservation and livelihoods. Several studies do compare groups that participate in tourism in different ways (e.g. Forsyth 1995, Garcia-Frappoli et al. 2008, He et al. 2008, Yang et al. 2009, Almeyda et al. 2010, Zambrano et al. 2010). On the other hand, systematic comparisons of communities with and without tourism or with different forms of tourism is scarce (but see Wunder 2000, Stem et al. 2003a, 2003b). Finally, while many studies examine either the environmental or the sociocultural effects of ecotourism, few examine the two jointly—a crucial task given that efforts at ecotourism and other kinds of "responsible tourism" emphasize *both* ecological and socioeconomic goals and that social and environmental impacts are evidently connected through resource use patterns and resource management institutions. Most studies focus primarily on either social and economic (e.g. He et al. 2008, Ohl-Schacherer et al. 2008) or ecological (e.g. Nepal 2008) outcomes of ecotourism. When both are examined, it is often through a side-by-side listing of socioeconomic and environmental impacts with limited analysis of the connections among them (e.g. Almeyda et al. 2010, Zambrano et al. 2010).

These gaps are especially pronounced with regard to China. In a meta-analysis of studies measuring species and ecosystem impacts of ecotourism, Krüger (2005) noted a paucity of studies in Asia relative to other regions. An increasing number of studies address aspects of nature tourism in China, but they tend to focus on social (e.g. Bao and Sun 2008, He et al. 2008, Yuan et al. 2008, Xu et al. 2009) or ecological measures (e.g. Yang et al. 2002, Li et al. 2006), or join the two in a single case study with weak efforts to account for alternative causal factors (e.g. Yang et al. 2009). Comparative studies are few.

Wunder's (2000) study of ecotourism in five communities within the Cuyabeno Wilderness Reserve in Ecuador is a notable exception, systematically relating different varieties of

participation in tourism with livelihood changes and resource use activities across communities. This study raises questions about different aspects of tourism organization that continue to fuel debate today. Wunder focuses on two dimensions of tourism organization: (1) mode of participation (the extent to which community members make decisions autonomously or receive "paternalistic" treatment from a tourism operator based outside the community) and (2) the extent to which a community's members specialize in tourism as opposed to other activities. Wunder's comparison of modes of participation addresses arguments that ecotourism should be more economically beneficial to communities to the extent that they are able on their own to make decisions about how to operate tourism and distribute its benefits. Proponents of community-based tourism often assert that when community residents run tourism autonomously, rather than being employed by outside operators, they capture greater economic benefits from tourism. (The evidence presented in Chapter 4 that local governments extract revenue from parks where mass tourism is established, leaving residents a shrinking proportion, is consistent with this argument.) Wunder looks at communities with different degrees of control over their tourism activities vis-à-vis outside operators. Within sets of communities with different levels of autonomy, Wunder also compares by the proportion of income tourism provides, a measure of specialization, finding that communities with greater specialization in tourism obtain greater economic benefits from tourism, regardless of levels of autonomy. Furthermore, communities that specialize in tourism are motivated to set up institutions to restrain resource use. Crucially, they are able to specialize in tourism because tourism amenities are abundant near to their communities. Wunder implies that communities where amenities have already been destroyed through the expansion of market agriculture cannot be induced

through tourism benefits to conserve remaining resources. Amenities enable tourism, which in turn motivates conservation.

The study closes with an important remark on the "specific, complex processes" of change in which tourism is involved:

> [T]ourism income influences local resource use, but jointly with other explanatory factors, including demographic pressure, distance to markets, degradation by external actors, level of community organisation, and ethnic, historical and cultural differences among villages. (Wunder 2000:476)

This attention to multiple specific mechanisms relating tourism to resource use is crucial. Publications about ecotourism efforts often make claims about such mechanisms. Nearly as often, they fail to provide clear evidence that the asserted mechanisms are in operation. The methodological challenge in doing this is to devise an appropriate comparative scheme and collect relevant data on livelihood strategies, including varieties of tourism participation, and on resource use.

Methods

The Survey

I have described the comparative scheme in Chapter 5; the following analyses illustrate it further. The household survey was conducted by a team of ten, including the authors and seven students. In May 2011, we conducted six pilot questionnaires in a community adjacent to Pudacuo National Park. Following the pilot we revised the questionnaire. We reviewed the questionnaire exhaustively with survey administrators, and each survey administrator did simulation interviews before conducting interviews on site.

In June 2011, we returned to Diqing to do the survey. At each locale, we sought to interview as many households as possible, reflecting the full array of livelihood activity mixes present and enabling generalization about the community. Unable to access lists of households or maps of homes, we could not make a probability sample. We went door-to-door and through the fields contacting respondents. We also met residents at gathering places like shops and the hitching post for mule rides. We were able to cover half or more of households in all communities but Xidang, which has a greater number of households than the others. We conducted interviews in Mandarin Chinese. Interviews took between thirty minutes and one hour. The questionnaire began with queries about the members of the household, their ages, and levels of education. We followed with a listing of on-and-off-farm activities. For each of these, we asked whether the household participated, what times of year and how long each day the activity took place, which household members participated in it, and how much income, if any, the activity earned. A version of the questionnaire in Chinese and English is included in Appendix 2. In total, we obtained 119 valid questionnaires. Tables 1 and 2 provide descriptions of surveyed households and respondents.

Table 1. Sample Attributes, by Community

Community	Households, Total 2011	Households Surveyed	Percent Sampled	Median Household Size	Median Highest Education
Lawzong	33	25	76%	5	7
Xidang	74	28	38%	5.5	9
Yubeng	34	23	68%	5	6
Sinong	62	31	50%	5	8
Zhila	15	12	80%	4.5	9.5
Overall	218	119	55%	5	9

Table 2. Respondent Characteristics

Community	% Female	Mean Age	Median Age	Mean Years of Education
Lawzong	60	36	38	2.4
Xidang	39.2	43	42	5.9
Yubeng	52.2	33	33	3.4
Sinong	29	40	37	5.3
Zhila	33.3	43	39	4.3
Total	42.9	39	37	4.4

Note: Respondents range in age from 18 to 70, mostly adults in their 30s and 40s. Because the last two decades have seen a large increase in educational participation, members of the adult generation usually do not have the highest level of education in a household.

Analysis

We coded the data in an Excel spreadsheet and checked anomalies with survey administrators. Then we conducted analyses in Stata 10.

Because our sampling method at each stage was not random, the results are not in the conventional statistical sense representative of some broad population of villages in China, China's southwestern region, Yunnan, or even Diqing Prefecture. Too many factors in these places affect livelihood decisions for conventional statistical generalization to generate inferences we could confidently transport to other places. The cost of getting enough systematically sampled places and data points within them to achieve high statistical generalizing power is a loss of attention to the socioeconomic variations and political-historical circumstances that generate local realities. Rather, as scholars do in statistical analyses of nation-states within the world system or provinces within a country, I use statistical analyses to test and illustrate comparisons of cases within a delimited frame. Acknowledging the actual

complexity and interdependence of cases, I draw from both qualitative observations and survey data, using the two to check and illuminate one another. Statistical results presented are not meant to imply generalizations about the population of villages in the area. Rather, they constitute tests of the likelihood of differences or correlations in quasi-experimental comparisons of cases alike in most respects but different in certain key aspects. They are useful tools for parsing household-level patterns that vary across communities. The conversation between qualitative and quantitative findings is the grounding for conclusions, about which I am most confident when these two sources reinforce one another.

The purpose of this approach is less to generalize—to suggest that in other areas of China or other countries, where political, cultural, economic, ecological, topographic, and agricultural conditions are different, this or that way of organizing tourism is likely to affect livelihoods in this or that way—than to obtain insight about mechanisms at work in these localities, such that one might identify analogues in other places that one could use these insights to evaluate. These results might travel most easily to other areas around these two national parks. They also support qualified statements about montane southwest China, where similar forms of protected area tourism development, farming, resource use, and off-farm employment exist.

Assessing claims about the ecological impacts of residents' resource use is a complicated task. Systematically gathered baseline data or other empirical evidence are often not available, particularly in remote locales. When such data are available, interpretation is complicated by the complexities of environments with varied terrain, precipitation, and spatial and temporal patterns of use by humans and livestock. Not well positioned to take systematic measurements of environmental variables, we measured behaviors and reported amounts as proxies. We take caution in making claims about environmental impacts. Still, our measures capture important

aspects of resource use *behaviors* that conservation policies target, behaviors which have empirically demonstrated environmental impacts.

Variables

Next I describe several classes of variables included in this analysis, what they are intended to measure, and how we obtained measurements.

Household Demographics: Each survey began with asking the respondent to list the members of her or his household by their relationship to the youngest generation of people in the household. These relationship titles (e.g. "paternal grandmother," "son") indicate the sex of each member. Then, for each listed member, we asked the member's age and years of education. On the basis of these responses we constructed a measure of the number of working-age members of each household, a count of household members between 16 and 59 years of age, inclusive, in 2009.

Participation: These are binary variables indicating a respondent's report of whether or not anyone in the household participated in a given activity, coded 1 for yes and 0 for no. For example, if two members of a household were reported to work outside the village in 2009, the value of the participation variable for work outside the village would be 1. We constructed these variables for sanitation work, horse rides, running guesthouses, being tour guides, driving a vehicle to earn money, working outside the village, a number of crop-related activities, gathering mushrooms, gathering medicinal products (we also merged the preceding two into a non-timber forest products variable), raising livestock, grazing cattle or goats, and gathering fuelwood.

Labor: With these variables, our goal was to measure the amount of labor-time a household devoted to the activity in a given year as well as the relative contributions of different household members. For each activity listed above, we asked the respondent which household members

took part in it in 2010 and in 2009. We also asked respondents to tell at what time of the year and for how long each day they undertook that activity. For each of those participants, we asked if the individual was present for all, most, half, or a little of the time that activity was being done. We constructed measures of labor allocation for each household member for each activity by multiplying the number of days reported for that activity by a fraction based on whether the individual in question was reported as present for all, most, half, or a little time for that activity. This method is not as precise as using direct observations or a time diary, but the latter would have required collecting observations over the course of a year, a task our resources did not permit. Individual reports were summed by household into household amounts.

Farm activities: We followed with a battery of questions about raising crops and livestock. First, we asked each respondent to list the crops her or his household had grown in the previous two years. For each crop, respondents were asked the area the household planted in that crop, whether they sold any of it, and if they said they did sell the crop, how much money they earned selling it in 2009 and in 2010 respectively. Then we asked the labor allocation questions introduced above for several activities related to crop cultivation, including plowing, sowing, applying fertilizer, applying pesticide, irrigation, weeding and harvesting. Similarly, we asked what kinds of livestock each household raised and how many of that variety they had in 2009 and in 2010. We asked whether they had sold any livestock in each year, and if they said yes, how many and for how much money. Then we asked about labor allocation to feeding livestock, milking cattle, grazing cattle and goats, and shearing goats. We also asked how much yak butter the household produced, how much of that they sold, and how much money they earned thereby.

Labor exchange: If you are in one of these communities during the harvesting season, you see that with regard to labor use, households are not hermetic units. Households exchange labor, with

two or more households working together to reap one household's fields and then the other's, so that each household's harvest can get done in time. Some households that are short of labor or for other reasons unable to reciprocate pay people, usually from within the community, to help them out, mainly during harvesting and sowing periods. In Yubeng households also hire laborers to do tourism work. Figuring that labor demands from tourism might affect households' ability to take part in unpaid labor exchange, while off-farm income could make it easier to hire workers, we asked about both paid and unpaid labor exchange to see how these practices vary among households and across communities. We asked each respondent whether her or his household hired workers. If they said yes, we asked what work these laborers did, when they did it each year, and how much they were paid. We then asked if they used unpaid labor, and if yes, we asked where people who did unpaid work for them came from and what activities they took part in. (We did not ask to what extent respondents helped others, but they often noted that unpaid labor on their fields was part of reciprocal exchanges.) Many respondents indicated relatives, neighbors, or hired workers as laborers in the previous set of questions on labor allocation, and we were able to use those answers to cross-check these two sets of questions.

Aggregate Income Measures: We summed reported income from different activities to construct measures of income from different categories of activities. Primary production income includes any income from a primary production activity, including the sale of ground crops, tree crops, livestock, livestock products, and non-timber forest products. Tourism income includes income from giving mule-rides, running a shop or guesthouse, sanitation work, being a tour guide, and driving a passenger vehicle carrying tourists, as well as compensation from the national park. Non-tourism, non-primary income comes from outside labor for wages or salary as well as from driving a freight vehicle. Finally, overall income includes income from all of these sources. Our

measures of income do not include income from government subsidies. Many households receive money from the government for education, farming inputs, participation in reforestation programs, assistance to the elderly, and more. The questionnaire included questions about subsidies, but it became clear that most respondents, including household heads, could not reliably recall the amounts of various subsidies their households received. In recent years all subsidies a household receives have been counted together in one account, redeemable at the township to which each village belongs. Subsidies are a small proportion of household income, seldom exceeding ¥2,000 annually. This makes a big difference for the poorest households, but others reported that it is not worth the time and transportation fare of a half-day trip to the township to obtain the subsidy. As a result, our measures modestly exaggerate the importance of the income categories represented, particularly for the poorest households.

Measures of Inequality: To measure intra-community inequality, we calculated Gini coefficients and generalized entropy of household income for each village. Unable to identify a test of significance for Gini coefficients in samples, we chose generalized entropy index as a differently calculated measure of evenness of the spread of income. Both measures have potential ranges from zero to one, with one representing high inequality and zero representing perfect equality of income across households. Lacking a test of significance, if these two measures show similar patterns, we can be more confident that the patterns are important than with only one measure.

Tourism, Income, and Household Labor Allocation

In the following analyses, we analyze variation of two measures of resource use: first, the gathering of non-timber forest products (NTFPs), and second, livestock husbandry. Both have been asserted to have important impacts on ecosystems in southwest China (Xu and Wilkes

2004, Amend et al. 2009). A recent study conducted in Deqin County found that grazing intensity has negative impacts on species richness and composition of alpine meadow plant communities (Haynes et al. 2013).

We examine variation in two measures each of NTFP and livestock activities. Given our concern with environmental impacts, for each we identified a measure that approximates the amount of withdrawals each household undertakes.[2] We were unable to directly observe grazing and NTFP collection for surveyed households—in particular, people are loath to share their preferred spots for mushroom harvesting. For NTFPs, we used total annual income from NTFPs (matsutake, other mushrooms, and medicinal products)[3] as an approximate measure of the effort expended getting them and the forest disruptions that effort entails. While prices for these products are quite volatile (Yang et al. 2008), given that households tend to gather across the season, they are all exposed to these fluctuations to more or less the same degree. A second concern is that relative prices of different products and the practices of gathering them vary, and as a result the aggregate measure is not the most accurate measure of the amount of stuff removed from forests or the impact of gathering in different areas. Acknowledging this, we believe our measure is a reasonable approximation, a starting point for measuring behaviors relevant to resources. The similarity in proportions of different non-timber forest products

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[2] Research on both grazing (Illius and O'Connor 1999) and NTFPs (Arora 2008) has found that relationships between withdrawals and negative—or positive—impacts on ecological indicators are complex. As a result we are cautious in making claims about impacts.

[3] Among the most sought-after of these products is "caterpillar fungus" (*Cordyceps sinensis*; *dongchong xiacao* in Chinese; *yartsa gunbu* in Tibetan): "In traditional Chinese medicine, the caterpillar fungus is mostly used as a tonic.... [I]ts main applications are for treating exhaustion, respiratory and pulmonary diseases (e.g., tuberculosis, asthma), renal, liver, and cardiovascular diseases, back pain, and sexual problems (e.g., lack of sex drive, premature ejaculation). Its use as an aphrodisiac seems to be the driving force with male consumers in China, or at least that is the perception of Tibetan harvesters, who often make a point of saying that they, by contrast, have no need to take it for this purpose (!)" (Winkler 2008: 293).

households gather and sell, dominated by matsutake mushrooms, adds to our confidence. For livestock-related withdrawals, we use a count of each household's cattle, yaks, and cattle-yak hybrids. The amount of fodder and grazing space a household uses is roughly proportional to the number of livestock they have to feed, though landscape impacts depend on where and how grazing takes place.

If labor substitution is the mechanism through which tourism impacts resource use activities, its effect will be most clearly discernible with regard to measures of labor allocation. Labor allocation is not tightly correlated with either of our measures of amount of resource use. In the case of NTFPs, success in gathering depends on skill and luck, of which some gatherers have more than others. In the case of grazing labor, because many households put their livestock in the care of a few households in each community that take care of grazing, one would expect less of a trade-off with tourism labor. Table 3 presents descriptive statistics for these variables.

Table 3. Descriptive Statistics for Dependent Variables

Variable	unit	mean	SD	median
Income, NTFPs	¥1,000	1.776	2.504	1.1
Labor, NTFPs	person-days	38.13	44.99	27
Livestock	head	8.55	11.07	6
Labor, grazing	person-days	36.37	75.99	0

Below we analyze how these activities vary with participation tourism and other off-farm activities as well as with household human capital and land resources. Tourism activities include participation in sanitation employment at Pudacuo National Park in Lawzong, mule rides in Xidang and Yubeng, and running guesthouses in Yubeng. We also include variables for

other forms of off-farm labor, including running a shop in a community, driving a vehicle for income, and doing wage or salaried labor outside the community.

Household assets have been found to play a key role in livelihood activity decisions. Households can accumulate assets over time and liquidate them or invest them in activities that generate income or subsistence benefits (Ellis 2000, Ellis and Freeman 2004). Livestock and forest products have been major foci of livelihood asset studies, livestock because they constitute a major asset in many places and forest products because of the roles forest products play in livelihood diversification (Babulo et al. 2008). Within communities with uneven participation in tourism at Wolong National Nature Reserve in Sichuan, Liu and colleagues (2012) found that household participation in tourism was positively related to earlier income levels, the highest level of education in the household, the number of working-age individuals in the household, and influential government connections. A household's land endowment and cost distance to tourism attractions had negative effects.

Considering these findings from the literature, we took three measures of household assets: a household's endowment of land, the number of household members of age 16 to 59 (approximate working age), and the highest level of education of a household member. We might expect that households with greater land holdings must spend more time tending crops, while supplies of food and cash from crop sales may make them less dependent on forest product sales. Households with a greater number of working members have more labor to allocate and therefore may allocate more labor to resource use. Households with higher levels of education may likewise be drawn away from farm labor.

See Table 4 for summary statistics for these predicting variables. In addition to statistics for the entire sample, we also present mean and median labor allocations among households that participated in given activities.

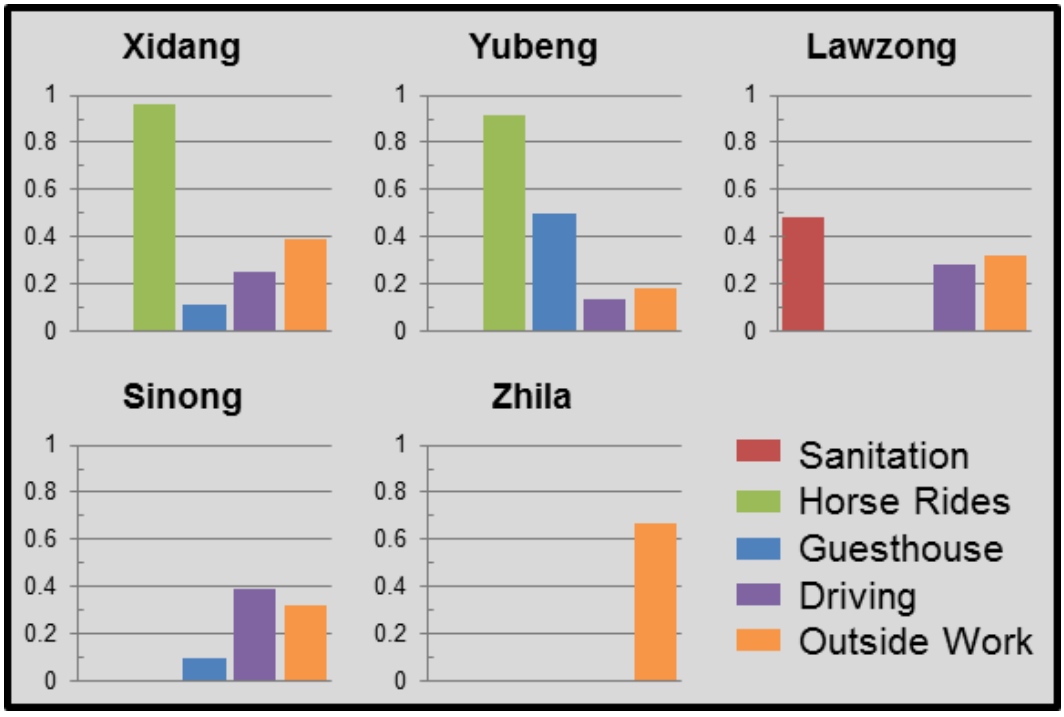
Table 4. Descriptive Statistics for Predicting Variables

Variable	Unit	Mean	SD	Median	Mean of Participants	Median of Participants
Working-Age Household Members	persons	3.62	1.24	4	n/a	n/a
Highest Education Level	years	8.53	4.08	9	n/a	n/a
Crop Area	*mu* (=0.067 ha)	10.93	8.26	8.8	n/a	n/a
Labor, Horse Rides	person-days	53.32	76.5	0	144.2	150
Labor, Guesthouse	person-days	27.84	86.33	0	220.9	225
Labor, Shop	person-days	37.14	99.82	0	276.3	285
Labor, Sanitation	person-days	32.03	97.28	0	317.6	315
Labor, Vehicle	person-days	39.11	85.09	0	160.5	150
Labor, Outside	person-days	88.74	172.8	0	277.9	300

Results

Livelihood activity patterns across these communities are complex, but there are discernible patterns related to tourism participation. Let us begin by looking at off-farm activities across communities. Figure 1 shows the proportion of households in each community reporting participating in five categories of off-farm livelihood activities: working as sanitation workers, providing mule rides, running guesthouses, driving a vehicle for income, and outside employment.

Figure 1. Proportion Reporting Participation in Selected Non-Farm Activities by Community



A few key points stand out. First of all, the three tourism-centered communities show distinctive patterns. In both Xidang and Yubeng, nearly every household takes part in a mule ride rotation. In Yubeng, about two-fifths of respondents reported running guesthouses as well. In Lawzong, about half of respondents reported taking part in sanitation work in 2009. The rest reported doing so in 2010, as expected given that half of households are supposed to rotate doing sanitation work each year. In the other two communities, these activities are absent, except for two guesthouses in Sinong that get very little business. In Sinong, somewhat more respondents than in other communities reported a household member making money driving a vehicle. Finally, in Zhila, two-thirds of households reported having members do outside work.

Next, let us look at mean income levels in these communities. Figure 2 shows mean household income from primary tourism, other nonfarm activities, and primary production in each study

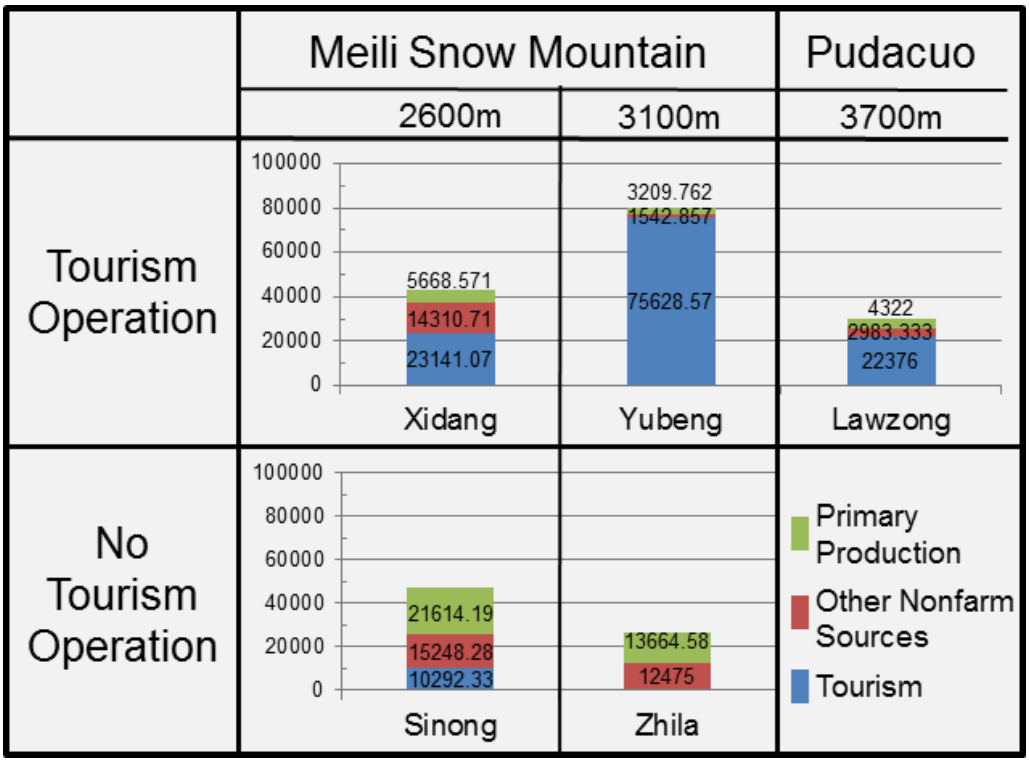
site. The high level of income in Yubeng stands out, double that of the community with the next highest mean income, and accounted for almost entirely by tourism. Households in the other two tourism-centered communities also obtain more than half of their income from tourism activities. While Yubeng households report substantially more income than households in Zhila, mean income in Xidang is slightly less than in Sinong, and Lawzong's reported income is the lowest of the tourism-centered communities. Given that Pudacuo National Park's annual ticket sales are an order of magnitude greater than Meili Snow Mountain National Park's, this difference suggests that where community-based tourism activities persist, residents are able to secure greater benefits from tourism than where they become employees and aid recipients of a high-volume tourism operation.

In the other two communities, in contrast, households get larger proportions of their income from wage work and hauling freight as well as from primary production. However, primary product income in Sinong and Zhila, without tourism operations, come from different sources. Zhila households get far more income than households in any other community from selling mushrooms and medicinal products; they also sell a broader array of agricultural products. In Sinong, over half of most households' income comes from cultivating grapes. In addition, in Sinong a number of households earn appreciable income driving passenger vehicles.

At the community level, tourism income does appear to substitute for primary production income: communities with large tourism operations have absolutely more income from tourism and less from primary production and other off-farm sources than in communities without tourism. Mann-Whitney rank-sum tests comparing households in communities with and without tourism operations show that households in tourism-heavy communities have greater income from tourism ($p<0.001$) and less income from other off-farm sources ($p<0.075$) and from

primary production ($p<0.001$) than in the low-tourism communities. Because there is no comparison site for Lawzong, it makes sense to compare only among communities within Meili Snow Mountain National Park. Excluding Lawzong, the differences in tourism income and primary production income remain, but there is no significant difference in income from non-tourism off-farm sources.

Figure 2. Mean Primary, Tourism, and Other Nonfarm Income by Community, RMB



Resource Use Measures: Across Tourism Types

To address the main questions of this study we start by comparing measures of resource use across communities. We start by comparing communities with tourism operations. Because samples are clustered by village and values are skewed, I use a non-parametric Kruskal-Wallis test. (See Table 5. I also conducted ANOVA and t-tests, whose results were fully consistent with

the ones presented.) We see that in Lawzong, where the new tourism model has been implemented, all four measures are significantly greater than in the communities that run tourism on their own. We submit that this is due to the lesser labor requirements of half of households having one person work for the park daily, compared to all households working on horse rides in the other two communities. One resident reported, for example, that the steady income sanitation work provides is decent, and in many ways the easy work is preferable to the days of giving horse rides, which was much more laborious.

Table 5. Kruskal-Wallis Tests for Differences in Resource Use Activities, Tourism Communities

Kruskal-Wallis Tests, Tourism Communities, n=93				
Dependent Variable	$\chi 2$	df	P	Significant Differences (t test, p<.05)
Income, NTFPs	17.14	2	0.0007	Lawzong › Xidang; Lawzong › Yubeng
Labor, NTFPs	17.07	2	0.0002	Lawzong › Xidang; Lawzong › Yubeng; Xidang › Yubeng
Livestock	30.95	2	0.0001	Lawzong › Xidang; Lawzong › Yubeng; Yubeng › Xidang
Labor, Grazing	10.16	2	0.0062	Lawzong › Xidang; Lawzong › Yubeng

Between Yubeng and Xidang, we see contrasting patterns for NTFP labor allocation and livestock numbers. Xidang residents put significantly more work into NTFPs but own fewer livestock than Yubeng residents. These differences might be due to differences in tourism participation, but they may also be connected to the communities' different agroecological conditions. Yubeng residents have more cropland, potentially supporting more livestock over the winter, but also only one growing season. Perhaps Xidang has better access to mushrooms and medicinal plants. To test these explanations we must plumb qualitative observations and bring the other two Meili Snow Mountain National Park communities into the comparison.

Variation across Communities in Meili Snow Mountain National Park

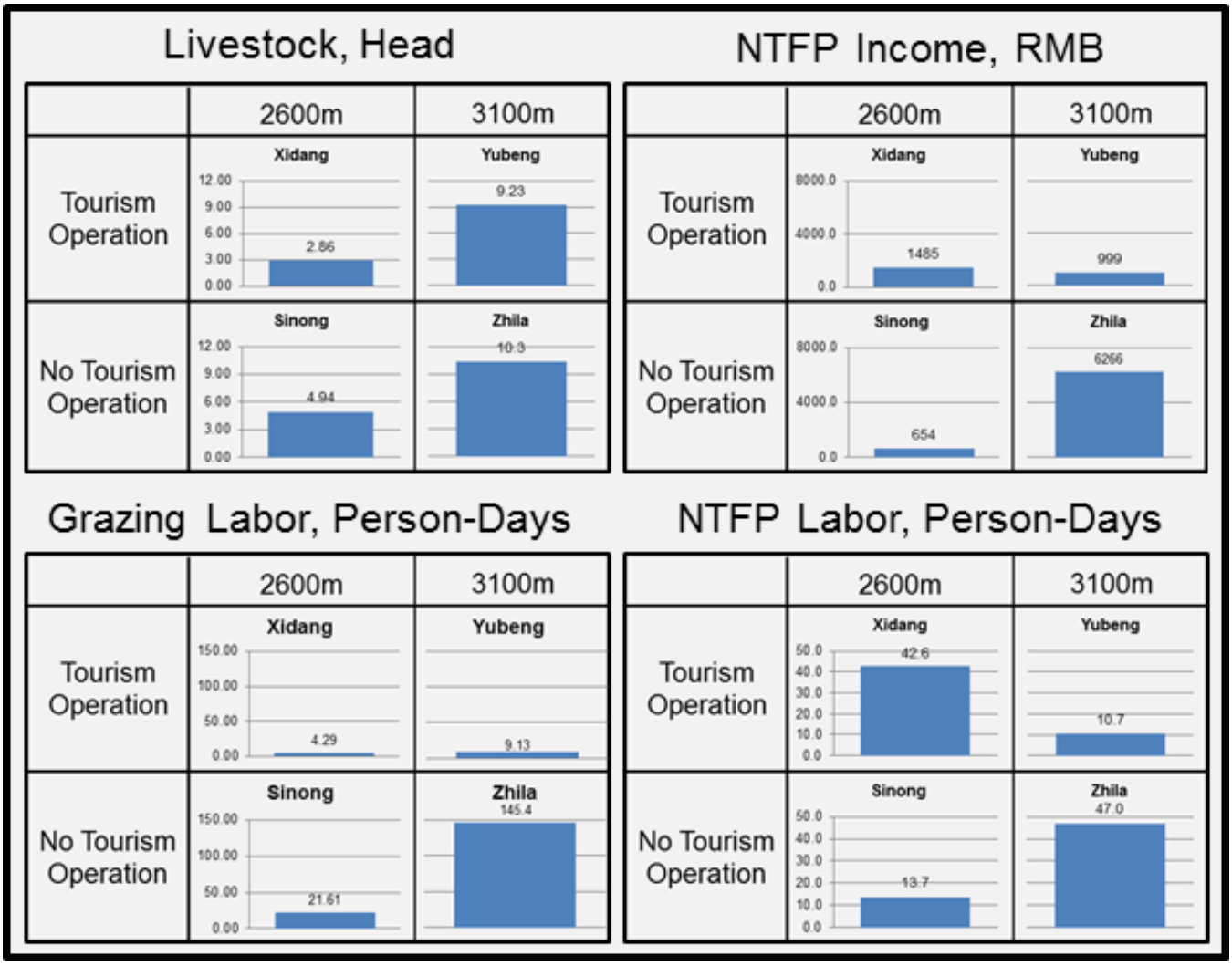
Nonparametric Wilcoxon-Mann-Whitney tests reported in Table 6 are consistent with what a cursory glance at the Figure 2 suggests. Communities with tourism operations have significantly fewer livestock and less allocation of labor to grazing than comparison sites, but there is no difference for NTFP income or labor allocation.

Table 6. Tourism Operations and Resource Use Activities, Meili Snow Mountain National Park

Tourism Communities vs. Non-Tourism Communities Meili Snow Mountain National Park Wilcoxon-Mann-Whitney Tests, n=93			
Dependent Variable	Z Score	p	Direction
Income from NTFPs	1.221	0.2219	
Labor Allocation to NTFPs	-1.266	0.2055	
Number of Livestock	2.688	0.0072	Tourism < No Tourism
Labor Allocation to Grazing	3.81	0.0001	Tourism < No Tourism

Breaking the analysis down across the elevation and tourism axes clarifies these results. Figure 3 shows community means for the four variables of interest. For both livestock measures, the community at higher elevation has a higher value than the community with the same tourism status at a low elevation. Likewise, at either elevation, the community without tourism has higher mean herd size and more labor allocation to grazing than the community with tourism. Along with the tests presented above, this is evidence that at a community level tourism has a negative impact on livestock ownership. While Yubeng's herds are large relative to Xidang's, a 1999 study found that Yubeng households averaged over twelve cattle and yaks, while a 2006 survey found a mean of 10.2 (Chen 2009: 75-76), compared with our reported mean of 9.2 in 2009.

Figure 3. NTFP Harvesting and Grazing in Meili Snow Mountain National Park Communities



For NTFP labor, the pattern is different, and puzzling: Xidang residents allocate more labor to NTFP gathering and get more income from them than Sinong residents do, while Yubeng's rates are far lower than Zhila's, and its rate of labor allocation to NTFP gathering is, as tested above, significantly lower than Xidang's as well. Yubeng's current pattern differs starkly from its situation at the dawn of the tourism boom. A study conducted in 2000 found that NTFPs were the leading source of income for Yubeng households (Guo 2007). An anthropologist\~~,~~ observed that prior to 2001, between 85% and 90% of Yubeng residents' income had come from selling

non-timber forest products, with every household selling several hundred kilograms of mushrooms per year (Zhang 2006: 2015).

To understand these contrasting patterns we must dig deeper into both community and household factors that affect resource use. To examine household-level patterns, we conducted a number of regression models for both variables across the four communities in Meili. Because we sampled by community, we use OLS with robust standard errors, clustered by community. Each model presented in Table 7 includes as predictors the number of working age individuals in a household, top level of education, crop area, labor allocation to mule rides, an interaction term of mule ride labor with Yubeng residence, labor allocation to guesthouse, labor allocation to wage and salary work, and labor allocation to vehicle driving. The use of several models facilitates comparison across the two resource use activities. It also brings a degree of redundancy: if results are consistent it will increase confidence that common patterns are at work.

The regression model itself emerged from consideration of ethnographic observations. Initially we controlled for activities without any interaction terms and were surprised at the lack of a significant result for horse ride labor. Based on my observations that, with half as many households as Xidang, for a given number of tourists there is at least twice as much work for Yubeng households as in Xidang, we included an interaction term, multiplying the value for mule ride labor allocation by 1 if a household was in Yubeng and by 0 if it was in another community. Including this variable yielded a surprising pattern that we describe below.

The results, presented in Table 7, show some expected and some unexpected patterns. First, available labor has a significant positive effect on NTFP gathering: an extra working-age person in a household is associated with an increase of 5.1 person-days allocated to NTFP gathering,

over one-eighth of the mean of 38 person-days. Second, labor allocation to wage or salary work has a significant negative effect on NTFP labor allocation. This effect appears small, with each person-day of outside labor reducing NTFP labor allocation by 0.026 person-days. However, people working outside the community usually do so for most of the year. Multiplying the coefficient by the mean of 258 person-days of outside labor among households with someone working outside, we find that the average household with outside labor can be expected to allocate 6.7 fewer days to NTFP gathering than a household with no outside labor. Interestingly, these patterns are not replicated for income from NTFPs. Residents say success in gathering mushrooms and other products is a matter of skill and luck, so income from NTFPs is not proportional to effort expended. For income from NTFPs, available labor and outside labor allocation are not significant, but crop area shows a significant positive association.

Livestock husbandry follows somewhat different patterns. Both available household labor and crop area have positive, significant associations with the number of livestock a household has, but not with labor allocation to grazing. The lack of a strong connection between other household factors and grazing effort is consistent with how grazing effort is organized at a community level: two to five households in each community do all of the upland grazing for the community, tending other households' livestock as a favor or for a fee.

Labor allocation to tourism activities has contrary effects in Xidang and in Yubeng. The first tourism variable, labor allocation to mule rides, has no significant effect across three of the models. The only significant effect is a positive effect on labor allocation to NTFPs—contrary to what would be expected if mule ride labor were a substitute for resource use. Based on this model, a household in Xidang that participates in the mule-ride rotation (all but two households), allocating the mean of 152.6 person-days to mule rides, is expected to allocate 25

more person-days to NTFP harvesting than another comparable household. The lack of a negative, significant result indicates that, at least in Xidang, mule ride labor does not substitute for either form of resource use.

Table 7. Regressing Resource Use Activity Measures on Household Attributes and Labor Allocation, Ordinary Least Squares with Robust Standard Errors, Clustered by Community, Meili Snow Mountain National Park Communities

Dependent Variable	Income, NTFPs		Labor Allocation, NTFPs		Livestock		Labor Allocation, Grazing	
Unit	Renminbi		Person-Days		Head		Person-Days	
Household Labor	55.3019		5.1319	*	1.0338	*	8.8039	
	(174.328)		(1.995)		(0.345)		(5.750)	
Crop Area	178.7146	***	0.6693		0.4185	*	2.5531	
	(18.274)		(0.327)		(0.136)		(1.083)	
Mule Rides	5.3976		0.1637	**	-0.0087		-0.1554	
	(5.547)		(0.033)		(0.005)		(0.153)	
Mule Rides * Yubeng	-15.2283	**	-0.3152	***	0.0046		-0.2526	*
	(3.464)		(0.035)		(0.010)		(0.101)	
Guesthouse	-6.7209	**	-0.0209		0.0016		-0.0982	*
	(1.450)		(0.021)		(0.002)		(0.040)	
Outside Labor	-0.9010		-0.0255	**	-0.0046		-0.0362	
	(1.314)		0.006		(0.003)		(0.027)	
Constant	1075.5910		12.9199		-0.9428		26.4648	
	(1116.307)		(10.916)		(1.439)		(44.133)	
R^2	0.3153		0.3040		0.5255		0.2503	
Observations	92		92		92		92	
Robust standard errors in parentheses					* p <.1, ** p <.05, *** p <.01			

The story in Yubeng is quite different. First of all, in every model but the model for livestock herd size, the coefficient for the interaction term of mule ride labor allocation with Yubeng

residence is significant and negative, more than countervailing any positive effect of mule ride provision alone. For example, with regard to NTFP harvesting, a household in Yubeng that allocates the mean 132.1 person-days to horse rides is expected to allocate 20 fewer person-days to NTFP harvesting than another comparable household. Likewise, in two of the models labor allocation to running a guesthouse has a significant negative coefficient.

Discussion

Measures of livestock husbandry and NTFP gathering show differing responses to tourism activities. Qualitative observations help to clarify these varying patterns. Labor is the dominant factor affecting NTFP withdrawals. In Xidang, as I tended the shop at the hitching post during tourism season, every evening people stopped by on their way down from gathering *matsutake* mushrooms. Frequently when I followed up on requests to call if I had free time, I would reach people by cell phone only to find they were up on the mountain gathering mushrooms. Staying in Yubeng at the same time of the year, I saw and heard little evidence of mushroom harvesting. Moreover, unlike households in Xidang, nearly every Yubeng household hires workers from outside the community to help with manual labor. These hired workers are often tasked with mule-pulling. But they are not familiar with the mountain forests where mushrooms can be found. Rather than seek mushrooms, these workers must return directly to the village. Even when a household member was doing horse work, they generally sped down to the village afterward. A recent study on tourism and cultural change in Yubeng confirm this point, noting that Yubeng residents report that labor demands from tourism keep them from gathering mushrooms and that as a result households from other communities encroach on the mushroom-rich forests surrounding Yubeng, causing headaches for Yubeng's forest guards (2009:71).

Labor demands and the spatial distribution of NTFPs together influence NTFP-gathering activities. Even in Xidang, residents say that tourism work draws labor away from mushroom harvesting. A middle-aged woman in Xidang says,

> Now we depend totally on horse-pulling to earn money. . . . Before there wasn't tourism, and we would gather *matsutake*, do wage work, sell fruit. . . . last year, there was too much tourism work, and we didn't have time to gather *matsutake*. If you have a lot of labor, you can have two people pulling horses and one go and gather *matsutake*. We only have me and my man. (100903B, female, Xidang resident)

Income plays a role in these decisions, but it is not decisive. Residents increase income by incorporating extra activities when they can. Still, it is labor demand and availability, rather than income substitution at some satisfactory level, that households consider when deciding how many livestock to rear or how much labor to allocate to gathering mushrooms. In Xidang, where mule rides go to places that are conveniently near forests rich in mushrooms and tourism labor demands are less intense than in Yubeng, and in Lawzong, where sanitation employment requires one person a day from only half of households—and is also often located conveniently near mushroom habitat—households continue NTFP gathering alongside tourism work. Labor demands as well as landscape features play a role.

But why are Xidang residents' withdrawals so much greater than in Sinong? It turns out that Sinong's forests are exceptionally poor in mushrooms and medicinal plants. The habitat features that support *matsutake* mushrooms, related to forest type, litter cover, elevation, slope, and aspect (Yang et al. 2006), are unevenly spread over landscapes, and while mushrooms and medicinal products have been a boon for many communities in the region, others that happen not to be near good mushroom grounds have seen that income source pass them by (Arora 2008).

In this case the complexity of biogeography, which has vital impacts on livelihood options available in different communities, shows the limits of our comparative frame.

This point reveals a limitation of a small-n comparison like this: it is virtually impossible to control for all relevant variables. Finding a place with equivalent NTFP access to Xidang would probably have meant finding a place less similar in other respects. At the same time, this issue shows the limitations of either small-n *or* large-n surveys that fail to incorporate adequate knowledge about community and ecological contexts. By building on ethnographic research and incorporating qualitative notes into the questionnaire process, we are able to account for some deviations from our expectations, as well as to understand more fully the patterns we find.

These observations were similarly of help in understanding patterns of livestock husbandry. The relationship between livestock grazing and crop area is particularly important. While most households put their cattle and yaks out to pasture on alpine meadows in summer months and graze in forests and shrublands near the village at other times of the year, cattle and yaks must be fed grain and corn cobs to pass the winter. Early on in my research, people in households with small land endowments told me that they did not have enough grain to feed cattle. It is important to note that both of the high-elevation communities (Yubeng and Zhila) have considerably larger crop area than the low-elevation communities (Xidang and Sinong). At the same time, agricultural productivity is low at 3,000 meters, and there is only one growing season compared to downhill where wheat and corn alternate. As a result there may not be that much more grain available for cattle. However, the significant effect of crop area persists in models (not shown) that include a dummy variable for each village, indicating that this asset is important at the household level independent of community land endowments and other

correlated factors.[4] These communities' high elevation, correlated with their larger land holdings, also puts them in closer proximity to summer pastures may also play a role.

Many in Xidang and Yubeng also claimed that the feed demands of mules took up portions of the grain crop that, before they started giving mule-rides, they had used to sustain larger livestock herds. Interestingly, while households in Xidang have significantly fewer livestock than in Sinong (Wilcoxon-Mann-Whitney z=-3.979, p=.0001), the difference between Yubeng and Zhila is not significant (Wilcoxon-Mann-Whitney z=-0.886, p=0.3757). The impact of tourism on livestock husbandry is not directly an impact of labor demands nor income.[5] Rather, it works through households' ability to support traditional livestock as well as mules. In low-elevation communities with smaller land endowments, this land constraint poses a trade-off. Greater availability of cropland in Yubeng may enable households to maintain larger herds while also supporting mules.

In summary, how tourism is organized and the specifics of its input demands—for labor, as well as agricultural products—mediate how tourism participation affects resource use. These effects vary across different resource use activities. Of the three communities with tourism operations, sanitation work in Lawzong requires the smallest allocation of labor from each household. As a result, households are able to maintain high rates of labor allocation to NTFPs. They also maintain large livestock herds. Xidang's mule ride rotation is more labor-intensive than

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[4] The positive relationship between crop area and NTFP income, with other factors controlled, puzzles me. This effect remains significant and positive even when dummy variables for each community are included in the model. My expectation was that greater farmland endowments mean greater labor demand for tending crops, or alternatively greater wealth which would be likely invested in off-farm pursuits. It could be that households with more cropland are more invested in primary production activities in general, a kind of pattern noted in some studies of livelihood diversification (Roy Chowdhury 2010).

[5] Or, if there is such an impact, the impact of high levels of wage and salary labor in Zhila might offset it.

sanitation work, and it may have impacted NTFP harvesting, but this impact is limited because the location of the mule trail facilitates mushroom gathering. Xidang residents also appear to have reduced the size of their cattle herds in response to tourism, but the mechanism appears to be mules' demand for grain feed rather than labor demands of livestock husbandry. Yubeng residents have dramatically reduced their allocation of labor to NTFP harvesting, likely because the intense labor demands of tourism in Yubeng forbid it. Yubeng residents also appear to have reduced the size of their herds, but they maintain them at higher levels than in Xidang, partly because of fodder availability from their larger crop fields, and partly because Yubeng's closer proximity to pastures makes summer grazing more convenient.

Tourism Organization, Inequality, and Social Capital

Beyond variation in levels of economic benefits impacts on resource use, these different ways of organizing tourism also shape patterns of inequality. Inequality in access to benefits from tourism within or between communities around protected areas to have the potential to cause social problems that disrupt protected area management (He et al. 2008, Karanth and Defries 2011). Inequality in participation and in the distribution of benefits can threaten the legitimacy of conservation efforts, not to mention other collective endeavors, undermining residents' cooperation with protected area authorities (Wilshusen et al. 2002). High levels of inequality have been found to have a negative effect on forest quality in common pool resource situations, though effective collective resource management institutions can moderate this effect (Andersson and Agrawal 2011). Finally, inequality is important in its own right, especially to the extent that high inequality contributes to persistent poverty, exploitation, blocked opportunities, and conflict. If development is understood as the broad enhancement of

individuals' capabilities to flourish (Sen 1999), highly unequal distribution is contrary to this goal. For all of these reasons, it is important to ask how differences in tourism development affect inequalities.

Inequalities related to tourism development take place on a number of overlapping scales. The preceding chapters have noted disparities between the revenues tourism companies generate and the portions residents receive at parks with high-volume tourism operations. On the other hand, local states invest much of these parks' profits in road and urban infrastructure projects, with potentially redistributive consequences. To the extent that infrastructure construction and social services benefit rural communities broadly, they could mitigate inequality at a regional scale, compared to a scenario in which communities with the fortune to lie near scenic amenities capture most of the benefits of tourism.

But as the income figures presented above suggest, tourism can contribute not only to patterns of inequality among regions or between residents and tourism firms, but to inequalities between and within rural communities. Inequalities across rural communities may relate both to the presence or absence of tourism operations as well as the way they are set up. Furthermore, how tourism is organized can affect the distribution of benefits from tourism within communities. Some scholars have suggested that where community members have autonomy in making decisions about tourism operations, they will opt to spread benefits evenly (Colvin 1996). The commonly observed ways political and economic disparities complicate cooperation in communities raise questions about this claim (Agrawal and Gibson 1999). It became clear early in the course of my qualitative work that Yubeng and Xidang have dramatically different patterns of distribution. It appeared that inequalities within communities depend not on whether communities run tourism autonomously but on the extent to which tourism activities

are organized in a way that spreads opportunities to participate. So I set out to examine how levels of economic inequality compare across these communities and how sources of inequality in tourism-centered communities compare to those in communities without tourism operations.

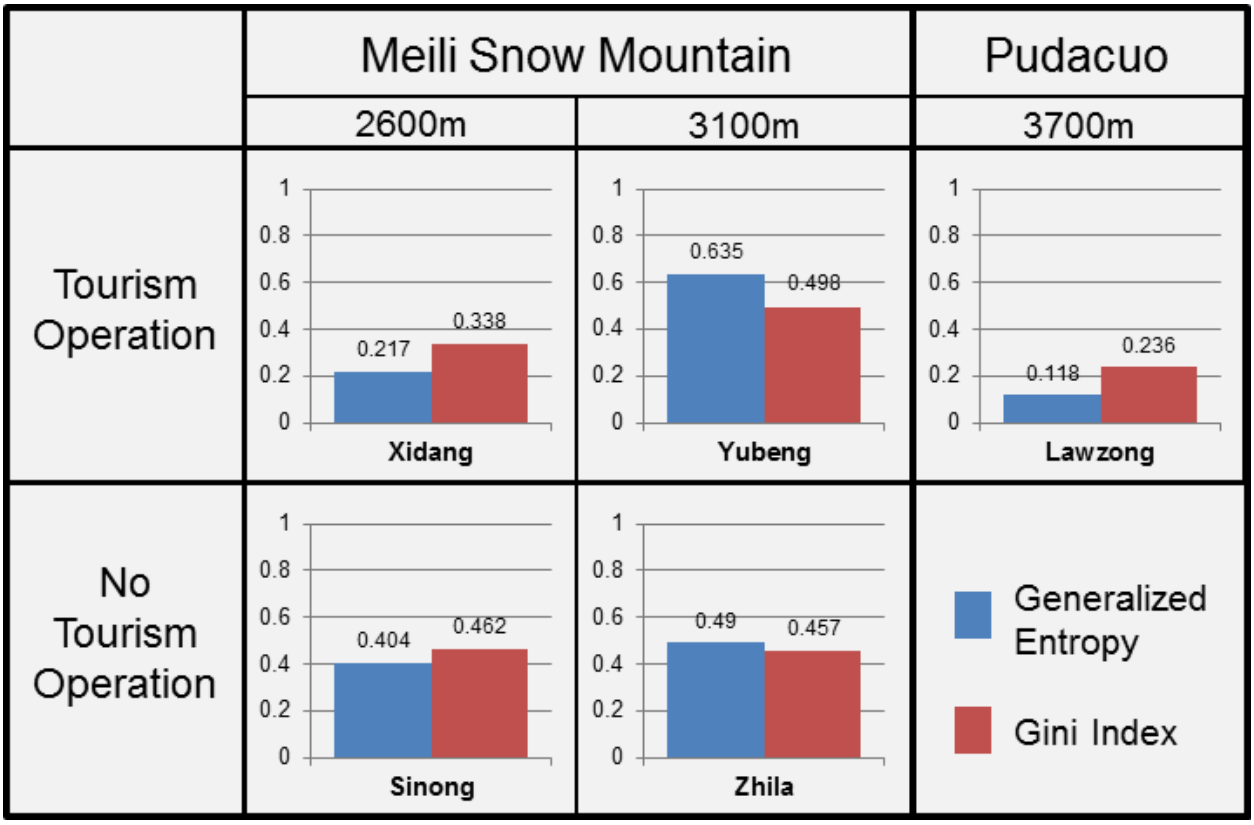
Results

Income Inequality Within Communities

To measure intra-village inequality, we calculated Gini coefficients and generalized entropy of household income for each village. The results are presented in Figure 4. Both of these measures have potential ranges from zero to one, with one representing high inequality and zero representing perfect equality of income across households. Communities' rankings on each measure are nearly identical. By both measures, Xidang and Lawzong have relatively low levels of inequality, while Yubeng ranks highest. Sinong and Zhila follow close behind, with similar values to one another on both measures.

How tourism activities are organized accounts for the pattern across tourism communities. In Xidang and Lawzong, tourism activities are set up in ways that even out participation. The horse-ride rotation in Xidang enables nearly every household to earn about 20,000 RMB per year. Similarly, in Lawzong, the combination of annual payments to every household with sanitation employment that each household takes part in every other year ensures a relatively even distribution of income from tourism. In contrast, two-fifths of Yubeng households run guesthouses, and three of those guesthouses capture the vast majority of income therefrom. Within Yubeng, tourism income is strongly correlated with guesthouse ownership (Spearman's rho=0.6314). The mule ride rotation evens income out somewhat but cannot compensate for the disparities that guesthouse entrepreneurship fosters.

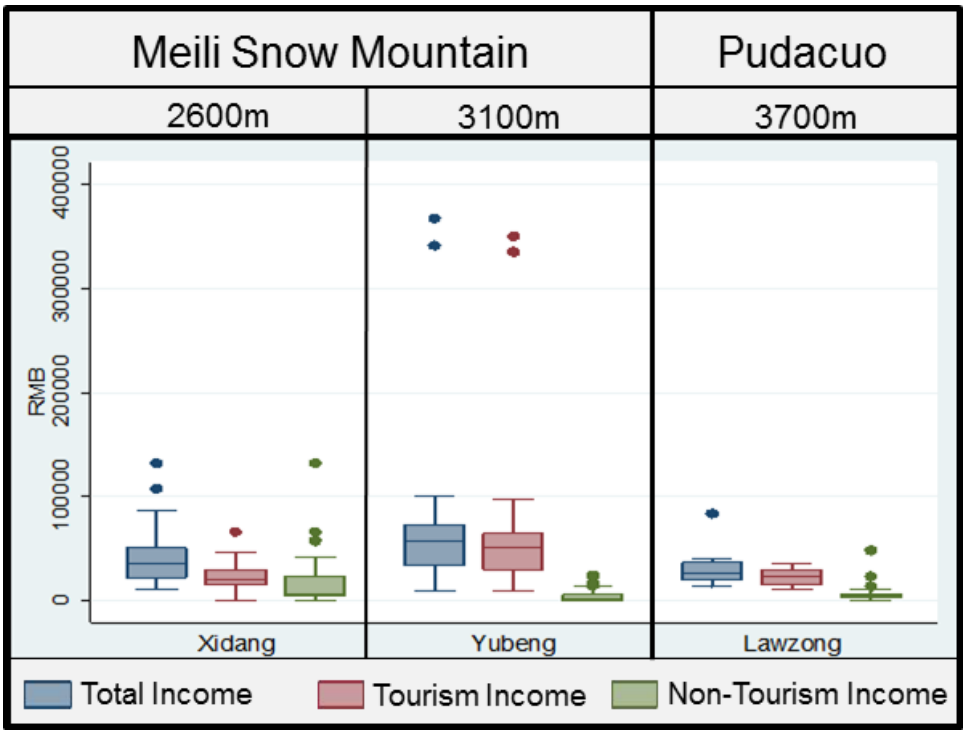
Figure 4. Measures of Income Inequality by Community



We can see these distinctions more clearly if we disaggregate income distributions in the tourism-centered communities. Income inequality in Yubeng is almost entirely accounted for by tourism income. In Lawzong and Xidang, on the other hand, non-tourism income is more unequally distributed than tourism income. In these two communities, since the institutions organizing tourism participation work to equalize households' income-earning opportunities, it is mainly in other activities that households with particular assets can convert those assets into cash income. Figure 5 demonstrates this point graphically: in Yubeng, high outliers get their extra income from tourism, and most of the interquartile spread in total income is accounted for

by variation in tourism income, while in Lawzong and Xidang high outliers get most of their 'outlying' income from non-tourism sources.

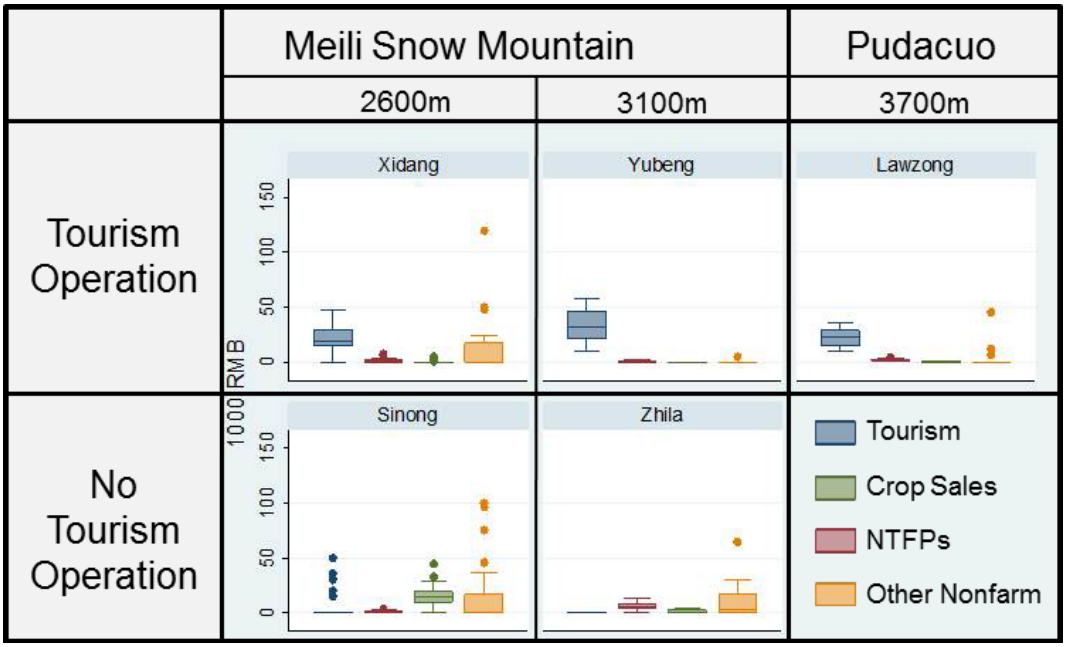
Figure 5. Boxplots: Income Distributions in Tourism Communities



Disaggregating non-tourism income reveals further how different kinds of activities contribute to patterns of income inequality across communities with and without tourism. Figure 6 plots by community income from crops, NTFPs, outside salary or wage work, and vehicle work. As the discussion above would lead us to expect, in Yubeng outliers for these activities have smaller values than in the other communities. In each other community, income from other forms of off-farm work is the largest component of outlying income. Driving vehicles and doing wage or salary work outside the community can bring a lot of income, but the ability to do these depends on household assets and opportunities. Getting high-paid wage or salary employment requires

education or social connections (Chen et al. 2012), and purchasing a vehicle requires a stock of cash or a loan. Finally, in other communities crops and NTFPs account for little of the income spread, but in Sinong grape cultivation notably differentiates households. There, grape cultivation has accentuated the importance of farming choices and cropland endowments to income distribution. While by 2010 increasing numbers of Xidang households were planting grapes, residents commented that fodder needs for mules kept them from shifting much land to grapevines. Given how the collective mule ride rotation gives all participating households an even income share, in sharp contrast to the way grape cultivation accentuates inequalities related to land holdings in other valley communities, in Xidang it appears that tourism has kept inequality from growing as much within Xidang as it has elsewhere in the area.

Figure 6. Boxplots of Income from Selected Sources By Community



Note: Two high outliers in Yubeng, with values of ¥335,000 and ¥350,000, are omitted to make patterns in other communities easier to perceive.

Stymied Efforts to Mitigate Inequality

Yubeng's high level of inequality is not due to lack of effort to redistribute either opportunities or benefits. Residents have made several efforts to mitigate disparities within the community. Early in the 2000s, Yubeng residents set up a system in which tourists seeking lodging were directed to different households on a rotating basis, just like with horse rides.

> There was an element of luck on both sides: if 5 people showed up at your point in the rotation, you would lodge 5, and if there were 10, you'd lodge 10. For guests, too, it was luck, and that's where a problem arose. Guests had to go to whatever person's house they were doled, even if they didn't want to. Often they wanted to stay in a particular guesthouse they'd heard of or been to before. There were a lot of complaints from guests, and so eventually we had to scrap that system. (100814B, male, Yubeng resident)

So they devised a new system, in which visitors could choose where to stay, but then a portion of their fees would be handed over to the collective and redistributed.

> When we did the management fee, early on it was ¥10 for every ¥20 bed. That ¥10 would go to the community fund and was divvied out to villagers. The original goal was to allow for all villagers to get rich together. A lot of guesthouse owners didn't like that. They would say, "We've done all the work, and they've done none, yet they get half of what we make!" They had a point. So it was adjusted to ¥5. (100814B, male, Yubeng resident)

Table 8, drawn from a 2008 survey, shows the modest effect of this institution in mitigating inequality. In 2007 about 15% of reported guesthouse revenue was redistributed through the community fund, most of it to households without guesthouses. Note that contributions to the community fund are not proportional to guesthouse revenue. This is because some sources of guesthouse revenue, including from more expensive, furnished guest rooms and from providing meals, are not subject to the fee.

Table 8. 2007 Yubeng Village Guesthouse Accommodation Services Revenue

Unit: 10,000 yuan. Adapted from Chen (2009)

Guesthouse	Net Revenue	To Community Fund	Dividends from Community Fund	Total Income	Total Income by Level
A	160,000	20,000	1,000	141,000	38.4
B	150,000	32,000	2,000	120,000	
C	150,000	30,000	3,000	123,000	
D	70,000	8,000	2,000	64,000	21.93
E	8,000	300	1,500	9,200	
F	45,000	5,000	2,500	42,500	
G	60,000	-	1,000	61,000	
H	40,000	-	-	40,000	
I	No data	No data	No data	No data	
J	10,000	-	-	10,000	
K	30,000	5,000	1,000	26,000	
L	-6,000	500	3,000	-3,500	
M	-30,000	300	400	-29,900	
21 households without guesthouses	0	0	83,700	83,700	83,700
Total	687,000	101,100	101,100	687,000	687,000

Even at the ¥5 rate this system proved difficult to implement. Residents report that guesthouse owners would evade the community fee:

> You see, otherwise it's hard to collect. Someone might have 10 people one night in his guesthouse, but then only report that there were six people, then keep the fees from four. So this way, at least for every guest's first night, everyone is accounted for. (100814B)

In 2010, Yubeng residents tried another approach. They agreed to set up a station where the trail comes into Yubeng. There, residents commissioned by the council of household heads collect 5 RMB from each arriving tourist, providing a dated receipt. When a visitor shows the receipt at a guesthouse, she is supposed to get a five-RMB discount for accommodation. This way a fee is collected for every visitor's first night, though later nights may not be covered.

Each stage of these efforts played out in meetings of the council of household heads, whose members, mostly male, make decisions about community affairs. Xidang's council of household heads has also dealt with distributing opportunities and benefits around tourism. It makes decisions regulating the mule ride rotation. In addition, Xidang's council oversees the allocation of rights to run shops along the trail to Yubeng. Each year households bid for the right to run each shop for one year. The bidding fee is paid to the collective. A Xidang resident told me that one year the community used the accrued money to fund a pilgrimage to Lhasa for a group of residents from each household.

The differentiation of guesthouses makes it hard to manage their benefits for collective interests, in contrast with the simplicity of the mule ride rotation. In Yubeng some households are better able to invest in accommodations and services than others. Furthermore, some did better in word-of-mouth advertising or making connections with travel agencies.[6] As a result, rotating with guesthouses raised issues that do not arise with mule rides. On one hand, tourists resisted being told where to go, demanding to stay at guesthouses they preferred. On the other hand, resident entrepreneurs who invested money in guesthouses and ran them with their own labor resented giving a large portion of the proceeds to other households.

Labor Exchange

Yubeng's distinctive patterns of labor exchange also impact cooperation among households. Our understanding of patterns within and across these communities is incomplete without a

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[6] It is not clear from my interviews what enabled particular households to establish flourishing guesthouses. Some interviewees suggest that these abilities followed from pre-existing hierarchies in the community, with influential households initially having strong government connections, turning political influence into economic gain. Of the households that run two of the largest guesthouses, one appears to be dominant in community affairs, with connections in the county government that enabled one of its members to be one of the main personnel in the Yubeng Management Station of Meili Snow Mountain National Park. I witnessed some friction between a relative of this household and the household running the competing guesthouse.

consideration of labor exchange. So far I have treated households as hermetic units whose welfare depends on their own members' labor alone. But that is not usually the case. In Lawzong, when harvesting root crops, the household that I stayed with first helped relatives (the family of the sister of the mother in my host household) to dig up their giant turnips and potatoes. Then we moved on to my hosts' own fields. That evening my hosts went on to help out another household in exchange for help harvesting barley a week before. Asked about what the household did at harvest season when labor was short, another Lawzong resident said, "We have help! Our neighbors and relatives come by, once they're finished with their own, they come over to help. If you finish up and don't bother to help other people out, that's no good. The spirit of unity is strong in our village!" (100929C, male, Lawzong resident). It was much the same in Xidang clearing out cornfields to plant wheat, or harvesting ripe walnuts in Sinong.

In every community I visited but Yubeng, households primarily meet periodic labor shortfalls with reciprocal, unpaid labor exchange with neighbors and relatives. A minority of households supplement this kind of labor reciprocity with hired labor. This is especially common among households that have limited available labor to reciprocate. (Regressions not reported here show significant positive effects of labor allocation to outside work and vehicle work on unpaid labor exchange and a significant positive effect for vehicle work on the use of hired labor.)

In Yubeng, in contrast, tourism's labor demands and income give hired labor a more prominent role. Figure 7 shows the proportion of households in each community reporting using hired labor in 2009 and the proportion reporting the use of unpaid, reciprocally exchanged labor. Figure 8 is a box plot of reported amounts paid to hired workers in 2009. The lower-quartile amount households in Yubeng paid to hired workers exceeds the upper quartile in every other community. Moreover, hired workers in Yubeng did different tasks. In most communities in the

region, households pay neighbors to help with farmwork at harvest and plowing times or skilled work in housing construction. In Yubeng, households reported hiring workers to pull horses and work in guesthouses all season long as well as to do agricultural or construction work. The labor demands of tourism in Yubeng combine with higher average income to lead Yubeng households to use hired labor on a large scale. Even should more households wish to take part in reciprocal labor exchange, the people they might call on are so busy that they hire extra workers, and do not have labor to spare. While there is considerable variation among Yubeng households in the amount of hired labor they pay for, these differences are not significantly correlated with either total income, income from guesthouses, or available household labor.

Figure 7. Proportion of Households Reporting Using Hired Labor and Exchanging Labor without Pay, by Community

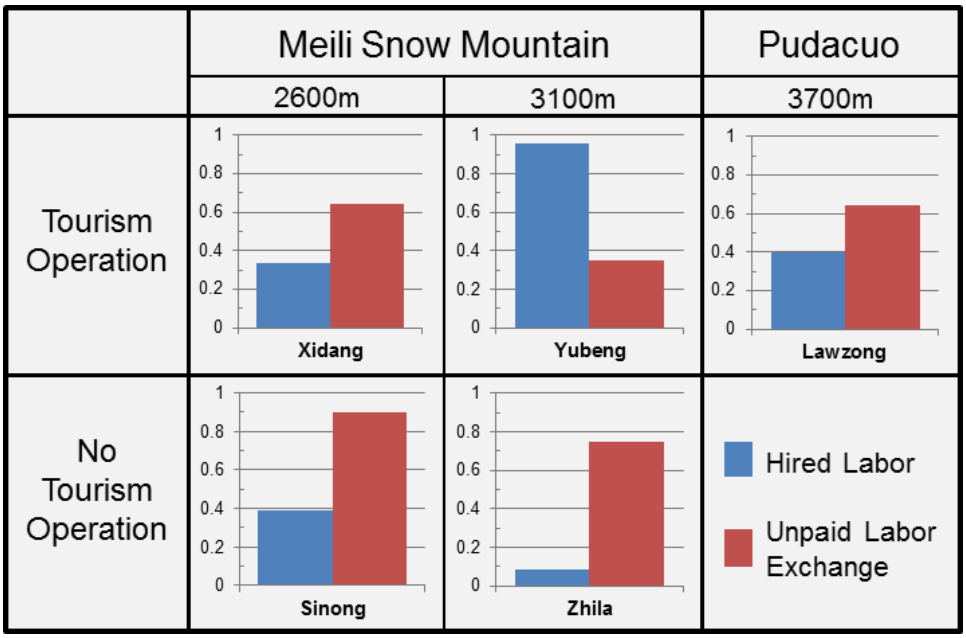
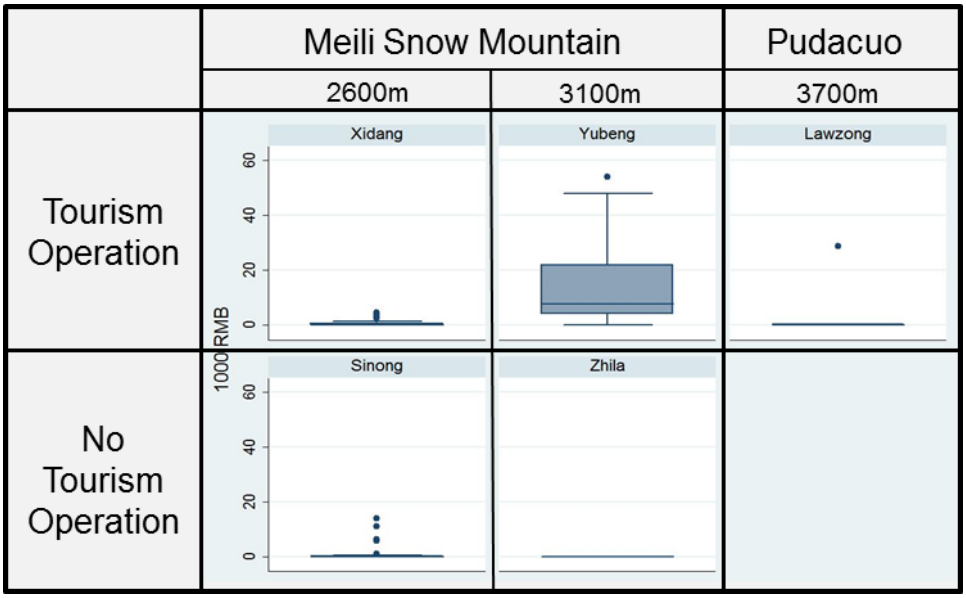


Figure 8. Boxplots of Amount Paid to Hired Laborers, RMB, by Community

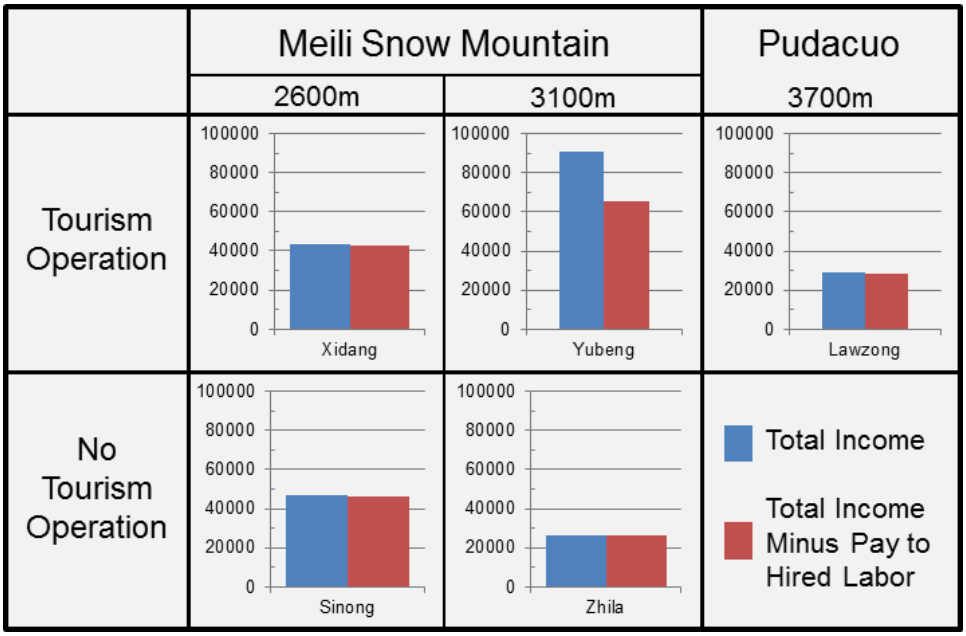


Yubeng residents' use of hired labor raises several implications. First, our figures for income in Yubeng overstate households' benefits from tourism. Indeed, while we were conducting the survey, a guesthouse owner protested,

> We have so many expenses—we have to buy food, we have to buy supplies, they all come over the mountain. And in the winter there are no tourists, it is cold, they close the mountain for three months. You get sores on your feet, on your hands. We have a really hard time. No one comes to do a survey when we're having a hard time. (20110605A, female, Yubeng resident)

This quotation raises larger concerns about the way tourism impacts are researched in these areas. We make a start at addressing these issues by accounting for hired labor. Subtracting hired labor expenses from annual incomes, mean income in Yubeng is still one-third higher than Xidang's and Sinong's, but the community's median is only slightly higher than in those two communities. The amounts in Figure 9 still probably overestimate benefits of tourism in Yubeng, because they do not account for the expense of provisions for guesthouses and the expenses Yubeng residents face because of the cost of transporting supplies over the ridge.

Figure 9. Mean Total Income and Mean Income Adjusted for Pay to Hired Labor, by Community



Second, the high returns to tourism in Yubeng have made it a hub in the regional labor market. Hired workers in Yubeng mainly come not from adjacent communities but from poor areas elsewhere in Deqin County. At the same time, Yubeng's tourism operations have also created opportunities for households from Ninong, a community a few miles south of Xidang, to run mule teams that haul food and other provisions over the ridge daily to supply Yubeng's guesthouses. Some residents in Sinong also report selling grain fodder to communities with mule operations. While benefits from tourism are unevenly spread, Yubeng's surplus does spill over into opportunities for people in other communities.

Third, the labor demands of tourism have had a clear impact on customary forms of cooperation in Yubeng. In Xidang, Lawzong, Sinong, and Zhila, cooperation in crop labor and house-building prevail. Unlike the other communities, Yubeng households are more apt to hire people than to exchange labor reciprocally for farm work. Likewise, while in most communities in the region,

households work together to put up new houses, raising pillars, packing earthen walls, and hoisting up roof spars and wooden shingles, as one Yubeng resident told me, "People used to build houses together, but they don't do that anymore in Yubeng. Now you always hire outside labor. People are too busy with tourism" (100815A, male, Yubeng resident).

Discussion

Tourism Organization and Economic Inequality

In terms of income inequality and patterns of cooperation, just as with resource use, tourism's organization and input demands differentiate community patterns. These differences do not fall along lines of community-based and firm-based tourism. Instead, on one hand, within-community income inequality is greatest in Yubeng, where entrepreneurial guesthouse operation makes tourism income depend on household assets, and the concentrated rewards to tourism magnify differences in these assets. Xidang's mule-ride rotation and Lawzong's fixed compensation and rotating sanitation employment equalize households' access to tourism income. Yubeng's mule-ride rotation makes inequality less than it might be if guesthouses were the only tourism activity there. The high relative volume of tourism in Yubeng means greater labor demands for Yubeng households, who use a substantial part of their income to hire laborers. At the same time, within Meili Snow Mountain National Park there are sharp differences across communities, with households in Yubeng and Mingyong getting much more income than in other communities. The different extents to which communities have been granted compensation and work opportunities at Pudacuo National Park have also created substantial inter-community inequalities.

How, or to what extent, are these inequalities of concern? A 2004 national survey of rural and urban residents in China showed that majorities express concern about inequalities at a national

level, but when asked questions relating to concrete local situations most approved of the idea that distributional inequalities are acceptable as long as all have economic opportunities. Most preferred to see inequality addressed through affirmative action for the poor rather than leveling down by taking income from the rich. Not urban elites but farmers were most likely to approve of current inequalities and market-based allocation (Whyte 2010). On the basis of these findings Whyte declares that fears that inequality raises an immediate threat of unrest in China are exaggerated. These findings are coarse, based on a national questionnaire survey, and raise a number of questions, but they importantly point toward local situations as people's main reference point for concerns about inequality.

Residents of these communities are clearly and often invidiously aware of economic disparities tourism has brought. In both Meili and Pudacuo, residents most frequently raised concerns not about inequality among rural residents but about not getting a fair deal relative to park authorities. Still, now and again people in Sinong, Ninong, and other communities voiced, with a note of bitterness, concern about how the benefits that Yubeng residents received did not come their way. At the same time, disparities that follow from variation in tourism engagement give rise to markets in labor and goods to serve tourism, spreading benefits beyond tourism centers. These markets depend on the surplus generated at tourism sites.

Seeing people in their own and other communities get rich, residents invest in shops and guesthouses. The burgeoning of guesthouses in Yubeng during the past five years, with new walls and pillars jutting out of the valley each summer, shows the motivational power of inequality. Likewise, by 2011, three Xidang households and two in Sinong had built guesthouses. However, these guesthouses receive few visitors and have not so far paid off their owners' investments. Construction employs carpenters and manual laborers, and broader guesthouse

ownership might spread benefits more evenly. But construction draws timber from forests, and for all guesthouses to achieve full occupancy would require a greater flow of tourists than mule-ride rotations can accommodate.

Efforts to contain inequality through mule-ride rotations and Yubeng's redistribution scheme show that enough residents are concerned about the distribution of tourism's benefits to push for community institutions to respond. Yubeng residents have tried to mitigate inequalities guesthouse-based tourism brings, but they have had only limited success. As a whole, the community has resisted the involvement of entrepreneurs from outside Yubeng in running guesthouses, though in 2010 two households were skirting this rule, partnering with non-locals to run their guesthouses. Importantly, since the collapse of the initial effort to rotate guesthouse services, there have been no efforts to eliminate entrepreneurship in guesthouse operation.

Tourism Organization and Social Capital

These complications in Yubeng show some of the strains tourism development can bring to social relationships in communities. Social scientists tend to focus on the immaterial aspects of social capital. But it is important because of its material impacts—not just distribution of income, but the ways people use sharing, lending, and labor exchange to obviate cash exchanges. A profusion of case studies have shown how tourism development can erode customs and social relationships in communities (e.g. Jones 2005). This is not always the case; researchers have also observed tourism to empower people to revalue traditions and rebuild community assets (Jóhannesson et al. 2003) and explored more complicated levels of cultural interaction (MacCannell 1989, Oakes 1998). While we do not plumb the complexity of residents' cultural responses to tourism—an area in which Hillman (2003) and Kolas (2008) have made substantial contributions regarding northwest Yunnan—we note an important contrast between Yubeng

and other communities in forms of collective action and cooperation. Tourism affects social capital in different ways, and it appears that breadth of participation and intensity of labor demands both play roles.

Our survey data on labor exchange confirmed my impressions from observations and interviews that residents in Yubeng are less likely to help one another out with farm work and house building than in other communities. The proximate cause of diminished cooperation appears to be the labor demand of tourism: households cannot spare labor that they formerly used to help one another out. Competition to build guesthouses intensifies this pattern, adding more work, with a pace of construction that far outstrips what Yubeng residents could do without outside help. This situation contrasts with Zhang's (2006) in-depth description of life in Yubeng before tourism took off, which centers on household labor expenditure on crop cultivation, livestock husbandry, and NTFP harvesting.

Social ties crisscross the region. Most marriages take place across communities within the same township, and the remainder are within the county. When I prepared to visit another community, people in the place I was leaving would say, "Be sure to give my regards to my cousin so-and-so." People know each other well, and envy over other communities' opportunities does not usually lead to hostility. If people express grievances, it is usually about the slowness of the county government in facilitating tourism development in their communities. Within communities, residents share labor, working together both to get things done and to make the work less onerous.

Conclusion

This study confirms claims that not all community-based tourism is equal. It goes further than previous studies in attending to different forms of tourism organization as explanatory factors, examining varied resource use and distributive outcomes, and attending to cross-scale dynamics.

In attending to both resource use behaviors and income levels and distribution, this chapter responds to calls for efforts to devise ways to examine multiple outcomes simultaneously in human-environment studies (Agrawal & Chhatre 2011). Doing so, it raises complicated issues. For example, much of the income Yubeng residents get from community-organized tourism comes from guesthouses. Running a guesthouse draws labor away from harvesting NTFPs—but also raises inequality. Tracing these different causal pathways is difficult, and the findings may be messy, but they draw attention to patterns that make a difference in how tourism affects resource use behavior and patterns of inequality.

Tourism's effects on resource use and economic inequality are complicated, varying with the way tourism is organized, labor demands, and availability of other income sources. At the community level, tourism income has an inverse relationship with overall income from primary production and other non-farm income sources. While tourism boosters highlight the income that tourism has brought to communities, in communities without tourism operations, households obtain comparable income from other activities. Communities in the arid river valley have gotten substantial income from grape cultivation, as residents have vigorously adopted this cash crop. Households in Zhila, with poor conditions for grape cultivation, put intensive effort into NTFP marketing, as well as salary and wage labor outside the community. Compared with the other communities in Meili Snow Mountain National Park, Yubeng and Xidang had lower rates of cattle and yak ownership but divergent patterns of NTFP harvesting.

When we compare communities with different kinds of tourism operations, we find important differences. The extent to which tourism substitutes for or complements resource use activities at the community level depends on how tourism activities demand labor and farm products, not the sheer volume of tourism revenue. While the two communities with resident-operated operations show lower rates of NTFP participation and grazing that follow from the labor and fodder demands of mule pulling, every household in Lawzong gathers mushrooms, and they also have higher rates of cattle and yak ownership and upslope grazing. The intensity of labor demand from tourism in Yubeng has drawn Yubeng residents away from NTFPs at a higher rate than in Xidang, while less labor-intensive livestock husbandry persists.

These differences are even more pronounced with regard to inequality, with important implications. Community-based tourism does not *ipso facto* yield lower inequality within communities. On the contrary, the lowest level of intra-village inequality was in Lawzong, where residents work for the national park. How participation is organized is the key. In both Lawzong and Xidang, in which tourism institutions spread participation evenly across households, tourism promotes income equality. Levels of inequality are lower than in Yubeng, as well as in Sinong and Zhila. In the latter three, income depends more on household assets than on collective institutions. Entrepreneurial guesthouse operations magnify the economic returns to household assets, aggravating inequality in Yubeng.

Different models of tourism bring different patterns of income distribution and resource use. At the same time, coexisting in a geographic area, these different models also contribute to complicated regional patterns of development and inequality. Tourism can enrich communities with natural amenities while neighboring communities look on. These disparities create job opportunities for people in poorer communities. At the same time, tourism is not the sole

development path across the region, and other strategies, like cash crops in the case of Sinong, can provide comparable levels of income. It is often unfeasible to make every community around a protected area into a tourism attraction, so a multipronged development strategy like that apparently adopted in Diqing Prefecture can moderate some of the inter-locality inequalities tourism generates.

Implications for Research on Tourism and Livelihoods

These findings suggest an important qualification of common prescriptions around tourism, conservation, and community development. In line with neo-institutionalist research on community-based conservation (Ostrom 1990), this study shows that how activities are organized is as important to inequality and resource use outcomes as who is in charge. Community-based organization of tourism is neither necessary nor sufficient for egalitarian participation. To accurately ascertain a tourism operation's effects on resource use or inequality, one must attend to the specific rules that govern it, particularly those determining how chances to participate are allocated among residents. Institutional designs that actively equalize participation equalize benefits, and communities may or may not actively choose such arrangements. Understanding impacts on resource use requires further steps of understanding labor demands across tourism activities and how they intersect with different kinds of resource use activities, which may not be affected in the same ways. The independent value of autonomy is important, but communities may find that devising institutions that equalize tourism participation may help them avoid pronounced inequality and attendant conflicts.

Second, these findings show the need for nuance in studying tourism's impacts on resource use. Scholarship on tourism as well as other alternative livelihoods has increasingly recognized that augmented income is unlikely in itself to bring about effective conservation, and in some cases it

can have the perverse effect of aggravating demand for natural resources. This study confirms the variability of tourism's impacts, showing different mechanisms, like demand for labor and for crop inputs, through which tourism these impacts may take place. People proposing to achieve conservation goals by implementing tourism may want to carefully examine how tourism activities are likely to affect other activities through such mechanisms. Moreover, whether and how reduction of resource use activities is likely to promote conservation goals is a complicated question that itself deserves attention. Given the inconclusive evidence on the impact of NTFP gathering on forests (Winkler 2008), for example, it might be worthwhile to consider whether an objective of reducing NTFP gathering furthers conservation.

Third, in understanding these processes, it is helpful to look across scales, examining how household livelihood patterns differ across locales. In comparing different communities' livelihood activities, if one looks only at household-level labor endowments and decisions, one may miss important community-level patterns that shape how households with similar asset endowments make choices. This problem cannot be fully resolved by using statistical controls for community units; it requires attention to livelihood patterns, institutions, and lived experience within different communities. At a regional level, it is important to understand other opportunities and trends that exist alongside tourism. In northwest Yunnan, opportunities for cash crop cultivation and for outside work have been growing alongside tourism. Along with spillovers of labor and farm product demand from tourism, these activities can diminish the regional disparities that, due to the uneven spatial distribution of scenic amenities and infrastructure investment, tourism can generate.

Chapter 8: Conclusion

The preceding pages document how shifting state practices around environmental protection and tourism development have shaped Diqing's national parks as well as other protected areas in southwest China. In the process I have illustrated how meso state corporatist administrations have consolidated their roles in protected area administration and tourism management while agencies tasked with environmental regulation contend over the nature and supervision of the national park model. Given the complicated politics and livelihood responses in communities within these parks, the advance of concentrated tourism in China's protected areas raises some important questions about conservation management and the roles of rural residents.

The expansion and contraction of TNC's efforts around national parks in Yunnan illustrate some the changing constraints and opportunities facing international organizations that promote biodiversity conservation in China. While TNC's strategies reflect its organizational particularities, the situations it faced and the responses its efforts aroused are indicative of conditions NGOs face more broadly. First, conservation organizations face an increasing challenge in making offerings that justify their activities to state counterparts. Through the early 2000s, efforts at protected area conservation in China were characterized by weakness of domestic research capacity, intentions to obtain policy and technical information regarding conservation, and policies encouraging local governments to attract international sources of funding to support protected area management. What international conservation organizations offered corresponded precisely to these concerns assistance in basic research, information and training in conservation management, and funding for conservation and community development projects. As the early years of TNC's engagement in Yunnan show, these offerings fit well with local and provincial government agendas. Over time, though, domestic research

capacity, technical knowledge, and funding capacity have all made tremendous advances. Spokespersons often speak of these developments as wins for organizations whose highest success would be in rendering themselves obsolete, but international conservation organizations continue to maneuver to stay in the game. As organizations concerned with self-perpetuation, they seek ways to remain prominently engaged in conservation efforts in China. The spread of centralized tourism across scenic attractions has stunted many efforts to promote forms of "ecotourism" based on small-scale, low-impact development that enhances the agency of rural residents. The Nature Conservancy has refocused its efforts on broader planning processes around watersheds and China's protected area system. It has also fostered connections with donors affiliated with Chinese private businesses, helping to set up what has been presented as China's first private protected area in Pingwu County, near Wanglang. Conservation International has maintained a role working with the domestic organization Shanshui, headed by scholars based in Beijing. As domestic capacity around conservation in China grows, international conservation organizations may become increasingly peripheral.

The consolidation of meso state corporatist tourism operations has revolutionized tourism attractions across southwest China, with complicated implications for people living around them. High-volume tourism attractions have brought local governments large flows of revenues and high rates of growth, propelling the personal advancement of local government leaders. (For example, in 2010, Qizhala, the party secretary and former prefecture chief of Diqing Prefecture, was promoted to the party committee of the Tibetan Autonomous Region. The economic success of tourism in Diqing, as well as the prefecture's quietude in 2008 when other Tibetan-populated areas experienced unrest, both likely played roles in this move.) Governments have used revenues from these attractions to rebuild central towns as well as to invest in

infrastructure that can benefit rural communities far from the attractions where revenues are generated. In this sense these attractions have the potential to contribute to improvements in the situations of residents across entire jurisdictions. At the same time, in the immediate vicinity of protected areas, complications may arise as residents are increasingly incorporated into corporate hierarchies and find their activities subjected to the dictates of tourism marketing.

The extent to which similar consolidation has occurred around other rural-based industries like mining, hydropower, and agribusiness, would be a useful avenue of inquiry. It appears that in the case of agricultural products, local governments more commonly act as facilitators for private agribusiness firms than direct owners (Zhang and Donaldson 2010). Recent efforts by the central government to clamp down on local government debt may check the spread of meso state corporatist forms of organization, though it is likely that the high-volume, state-affiliated tourism operations they have fostered are there to stay.

Efforts to couple tourism with professionalized conservation management have met with limited success. Local governments, which have the greatest leverage over the administration of both tourism and conservation in particular protected areas, face intense pressures to build model tourism attractions and generate revenue from tourism, while conservation mandates bring less urgency. As a result, meso state corporatist administrations tend to foster protected area institutions that prioritize façade management. These operations are not inimical to biodiversity conservation; where higher-level policy mandates bring resources for active conservation management, strong conservation management may accompany high-volume tourism. But local governments seldom actively pursue these measures themselves.

Higher-level support for conservation measures appears to be growing as central statements on sustainability combine with the competitive dynamics of pluralizing fragmented authoritarianism to motivate strand agencies to build resources for conservation. In particular, technical interventions are proliferating. Protected areas are increasingly installing infrared camera-traps and undertaking other technical efforts to document the status of conservation targets. These monitoring efforts themselves are unlikely to come into friction with high-volume tourism operations. However, should they uncover concerns that lead conservation managers to request changes or limitations on tourism attractions, problems could surface. In addition, central agencies and domestic research institutes have launched a collection of biodiversity assays spanning the country, while conservation-related agencies in several provinces have issued plans (see, e.g., Sichuan Environmental Protection Bureau and Sichuan Forestry Department 2011).

This is not to say that the implementation of such plans is likely to proceed without obstacle. Efforts to issue legislation that codifies a form of conservation that moves beyond charismatic species and reflects the realities of human habitation around protected areas have long stalled. However, recently, a group of conservation scientists and other concerned persons, led by a researcher at the Institute of Zoology within the Chinese Academy of Sciences has drafted an alternative to a proposed Natural Heritage Protection Law. Claiming that the draft Natural Heritage Protection Law defines conservation too narrowly, in terms of heritage and a particular subset of protected areas rather than ecological structure and processes, they have presented an alternative law on protected areas. This effort has delayed the passage of the Natural Heritage Law (Zhang 2012). Whether the alternative law will pass or how the concerns it represents might be incorporated into other legislation remains to be seen.

Statements of residents of Meili Snow Mountain National Park and Pudacuo National Park show the ambiguity of residents' situations in these contexts. While advocates for resident participation in conservation institutions claim that lack of meaningful participation in decision-making can undermine the legitimacy of protected area authorities and lead to unrest, in these cases residents have shown an aptitude to cope. Protest is less likely than accommodation alongside efforts to negotiate better deals with park authorities.

The trend of incorporating residents into concentrated tourism operations is likely to continue. On one hand, participation in tourism operations as employees or concessionaires, along with access to other income-earning opportunities and the extension healthcare, welfare, and other social services to rural residents under the New Socialist Countryside program, continue to improve material standards of living. On the other hand, the space for self-directed activity for rural residents around protected areas continues to contract. While the aforementioned conservation plans suggest substantial changes in conservation management, they do not contain provisions for cultivating the agency of residents. Where they emphasize resident participation, it is in a top-down manner, primarily concerning education and outreach, not incorporation into decision-making or provision with resources to engage in self-directed development. This is unfortunate, given that the burgeoning resources available to local governments do raise the possibility of investing in assisting residents in cultivating their own capacities. While managing and regulating residents providing tourism services on a household or community basis is more complicating than incorporating them as employees of a tourism operation, and it would require efforts to work out institutions that would serve large tourist bases, such an approach might diminish other forms of resistance park authorities face. Such a micro-oriented approach has had documented success in providing broadly spread benefits in

Guizhou and elsewhere (Donaldson 2011), and its core elements are still present in places like Meili Snow Mountain National Park and Tiger Leaping Gorge. It could appeal to growing numbers of independent tourists seeking authentic experiences of local culture. It would be especially consistent with the dictum to "take regular people as the fundamental starting point" (*yirenweiben*) at the center of public policy discourse in China.

These points are resonant in light of changing trends in China's tourism market. The centralization of tourism operations has been accompanied by dramatically rising prices, raising media outcries (Lao 2012) and limiting access to China's tourism sites. While package tours continue to predominate, and their demise is not on the horizon, governments and entrepreneurs at tourism destinations are scrambling to diversify the tourism products they offer as tourists' expectations change. In particular, independent motor tourists and backpackers make up a growing proportion of tourists in China, bringing demand for attractions with more open formats. Perceptive leaders intent on fostering tourism may find a boon in creative approaches to community-centered nature tourism. That said, the material incentives and discursive forces propelling mimetic reduplication of high-volume, concentrated tourism attractions sharply limit the room for alternatives except on the margins.

By portraying the emergence of Yunnan's national parks within the dynamics of pluralizing fragmented authoritarianism and meso state corporatism, I have identified key ways the complexity and disunity of the environmental state shape biodiversity conservation and tourism development in a growing number of locales in China. Contention among strand agencies can motivate some strands to promote new approaches to conservation, but it can also lead other agencies to block efforts that impinge on their jurisdictions. The consolidation of resources in meso-level block units, whose leaders face strong revenue imperatives, has promoted aggressive

tourism expansion in protected areas, but not always accompanying conservation measures. People who want to promote conservation will have to find ways to present it that appeal to the inclinations and interests of agencies with leverage over the policies or protected areas they target, or use creative framing to bring in actors that might exercise leverage (cf. Mertha 2009).

These observations suggest several key points for further developing theories of the environmental state. An aggregated approach to states has utility in some circumstances, but for understanding many environmental policies it is manifestly inadequate. Contention among state units linked to different social constituencies plays a major role in environmental policy in China and elsewhere. Additionally, transnational bureaucratic networks have major roles in policy with some degree of independence from central decision-making, and their connections with epistemic communities and other extra-state groups are highly consequential (Slaughter 2004). Likewise, the "environmental" half of the term must also be disaggregated. Different environmental issues concern different policy realms. Protected area policy draws us particularly into the realm of land use management, which involves different agencies, policy tools, economic sectors, and social interests than a study of industrial pollution regulation, local health hazards, or greenhouse gas emissions might address. In a given context and time frame, state agents approach these issues in different ways, pressing hard in some environmental arenas while stalling in others. Given these complexities, modular, middle-range theory is likely to provide stronger insights than broad theories of "the state," "the economy," and "the environment."

There is, then, a great deal of room for further research in these directions, both in China and more generally. Two particular axes of comparison present themselves. One is comparison of state behavior in different national, regional, or temporal contexts on a given environmental

issue. Less common are examinations of how a given state addresses different kinds of environmental issues, and how these efforts relate to the different attributes of these issues and the social groups concerned with them. In China, for example, a good deal may be learned about how the state approaches "environmental" concerns by comparing protected area conservation practices with the implementation of afforestation projects primarily aimed at curbing soil erosion, rather than lumping them together as conservation issues—or, further, comparing these with initiatives around efficiency, industrial pollution, or energy production. A collection of such studies could generate characterizations of how different state structures and patterns of state-society connections on one hand, and social engagement with environmental issues on the other, affect the mobilization of state resources for environmental protection, not to mention the forms of civil society engagement involved. Such efforts could help to specify general formulations like Rudel's (2013) discussion of the "sustainable development state."

Some Final Considerations

As I prepared to leave Yunnan in 2010, I had dinner in Kunming with Lin, a scholar who worked on the planning team for one of Yunnan's national parks. Over a spread of Yunnan specialties—translucent noodles in a spicy soup, juicy eggplant, rice crepes with a mushroom filling, spicy chicken soup over wheat noodles—we discussed what's going on in northwest Yunnan, and he told me about the demands he faces when drafting a park management plan. As we wrapped up, he drew up straight and took on a solemn expression.

"Finally, there are two things I want to say to you. First, you must be objective. You must try to have sufficient data and to be honest to that data. Second you must recognize that China is in a

transitional period. Making criticisms that don't take into account the difficulties of being in a transitional period, the constraints on what people can realistically do, is of no use."

Two months earlier, leaving Meili Snow Mountain National Park, I had called up Lobsang, asking him to give me a ride in his minivan. As we cruised up the switchbacks under summit, cloud, and sky, he gave me another charge: "You must do something that's useful for us regular folks (*laobaixing*). What's important is that we get income. Talk with the government. When we go to talk with them, they don't respond. I've gone again and again. An expert like you, they'll listen to. A thousand words from me aren't worth one from you."

These two weighty and in some ways opposing instructions weave a few strands of the web of relationships this research brought me into. Lin's enjoinder called me to a standard of objectivity tied to a particular picture of how things are and should be in China, one that treats the actions and priorities of the powers that be as necessary and inevitable, or at least the best that authorities can do given the circumstances. Lobsang, on the other hand, urged me to advocate in the economic interest of residents in his community. I do think he overestimated my leverage with government officials, and I attribute that estimation to his past experience of white foreigners affiliated with TNC, UNESCO, and other organizations that might have been in positions to influence rural authorities. In a dissertation that a handful of people may read, and publications that my reach a few more, I have scant illusion that I will either advance the cause of tourism centralization or revitalize rural communities across China. Nonetheless, there are good arguments for writing this dissertation in a way that advocates for residents who as a group are disempowered, and my inclination to do so comes through in the preceding text. I have tried to write this study in a way that gives expression to the complicated situations all the people involved, including people in positions of power, confront, in an effort to respond to Lin's

instruction, if not with objectivity or ideological submission, at least with even-handed and thorough attention to the data and its context.

As a foreigner researching social issues in China, I have had to tread fine lines, and I have not always done so skillfully. I have experienced lapses of perception and discovered the limits of my cultural aptitude in varied cultural contexts, from collaborating with junior researchers to learning about social life in rural communities to interviewing powerful officials. I know that people in different positions have met me guardedly and have histories that are more or less opaque to me. That is a challenge of any interview-based research, and I have responded by doing my best to ascertain and present contexts of people's statements by reflecting on what they and others have said, and through simply asking people about things I do not understand. What I present is shaped by my interpretation and my comprehension, which show these limitations but also, I hope, reflect the effort and attention I have brought to the task.

Beyond my personal limitations, the design and conduct of this study have enabled me to shed more light on some things than others. Overall, the multi-sited approach has the advantage of drawing connections across different aspects of the national park phenomenon, but the liability of losing the depth that concentrating my efforts on ethnographic study within the parks might have brought. By speaking with Tibetan respondents in Mandarin, a second language for all of us, rather than learning more than a few phrases of Tibetan dialects (which vary between the two parks) I further limited the depth and nuance of my understanding of their thoughts and concerns, in particular regarding residents' use of and feelings about nonhuman components of the landscape. At the same time, spreading my efforts across different communities limited the depth of my presentation of any one of them. Nonetheless, I believe that the relationships I uncovered through comparison, concerning relationships with park authorities in Chapter 6 and

concerning resource use and social relationships in Chapter 7, justify these choices. I also believe that the account of protected area transformations all these chapters make up is more illuminating than a narrower focus on any one component might have been. I have made clear that the findings from any component of this analysis are not fully transportable to other contexts in China or beyond. Yet I have stated clearly what aspects appear to be part of larger patterns, connecting them to cases beyond Yunnan, as in the discussion of conservation management practices, or suggesting things to look for in examining relationships between tourism and livelihood activities.

Given current trends, it is likely that in southwestern China building professionalized conservation, which implies professionalizing bureaucracy, has stronger prospects than building resident participation and autonomy, which requires investing in capacity-building and granting residents space to pursue opportunities. On either of these fronts, though, the story is not over. In Yunnan, TNC has made a notable contribution in bringing ideas about active conservation management and community involvement into policy discussions and institution building. A variety of possible events might propel these efforts forward—funding from above conditioned on implementing professionalized conservation, change in national or provincial legislation on protected areas, increased assertiveness on the part of national park administration bureaus and the NPAO, or perhaps even a change of heart or personnel in local governments (Zhou and Grumbine 2011)—but people who attempt to do so would have to address entrenched local state interests. Just what these wrangles among local and provincial, government and non-government, tourism and conservation agents will yield is hard to foresee.

Yunnan's national parks illustrate the struggles that efforts to realize sustainable development, whatever that might be, arouse, and the particular political contexts within China that shape

these struggles and what emerges from them. While they bring substantial economic benefits and may in time support stronger conservation management, they also illustrate the continuing erosion of agency within rural communities. I hope that this contribution helps to advance understanding of the forces shaping tourism development, biodiversity conservation, and rural livelihoods in these places and others.

Appendix 1: Interview Script, Protected Area Respondents

Protected Area Profile

Established as what, year elevated to current level:
Level of central funding, 2000-2010:

Level of provincial funding, 2000-2010:

Level of prefectural funding, 2000-2010:

Level of county funding, 2000-2010:

Breakdown of fund uses, 2010 (and an earlier year if possible):

Settlements affected:

Population affected:

Conservation Management Body

Title:
Year Established:
State supervising agency (if any):

Staff (numbers, by category):

Tasks:

Qualifications of staff members:

Annual expenditure, 2010:

Challenges:

Authority Relationship between Conservation and Tourism Bodies

Which has legal authority over the use of funds?

Which has effective authority over the use of funds?

Does conservation body have effective authority to determine conservation plans?

Can conservation body effectively veto tourism activities?

What entity adjudicates when conflicts arise between these two?

Conservation Targets:

Name of target 1:

Condition of target 1:

General goals for target 1:

Objectives for achieving goals:

Tasks related to target 1:

Notable traits of target 1, and implications:

Name of target 2:

Condition of target 2:

General goals for target 2:

Objectives for achieving goals:

Tasks related to target 2:

Notable traits of target 2, and implications:

Name of target 3:

Condition of target 3:

General goals for target 3:

Objectives for achieving goals:

Tasks related to target 3:

Notable traits of target 3, and implications:

Conservation and Monitoring Actions:

Description of patrolling activities:

Description of monitoring activities:

Species management activities:

Habitat management activities:

Threat analysis: things that could reduce the effectiveness of the PA:

What has increased PA effectiveness:

What has limited or reduced PA effectiveness:

Audits: who does them:

Audits: when they happen:

Audits: what they cover:

Audits: what happens if they identify problems:

Incentives: benefits to effective monitoring:

How are patrolling and monitoring related to management decisions:

Have any infractions been found recently?

How did you respond?

State support for conservation:

Funds, annually:

Change in funds over time:

Policy support:

What happens when conservation agency's goals clash with other agencies' plans?

Tourism Activities

Ticket Price:

Ticket revenue for most recent year available:

Other source of revenue:

Entity that operates it:

Revenue for most recent year available:

Visitors, recent year:

Annual tourism revenue, recent year:

Operator title:

Year Established:

Ownership (State, Private, Community, other):

State supervisor (if any):

Staff (numbers, by category):

Tasks:

Qualifications of staff members:

Challenges:

Revenue, 2010:

Breakdown of disposal of funds, 2010:

Second Site, if any:

Ticket Price:

Ticket revenue for most recent year available:

Other source of revenue:

Entity that operates it:

Revenue for most recent year available:

Visitors, recent year:

Annual tourism revenue, recent year:

Operator title:

Year Established:

Ownership (State, Private, Community, other):

State supervisor (if any):

Staff (numbers, by category):

Tasks:

Qualifications of staff members:

Challenges:

Revenue, 2010:

Breakdown of disposal of funds, 2010:

Roles of Residents

Tourism

Types of involvement in tourism:

Number of residents employed, by type of involvement:

Prerequisites/Requirements for Employment, by Type:

Range of income from tourism participation:

Forms of compensation:

Annual compensation to residents:

Evenness of compensation across residents:

Evenness of other income across residents:

Training or education support:

Conservation

Restrictions on resource use:

Resident patrolling or monitoring of resources:

Organizational Collaborations

Name of Organization 1:

Type of Organization:

Years of collaboration:

Name of project:

Goals:

Activities:

Results:

Impacts on PA management:

Other Comments:

Other collaboration, if any
Name of Organization 2:
Type of Organization:

Years of collaboration:

Name of project:

Goals:

Activities:

Results:

Impacts on PA management:

Other Comments:

Appendix 2: Questionnaire on Farming, Tourism, and Livelihood Choices

关于农业、旅游等生计选择的问卷

问卷号码 Questionnaire #: _____ 农户编码 Household ID: _____

采访日期 Interview Date: _____ 采访者 Interviewer: _____

地点编号 Location ID: _____ 采访号码 Interview #: _____

访问者提示 Notice to Interviewers

访谈前，访问者须先向被访者念出下述口头知情同意内容。访谈前须获得被访者清楚的口头同意，须使其清楚理解所有内容，自愿接受采访。然后，须给被访者提供研究人员的名片。之后，访谈方可进行。

Before conducting the interview, the interviewer must read the oral informed consent agenda below to the respondent. Wait for the respondent's clear oral confirmation, verifying that the respondent understands the entire contents and voluntarily agrees to undertake the interview. Then provide the respondent with the research team's contact information card. After this, you may begin to conduct the interview.

口头知情同意内容：

您好！我们是西南林业大学的老师（学生），我们在这里做一个关于旅游和农业关系的研究，想耽误您一点时间，询问您几个问题，您可以配合我们吗？

家庭成员组成 Household Composition

1-5. 请列出您的家庭成员，以及每个人在家庭中的角色、年龄、教育水平、及日常居住情况。
1-5. Could you list them by position in the family and tell me each person's age and education, and whether they currently reside here regularly?
明确指出问的是与被访者同居的农户成员。Indicate that you wish to know household members who live with the respondent.
列出所列的家庭成员，从被访者开始。 Starting with the respondent, list household members.

	1. 家庭角色 Family Position	2. 年龄 Age	3. 性别 Sex	4. 教育水平 Education	5. 居住情况 Residence Status
1	(被访者)				
2					
3					
4					
5					
6					
7					
8					
9					

I. 旅游相关的活动 Tourism-Related Activities

为下列的每一种活动，重复 6 到 11 题。Repeat Questions 6 through 11 for each activity listed.

2010 2009

6. 2010 年，你家有没有人在国家公园内工作【做捡垃圾的工作】？ 2009 年呢？

是 否 是 否

6. In 2010, did anyone in your household [work picking up trash for the national park?]

Yes/No Yes/No

如其中任何一年回答是，接着做 55 题。**如果两年都回答不是，**则跳到下一个活动。
IF EITHER IS YES, proceed to Question 55. **If BOTH ARE NO**, proceed to Next Activity.

7. 您每年通常在哪几个月份做（此项活动）？
7. Each year, during which months do you usually do [activity]?

8. 你通常每天要进行这项劳动多长时间？全天，半天，还是三小时以下？
8. Usually, how long each day do you spend doing it? All day, half the day, or less than three hours?

9. 在一般做该活动的时段内，您家中的哪位成员从事（做）该项活动最多？
9. During that time, which members of your household do [activity]?

为所列的每一个人，重复 10 题。Repeat Question 10 for each person listed, up to three.

10. 他们所做的活动占该项活动总（工作）量的比重如何？全部，大多数，一般，还是少量。
10. How much of the time [activity] is done are they present for? All of it, most of it, half, or just a little?

11. 2010 年，你家【捡垃圾 / 活动名】赚了多少钱？
11. In 2010, how much money did the household earn from [trash collecting / activity]?

关系到具体项目的问题：Activity-specific Questions

12. 开什么养的车？
12. What kind of car do they drive?

13.拉货？游客？其他？
13. Do they carry freight? Tourists? Something else?

14. 打工做什么？
14. What work do they do?

15. 打工做什么？
15. What work do they do?
II. 作物 Crops

提示：下列问题是关于被访者提到的每类作物，答案填在表格中。
Note:: Ask each following set of questions for each crop mentioned by respondent, and use the answers to fill in the tables.
提示：询问问题时需深入，以获得准确的信息
Note: Ask incisively until you get a specific enough answer

下一步，我将会问你一些有关农牧业生产的问题。每个问题，我先问 2010 年的情况，然后问 2009 年的情况。行吗？【等待回答，然后继续】
Next, I am going to ask you some questions about farming and husbandry. For each question, I will first ask about your situation in 2010, and then I will ask about your situation in 2009. Okay? [Wait for response, then proceed.]

16. 请你列出，2010 年，你家种了哪些作物？ 【列出】
16. Please list what crops your household planted in 2010.

为所列的每一种农作物，重复 17 到 20 题。
Repeat Questions 17 through 20 for each staple crop listed.

17. 2010 年，你家种了几亩【作物名】？ 【等待回答完了】2009 年呢？
17. In 2010 , how many *mu* of [crop] did your household plant? [Wait until finished responding] In 2009?

18. 2010 年【作物名】的收获多少斤？（要说清楚是市斤而不是公斤） 2009 年呢？
18. How many *jin* of [crop] did your household harvest in 2010? (Clarify that you are asking market *jin*, not kilograms.) [Wait until finished responding] In 2009?

19. 2010 年，有没有卖出【作物名】？ 2009 年呢？
19. Did you sell any [crop] in 2010? In 2009?

如其中任何一年回答是，接着做 20 题。**如果两年都回答不是，**则跳到下一个农作物。
IF EITHER IS YES, proceed to Question 20. **If BOTH ARE NO**, proceed to Next Crop.

20. 2010 年，【作物名】卖了一斤多少钱？ 2009 年呢？
20. At what price per *jin* did [crop] sell in 2010? In 2009?

21. 请估计一下你们卖【作物名】赚了多少钱。2010 年内？ 2009 年呢？
21. Please estimate how much money you earned from selling [crop]. In 2010? [Wait until finished responding] In 2009?

农作物 Crops										
	15. 作物名 Crop Name	17. 面积（亩）Area (*mu*)		17. 收获重量 Harvest Weight		19. 单价(/市斤) Unit Price (jin)		20. 钱额（人民币） Amount (RMB)		Notes
		2010	2009	2010	2009	2010	2009	2010	2009	
1										
2										
3										
4										
5										
6										
7										

III.. 经济树种 Cash Tree Crops

	2010	2009
22. 2010 年，你家种核桃、桃子等经济树种了吗？	是 否	是 否
22. In 2010, did you cultivate walnuts, peaches, or other tree crops?	Yes/No	Yes/No

如回答是，接着做 23 题。为所列的每一种经济树种，重复 24 到 28 题。
IF YES, proceed to Question 23. Repeat Questions 24 through 28 for each tree crop listed.

如回答不，则跳到 29 题。**IF NO,** skip to Question 29.

23. 请列出你家种的所有经济树种。
23. Please list the tree crops you cultivated.

24. 2010 年，你家有几棵【作物名】树可以收获？
24. In 2010, how many harvestable [crop] trees did your household have?

25. 2010 年【作物名】的收获多少斤？（要说清楚是市斤而不是公斤） 2009 年呢？
25 How many *jin* of [crop] did your household harvest in 2010? (Clarify that you are asking market *jin*, not kilograms.) In 2009?

26. 2010 年，有没有卖出【作物名】？ 2009 年呢？
26. Did you sell any [crop] in 2010? In 2009?

如其中任何一年回答是，接着做 27 题。**如果两年都回答不是，**则跳到下一个农作物。
IF EITHER IS YES, proceed to Question 27. **If BOTH ARE NO**, proceed to Next Crop.

27. 2010 年，【作物名】卖了一斤多少钱？ 2009 年呢？
27. At what price per *jin* did [crop] sell in 2010? In 2009?

28. 请估计你们 2010 年卖【作物名】赚了多少钱？ 2009 年呢？
28. Please estimate how much money you earned from selling [crop] in 2010. In 2009?

Cash Tree Crops 经济树种									
	23. 作物名 Crop Name	24. 树数 Number of Trees	25. 收获重量 Harvest Weight		27. 单价(/市斤) Unit Price (jin)		28. 金额（人民币） Amount (RMB)		Notes
			2010	2009	2010	2009	2010	2009	
1									
2									
3									
4									

IV. 农作物相关的劳动 Crop Work

为下列的每一种活动，重复 12 到 16 题。Repeat Questions 8 through 11 for each tree crop listed.

29. 您每年通常在哪几个月份做（此项活动）？
29. Each year, during which months do you usually do [activity]?

NOTE: 明确问清楚一年中做几次，例如，犁地、收获、栽种，问清楚他们是一年做一次还是做两次。Specify how many times a year. For example, for plowing, harvesting, and planting, ask if they only do it once a year or twice.

30. 你通常每天要进行这项劳动多长时间？全天，半天，还是三小时以下？
30. Usually, how long each day do you spend doing it? All day, half the day, or less than three hours?

31. 在一般该活动的时段内，您家中的哪位成员从事（做）该项农活最多？
31. During that time, which members of your household do [activity]?

为所列的每一个人，重复 16 题。**Repeat Question 16 for each person listed.**

32. **他们所做的农活占该项农活总（工作）量的比重如何？全部，大多数，一般，还是少量。**
32. How much of the time [activity] is done are they present for? All of it, most of it, half, or just a little?

各种农作物上的劳动力支出 Labor Expenditure on Each Crop											
	活动 Activity	29. 时段：Time Period	30. 每天多长时间：Time per day	31, 32. Person 1		31, 32. Person 2		31, 32. Person 3		Notes
		2010	2010	2010	2009	2010	2009	2010	2009	
a	犁地 Plowing		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	
b	播种 Planting		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	
c	施肥，打农药 Applying Fertilizer, Pesticide		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	
d	除草 Weeding		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	
e	农作物收割 Harvesting Crops		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	
f	果树收割 Harvesting Trees		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	

V. 牲畜 Livestock

33. 你家养殖了哪些牲畜？
33. What livestock does your household raise?

为所列的每一种经济树种，重复 34 到 37 题。
Repeat Questions 34 through 37 for each livestock type listed.

34. 请列出你家 2010 年养了各种牲畜拥有多少只。 2009 年呢？
34. Please list how many of each kind of livestock your household raised in 2010. In 2009?

35. 2010 年，你家卖【家畜名】吗？ 是 否
35. Did you sell any [livestock type] in 2010? Yes No

如回答是：接着做 36 题。 **如回答不，**则跳到下一页。
IF YES, proceed to Question 36. **IF NO,** skip to the next page.

36. 2010 年卖了几头/只？ 2009 年呢？
36. How many did you sell? In 2009?

37. 2010 年卖一头/只多少钱？ 2009 年呢？
37. In 2010, how much money did one [livestock type] sell for? In 2009?

Livestock 家畜								
	33. 牲畜种 Type	34. 数额 Number		36. 卖出多少 Number Sold		37. 单价（头、只） Price (per animal)		备注 Notes
		2010	2009	2010	2009	2010	2009	
1								
2								
3								
4								
5								

如果回答**有牛、牦牛**，接着问 38 题。
If they respond that they have cattle or yaks, proceed to Question 38.

如果回答**没有牛、牦牛，**则跳到 31 题。
If they respond that they DO NOT have cattle or yaks, skip Question 31.

2010 2009

38. 2010 年，酥油，做出了多少饼？ 2009 年呢？ _____ _____
38. In 2010, how many cakes of butter did you make? In 2009?

39. 2010 年，酥油，卖了多少饼？ 2009 年呢？ _____ _____

39. In 2010, how many cakes of butter did you sell? In 2009?

如果回答**有羊**，接着问 40 题。 如果回答**没有羊**，则跳到 44 题。
If they respond that they have sheep or goats, proceed to Question 40.
If they respond that they DO NOT have sheep or goats, skip to Question 44.

		2010		2009	
40. 2010 年，你家有没有剪羊毛？	2009 年呢？	是	否	是	否
40. In 2010, did your household shear wool?					

如回答是：接着做 41 题。 **如回答不，**则跳到下一页。
IF YES, Proceed to Question 41. **If NO**, skip to the next page.

		2010	2009
41. 2010 年，剪了多少斤？	2009 年呢？	_____	_____
41. How many *jin* did you shear in 2010?	In 2009?		
42. 2010 年，卖了了多少斤？	2009 年呢？	_____	_____
42. How many *jin* did you sell?	In 2009?		
43. 2010 年，卖羊毛，一斤卖了多少钱？2009 年呢？		_____	_____
43. How much money did one *jin* of wool sell for in 2010?	In 2009?		

VI. 牲口相关的劳动 Livestock Work

为下列的每一种活动，重复 12 到 16 题。Repeat Questions 8 through 11 for each tree crop listed.

44. 您每年通常在哪几个月份做（此项活动）？
44. Each year, during which months do you usually do [activity]?

45. 你通常每天要进行这项劳动多长时间？全天，半天，还是三小时以下？
45. During the main time you do [activity], how long each day do you spend doing it? All day, half the day, or less than three hours?

46. 在一般该活动的时段内，您家中的哪位成员从事（做）该项农活最多？
46. During that time, which members of your household do [activity]?

为所列的每一个人，重复 47 题。**Repeat Question 47 for each person listed.**

47. 他们所做的农活占该项农活总（工作）量的比重如何？全部，大多数，一般，还是少量。
47. How much of the time [activity] is done are they present for? All of it, most of it, half, or just a little?

牲口上的劳动力支出 Labor Expenditure on Livestock											
	活动 Activity	44.时段 Time Period	45. 每天多长时间：time per day	46, 47. Person 1		46, 47. Person 2		46, 47. Person 3		Notes	
		2010	2010	2010	2009	2010	2009	2010	2009		
a	喂牛、准备牛草 Feeding Cattle, Preparing Feed		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		
b	挤奶 Milking		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		
c	放牧（没住上山） Pasturing (not up mountain)		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		
d	放牧（住在上山） Pasturing (Living on mountain)		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		
e	打猪草、喂猪 Preparing Pig Feed, Feeding Pigs		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		
f	放羊 Pasturing Goats		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		
g	剪羊毛 Shearing Wool		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔		

VII. 林下产品 Non-Timber Forest Products

为所列的每一种林下产品，重复 37 到 44 题。
Repeat Questions 48 through 50 for each non-timber forest product listed.

2010 2009

48. 2010 年，你家里有没有人上山采【产品名】？ 2009 年呢？ 是 否 是 否
48. In 2010, did anyone in your house gather [product]? In 2009? Yes/No Yes/No

如其中任何一年回答是，接着做 49 题。**如果两年都回答不是，**则跳到下一个产品。
IF EITHER IS YES, proceed to Question 49. **If BOTH ARE NO**, proceed to next product.

49. 2010 年，卖【产品种】，一斤卖了多少钱？ 2009 年呢？
49. In 2010, how many *jin* of [product] did your household sell? In 2009?

50. 2010 年，你家卖【产品种】赚了多少钱？ 2009 年呢？
50. In 2010, how much money did your household make selling [product]? In 2009?

Full/Meili

Non-Timber Forest Products 林下产品

	48.产品种 Product Type	49. 单价(/市斤) Unit Price (jin)		50. 金额（人民币） Amount (RMB)		Notes
		2010	2009	2010	2009	
a	松茸 matsutake					
b	其它菌子 other mushrooms					
c	虫草 caterpillar fungus					
d	贝母 Fritillaria					
e	其他药材 other medicinals					
f	柴火 fuelwood					

Pudacuo

Non-Timber Forest Products 林下产品

	48.产品种 Product Type	49. 单价(/市斤) Unit Price (jin)		50. 金额（人民币） Amount (RMB)		Notes
		2010	2009	2010	2009	
a	松茸 matsutake					
b	其它菌子 other mushrooms					
d	贝母 Fritillaria					
e	其他药材 other medicinals					
f	柴火 fuelwood					

VIII. 林下产品相关的劳动 Non-Timber Forest Product Work

为下列的每一种活动，重复 51 到 54 题。Repeat Questions 51 through 54 for each product listed.

51. 您每年通常在哪几个月份做（此项活动）？
51. Each year, during which months do you usually do [activity]?

52. 你通常每天要进行这项劳动多长时间？全天，半天，还是三小时以下？
52. During the main time you do [activity], how long each day do you spend doing it? All day, half the day, or less than three hours?

53.在一般该活动的时段内，您家中的哪位成员从事（做）该项活动最多？
53. During that time, which members of your household do [activity]?

为所列的每一个人，重复 55 题。**Repeat Question 54 for each person listed.**

54. 他们所做的活动占该项活动总（工作）量的比重如何？全部，大多数，一般，还是少量。
54. How much of the time [activity] is done are they present for? All of it, most of it, half, or just a little?

临夏产品上的劳动力支出 Labor Expenditure on NTFPs												
	活动 Activity	51.时段 Period of Time	52.时间：time per day	53, 54. Person 1		53, 54. Person 2		53, 54. Person 3		Notes		
				2010	2009	2010	2009	2010	2009			
a	采菌子 Gathering Mushrooms		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔			
b	采药材 Gathering Medicinal Products		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔			
c	找柴火 Gathering Fuelwood		全天 半天 三小时以下	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔	全部 大部分 一半 偶尔			

IX. 请来劳动力 Hired Labor

	2010	2009
55. 2010 年，你家有没有请人帮着干农活？ 2009 年呢？	是 否	是 否
55. In 2010 , did your household hire anyone to help with farmwork?	Yes	No

如其中任何一年回答是，接着做 56 题。**如果两年都回答不是，**则跳到 61 题。
IF EITHER IS YES, proceed to Question 56. **If BOTH ARE NO**, skip to Question 61.

	2010	2009
56. 请了多少人？ 56. How many people did you hire?	_____	_____
57. 请这些人做了些什么工作？ 57. What did you hire them to do?	_____	_____
58. 请来的人每人干了多少天？ 58. How many days did each hired hand work?	_____	_____
59. 干一天活，一个人的工钱是多少？ 59. How much did you pay them per day?	_____	_____

60. 大部分请来的人来自什么地方？(**选一个**)　本村　邻村　县内其他村子　县外
60. Where do most of the people you hired come from? (Circle **one**)
-This village -Neighboring Villages
-other villages within the county
-Outside the county

X. 政府补偿金 Government Subsidies

	2010	2009
61. 2010 年，您家里是否收到过来自政府的[补贴对象]补贴？	是　否	是　否
61. In 2010, did your household receive any government subsidy for [subsidy target]?	Yes/No	Yes/No

如回答是，接着做 62 题。**如果两年都回答不是，**则跳到下一个补偿项目。
IF EITHER IS YES, proceed to Question 62. **If BOTH ARE NO**, proceed to the next subsidy target.

62. 你家为这种补偿项目获得了多少补偿金？
62. How much money did you get for [subsidy target]?

Pudacuo				
Subsidies 补偿金				
	补贴类型 Subsidy Type	62. 金额（人民币） Amount (RMB)		备注 Notes
		2010	2009	
a	粮食补助 Grain Subsidy			63. 补助面积多少亩？
b	退耕还林补助 Afforestation Subsidy			64. 退耕面积多少亩？
c	国家公园补偿 National Park Subsidy			
d	其他补偿 Other Subsidy			

Meilixueshan

Subsidies 补偿金				
	补贴类型 Subsidy Type	62. 金额（人民币） Amount (RMB)		备注 Notes
		2010	2009	
a	粮食补助 Grain Subsidy			63. 补助面积多少亩？
b	退耕还林补助 Afforestation Subsidy			64. 退耕面积多少亩？
d	其他补偿 Other Subsidy			

63. 访谈结束了。现在您可以问我们任何您想问的问题。您有没有关于此次访谈想问的问题？

63. We have reached the end of the interview. Now you have a chance to ask us any questions you would like. Do you have any questions about this interview or this research project?

把被访谈人提出的问题的主要内容以及你回答的内容记录下来。

Record the general content of the respondent's questions and how they were answered.

Bibliography

Aba Prefecture People's Government. 2006. "*Aba zhou renmin zhengfu guanyu jiaqiang jiuzhaigou huanglong jingqu menpiao shouru guanli de yijian*" (Opinions of the Aba Prefecture People's Government on Strengthening Ticket Revenue Management at Jiuzhaigou and Huanglong Attractions). Accessed July 31, 2012 (http://www.abazhou.gov.cn/dzgwzx/zfwj/aff/201012/t20101226_224420.html).

Acciaioli, Greg. 2008. "Strategy and Subjectivity in Co-management of the Lore Lindu National Park (Central Sulawesi, Indonesia)." Pp. 266–88 in *Biodiversity and human livelihoods in protected areas: case studies from the Malay Archipelago*, edited by Navjot S. Sodhi, Greg Acciaioli, Maribeth Erb, and Alan Khee-Jin Tan. Cambridge: Cambridge University Press.

Adams, William Mark. 2004. *Against Extinction*. London: Earthscan.

Agrawal, Arun. 2005. *Environmentality: Technologies of Government and the Making of Subjects*. Durham: Duke University Press.

Agrawal, Arun, and Ashwini Chhatre. 2011. "Against Mono-consequentialism: Multiple Outcomes and Their Drivers in Social–ecological Systems." *Global Environmental Change* 21(1):1–3.

Agrawal, Arun, and Clark C. Gibson. 1999. "Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation." *World Development* 27(4):629–49.

Agrawal, Arun, and Elinor Ostrom. 2001. "Collective Action, Property Rights, and Decentralization in Resource Use in India and Nepal." *Politics and Society* 29(4):485–514.

Albers, Heidi J., and Elisabeth Grinspoon. 1997. "A Comparison of the Enforcement of Access Restrictions Between Xishuangbanna Nature Reserve (China) and Khao Yai National Park (Thailand)." *Environmental Conservation* 24(4):351–62.

Almeyda, Angelica M., Eben N. Broadbent, Miriam S. Wyman, and William H. Durham. 2010. "Ecotourism Impacts in the Nicoya Peninsula, Costa Rica." *International Journal of Tourism Research* 12(6):803–19.

Amend, Anthony, Zhendong Fang, Cui Yi, and Will C. McClatchey. 2010. "Local Perceptions of Matsutake Mushroom Management, in NW Yunnan China." *Biological Conservation* 143(1):165–72.

Andelman, Sandy J., and William F. Fagan. 2000. "Umbrellas and Flagships: Efficient Conservation Surrogates or Expensive Mistakes?" *Proceedings of the National Academy of Sciences* 97(11):5954–59.

Andersson, Krister, and Arun Agrawal. 2011. "Inequalities, Institutions, and Forest Commons." *Global Environmental Change* 21(3):866–75.

Arnstein, Sherry R. 1969. "A Ladder Of Citizen Participation." *Journal of the American Institute of Planners* 35(4):216–24.

Arora, David. 2008. "The Houses That Matsutake Built." *Economic Botany* 62(3):278–90.

Baima Snow Mountain National Nature Reserve Editorial Committee. 2003. *Baimaxueshan guojiaji ziranbaohuqu (Baima Snow Mountain National Nature Reserve)*. Kunming: Yunnan Nationalities Press.

Baird, Ian G., and Philip Dearden. 2003. "Biodiversity Conservation and Resource Tenure Regimes: A Case Study from Northeast Cambodia." *Environmental Management* 32(5):541–660.

Balmford, Andrew et al. 2009. "A Global Perspective on Trends in Nature-Based Tourism." *PLoS Biology* 7(6):e1000144.

Bao Jigang, and Sun Jiuxia. 2008. "*Yubeng cun shequ lüyou: Shequ canyu fangshi jiqi zengquan yiyi*" (Community Participation in Tourism of Yubeng Village: Means of Participation and Its Significance for Empowerment). *Tourism Forum* 1(1):58–65.

BCSD (Biodiversity Conservation & Sustainable Development in Shangri-la Gorge) Program Team. 2003. *Feasibility Study for the Establishment of Shangri-la Gorge Special Ecological Zone in NW Yunnan*. TNC China Program.

Beck, Ulrich, Anthony Giddens, and Scott Lash. 1994. *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*. Stanford: Stanford University Press.

Bertzky, Bastian et al. 2012. *Protected Planet Report 2012: Tracking Progress Towards Global Targets for Protected Areas*. Gland, Switzerland and Cambridge, UK: IUCN and UNEP-WCMC.

Biodiversity Conservation & Sustainable Development in Shangri-la Gorge Program Team. 2003. "Feasibility Study for the Establishment of Shangri-la Gorge Special Ecological Zone in NW Yunnan."

Blaikie, Piers M., and Joshua S. S. Muldavin. 2004. "Upstream, Downstream, China, India: The Politics of Environment in the Himalayan Region." *Annals of the Association of American Geographers* 94(3):520–48.

Block, Fred. 1987. *Revising State Theory Essays in Politics and Postindustrialism*. Philadelphia: Temple University Press..

Bonds, Eric, and Liam Downey. 2012. "'Green' Technology and Ecologically Unequal Exchange: The Environmental and Social Consequences of Ecological Modernization in the World-System." *Journal of World-Systems Research* 18(2):167–86.

Boufford, David E., and Peter Paul van Dijk. 1999. "South-Central China." Pp. 339–51 in *Hotspots: Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions*, edited by Russell A

Mittermeier, Cristina Goettsch Mittermeier, Norman Myers, and Patricio Robles Gil. Mexico City: CEMEX.

Brandon, Katrina, Kent Hubbard Redford, and Steven E. Sanderson, eds. 1998. *Parks in Peril: People, Politics, and Protected Areas*. Washington, D.C: The Nature Conservancy.

Brandt, Jodi S. et al. 2012. "Using Landsat Imagery to Map Forest Change in Southwest China in Response to the National Logging Ban and Ecotourism Development." *Remote Sensing of Environment* 121:358–69.

Brandt, Jodi S., Michelle A. Haynes, Tobias Kuemmerle, Donald M. Waller, and Volker C. Radeloff. 2013. "Regime Shift on the Roof of the World: Alpine Meadows Converting to Shrublands in the Southern Himalayas." *Biological Conservation* 158:116–27.

Brockington, Dan. 2002. *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*. Bloomington: Indiana University Press.

Brockington, Dan, and Kai Schmidt-Soltau. 2004. "The Social and Environmental Impacts of Wilderness and Development." *Oryx* 38(02):140–42.

Brosius, J. Peter, Anna Lowenhaupt Tsing, and Charles Zerner. 2005. *Communities and Conservation: Histories and Politics of Community-based Natural Resource Management*. Rowman Altamira.

Buckley, Ralf, Carl Cater, Zhong Linsheng, and Tian Chen. 2008. "Shengtai Luyou: Cross-Cultural Comparison in Ecotourism." *Annals of Tourism Research* 35(4):945–68.

Butt, Bilal. 2012. "Commoditizing the Safari and Making Space for Conflict: Place, Identity and Parks in East Africa." *Political Geography* 31(2):104–13.

Buttel, Frederick H. 1998. "Some Observations on States, World Orders, and the Politics of Sustainability." *Organization & Environment* 11(3):261–86.

Buttel, Frederick H. 2000a. "Ecological Modernization as Social Theory." *Geoforum* 31(1):57–65.

Buttel, Frederick H. 2000b. "World Society, the Nation-State, and Environmental Protection: Comment on Frank, Hironaka, and Schofer." *American Sociological Review* 65:117–21.

Chan, Anita, Richard Madsen, and Jonathan Unger. 2009. *Chen Village: Revolution to Globalization*. 3rd ed. Berkeley: University of California Press.

Charmaz, Kathy. 2006. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. London: SAGE.

Chen Biao. 2009. "A Study on Rural Tourism Management Institution and Tourism Impacts on Rural Society and Culture—Based on a Survey in Yubeng Village Meili Snow-Mountain." Ph.D. Dissertation, Kunming, China: Yunnan University.

Chen, Xiaodong, Kenneth A. Frank, Thomas Dietz, and Jianguo Liu. 2012. "Weak Ties, Labor Migration, and Environmental Impacts Toward a Sociology of Sustainability." *Organization & Environment* 25(1):3–24.

Childs, Geoff, Melvyn C. Goldstein, and Puchung Wangdui. 2008. "An Entrepreneurial Transition? Development and Economic Mobility in Rural Tibet." *Himalaya* 30(1-2):51–62.

China National Committee for the Man and Biosphere Programme. 2009. "Summary of the Ten-Year Periodic Assessment of Jiuzhaigou World Biosphere Reserve." *Man and Biosphere Bulletin* 103(5):1–4.

Christoff, Peter. 1996. "Ecological Modernisation, Ecological Modernities." *Environmental Politics* 5(3):476–500.

Coggins, Chris. 2003. *The Tiger and the Pangolin: Nature, Culture, and Conservation in China*. Honolulu: University of Hawai'i Press.

Coggins, Christopher R., and Emily T. Yeh. Forthcoming. "The Production of Shangrila(s): Landscapes and Sovereignty in the Sino-Tibetan Borderlands." in *Mapping Shangrila: Nature, Personhood and Polity in the Sino-Tibetan Borderlands*, edited by Emily T. Yeh and Christopher R. Coggins. Seattle: University of Washington Press.

Colvin, J. G. 1996. "Indigenous Ecotourism: The Capirona Programme in Napo Province, Ecuador." 47:32–37.

Damania, Richard, and John Hatch. 2005. "Protecting Eden: Markets or Government?" *Ecological Economics* 53(3):339–51.

Deng Xiaoping. 2006. "Deng Xiaoping: Rang yi bufen ren xian fuqilai." (Deng Xiaoping: Let a few people get rich first). *News of the Communist Party of China*. Accessed June 10, 2013 (http://cpc.people.com.cn/GB/34136/2569304.html).

Diqing Prefecture Bureau of Finance. n.d. "*Bian mutou caizheng wei shengtai caizheng*" Local Finance: Changing from Log Finance to Eco-Finance." *Ministry of Finance of the People's Republic of China*. Accessed July 12, 2013 (http://czzz.mof.gov.cn/zhongguocaizhengzazhishe_daohanglanmu/zhongguocaizhengzazhishe_kanwudaodu/zhongguocaizhengzazhishe_zhongguocaizheng/2010nian/4665/43454/201112/t20111220_617593.html).

Diqing Prefecture Bureau of Statistics. 2004. "*Diqing zhou 2003 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2003 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201001/3043.html).

Diqing Prefecture Bureau of Statistics. 2005. "*Diqing zhou 2004 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2004 Economic and Social Development Statistical Report).

China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201001/3044.html).

Diqing Prefecture Bureau of Statistics. 2006. "*Diqing zhou 2005 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2005 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201001/3045.html).

Diqing Prefecture Bureau of Statistics. 2007. "*Diqing zhou 2006 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2006 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201001/3046.html).

Diqing Prefecture Bureau of Statistics. 2008. "*Diqing zhou 2007 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2007 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201001/3047.htm).

Diqing Prefecture Bureau of Statistics. 2009. "*Diqing zhou 2008 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2008 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201001/3048.html).

Diqing Prefecture Bureau of Statistics. 2010. "*Diqing zhou 2009 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2009 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed August 2, 2010 (http://www.tjcn.org/tjgb/201005/11513.html).

Diqing Prefecture Bureau of Statistics. 2011. "*Diqing zhou 2010 nian guomin jingji he shehui fazhan tongji gongbao*" (Diqing Prefecture 2010 Economic and Social Development Statistical Report). China Statistical Information Net. Accessed April 10, 2011 (http://www.ynf.gov.cn/canton_model17/newsview.aspx?id=1618376).

Diqing Prefecture Development and Reform Commission. 2008. "Peiyu zhuangda si da zhizhu chanye tuijin jingji jiegou tiaozheng" (Foster and strengthen the four pillar industries, advance structural adjustment of the economy). Accessed June 12, 2012 (http://dq.xxgk.yn.gov.cn/canton_model37/newsview.aspx?id=1521951).

Diqing Prefecture Government. 2006. "*Diqing zhou shiyi wu lüyou fazhan guihua gangyao*" (Summary of the Tourism Development Plan of Diqing Prefecture for the Eleventh Five-Year Plan). Pp. 210-218 in *Yunnan lüyou erci chuangye: Fazhan zhanlüe yu guihua* (*Yunnan's Second Stage of Innovation in Tourism: Development Strategy and Planning*), edited by Luo Mingyi, Yuan Guanghan, and Chen Shuyun. Kunming: Yunnan University Press.

Diqing Prefecture Poverty Alleviation and Development Office. 2009. "2008 nian diqing fupin nianjian" (2008 Annual Report on Tourism Alleviation in Diqing). Accessed July 12, 2013 (http://xxgk.yn.gov.cn/canton_model17/newsview.aspx?id=1549442).

Donaldson, John A. 2007. "Tourism, Development and Poverty Reduction in Guizhou and Yunnan." *The China Quarterly* 190:333–51.

Donaldson, John A. 2009. "Provinces: Paradoxical Politics, Problematic Partners." Pp. 14–38 in *China's Local Administration: Traditions and Changes in the Sub-national Hierarchy*, edited by Jae Ho Chung, Chae-ho Chŏng, and Tao-chiu Lam. New York: Routledge.

Donaldson, John A. 2011. *Small Works: Poverty and Economic Development in Southwestern China*. Ithaca: Cornell University Press.

Dryzek, JS, C. Hunold, D. Schlosberg, D. Downes, and HK Hernes. 2002. "Environmental Transformation of the State: The USA, Norway, Germany and the UK." *Political Studies* 50(4):659–82.

Dudley, Nigel. 2008. *Guidelines for Applying Protected Area Management Categories*. Gland, Switzerland: IUCN.

Duneier, Mitchell. 2004. "Three Rules I Go by in My Ethnographic Research on Race and Racism." P. 240 in *Researching Race and Racism*, edited by John Solomos and Martin Bulmer. London and New York: Routledge.

Economy, Elizabeth. 2005. "Environmental Enforcement in China." Pp. 102–20 in *China's Environment and the Challenge of Sustainable Development*, edited by Kristen A. Day. Armonk: M.E. Sharpe.

Ellis, Frank. 2000a. *Rural Livelihoods and Diversity in Developing Countries*. Oxford University Press.

Ellis, Frank. 2000b. "The Determinants of Rural Livelihood Diversification in Developing Countries." *Journal of Agricultural Economics* 51(2):289–302.

Elvin, Mark. 2004. *The Retreat of the Elephants: An Environmental History of China*. New Haven: Yale University Press.

Evans, Peter. 1996. "Government Action, Social Capital and Development: Reviewing the Evidence on Synergy." *World Development* 24(6):1119–32.

Evans, Peter B. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton: Princeton University Press.

Fairhead, James, and Melissa Leach. 1995. "False Forest History, Complicit Social Analysis: Rethinking Some West African Environmental Narratives." *World Development* 23(6):1023–35.

Feng, Xianghong. 2008. "Who Benefits?: Tourism Development in Fenghuang County, China." *Human Organization* 67(2):207–20.

Feng Xingyuan. 2011. "*Tudi caizheng, difang zhengfu rongzi pingtai yu guize*" (Land Finance, Local Government Financing Vehicles, and Their Rules). *China Market* 21–23.

Fennell, David A. 2008. *Ecotourism.* 3rd ed. London: Routledge.

Ferguson, James. 1994. *The Anti-Politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho.* Minneapolis: University of Minnesota Press.

Ferraro, Paul J., and Agnes Kiss. 2002. "Direct Payments to Conserve Biodiversity." *Science* 298(5599):1718–19.

Ferraro, Paul J., and R. David Simpson. 2002. "The Cost-Effectiveness of Conservation Payments." *Land Economics* 78(3):339–53.

Fisher, Dana R., and William R. Freudenburg. 2004. "Postindustrialization and Environmental Quality: An Empirical Analysis of the Environmental State." *Social Forces* 83(1):157–88.

Forsyth, Timothy J. 1995. "Tourism and Agricultural Development in Thailand." *Annals of Tourism Research* 22(4):877–900.

Frank, David John, Hironaka Ann, and Schofer Evan. 2000. "The Nation-State and the Natural Environment over the Twentieth Century." *American Sociological Review* 65:96–116.

Freudenburg, William R. 2005. "Privileged Access, Privileged Accounts: Toward a Socially Structured Theory of Resources and Discourses." *Social Forces* 84(1):89–114.

Friedman, Lisa. 2012. "Ecuador Asks World to Pay to Keep Yasuni Oil Underground: Scientific American." Accessed May 25, 2013 (http://www.scientificamerican.com/article.cfm?id=ecuador-asks-world-to-pay-to-keep-yasuni-oil-underground).

Garcia-Frapolli, Eduardo, Victor M. Toledo, and Joan Martinez-Alier. 2008. "Adaptations of a Yucatec Maya Multiple-Use Ecological Management Strategy to Ecotourism." *Ecology and Society* 13(2):31.

Ghimire, Krishna B. 1994. "Parks and People: Livelihood Issues in National Parks Management in Thailand and Madagascar." *Development and Change* 25(1):195–229.

Goldstein, Melvyn C., Geoff Childs, and Puchung Wangdui. 2008. "'Going For Income' in Village Tibet: A Longitudinal Analysis of Change and Adaptation, 1997-2007." *Asian Survey* 48(3):514–34.

Goldstein, Melvyn C., Geoff Childs, and Puchung Wangdui. 2010. "Beijing's 'People First' Development Initiative for the Tibet Autonomous Region's Rural Sector--A Case Study from the Shigatse Area." *The China Journal* 63:57–75.

Gould, Kenneth A., David N. Pellow, and Allan Schnaiberg. 2004. "Interrogating the Treadmill of Production: Everything You Wanted to Know About the Treadmill but Were Afraid to Ask." *Organization & Environment* 17(3):296–316.

Gould, Kenneth, David Pellow, and Allan Schnaiberg. 2008. *The Treadmill of Production: Injustice & Unsustainability in the Global Economy*. Boulder: Paradigm.

Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91(3):481–510.

Greenhalgh, Susan, and Edwin A. Winckler. 2005. *Governing China's Population: From Leninist to Neoliberal Biopolitics*. Stanford: Stanford University Press.

Groom, Martha J. 2006. *Principles of Conservation Biology*. 3rd ed. Sunderland: Sinauer Associates.

Guo Jiaji. 2007. "*Yunnan zangzu ziran ziyuan liyong he guanli de chuantong shijian—Deqin xian yunling xiang mingyong he yubeng liang cun ge'an yanjiu*" (Traditional Practices of Natural Resource Use and Management Among Yunnan Tibetans: Case Studies of Mingyong and Yubeng Villages in Yunling Township, Deqin County). Pp. 56–71 in *Tibetan Studies Research in Diqing*, edited by Dongbao Zhongba. Shangri-la, China: Diqing Institute of Tibetan Studies.

Guo Jing. 2009. "*Xueshan zhi shu jiuzhang (2): Shanming gaibian de youlai*" (The book of the mountain, chapter 9, part 2: Origins of the change of the mountain's name). *Youfang seng de xingnang: Yong muren de yanjing kan zhe shijie* (The journal of a traveling monk: Seeing the world through the eyes of a herder). Accessed March 15, 2010 (http://azara55.blog.163.com/blog/static/122118353200910238219926/).

Hames, Raymond. 2007. "The Ecologically Noble Savage Debate." *Annual Review of Anthropology* 36(1):177–90.

Han, Nianyong, and Ren Zhuge. 2001. "Ecotourism in China's Nature Reserves: Opportunities and Challenges." *Journal of Sustainable Tourism* 9(3):228–42.

Han, Ziyu. 2011. "Razing the Last Refuge: Downscaling the Upper Yangtze Fish Reserve." *China Dialogue*, February 9. Accessed March 28, 2011 (http://www.chinadialogue.net/article/show/single/en/4095).

Hansen, Andrew J., and Ruth DeFries. 2007. "Ecological Mechanisms Linking Protected Areas to Surrounding Lands." *Ecological Applications* 17(4):974–88.

Harkness, James. 1998. "Recent Trends in Forestry and Conservation of Biodiversity in China." *The China Quarterly* (156):911–34.

Harrell, Stevan. 1995. "Introduction: Civilizing Projects and the Reaction to Them." Pp. 3–36 in *Cultural Encounters on China's Ethnic Frontiers*, edited by Stevan Harrell. Seattle: University of Washington Press.

Harris, Richard B. 2008. *Wildlife Conservation in China*. Armonk: M.E. Sharpe.

Hathaway, Michael John. 2007. "Making Nature in Southwest China: Transnational Notions of Landscape and Ethnicity." Ph.D. Dissertation, The University of Michigan.

Haynes, Michelle A., Zhendong Fang, and Donald M. Waller. 2013. "Grazing Impacts on the Diversity and Composition of Alpine Rangelands in Northwest Yunnan." *Journal of Plant Ecology* 6(2):122–30.

He, Guangming et al. 2008. "Distribution of Economic Benefits from Ecotourism: A Case Study of Wolong Nature Reserve for Giant Pandas in China." *Environmental Management* 42:1017–25.

He, Guangming et al. 2009. "Spatial and Temporal Patterns of Fuelwood Collection in Wolong Nature Reserve: Implications for Panda Conservation." *Landscape and Urban Planning* 92(1):1–9.

Herrold-Menzies, Melinda. 2006. "Integrating Conservation and Development: What We Can Learn From Caohai, China." *The Journal of Environment & Development* 15(4):382–406.

Hildebrandt, Timothy. 2013. *Social Organizations and the Authoritarian State in China*. New York: Cambridge University Press.

Hillman, Ben. 2003a. "Paradise Under Construction: Minorities, Myths and Modernity in Northwest Yunnan." *Asian Ethnicity* 4(2):175–88.

Hillman, Ben. 2003b. "The Poor in Paradise: Tourism Development and Rural Poverty in China's Shangri-La." Pp. 545–53 in *Landscapes of Diversity: Indigenous Knowledge, Sustainable Livelihoods and Resource Governance in Montane Southeast Asia*, edited by Jianchu Xu and Mikesell. Kunming: Yunnan Science and Technology Press.

Holbig, Heike. 2004. "The Emergence of the Campaign to Open Up the West: Ideological Formation, Central Decision-making and the Role of the Provinces." *The China Quarterly* 178:335–57.

Hou, Xiaoshuo. 2011. "From Mao to the Market." *Theory, Culture & Society* 28(2):46 –68.

Hou, Xiaoshuo. 2013. *Community Capitalism in China: The State, the Market, and Collectivism*. New York: Cambridge University Press.

Huang, Yasheng. 2008. *Capitalism with Chinese Characteristics: Entrepreneurship and the State*. New York: Cambridge University Press.

Hull, Vanessa et al. 2011. "Evaluating the Efficacy of Zoning Designations for Protected Area Management." *Biological Conservation* 144(12):3028–37.

Illius, A. W., and T. G. O'Connor. 1999. "On the Relevance of Nonequilibrium Concepts to Arid and Semi-Arid Grazing Systems." *Ecological Applications* 9(3):798–813.

Illukpitiya, Prabodh, and John F. Yanagida. 2008. "Role of Income Diversification in Protecting Natural Forests: Evidence from Rural Households in Forest Margins of Sri Lanka." *Agroforestry Systems* 74(1):51–62.

Jacobs, Andrew. 2013. "Plans to Harness China's Nu River Threaten a Region." *The New York Times*, May 4. Accessed May 6, 2013 (http://www.nytimes.com/2013/05/05/world/asia/plans-to-harness-chinas-nu-river-threaten-a-region.html).

Jahiel, Abigail R. 1998. "The Organization of Environmental Protection in China." *The China Quarterly* 156:757–87.

Jamal, Tazim, and Amanda Stronza. 2009. "Collaboration Theory and Tourism Practice in Protected Areas: Stakeholders, Structuring and Sustainability." *Journal of Sustainable Tourism* 17(2):169–89.

Jeffreys, Elaine, ed. 2009. *China's Governmentalities: Governing Change, Changing Government*. New York: Routledge.

Jiang Chu. 2013. "Deqin xian jiancheng wan mu putao jidi" (Deqin County Establishes Thousand-Hectare Grape Production Base). *Yunnan Net*, April 19. Accessed June 4, 2013 (http://diqing.yunnan.cn/html/2013-04/19/content_2700324.htm).

Jóhannesson, Gunnar Þór, Unnur Dís Skaptadóttir, and Karl Benediktsson. 2003. "Coping With Social Capital? The Cultural Economy of Tourism in The North." *Sociologia Ruralis* 43(1):3–16.

Johnson, Craig. 2004. "Uncommon Ground: The 'Poverty of History' in Common Property Discourse." *Development and Change* 35(3):407–34.

Jones, Samantha. 2005. "Community-Based Ecotourism: The Significance of Social Capital." *Annals of Tourism Research* 32(2):303–24.

Jorgenson, Andrew K., and Brett Clark. 2012. "Are the Economy and the Environment Decoupling? A Comparative International Study, 1960–2005." *American Journal of Sociology* 118(1):1–44.

JPO (Joint Project Office). 2001. *Conservation and Development Action Plan for Northwest Yunnan*. Kunming, Yunnan: Yunnan Provincial Planning Commission and The Nature Conservancy.

Kang, Xiaofei. 2009. "Two Temples, Three Religions, and a Tourist Attraction: Contesting Sacred Space on China's Ethnic Frontier." *Modern China* 35(3):227–55.

Karanth, Krithi K., and Ruth DeFries. 2011. "Nature-based Tourism in Indian Protected Areas: New Challenges for Park Management." *Conservation Letters* 4(2):137–49.

Keck, Margaret E., and Kathryn Sikkink. 1998. *Activists Beyond Borders: Advocacy Networks in International Politics*. Ithaca: Cornell University Press.

Khagram, Sanjeev. 2004. *Dams and Development: Transnational Struggles for Water and Power*. Ithaca: Cornell University Press.

Kirkby, Christopher A. et al. 2011. "Closing the Ecotourism-Conservation Loop in the Peruvian Amazon." *Environmental Conservation* 38(01):6–17.

Kohli, Atul. 1999. "Where Do High-Growth Political Economies Come From? The Japanese Lineage of Korea's 'Developmental State'."Pp. 93–136 in *The Developmental State*, *Cornell studies in political economy*, edited by Meredith Woo-Cumings. Ithaca: Cornell University Press.

Kolas, Ashild. 2007. *Tourism and Tibetan Culture in Transition: A Place Called Shangrila*. London: Routledge.

Krüger, Oliver. 2005. "The Role of Ecotourism in Conservation: Panacea or Pandora's Box?" *Biodiversity and Conservation* 14(3):579–600.

Lang, Graeme, and Cathy Hiu Wan Chan. 2006. "China's Impact on Forests in Southeast Asia." *Journal of Contemporary Asia* 36(2):167–94.

Lao Jiadi. 2012. "Jingqy menpiao zhangsheng zaiqi beihou: Qian yinhang yi yuan daikuan cheng changtai" (Behind the Ever 'Rising Tone' of Ticket Prices: Billion-Yuan Loan Debts Become Normal). *China News Net*, April 25. Accessed July 13, 2012 (http://www.chinanews.com/cul/2012/04-25/3845412.shtml).

Leatherman, John C., and David W. Marcouiller. 1996. "Income Distribution Characteristics of Rural Economic Sectors: Implications for Local Development Policy." *Growth and Change* 27(4):434–59.

Lee, Ching Kwan. 2007. *Against the Law: Labor Protests in China's Rustbelt and Sunbelt*. Berkeley: University of California Press.

Li Honggu. 2007. "Jiedu zhongguo huanjing baohu: Cong huanjing youhao dao kexue fazhanguan" (Decoding Environmental Protection in China: From Environmental Friendliness to the Scientific Approach to Development). *Lifeweek*, October 18. Accessed December 15, 2008 (http://news.sina.com.cn/c/2007-10-18/114114114244.shtml).

Li, Sheng, Dajun Wang, Xiaodong Gu, and William J. McShea. 2010. "Beyond Pandas, the Need for a Standardized Monitoring Protocol for Large Mammals in Chinese Nature Reserves." *Biodiversity and Conservation* 19(11):3195–3206.

Li, Tania Murray. 2007. *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham: Duke University Press.

Li, Wenjun, Qian Zhang, Chunyan Liu, and Qifu Xue. 2006. "Tourism's Impacts on Natural Resources: A Positive Case from China." *Environmental Management* 38(4):572–79.

Li, Yanbo, Wenjun Li, Chengcheng Zhang, and Mingming Fan. 2013. "Current Status and Recent Trends in Financing China's Nature Reserves." *Biological Conservation* 158:296–300.

Li Yiming. 2000. "Diqing nuli peiyu si da zhizhu chanye" (Diqing assiduously fosters four pillar industries). *Yunnan Daily*, September 12. Accessed June 5, 2012 (http://www.people.com.cn/GB/channel4/989/20000912/229984.html).

Lieberthal, Kenneth. 2004. *Governing China: From Revolution Through Reform*. 2nd ed. New York: W. W. Norton.

Litzinger, Ralph. 2004. "The Mobilization of Nature: Perspectives from North-West Yunnan." *The China Quarterly* 178:488–504.

Liu, Jianguo et al. 2001. "Ecological Degradation in Protected Areas: The Case of Wolong Nature Reserve for Giant Pandas." *Science* 292(5514):98–101.

Liu, Jianguo et al. 2003. "Protecting China's Biodiversity." *Science* 300(5623):1240–41.

Liu, Jianguo, Shuxin Li, Zhiyun Ouyang, Christine Tam, and Xiaodong Chen. 2008. "Ecological and Socioeconomic Effects of China's Policies for Ecosystem Services." *Proceedings of the National Academy of Sciences* 105(28):9477–82.

Liu, Jianguo, Zhiyun Ouyang, Yingchun Tan, Jian Yang, and Heming Zhang. 1999. "Changes in Human Population Structure: Implications for Biodiversity Conservation." *Population and Environment* 21(1):45–58.

Liu Juan. 2009. "Zhongguo zangzu jujuqu shoupi guojiagongyuan jiang zai xianggelila jiancheng" (The first cohort of national parks in China's Tibetan areas is being built in Shangri-la). *Diqing Prefecture Tourism Bureau Administrative Website*. Accessed 28 July 2010 (http://www.shangrila-travel.cn/Article_2_239.html).

Liu, Qing, Wang Zhi, Qian Yi, Qin Weihua, and Jiang Mingkang. 2009. "*Woguo ziranbaohuqu shengtailüyou cunzai wenti fenxi*" (Problems with Eco-Tourism in Nature Reserves of China)." *Journal of Ecology and Rural Environment* 25(3):11–15.

Liu, Wei et al. 2012. "Drivers and Socioeconomic Impacts of Tourism Participation in Protected Areas." *PLoS ONE* 7(4):e35420.

Logan, John R., and Harvey Luskin Molotch. 2007. *Urban Fortunes: The Political Economy of Place*. 2nd ed. Berkeley: University of California Press.

Ma, Chang-Le, Robert Moseley, Wen-Yun Chen, and Zhe-Kun Zhou. 2007. "Plant Diversity and Priority Conservation Areas of Northwestern Yunnan, China." *Biodiversity and Conservation* 16(3):757–74.

MacCannell, Dean. 1989. *The Tourist: A New Theory of the Leisure Class*. New York: Schocken Books.

Machlis, Gary E., and Donald R. Field, eds. 2000. *National Parks and Rural Development: Practice and Policy in the United States*. 1st ed. Washington, D.C.: Island Press.

Marcus, George E. 1995. "Ethnography In/of the World System: The Emergence of Multi-Sited Ethnography." *Annual Review of Anthropology* 24(1):95–117.

Margoluis, Richard, and Nick Salafsky. 1998. *Measures of Success: Designing, Managing, and Monitoring Conservation and Development Projects*. Washington, D.C.: Island Press.

Mascia, Michael B., and Sharon Pailler. 2011. "Protected Area Downgrading, Downsizing, and Degazettement (PADDD) and Its Conservation Implications." *Conservation Letters* 4(1):9–20.

McCay, Bonnie, and Svein Jentoft. 1998. "Market or Community Failure? Critical Perspectives on Common Property Research." *Human Organization* 57(1):21–29.

McMichael, Philip. 1990. "Incorporating Comparison Within a World-Historical Perspective: An Alternative Comparative Method." *American Sociological Review* 55(3):385.

McMichael, Philip. 2000. "World-Systems Analysis, Globalization, and Incorporated Comparison." *Journal of World-Systems Research* 6(3):68–99.

McSweeney, Kendra. 2004. "Forest Product Sale as Natural Insurance: The Effects of Household Characteristics and the Nature of Shock in Eastern Honduras." *Society & Natural Resources* 17(1):39–56.

Mei Biqiu et al. 2010. "*Xi dongtinghu shidi baohu yu kaifa liyong diaoyan baogao*" (West Dongting Lake Wetland Protection and Development Research Report). *Journal of Yueyang Technical Vocational College* 25(6):42–47.

MEP (Ministry of Environmental Protection. 2011. "*2010 nian ziranbaohuqu jianshe yu guanli qingkuang*" (The Construction and Management Situation of Nature Reserves in 2010). Accessed July 31, 2011 (http://sts.mep.gov.cn/zrbhq/zrbhqgzjb/201106/t20110603_211638.htm).

Merchant, Carolyn. 1980. *The Death of Nature: Women, Ecology, and the Scientific Revolution: a Feminist Reappraisal of the Scientific Revolution*. San Francisco: Harper & Row.

Mertha, Andrew C. 2005. "China's Soft Centralization: Shifting Tiao/Kuai Authority Relations." *The China Quarterly* 184:791–810.

Mertha, Andrew C. 2009. "Fragmented Authoritarianism 2.0: Political Pluralization in the Chinese Policy Process." *The China Quarterly* 200:995–1012.

Meyer, John W., John Boli, George M. Thomas, and Francisco O. Ramirez. 1997. "World Society and the Nation-State." *The American Journal of Sociology* 103(1):144–81.

Meyer, John W., and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *The American Journal of Sociology* 83(2):340–63.

Miles, Matthew B., and A. M. Huberman. 1994. "Sampling: Bounding the Collection of Data." Pp. 27–34 in *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks: Sage.

Mittermeier, Russell A., Cristina Goettsch Mittermeier, Norman Myers, and Patricio Robles Gil, eds. 1999. *Hotspots: Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions*. 1st English ed. Mexico City: CEMEX.

Mizruchi, Mark S., and Debora M. Bey. 2005. "Corporate Control, Interfirm Relations, and Corporate Power." Pp. 310–30 in *The Handbook of Political Sociology: States, Civil Societies, and Globalization*, edited by Thomas Janoski, Robert Alford, Alexander M. Hicks, and Mildred F. Schwartz. New York: Cambridge University Press.

Mol, Arthur P. J. 2006. "Environment and Modernity in Transitional China: Frontiers of Ecological Modernization." *Development and Change* 37(1):29–56.

Naughton-Treves, Lisa, Margaret Buck Holland, and Katrina Brandon. 2005. "The Role of Protected Areas in Conserving Biodiversity and Sustaining Local Livelihoods." *Annual Review of Environment and Resources* 30:219–52.

Nepal, Sanjay K. 2008. "Tourism-induced Rural Energy Consumption in the Annapurna Region of Nepal." *Tourism Management* 29(1):89–100.

Neumann, Roderick P. 2004. "Moral and Discursive Geographies in the War for Biodiversity in Africa." *Political Geography* 23(7):813–37.

Ni Ronghua. 2001. "Jiyu, gaige, fazhan, wending" Opportunity, Reform, Development, Stability. In *Gaige yu fazhan de guiji—Diqing fazhan yanjiu lunwenji* (*The Tracks of Reform and Development: Collected Research Essays on Development in Diqing*). Kunming: Yunnan Nationalities Press.

Nicholson-Crotty, Sean. 2005. "Bureaucratic Competition in the Policy Process." *The Policy Studies Journal* 33(3):341–61.

O'Brien, Kevin, and Lianjiang Li. 1999. "Selective Policy Implementation in Rural China." *Comparative Politics* 31(2):167–86.

Oakes, Tim. 1998. *Tourism and Modernity in China*. London: Routledge.

Ohl-Schacherer, Julia, Elke Mannigel, Chris Kirkby, Glenn H. Shepard, Jr., and Douglas W. Yu. 2008. "Indigenous Ecotourism in the Amazon: a Case Study of 'Casa Matsiguenka' in Manu National Park, Peru." *Environmental Conservation* 35(1):14–25.

Oi, Jean C. 1992. "Fiscal Reforms and the Economic Foundations of Local State Corporatism in China." *World Politics* 45:99–126.

Oi, Jean C. 1999. *Rural China Takes Off: Institutional Foundations of Economic Reform*. Berkeley: University of California Press.

Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

Pellow, David N., Allan Schnaiberg, and Adam S. Weinberg. 2000. "Putting the Ecological Modernisation Thesis to the Test: The Promises and Performances of Urban Recycling." *Environmental Politics* 9(1):109–37.

Peluso, Nancy Lee. 1992. *Rich Forests, Poor People: Resource Control and Resistance in Java*. Berkeley: University of California Press.

Pettigrew, Melissa et al. 2012. "Human–carnivore Conflict in China: a Review of Current Approaches with Recommendations for Improved Management." *Integrative Zoology* 7(2):210–26.

Pieck, Sonja K., and Sandra A. Moog. 2009. "Competing Entanglements in the Struggle to Save the Amazon: The Shifting Terrain of Transnational Civil Society." *Political Geography* 28(7):416–25.

Poggi, Gianfranco. 1990. *The State: Its Nature, Development, and Prospects*. Stanford, Calif: Stanford University Press.

Polanyi, Karl. 2001. *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.

Qin, Qun, Geoffrey Wall, and Xiaohang Liu. 2011. "Government Roles in Stimulating Tourism Development: A Case from Guangxi, China." *Asia Pacific Journal of Tourism Research* 16:471–87.

Quan, Jia, Zhiyun Ouyang, Weihua Xu, and Hong Miao. 2011. "Assessment of the Effectiveness of Nature Reserve Management in China." *Biodiversity and Conservation* 20(4):779–92.

Ragin, Charles C. 1987. *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Berkeley: University of California Press.

Ravallion, Martin, and Shaohua Chen. 2007. "China's (uneven) Progress Against Poverty." *Journal of Development Economics* 82(1):1–42.

Redford, Kent Hubbard. 1991. "The Ecologically Noble Savage." *Orion*, 24–29.

Research Office of the People's Government of Yunnan Province. 2006. *Guanyu Dianxibei guojiagonyuan yu chanye fazhan xianghu guanxi yanjiu de huibao* (Report on Research on Relationships between National Parks and Industrial Development in Northwest Yunnan).

Research Office of the People's Government of Yunnan Province. 2010a. *Meilixueshan guojiagongyuan guanli tizhi yanjiu baogao* (Report on Research on the Meili Snow Mountain National Park Management Model).

Research Office of the People's Government of Yunnan Province. 2010b. *Laojunshan guojiagongyuan guanli tizhi yanjiu baogao* (Report on Research on the Laojun Mountain National Park Management Model).

Research Office of the People's Government of Yunnan Province and The Nature Conservancy China Program. 2005a. *Dianxibei diqu jianshe guojiagongyuan zonghe baogao* (Comprehensive Report on Establishing National Parks in Northwest Yunnan).

Research Office of the People's Government of Yunnan Province and The Nature Conservancy China Program. 2005b. *Xianggelila bitahai shuduhu guojiagongyuan jianshe fang'an* (Proposal for Establishing the Shangri-la Bita Lake-Shudu Lake National Park).

Research Office of the People's Government of Yunnan Province and The Nature Conservancy China Program. 2005c. *Xianggelila da xiagu guojiagongyuan jianshe fang'an* (Proposal for Establishing the Shangri-la Gorge National Park).

Ribot, Jesse, Arun Agrawal, and Anne M. Larson. 2006. "Recentralizing While Decentralizing: How National Governments Reappropriate Forest Resources." *World Development* 34(11).

Roberts, J. Timmons, and Bradley C. Parks. 2007. *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy*. Cambridge: MIT Press.

Rudel, Thomas K. 2009. "How Do People Transform Landscapes? A Sociological Perspective on Suburban Sprawl and Tropical Deforestation." *American Journal of Sociology* 115(1):129–54.

Rudel, Thomas K. 2011. "The Commons and Development: Unanswered Sociological Questions." *International Journal of the Commons* 5(2):URN:NBN:NL:UI:10–1–101635.

Rudel, Thomas K. 2013. *Defensive Environmentalists and the Dynamics of Global Reform*. New York: Cambridge University Press.

Ruiz-Ballesteros, Esteban. 2011. "Social-ecological Resilience and Community-based Tourism: An Approach from Agua Blanca, Ecuador." *Tourism Management* 32(3):655–66.

Salick, Jan, Yongping Yang, and Anthony Amend. 2005. "Tibetan Land Use and Change Near Khawa Karpo, Eastern Himalayas." *Economic Botany* 59(4):312–25.

Sanderson, Steven E., and Kent H. Redford. 2003. "Contested Relationships Between Biodiversity Conservation and Poverty Alleviation." *Oryx* 37(04):389–90.

Schofer, Evan, and Ann Hironaka. 2005. "The Effects of World Society on Environmental Protection Outcomes." *Social Forces* 84(1):25–47.

Scott, James C. 1976. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven: Yale University Press.

Scott, James C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.

Sellars, Richard West. 2009. *Preserving Nature in the National Parks: A History*. 2nd ed. New Haven: Yale University Press.

Sen, Amartya. 1999. *Development as Freedom*. 1st. ed. New York: Knopf.

Shapiro, Judith. 2001. *Mao's War Against Nature: Politics and the Environment in Revolutionary China*. New York: Cambridge University Press.

Shwom, Rachael L. 2011. "A Middle Range Theorization of Energy Politics: The Struggle for Energy Efficient Appliances." *Environmental Politics* 20(5):705–26.

Sichuan Environmental Protection Bureau, and Sichuan Forestry Department. 2011. "Sichuan Biodiversity Conservation Strategy and Action Plan (2011 (2011～2020)."

Sonnenfeld, David A. 2000. "Contradictions of Ecological Modernisation: Pulp and Paper Manufacturing in South-east Asia." *Environmental Politics* 9(1):235–56.

Spaargaren, Gert, and Arthur P. J. Mol. 1992. "Sociology, Environment, and Modernity: Ecological Modernization as a Theory of Social Change." *Society & Natural Resources* 5(4):323–44.

Star, Susan Leigh, and James R. Griesemer. 1989. "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39." *Social Studies of Science* 19(3):387–420.

State Council of the People's Republic of China. 1994. *Ziran baohuqu tiaoli (Regulations on Nature Reserves)*.

State Forestry Administration. 2006. "Quanguo yewheng dongwu baohu ji ziranbaohuqu jianshe gongcheng gaikqung" (The General Situation of the National Program for Wild Animal and Plant Protection and Nature Reserve Construction). Accessed April 17, 2011 (http://www.forestry.gov.cn/portal/zrbh/s/3058/content-454962.html).

State Forestry Administration. 2008. *Guanyu tongyi Yunnansheng lieru guojiagongyuan jianshedian sheng de tongzhi* (Notice on agreeing to designate Yunnan province as a pilot province for

constructing national parks). Accessed November 28, 2008 (http://www.forestry.gov.cn/sub/FstArticle.aspx?id=zwgk.5193).

Stem, Caroline J., James P. Lassoie, David R. Lee, and David J. Deshler. 2003a. "How 'Eco' Is Ecotourism? A Comparative Case Study of Ecotourism in Costa Rica." *Journal of Sustainable Tourism* 11(4):322.

Stem, Caroline J., James P. Lassoie, David R. Lee, David J. Deshler, and John W. Schelhas. 2003b. "Community Participation in Ecotourism Benefits: The Link to Conservation Practices and Perspectives." *Society & Natural Resources* 16(5):387–413.

Stevens, Stan, ed. 1997. *Conservation through Cultural Survival: Indigenous Peoples and Protected Areas*. Washington, D.C: Island Press.

Stinchcombe, Arthur L. 1997. "On the Virtues of the Old Institutionalism." *Annual Review of Sociology* 23:1–18.

Strange, Niels, Bo Jellesmark Thorsen, Jesper Bladt, Kerrie A. Wilson, and Carsten Rahbek. 2011. "Conservation Policies and Planning Under Climate Change." *Biological Conservation* 144(12):2968–77.

Su, Xiaobo. 2010. "Urban Conservation in Lijiang, China: Power Structure and Funding Systems." *Cities* 27(3):164–71.

Su, Xiaobo. 2013. "Tourism, Modernity and the Consumption of Home in China." *Transactions of the Institute of British Geographers* n/a–n/a.

Tang Ling. 2006. "Fengjing mingshengqu zhengti zulin zhi zheng" (The Conflict over Lease in Whole of Scenic Areas). *China National Conditions and Strength* 163:41–43.

Tang, Ruifei, and Michael C. Gavin. 2010. "Traditional Ecological Knowledge Informing Resource Management: Saxoul Conservation in Inner Mongolia, China." *Society & Natural Resources* 23(3):193-206.

Terborgh, John. 2004. *Requiem for Nature*. Washington, D.C.: Island Press.

Tian Shizheng, and Yang Guihua. 2009. "Guojiagongyuan lüyou guanli zhidu bianqian shizheng yanjiu—yi Yunnan Xianggelila Pudacuo guojiagongyuan wei li" (An Empirical Study on the Changes in Management Systems of National Parks—A Case study of Pudatsuo National Park in Shangri-la of Yunnan Province). Journal of Guangxi University for Nationalities, philosophy and social science edition 31 (4): 52–57.

Tilt, Bryan. 2010. *The Struggle for Sustainability in China: Environmental Values and Civil Society*. New York: Columbia University Press.

TNC (The Nature Conservancy) China Program. 2007. *The Nature Conservancy China Program Annual Report 2006*. Kunming: The Nature Conservancy China Program.

TNC (The Nature Conservancy) China Program and International Ecotourism Research Center. 2009. *Luorong shengtai wenhua yanjiu xiangmu baogao* (Luorong Eco-Culture Research Project Report). Kunming: Ecotourism Faculty, Southwest Forestry College.

Trac, Christine, Stevan Harrell, Thomas Hinckley, and Amanda Henck. 2007. "Reforestation Programs in Southwest China: Reported Success, Observed Failure, and the Reasons Why." *Journal of Mountain Science* 4(4):275–92.

Tsai, Lily L. 2007. "Solidary Groups, Informal Accountability, and Local Public Goods Provision in Rural China." *American Political Science Review* 101(02):355–72.

Tsing, Anna Lowenhaupt. 2005. *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press.

Van Den Hoek, Jamon. 2012. "Mosaics of Change: Cross-Scale Forest Cover Dynamics and Drivers in Tibetan Yunnan, China." Ph.D., United States -- Wisconsin: The University of Wisconsin - Madison.

Viña, Andrés et al. 2007. "Temporal Changes in Giant Panda Habitat Connectivity Across Boundaries of Wolong Nature Reserve, China." *Ecological Applications* 17(4):1019–30.

Wang Chaohui, Wu Wenhui, and Cheng Fengming. 2009. "Zhangjiajie guojia senlin gongyuan shengtai anquan guanli moshi tanxi (Probe on Ecological Security Management Model of Zhangjiajie National Forest Park). *经济地理Economic Geography* 29(9):1580–84.

Wang, Guangyu et al. 2011. "National Park Development in China: Conservation or Commercialization?" *Ambio* 41(3):247–61.

Wang, Yi, and Bill Bramwell. 2012. "Heritage Protection and Tourism Development Priorities in Hangzhou, China: A Political Economy and Governance Perspective." *Tourism Management* 33(4):988–98.

Weaver, David. 2002. "Asian Ecotourism: Patterns and Themes." *Tourism Geographies* 4(2):153–72.

Weaver, David B. 2005. "Comprehensive and Minimalist Dimensions of Ecotourism." *Annals of Tourism Research* 32(2):439–55.

Weaver, David B., and Laura J. Lawton. 2007. "Twenty Years on: The State of Contemporary Ecotourism Research." *Tourism Management* 28(5):1168–79.

Weckerle, Caroline S., Yongping Yang, Franz K. Huber, and Qiaohong Li. 2010. "People, Money, and Protected Areas: The Collection of the Caterpillar Mushroom Ophiocordyceps Sinensis in the Baima Xueshan Nature Reserve, Southwest China." *Biodiversity and Conservation* 19(9):2685–98.

Weller, Robert P. 2006. *Discovering Nature: Globalization and Environmental Culture in China and Taiwan*. Cambridge: Cambridge University Press.

West, Paige. 2006. *Conservation Is Our Government Now: The Politics of Ecology in Papua New Guinea*. Durham: Duke University Press.

Whitehead, Mark. 2007. *The Nature of the State: Excavating the Political Ecologies of the Modern State*. Oxford: Oxford University Press.

Whyte, Martin King. 2010. *Myth of the Social Volcano: Perceptions of Inequality and Distributive Injustice in Contemporary China*. Stanford: Stanford University Press.

Wilkie, David S. et al. 2006. "Parks and People: Assessing the Human Welfare Effects of Establishing Protected Areas for Biodiversity Conservation." *Conservation Biology* 20(1):247–49.

Williamson, Oliver E. 1975. *Markets and Hierarchies, Analysis and Antitrust Implications: A Study in the Economics of Internal Organization*. New York: Free Press.

Wilshusen, Peter R., Steven R. Brechin, Crystal L. Fortwangler, and Patrick C. West. 2002. "Reinventing a Square Wheel: Critique of a Resurgent ``Protection Paradigm" in International Biodiversity Conservation." *Society and Natural Resources* 15:17–40.

Winkler, Daniel. 2008. "Yartsa Gunbu (Cordyceps Sinensis) and the Fungal Commodification of Tibet's Rural Economy." *Economic Botany* 62(3):291–305.

Woolcock, Michael. 1998. "Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework." *Theory and Society* 27(2):151–208.

Working Group on Drafting the Development Plan for the Northwest Yunnan Tourism Region. 2004. *Dianxibei Xianggelila shengtailvyouqu fazhan guihua (gangyao)* (Development Plan for the Northwest Yunnan Shangri-la Ecotourism Region [Summary]). Working Group on Drafting Development Plans for the Six Great Tourism Regions of Yunnan.

Wu, Fengshi. 2005. "Double-mobilization: Transnational Advocacy Networks for China's Environment and Public Health." Ph.D. Dissertation, University of Maryland, College Park.

Wu, Ruidong et al. 2011. "Effectiveness of China's Nature Reserves in Representing Ecological Diversity." *Frontiers in Ecology and the Environment* 9:383–89.

Wulingyuan District Bureau of Statistics. 2011. "*2010 nian zhangjiajie shi wulingyuan qu guomin jingji he shehui fazhan tongji gongbao*" (2010 Statistical Report on Economic and Social Development in Wulingyuan District." Accessed July 31, 2012 (http://www.zjjwly.gov.cn/zjjwly/deptonline/wlytjj/tjfx/20110318024927.html).

Wunder, Sven. 2000. "Ecotourism and Economic Incentives — an Empirical Approach." *Ecological Economics* 32(3):465–79.

Xiang, Zuofu et al. 2011. "Does Flagship Species Tourism Benefit Conservation? A Case Study of the Golden Snub-nosed Monkey in Shennongjia National Nature Reserve." *Chinese Science Bulletin* 56(24):2553–58.

Xie, Yan, Sung Wang, and Peter Schei, eds. 2004. *China's Protected Areas*. Beijing: Tsinghua University Press.

Xinhua News Agency. 2013. "President Xi Promises to Shake Off GDP Obsession in Promoting Officials." *Xinhua Net*, June 29. Accessed July 10, 2013 (http://news.xinhuanet.com/english/china/2013-06/29/c_132497892.htm).

Xishuangbanna National Nature Reserve Administrative Bureau. 2010. *Xishuangbanna daizu zizhizhou ziranbaohuqu zhi:1958-2008 (Xishuangbanna Dai Autonomous Prefecture Nature Reserve Gazetteer: 1958-2008)*. Kunming: Yunnan Science and Technology Press.

Xu, Jianchu, and David R. Melick. 2007. "Rethinking the Effectiveness of Public Protected Areas in Southwestern China." *Conservation Biology* 21(2):318–28.

Xu, Jianchu, and Andreas Wilkes. 2004. "Biodiversity Impact Analysis in Northwest Yunnan, Southwest China." *Biodiversity and Conservation* 13(5):959–83.

Xu, Jianying, Yihe Lü, Liding Chen, and Yang Liu. 2009. "Contribution of Tourism Development to Protected Area Management: Local Stakeholder Perspectives." *International Journal of Sustainable Development & World Ecology* 16(1):30–36.

Xu, Jiliang, Zhengwang Zhang, Wenjing Liu, and Philip J. K. McGowan. 2012. "A Review and Assessment of Nature Reserve Policy in China: Advances, Challenges and Opportunities." *Oryx* 46(04):554–62.

Yang Guihua, Wen Chuanhao, and Wang Yuehua. 2002. "Shengtai lüyou de daqi ji shuihuanjing xiaoying—yi dianxibei bitahai ziranbaohuquweili" (The Effects of Ecotourism on Air and Aquatic Environments: The Case of Bita Lake Nature Reserve in Northwest Yunnan. *Journal of Mountain Research* 20(6):752–56.

Yang Jianmei, Xue Ximing, and Wang Hao. 2011. "Lüyou yingxiang xia de shequ shengwu ziyuan liyong fangshi yanbian yanjiu" (Research on Changes in Community Use of Biological Resources under the Influence of Tourism: The Case of Luorong Village in Shangri-la County). Journal of the Chuxiong Normal Institute 26(6):58–63.

Yang, Li, and Geoffrey Wall. 2008. "Ethnic Tourism and Entrepreneurship: Xishuangbanna, Yunnan, China." *Tourism Geographies* 10(4):522–44.

Yang, Mingyu, Luc Hens, Xiaokun Ou, and Robert De Wulf. 2009. "Tourism: An Alternative to Development?" *Mountain Research and Development* 29(1):75–81.

Yang, Xuefei et al. 2008. "Matsutake Trade in Yunnan Province, China: An Overview." *Economic Botany* 62(3):269–77.

Yang, Xuefei, Andrew K. Skidmore, David R. Melick, Zhekun Zhou, and Jianchu Xu. 2006. "Mapping Non-wood Forest Product (matsutake Mushrooms) Using Logistic Regression and a GIS Expert System." *Ecological Modelling* 198(1-2):208–18.

Yang, Yuming, Kun Tian, Jiming Hao, Shengji Pei, and Yongxing Yang. 2004. "Biodiversity and Biodiversity Conservation in Yunnan, China." *Biodiversity & Conservation* 13(4):813–26.

Yang Zijiang, and Yang Guihua. 2009. "Lüyou dui meilixueshan yubengcun ziran ziyuan liyong chuantong yingxiang yanjiu" (Research on the Influence of Tourism on Traditions of Natural Resource Use in Yubeng Village of Meili Snow Mountain). *The Ideological Front* 35(3):137–38.

Ye Wen, Shen Chao, and Li Yunlong. 2008. *Xianggelila de yanjing: Pudacuo guojia gongyuan guihua he jianshe (The Eyes of Shangri-la: Planning and Construction of Putatso National Park)*. Beijing: China Environmental Science Press.

Yeh, Emily T. 2009. "Greening Western China: A Critical View." *Geoforum* 40:884–94.

Yeung, Y. M., and Jianfa Shen, eds. 2004. *Developing China's West: A Critical Path To Balanced National Development*. Hong Kong: Chinese University Press.

YGRPPT (Yunnan Great Rivers Project Planning Team). 2001. "Northwestern Yunnan Ecoregional Conservation Assessment." Kunming, Yunnan: Yunnan Provincial Planning Commission and The Nature Conservancy.

Yin, Runsheng, Guiping Yin, and Lanying Li. 2010. "Assessing China's Ecological Restoration Programs: What's Been Done and What Remains to Be Done?" *Environmental Management* 45(3):442–53.

Yu, Lu, and Katharine Nora Farrell. n.d. "Individualized Pastureland Use: Responses of Herders to Institutional Arrangements in Pastoral China." *Human Ecology* 1–13.

Yuan, Jianqiong, Limin Dai, and Qingli Wang. 2008. "State-Led Ecotourism Development and Nature Conservation: a Case Study of the Changbai Mountain Biosphere Reserve, China." *Ecology and Society* 13(2):55 [online].

Yunnan Province Bureau of Statistics. 2004. *2003Yunnan tongji nianjian* (2003 Yunnan Statistical Yearbook). Beijing: China Statistics Press.

Yunnan Province Bureau of Statistics. 2012. *2011 tongji nianjian* (2011 Yunnan Statistical Yearbook). Beijing: China Statistics Press.

Yunnan Province Forestry Department, and Research Office of the People's Government of Yunnan. 2009. *Yunnansheng guojiagongyuan fazhan zhanlüe yanjiu* (Research on Development Strategies for National Parks in Yunnan).

Yunnan Province Government. 2009. *Yunnansheng guojiagongyuan fazhan guihua gangyao (2009—2020)* (Summary of the 2009-2020 Plan for National Park Development in Yunnan).

Yunnan Province Tourism Bureau and Yunnan Province Development and Reform Commission. 2008. *Yunnansheng lüyou chanye fazhan he gaige guihua gangyao* (Key Points from the 2008-2015 Tourism Sector Development and Reform Plan for Yunnan).

Yunnan Provincial Committee of the CPC and Provincial Government of Yunnan. 2006. "Zhonggong yunnan shengwei, Yunnan sheng renmin zhengfu guanyu jin yi bu jiakuai lüyou chanye fazhan de ruogan yijian (Several Opinions of the Yunnan Provincial Committee of the CPC and the Provincial Government of Yunnan Regarding Further Accelerating Tourism Sector Development)." Pp. 3-12 in *Yunnan lüyou erci chuangye: Fazhan zhanlue yu guize* (*Yunnan's Second Stage of Innovation in Tourism: Development Strategy and Planning*), edited by Luo Mingyi, Yuan Guanghan, and Chen Shuyun. Kunming: Yunnan University Press.

Yunnan University Tourism Research Institute. 2008. *Overall Plan for Meili Snow Mountain National Park*. Kunming: Yunnan University Tourism Research Institute.

Zackey, Justin. 2006. "The Deforestation Discourse of Southwest China: Issues of State Legitimacy and Strategies of Blame." *Asian Geographer* 25(1-2):5–19.

Zambrano, Angelica M. Almeyda, Eben N. Broadbent, and William H. Durham. 2010. "Social and Environmental Effects of Ecotourism in the Osa Peninsula of Costa Rica: The Lapa Rios Case." *Journal of Ecotourism* 9(1):62–83.

Zhang, Chun. 2013. "Civil Society's Changing Role in the Chinese Political System." *China Dialogue*, March 18. Accessed March 23, 2013 (http://www.chinadialogue.net/article/show/single/en/5804-Civil-society-s-changing-role-in-the-Chinese-political-system).

Zhang, Q. Forrest, and John A. Donaldson. 2010. "From Peasants to Farmers: Peasant Differentiation, Labor Regimes, and Land-Rights Institutions in China's Agrarian Transition." *Politics & Society* 38(4):458 –489.

Zhang, Yue. 2008. "Steering Towards Growth: Symbolic Urban Preservation in Beijing, 1990–2005." *Town Planning Review* 79(2):187–208.

Zhang Zhongyun. 2006. *Zangzu zhi: Lingting xiangyin—Yunnan zangzu de shenghuo yu wenhua (Tibetan Ethnography: Listening to Native Speech--The Life and Culture of Yunnan Tibetans)*. Kunming: Yunnan University Press.

Zhangjiajie Municipality People's Government. 2011. "Zhangjiajie guojia senlin gongyuan jiang huimin gongcheng wushi" (Zhangjiajie National Forest Park Implements Benefit the People Program.) Zhangjiajie Tourism Administrative Website. Accessed July 16, 2012 (http://www.zhangjiajie.gov.cn/html/15/n_1915.html).

Zhong, Linsheng, Jinyang Deng, and Baohui Xiang. 2008. "Tourism Development and the Tourism Area Life-cycle Model: A Case Study of Zhangjiajie National Forest Park, China." *Tourism Management* 29(5):841–56.

Zhou, D. Q., and R. Edward Grumbine. 2011. "National Parks in China: Experiments with Protecting Nature and Human Livelihoods in Yunnan Province, Peoples' Republic of China (PRC)." *Biological Conservation* 144(5):1314–21.

Zhuang, Bei, and Huang, Dan. 2011. "*2010 nian quanguo senlin gongyuan jiedai youke 3.96 yi renci* (In 2010 Forest Parks Nationwide Received 396 Million Visits). *Xinhua Net*, November 17. Accessed June 4, 2013 (http://www.hainan.news.cn/focus/2011-11/17/content_24148618.htm).

Zimmerer, Karl S., Ryan E. Galt, and Margaret V. Buck. 2004. "Globalization and Multi-spatial Trends in the Coverage of Protected-Area Conservation (1980–2000)." *Ambio* 33(8):520–29.