

ARTICLE
BALANCING BIODIVERSITY AND NATURAL
RESOURCE PROTECTION OBJECTIVE WITH
ETHNIC MINORITY AUTONOMY:

A CHINESE MODEL

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I. INTRODUCTION

Each society as it exists through time has a particular philosophy of history. This point, where “. . . historical and political theory meet” is “a set of ideas about what happens, what can be known and what [is] done” in a society.¹ This philosophy of history is intimately intertwined with the foundational myths of a particular society. The myths are important in new societies (such as New Zealand) or where new governments with radically different institutional and social character (such as the People’s Republic of China [PRC]) are established because it is necessary for them to legitimize the organization and use of political power.² The way in which these foundational events are understood (which of course varies from one period to the next and

1. J.G.A. Pocock, *Time, Institutions and Action: An Essay on Traditions and their Understanding*, in *POLITICS, LANGUAGE AND TIME* 233, 233 (1972).

2. Pocock, *On the Non-Revolutionary Character of Paradigms: A Self-Criticism and Afterpiece*, in *POLITICS, LANGUAGE AND TIME* 273-91, *supra* note 1.

among individuals), is to one extent or another, part of each nation's identity. Thus, to a certain extent foundational history is constitutional history as it serves to legitimize the authoritative exercise of power. In a constitutional system "[L]egitimacy is understood to refer not only to whether a power exists at all, but also to the basis upon which the power is exercised" ³ The establishment of a dominant paradigm of foundational history or the continuous dispute and re-interpretation of such history can have a profound effect on the constitutional development of the state.

The PRC's foundational myths are simultaneously ancient and modern. The Chinese state traces the nation's dynastic beginnings back into the "mists of time."⁴ At the same time, the twentieth-century Chinese revolution and the subsequent establishment of the PRC in 1949 are also important to the political and cultural environment. This history and the policy narrative upon which it is premised has been a dominant component of natural resource policy in the PRC. It privileges a nationally directed policy approach to natural resource issues while depreciating local differences as to the preservation, conservation, and use of natural resources. This approach to natural resource policy, which in many ways is consistent with the historical efforts of the central government to extend its control over peripheral local governments and natural resources, has been criticized as ineffective and inappropriate for protecting and conserving the environment and biodiversity. It fails to prioritize ecological values over economic values and it has been poorly implemented due to ambiguity in policy statements, enabling laws and regulations. Additionally, it has been criticized as having too limited public participation in formulation and implementation as well as less than adequate enforcement.⁵

This centralization process can be particularly problematic for ethnic minority peoples. For many of these groups, an involvement in the planning and implementation of natural resource and biodiversity planning is of paramount importance. Their resource use and practices can have a profound impact on the success of biodiversity programs. This resource use often involves subsistence and cultural uses. They

3. CANADIAN CONSTITUTIONAL LAW 30 (Joel Bakan et al. eds., 2003).

4. Julian Thomas, *A History of Beginnings*, in QUICKSANDS: FOUNDATIONAL HISTORIES IN AUSTRALIA AND AOTEAROA NEW ZEALAND 115 (Hilary Erickson et al. eds., 1999).

5. See Wenxuan Yu & Jason J. Czarnecki, *Challenges to China's Natural Resources Conservation and Biodiversity Legislation*, 43 ENVTL. L. REV. 125 (2013).

tend to be concentrated in those areas of biodiversity hotspots (such as southwest China) and in more remote and undeveloped autonomous regions which have an abundance of protected species. Often, they engage in traditional agro-ecosystems and forestry practices that feature high levels of biodiversity.⁶ Moreover, they possess traditional knowledge and religious beliefs that have been important in conserving and preserving natural resources. As such, ethnic minority group practices can have a disproportionate impact on wildlife and biodiversity preservation and conservation efforts. Incorporating their concerns within regulation is compounded by the fact that regulating their practices often involves difficult *zero-sum* environmental issues and can concern conflicting narratives between the ethnic minority peoples and the majority populations.

One device used in the PRC to address over-centralization of policy and the problems associated with the practices and uses of natural resources has been the creation of autonomous regions and smaller autonomous prefectures/counties.⁷ These areas have jurisdictional competence to enact regulations differing from national or regional law and regulations (where the autonomous region is at the county/prefecture level) “in the light of the political, economic and cultural characteristics of the nationality or nationalities in the areas concerned.”⁸ In effect, the ethnic autonomous system gives those local governments more authority to modify substantive provisions or mitigate the effects of national regulatory measures in response to their local situations. If such autonomy is exercised properly, more flexibility can be given to consideration of hunting and gathering practice of ethnic minority groups. This territorially based local government approach differs in many respects from other jurisdictions in two aspects. Firstly, the hunting and gathering practices of ethnic minority/indigenous groups in other jurisdictions have been recognized as part of their culture and identity and therefore protected by relevant international human rights treaties.⁹ Secondly, they often have overlay

6. See Chen Aiguo et al., *Causes and Dynamics of the Changing of Agroforestry Practices in Baka, Xishuangbanna*, 23 *ACTA BOTANICA YUNNANICA* 101 (2001).

7. See Chunli Xia, *Autonomous Legislative Power in Regional Ethnic Autonomy of the People's Republic of China: The Law and the Reality*, in *ONE COUNTRY, TWO SYSTEMS, THREE LEGAL ORDERS - PERSPECTIVES OF EVOLUTION* 541 (Jorge Costa Oliveira & Paulo Cardinal eds., 2009).

8. XIANFA art. 116, § 6 (1982) (China).

9. Convention on Biological Diversity, art. 8(j), June 5, 1992, 79 U.N.T.S. 1760; G.A. Res. 61/295 arts. 5, 8, 9, 11, 31 & 34, United Nations Declaration on the Rights of Indigenous

generally applicable regulations that allow for the general population to engage in similar activities.¹⁰ In theory these local autonomous areas should address some of the more culturally and environmentally inappropriate regulations which would be promulgated by a *top-down* prohibition-based approach to wildlife management and protection.

This Article focuses on the regulation of ethnic minority hunting and gathering practices and the awareness of local officials of ethnic minority concerns relating to biodiversity in two ethnic minority regions of China, i.e. Yunnan Province and Inner Mongolia Autonomous Region. Yunnan and Inner Mongolia have many ethnic minorities who have historically engaged in various practices utilizing natural resources currently considered under threat and are now regulated or proscribed by natural resource and biodiversity conservation law. Yunnan, which is technically not a designated autonomous region (having only autonomous prefectures and counties) under the Constitution, has mountainous areas where local ethnic minority groups continue to engage in hunting and gathering activities for subsistence and as part of their cultural practices.¹¹ Many of these activities however occur in prefecture/county level autonomous areas where ethnic minorities are concentrated, such as Chuxiong autonomous prefecture.¹² Inner Mongolia was the first autonomous region established by the PRC after the Communist Party came into power in 1949.¹³ The studied Inner Mongolian minority group, the

Peoples (Sept. 13, 2007); Study on the Role of Languages and Culture in the Promotion and Protection of the Rights and Identity of Indigenous Peoples, U.N. Doc. A/HRC/EMRIP/2012/3, ¶¶ 51-52 (Apr. 30, 2012); General Comment No. 23: Article 27 (Rights of Minorities), adopted at the Fiftieth Session of the Human Rights Committee, U.N. Doc. CCPR/C/21/Rev.1/Add.5, ¶ 7 (Apr. 8, 1994); U.N. Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 21: Right of Everyone to Take Part in Cultural life (art. 15, para. 1 (a), of the International Covenant on Economic, Social and Cultural Rights), U.N. Doc. E/C.12/GC/21, ¶ 10 (Dec. 21, 2009).

10. See, e.g., International Covenant on Social, Economic and Cultural Rights art. 15, Dec. 16, 1966, 993 U.N.T.S. 3.

11. Cui Mingkun (崔明昆), *Lun Shoulie Caiji Wenhua de Shengtai Shiyong* (论狩猎采集文化的生态适应) [*Hunter-Gatherers' Ecological Adaptation*], SIXIANG ZHANXIAN [IDEOLOGICAL FRONT] 117 (2002) (China); Yang Fuwang (杨甫旺), *Yizu Shoulie Wenhua Chulun* (彝族狩猎文化刍论) [*Primary Analysis of Hunting Culture of Yi Nationality*], 25 CHUXIONG SHIFANXUEYUAN XUEBAO (楚雄师范学院学报) [J. CHUXIONG NORMAL U.] 38 (2010) (China).

12. Yang, *supra* note 11, at 38-43.

13. Li Zebing (李泽兵), *Neimenggu 60 Nian: Woguo Diyige Minzuzizhi qu shi ruhe Dansheng de* (内蒙古 60 年: 我国第一个民族自治区是如何诞生的) [*60 years for Inner Mongolia: How did our Country's First Ethnic Autonomous Region come to being*], THE CENTRAL PEOPLE'S GOVERNMENT OF THE PEOPLE'S REPUBLIC CHINA (May 1, 2007),

Oroqen ethnic group, is well-known for its hunting and gathering practices and can serve as a good case to study how a typical hunting ethnic minority group has evolved and coped with flora and fauna and biodiversity protection efforts by the national and regional governments.

This Article explores how the two governments have dealt with ethnic minority hunting and gathering practices in their efforts to reach a required balance between economic development and conservation. It argues that despite the relative success of the centralized approach to resource management, government and officials have not used their autonomous authority to mitigate any of these problems despite being aware of the impact the policies have had on minorities and local people. This lack of use of autonomous authority suggests that additional opportunities to improve policy outcomes could be improved and/or reduced hardship could be achieved.

For this Article, the Authors traveled to the relevant areas and conducted semi-structured interviews during 2016–2018 with local people working on natural resources and biodiversity policy and implementation in Yunnan and Inner Mongolia. Interviewees included government officials, local ethnic minority users, enforcement staff and academics. Questions focused on the roles of interviewees and their organizations in the crafting of biodiversity policy, regulatory policies and management implementation. All interviews were conducted in person using Chinese. In analyzing data, the Authors looked for patterns in interviewee’s attitudes toward ethnic minorities, regulatory design, and management implementation as it related to conservation, natural resource use, and biodiversity.

II. ETHNIC MINORITY GROUPS, NATURAL RESOURCE CONSERVATION, AND THE PROTECTION OF BIODIVERSITY

China is considered to be one of a few “mega-diversity” countries in the world, harboring extremely rich biodiversity and endemism. For example, it has more relic lineages of plant taxa in the world.¹⁴ China has 34,984 known higher plants, ranking it third in the world. China also has 6,445 vertebrate animal species, accounting for 13.7% of the

http://www.gov.cn/jrzq/2007-05/01/content_603662.htm [https://perma.cc/3NGH-FVHV] (China).

14. See Sergei Volis, Securing a Future for China’s Plant Biodiversity through an Integrated Conservation Approach, 40 *PLANT DIVERSITY* 91 (2018).

global total. In other types of biodiversity such as fungi species, China has more than 10,000, making up fourteen percent of the known number of species in the world.¹⁵ This diversity is under threat due to economic development, population growth, shifting land use patterns, and climate change. According to the State Environmental Protection Administration which published the 2008 China Species Red List, 34.74% of invertebrates, 35.92% of vertebrates, 69.91% of gymnosperms, and 86.63% of angiosperms out of the total of 17,300 species of flowering plants and 667 endemic vertebrates are considered endangered.¹⁶

In the face of these threats, efforts to conserve and protect wildlife resources and biodiversity have accelerated in the past several decades. While there have been some notable successes, e.g. more *in situ* conservation areas, larger areas set aside as nature reserves (Over 2,000 nature reserves covering approximately 18% of PRC's total land area have been established), and forest regeneration, for the most part efforts have failed to significantly reverse the continued loss of biodiversity in flora and fauna populations as well as the degradation of the supporting habitats. It is apparent that the law and implementation of the law has been less than adequate. Recently Richard B. Harris noted when discussing wildlife conservation policies in Western China:

“China’s wildlife laws fail to help wildlife much not because they are too weak, but— ironically —because they are so draconian. They are aspirational in a way that renders them merely pointers toward an ideal, if unrealistic, goal, and thus allows real power to remain with local officials or private parties whose priorities are usually elsewhere. They fail to help wildlife much because they

15. *China National Biodiversity Conservation Strategy and Action Plan*, CONVENTION ON BIOLOGICAL DIVERSITY (2010), <https://www.cbd.int/doc/world/cn/cn-nbsap-v2-en.pdf> [<https://perma.cc/58FE-XSAF>] [hereinafter Strategy and Action Plan]. The Chinese name of the 2010 Strategy and Action Plan is *Zhongguo Shengwu Duoyangxing Baohu Zhanlue yu Xingdong Jihua (2011-2030 nian)* (中国生物多样性保护战略与行动计划(2011-2030年)).

16. See The Ministry of Environmental Protection of China, *China's Fifth National Report on the Implementation of the Convention on Biological Diversity* (Mar. 2014), <https://www.cbd.int/doc/world/cn/cn-nr-05-en.pdf> [<https://perma.cc/7PZE-4H3X>]. Despite various measures taken by the Chinese Government for biodiversity conservation, the biodiversity decline trend has not been fundamentally contained. The percentage of endangered invertebrates (critically endangered, endangered and vulnerable) is 34.7%. The percentage of endangered vertebrates is 35.9%. The number of endangered plants is 3,767, accounting for 10.9% of the total higher plant species assessed in China. The number of higher plant species that require attention and protection has come up to 10,102, accounting for 29.3% of the total species assessed in China. *Id.*

tacitly assume that costs and benefits of wildlife conservation can be realized on a scale that is unprecedented and unrealistic”¹⁷

Additionally, the policies have been criticized as an overly legalistic and bureaucratic *top-down* prohibition-based which fails to comprehensively manage flora and fauna conservation or to provide sufficient support for local implementation. Given the reliance on local institutions and funding to implement the conservation programs, these prohibitory approaches coupled with often contradictory economic development or settlement schemes, and less than adequate rule of law has created discrepancies between what the law says and what individuals, local communities and officials actually do in using, regulating and protecting flora and fauna. Despite improvements across all levels of government the observation of Alford and Shen continues to have traction regarding the efficacy of environmental laws.

[T]he laws presuppose a common national commitment to the goal of environmental protection [whereas the only national commitment is really to rapid economic growth, which is detrimental to the environment] and a higher degree of administrative cohesion than currently exists. It is assumed that subnational units of government will want to meet, if not exceed, national set environmental standards. Little attention is focused on environmental problems that transcend a single jurisdiction. The laws presume that local environmental protection bureaus, which report principally to the local government officials, will successfully coordinate with the [National Environmental Protection Agency] Even within single subnational units of government, the laws fail to anticipate the possibility that certain governmental interests, particularly those of departments with major economic possibilities, might diverge sharply from those of local environmental protection officers.¹⁸

These governance and implementation issues have become more acute as China has ratified the *Convention on Biological Diversity* (the “Convention”).

The involvement of ethnic minority groups (*shaoshu minzu*), and a sensitive understanding and respect for their cultural practices, can have a positive impact on these ongoing efforts under the Convention

17. RICHARD B. HARRIS, *WILDLIFE CONSERVATION IN CHINA: PRESERVING THE HABITAT OF CHINA’S WILD WEST* 104 (2008).

18. William P. Alford & Yuanyuan Shen, *The Limits of Law in Addressing China’s Environmental Dilemma*, 16 *STAN. ENVTL. L.J.* 125, 133–34 (1997).

to allow for the conservation and sustainable use of biodiversity.¹⁹ As part of this objective, it obliges the signatory state to “respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity” as well as “protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.”²⁰ Minority peoples generally inhabit areas where there is more biodiversity, where there are established (or planned) reserves or buffer areas around reserves and/or wilderness. Often their subsistence uses of wild flora and fauna,²¹ agricultural practices or wildlife cottage industries are the only significant human uses of natural resources in an area. Their activities can directly impact natural resource management objectives, ecosystem health and implementation of conservation regulations. For example, Taveau and Wang have shown that Miao communities in northern Yunnan often have little understanding of how to interpret forest conservation policy. To the Miao villagers the policy often seemed illogical and contradictory.²² This can lead to frustration and the subsequent disregard of rules and forest management policies

19. The differentiation of China’s ethnic minorities was an ongoing project in the early PRC. The classification was based on Stalin’s definition of nation. Stalin defined a nation as: a human group which has historically been stable, possesses a common language, occupies a piece of territory, has an integrated economy and possesses a common psychological make-up (i.e., “a folk-psychology or national character”). See JAMES M. BLAUT, *THE NATIONAL QUESTION: DECOLONIZING THE THEORY OF NATIONALISM* (1987). Harrell argues that this criterion has “not been employed in any strict manner, but rather to confirm or legitimate distinctions for the most part already there in Chinese folk categories and in the work of scholars before liberation.” Stevan Harrell, *The History of the History of the Yi*, in *CULTURAL ENCOUNTERS ON CHINA’S ETHNIC FRONTIERS* 66 (Stevan Harrell ed., 1995).

20. See Convention on Biological Diversity, *supra* note 9.

21. Abdolbaset Ghorbani et al., *A comparison of the wild food plant use knowledge of ethnic minorities in Naban River Watershed National Nature Reserve, Yunnan, SW China*, 8 J. ETHNOBIOLOGY & ETHNOMEDICINE 17 (2012).

22. See W. Wang S Taveau, *Value of Forest Resources in a Miao Community of Jindou Natural Village, Yunlong County, Yunnan Province. Research Report for Community Livelihood Program*, CTR. BIODIVERSITY INDIGENOUS KNOWLEDGE, KUNMING, CHINA (2005), http://www.cbik.ac.cn/cbik-cn/cbik/our_work/download/Valueofforest.pdf [<https://perma.cc/P2WA-NNFL>], cited in David Melick et al., *Seeing the wood for the trees: how conservation policies can place greater pressure on village forests in southwest China*, 16 BIODIVERSITY CONSERVATORY 1959, 1969 (2007), <http://link.springer.com/10.1007/s10531-006-9115-9> [<https://perma.cc/7CWE-259P>].

altogether resulting in forest degradation.²³ Alternatively, the hunting of *bush meat* by ethnic minority groups can ensure that a reserve or undeveloped region upon which such hunting takes place remains highly valued in its underdeveloped state despite opportunities for other development. As such, it is necessary for government policy to inform and work with minority communities in the development of conservation objectives as well as foster and use ethnic minority peoples' traditional relationship to land to achieve those objectives.

Moreover, it is widely recognized that local indigenous knowledge and co-management with local cultures and communities have had a positive impact on biodiversity conservation effects in reserve areas.²⁴ Culturally expressed conservation ethics, animistic religious beliefs, conceptualizing other species as social beings, and the relatively higher richness of biodiversity found within sacred forests are cited as evidence of this relationship.²⁵ As noted by Tserendeleg when reviewing Mongolian and Inner Mongolian practices:

The older generation and the herdsmen believe that there is a non-material spiritual world, and that every mountain, rock, forest, and water body has a god or spirit or local deity, which owns and protects it. Therefore, there are thousands of places and mountains manifested as sacred.²⁶

Yang found that the Tai (or Dai) people in Xishuangbanna conserve biodiversity and protect forest resources by dividing the forest area in their territory in Dragon Mountain (Holy Mountain) into graveyard, fuelwood forest, timber forest, watershed forest, and the protection of trees, which they worship at Holy.²⁷ This contrasts with predominant Han Chinese approaches toward wildlife which emphasize "a predominately utilitarian and secondarily dominionistic and aesthetic attitude."²⁸ In addition, economic changes involving

23. For example, rules often restrict efforts to thin and improve forest structure, and there is frequently a lack of clarity about household allowances for timber and firewood. *Id.*

24. See Victor M. Toledo, *Indigenous Peoples and Biodiversity*, in *ENCYCLOPEDIA OF BIODIVERSITY* 451 (Simon A. Levin et al. eds., 2001).

25. See Chandra Singh Negi, *Traditional Culture and Biodiversity Conservation: Examples from Uttarakhand, Central Himalaya*, 30 *MOUNTAIN RES. & DEV.* 259 (2010).

26. J. Tserendeleg, *Great Father Sky and Mother Earth: Mongolian Nature Conservation Traditions* cited in TSE-KANG LENG GERALD A. McBEATH, *GOVERNANCE OF BIODIVERSITY IN CHINA AND TAIWAN* 22 (2006).

27. See Yuming Yang et al., *Biodiversity and Biodiversity Conservation in Yunnan, China*, 13 *BIODIVERSITY CONSERVATORY* 816 (2004).

28. Richard B Harris, *Approaches to Conserving Vulnerable Wildlife in China: Does the Colour of Cat Matter – if it Catches Mice?*, 5 *ENVTL. VALUES* 303 (1996) (“[S]imply put most

residential, commercial, or industrial development; new transport systems as well as the introduction of commercial agriculture or different land tenures erode the traditional customary institutions, social networks, and rules on resource usage.²⁹ The result can be that those traditional institutions or practices which privileged conservation or positively impacted the maintenance of biodiversity become less likely to moderate resource usage. The World Wildlife Fund (“WWF”) discussed this issue in a report concerning the threats to protected areas:

Loss of traditional rights can reduce peoples’ interest in long-term stewardship of the land and therefore the creation of a protected area can in some cases increase the rate of damage to the very values that the protected area was originally created to preserve. . . . Putting a fence around a protected area seldom creates a long-term solution to problems of disaffected local communities, whether or not it is ethically justified.³⁰

III. NATIONAL AND LOCAL LEGISLATION, POLICIES, AND PRACTICES ON BIODIVERSITY CONSERVATION

Yu notes that the law which supports biodiversity protection and the objectives of the Conventions comprises four levels. First, there are those constitutional provisions adopted and amended by the National People’s Congress (NPC).³¹ Second, there are a wide variety of biodiversity-related laws embedded within environmental legislation enacted by the NPC or its Standing Committee.³² Third, administrative regulations enacted by the State Council.³³ Fourth, biodiversity-related rules and normative documents promulgated by the Ministries.³⁴ This

Chinese traditionally view wildlife in terms of its impact on human life and livelihood, and secondarily as objects of beauty, but only when under the control of man”).

29. Jianchu Xu et al., *Integrating Sacred Knowledge for Conservation: Cultures and Landscapes in Southwest China*, 10 *ECOLOGY & SOC’Y* (2006). Jianchu Xu et al., *Integrating Sacred Knowledge for Conservation: Cultures and Landscapes in Southwest China*, 10 *ECOLOGY & SOC’Y* 7 (2004), <http://www.ecologyandsociety.org/vol10/iss2/art7/> [<https://perma.cc/K4XE-RKN5>].

30. NIGEL DUDLEY ET AL., *SQUANDERING PARADISE? THE IMPORTANCE AND VULNERABILITY OF THE WORLD’S PROTECTED AREAS* 39 (2000), available at <https://www.semanticscholar.org/paper/Threats-to-protected-areas-%3A-squandering-paradise-Carey-Dudley/c65986de7c4bdf363ae6fbbbc777454a604cc04> [<https://perma.cc/BRR8-36RA>].

31. Czarnezki & Yu, *supra* note 5, at 128.

32. *Id.*

33. *Id.*

34. *Id.*

Section will examine China's implementation of the Convention at both national and regional levels.

Since 1978 with the introduction of the open-door policy, development has been emphasized. While a spectacular success, economic growth which has lifted millions out of poverty, the policy has been accompanied by severe environmental degradation. Air and water pollution, land contamination, loss of farmland, erosion, decreasing groundwater levels, increasing river and lake sedimentation, deforestation, grassland destruction, and loss of biodiversity, both localized and across the country, have become serious problems for the citizenry and policymakers. Biodiversity in particular has had less attention than more obvious environmental challenges. The first Chinese efforts to address biodiversity issues in the international sphere started with China joining the *Convention on International Trade in Endangered Species* in 1981 and the *Ramsar Convention* for the protection of wetlands in 1992.³⁵ Nevertheless, governmental concern for biodiversity issues gained traction over the past several decades. This growing awareness was punctuated by the 1992 Earth Summit held in Rio which adopted the *Convention on Biological Diversity*.³⁶ Initially, the objectives and implementation of the Convention were given lessor importance to other economic and environmental goals and for the most part was haphazardly implemented at the regional/local level.³⁷ However, since 2015, the salience of the problem has been more fully appreciated by

35. *Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora*, U.N. TREATY ARCHIVE, <https://treaties.un.org/Pages/showDetails.aspx?objid=0800000280105383> [https://perma.cc/3UZ7-VD4R] (last visited Jan. 15, 2020); *China*, RAMSAR ORG., <https://www.ramsar.org/wetland/china> [https://perma.cc/WXF4-3Z4W] (last visited Jan. 15, 2020).

36. *Convention on Biological Diversity*, *supra* note 9. In addition, the Earth Summit also adopted the Rio Declaration (Framework Convention on Climate Change). *See* Report of the United Nations Conference on Environment and Development, Annex I: Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/26 (Vol. I) (Aug. 12, 1992); *Agenda 21*, U.N. SUSTAINABLE DEV., <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf> [https://perma.cc/FA7R-P2PB] (last visited Jan. 30, 2020).

37 *See, e.g.*, China Council for International Cooperation on Environment & Development ("CCICED"), *Policy Research Report on Environment and Development 2012: Regional Balance and Green Development* (2013), http://www.iisd.org/pdf/2013/CCICED_annual_report.pdf [https://perma.cc/BUF9-XRAX].

policymakers and systemic implantation programs have been pursued at the regional and local levels of government.³⁸

A. *National Legislation and Policy on Biodiversity Conservation*

China joined the Convention in January 1993 and was one of the first countries to ratify it.³⁹ Article 6 of the Convention requires contracting parties to

develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia*, the measures set out in this Convention relevant to the Contracting Party Concerned.⁴⁰

The State Council issued an Action Plan on Conservation of Biodiversity (Action Plan) in June 1994.⁴¹ Since 2007, the Ministry of Environment has taken initiative to update the Action Plan in coordination with more than 20 relevant governmental departments at the ministerial level. In September 2010, the State Council examined and approved the “China National Biodiversity Conservation Strategy and Action Plan (2011-2030)” (“Strategy and Action Plan”).⁴² The Strategy and Action Plan has set strategic goals in three phases. The immediate goal is to effectively check the decline of biodiversity in important regions by 2015; the median term goal is to essentially control the loss and decline of biodiversity across the country by 2020;

38. Personal interview by the first author with Professor Tian, Deputy Director, Legislative Affairs Commission of Yunnan Provincial People’s Congress, Yunnan University Law School Conference Room (June 27, 2018) [hereinafter Interview with Tian].

39. L.Z. Chen & S.D. Zhao, *Implementation of Convention on Biological Diversity in China*, III in 3 AREA STUDIES (REGIONAL SUSTAINABLE DEVELOPMENT REVIEW): CHINA 84, 85 (Sun Honglie & Shidong Zhao eds., 2009). The 7th National People’s Congress decided to ratify the Convention at its 28th meeting in November 1992. The Convention came into effect on Dec. 29, 1993. See *International Day for Biological Diversity 22 May*, UNITED NATIONS, <https://www.un.org/en/events/biodiversityday/convention.shtml> [https://perma.cc/8Y3G-AZVE] (last visited Jan. 30, 2020).

40. See Convention on Biological Diversity, *supra* note 9, art. 6(a). Article 6(b) requires each contracting party to “integrate as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.” *Id.* art. 6(b).

41. See Strategy and Action Plan, *supra* note 15. Specifically speaking, it was the original Environmental Protection Commission under the State Council which issued the Action Plan. That Commission has been renamed the Ministry of Environment. The Chinese name of the 1994 Action Plan is *Zhongguo Shengwu Duoyangxing Baohu Xingdong Jihua* (中国生物多样性保护行动计划).

42. Strategy and Action Plan, *supra* note 15.

and the long-term goal is to have effective protection of biodiversity by 2030.⁴³ In addition, the Strategy and Action Plan prioritized certain actions that require urgent implementation.⁴⁴ No comprehensive piece of national legislation has been enacted for the preservation of biodiversity under the Action Plan.

The Convention adds additional weight to the substance and implementation of domestic law. At domestic level, Article 9(2) of Chinese Constitution provides: “The State ensures the rational use of natural resources and protects rare animals and plants. Appropriation or damaging of natural resources by any organization or individual by whatever means is prohibited.” Additionally, Article 26 mandates that “the State protects and improves the living and environment and the ecological environment. Prevents and remedies pollution and other public hazards.” These constitutional provisions have been implemented through various national laws and regulations including: the Environmental Protection Law (Art. 15 of the law prohibits hunting and exploitation of rare wildlife), Marine Environmental Protection Law, Forest Law, Water Law (provides that the “government shall protect water resources and adopt effective measures to preserve natural flora, plant trees and grow grass, conserve water resources, prevent and control soil erosion and improve the ecological environment”), Fishery Law, the Grassland Law, and the updated [2016] Law on the Protection of Wild Animals (“charges the state to ensure the protection of wild animals and their habitat, organize regular field surveys of wildlife resources and to improve ecological assessment of construction projects”). More recently, the national government has overseen the development and implementation of “Ecological redlines.”⁴⁵ Moreover, many of these laws have been

43. Xue Dayuan (薛达元), ‘*Zhongguo Shengwu Duoyangxing Baohu Zhanlue yu Xingdong Jihua*’ de Hexin Neirong yu Shishi Zhanlue (‘中国生物多样性保护战略与行动计划’的核心内容与实施战略) [*The Main Content and Implementation Strategy for ‘China Biodiversity Conservation Strategy and Action Plan’*], 9 *SHENGWU DUOYANGXING* (生物多样性) [*BIODIVERSITY SCIENCE*] 387 (2011) (China).

44. See Strategy and Action Plan, *supra* note 15.

45. See Mengtian Cao et al., *Analysis of the Network of Protected Areas in China Based on a Geographic Perspective: Current Status, Issues and Integration*, 7 *SUSTAINABILITY* 15617, 15617-31 (2015). In 2014, the Ministry of Environmental Protection issued the National Ecological Red Line-Technical Guidelines for Delineating the Baseline of the Ecological Function. Ecological red lines:

refer to delineated in areas with key ecological functions and sensitive and vulnerable land/marine ecosystems. The system is designed to achieve the scientific integration of various types of PAs and to implement permanent protections. The ecological red

further strengthened, clarified, and implemented through regulations adopted either by the State Council or various ministries. For example, the Law on the Protection of Wild Animals has been further elaborated and strengthened by implementation regulations issued by the relevant Ministries and approved by the State Council.⁴⁶ In 1994, the State Council issued Regulations on Protection of Natural Reserves. In 1996, the State Council promulgated Regulations on Protection of Wild Plants.⁴⁷ There are also regulations to strengthen the construction and management of Nature Reserves.

B. Regional and Local Legislation, Policy and Practice on Biodiversity Conservation in Yunnan Province

Yunnan Province, which remains one of the poorest provinces in the PRC, has witnessed dramatic impacts on its natural environment over the past several decades period as industrialization and urbanization accelerate. Rising population, socio-development

lines define strictly protected spatial boundaries and authorized limits for ecosystem services, thus ensuring environmental quality, the sustainable utilization of natural resources and other aspects, including that minimal standards are maintained regarding ecological functions and environmental quality and that an upper limit is placed on natural resource utilization. To maintain national or regional ecological security and sustainable development, areas that require special protections have been delineated with protection requirements for the integrity and connectivity of ecosystems.

46. See Zhonghua Renmin Gongheguo Lusheng Yesheng Dongwu Baohu Shishi Tiaoli (中华人民共和国陆生野生动物保护实施条例) [Implementing Regulations of the People's Republic of China on Protection of Wild Animals on Land] (approved by the St. Council, Feb. 12, 1992, promulgated by the Ministry of Forestry, Mar. 1, 1992, effective Mar. 1, 1992, amended Jan. 8, 2011) (China); Zhonghua Renmin Gongheguo Shuisheng Yesheng Dongwu Baohu Shishi Tiaoli (中华人民共和国水生野生动物保护实施条例) [Implementing Regulations of the People's Republic of China on Protection of Wild Animals in Water] (approved by the St. Council, Sept. 17, 1993, promulgated by the Ministry of Agriculture, Oct. 5, 1993, effective Oct. 5, 1993, amended Jan. 8, 2011 and Dec. 7, 2013); *III. Wildlife Protection and Management*, FOOD & AGRIC. ORG., <http://www.fao.org/3/Y3844E/y3844e05.htm> [https://perma.cc/E2N9-88EB] (last visited Feb. 7, 2020); *Environmental Protection in China*, PERMANENT MISSION OF THE PEOPLE'S REPUBLIC OF CHINA TO THE U.N. OFF. AT GENEVA AND OTHER INT'L ORG. IN SWITZERLAND, <https://www.fmprc.gov.cn/ce/cegv/eng/zmjg/jgzfbps/t176940.htm> [https://perma.cc/2TD5-VP7T] (last visited Feb. 7, 2020).

47 Zhonghua Renmin Gongheguo Ziran Baohuqu Tiaoli (中华人民共和国自然保护区条例) [Regulations of the People's Republic of China on Nature Reserves] (promulgated by the St. Council, Oct. 9, 1994, effective Dec. 1, 1994) (China); Zhonghua Renmin Gongheguo Yesheng Zhiwu Baohu Tiaoli (中华人民共和国野生植物保护条例) [Regulations of the People's Republic of China on Protection of Wild Plants] (promulgated by the St. Council, Sept. 30, 1996, effective Jan. 1, 1997) (China).

pressures, and changes in land use and land cover have significantly affected agricultural, forest, and water resources as well as biodiversity.⁴⁸ Although Yunnan is not an autonomous region, it has autonomous prefectures and counties. Within its relatively small area,⁴⁹ it has the most ethnic minorities (twenty-five)⁵⁰ and rich biodiversity. Many of the ethnic groups have distinctive cultures, lifestyles and religious traditions which they share with their Tibetan and southeastern neighbors. Due to its varied topography, the province hosts several different climatic zones: tropical, subtropical, and temperate with their corresponding fauna and flora. Indeed, the biodiversity found in the province accounts for approximately fifty percent of national biodiversity.⁵¹ The territory of Yunnan provides support for approximately over 18,000 higher plant species, 900 bird species and 620 fish species. This high level of biodiversity occurs across habitats ranging from tropical lowland forests to alpine meadows.⁵² Approximately fifty percent of Yunnan is covered by forest (above the national average of about 21.6%) and forest livelihoods are important.⁵³ Effective conservation of biodiversity in Yunnan Province is therefore of national importance.

48. See Yang Zisheng & Liang Luohui, *Traditional Land Use for Sustainable Land Use: The Case of Yunnan Province, China*, in 2 HUMAN SETTLEMENT DEVELOPMENT 191 (Saskia Sassen ed., 2009).

49. . Yunnan, CHINA.ORG, <http://www.china.org.cn/e-xibu/2JI/3JI/yunnan/yunnan-ban.htm> [<https://perma.cc/E655-U8T6>] (last visited Jan. 30, 2020). There are 394,000 square kilometers of land in Yunnan Province which is 4.1% of Chinese total land.

50. Yunnan, *Woguo teyou minzu zuiduo de shengfen* (云南 我国特有民族最多的省份) [*Yunnan, the province with the most kinds of unique ethnic groups in our state*], ST. COUNCIL INFO. OFF. OF THE PEOPLE'S REPUBLIC OF CHINA (2013), <http://www.scio.gov.cn/ztk/xwfb/2013/14/11/Document/1320365/1320365.htm> [<https://perma.cc/GX32-9X46>](last visited Jan. 30, 2020) (China). There are twenty-five ethnic minorities in Yunnan of which fifteen are originated in Yunnan Province.

51. See Guanyu 'Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli (Caoan)' de Shuoming (关于 '云南省生物多样性保护条例(草案)' 的说明) [Explanation on the Yunnan Provincial Regulations on Biodiversity Protection (Draft)] (on file with the first Author) (China).

52. *People's Republic of China: Biodiversity Strategy and Action Plan for Yunnan Province*, ASIAN DEVELOPMENT BANK (2014), <https://www.adb.org/sites/default/files/project-document/154340/46089-001-tacr.pdf> [<https://perma.cc/KJY6-U3QC>] [hereinafter ASIAN DEVELOPMENT BANK].

53. See generally CHINA STATISTICAL BUREAU, CHINA STATISTICAL YEARBOOK (2018).

1. Local Legislation and Policies and Their Implementation

a. Legislation and Policies

Protection of the natural environment and biodiversity in Yunnan has relied on both national and local legislation and policies. Historically the focus has been on endangered wild animal and plant species that have been listed as endangered rather than broader ecological or habitat protection. In the 1980s, the Province enacted two pieces of local legislation, i.e. the regulations on administration of natural conservation zones, and regulations on the protection of forests and wild animals in an effort to address the issue of environmental degradation. The Yunnan provincial government has also enacted additional regulations relating specifically to conservation of biodiversity, including the Regulations on the Protection of Precious Species of Plants, the Regulations on Administration of National Parks, local forest regulations, and wetland protection regulations.⁵⁴ Overall authority for environmental protection lies with the Yunnan Provincial Environment Protection Bureau (“EPD”). As far as protection of wild plants is concerned, Yunnan acted ahead of national legislation and was the first jurisdiction to enact regional legislation. In 1995, it enacted the Regulations on the Protection of Precious Species of Plants,⁵⁵ which prohibits logging/cutting of precious/endangered species of plants.⁵⁶ It has also enacted Yunnan Provincial Regulations on Forests⁵⁷ in 2002, which focus on not only conservation but also sustainable use of forests in Yunnan.⁵⁸

Additionally, Yunnan has adopted several policy documents to protect its biodiversity.⁵⁹ Yunnan Province has had a provincial

54. Yunnan Sheng Shidi Baohu Tiaoli (云南省湿地保护条例) [Yunnan Provincial Regulation on Wetland Protection] (promulgated by the Standing Comm. Yunnan Province, Sept. 25, 2013, effective Jan. 1, 2014) (China).

55. Yunnan Sheng Zhengui Shuzhong Baohu Tiaoli (云南省珍贵树种保护条例) [Yunnan Provincial Regulations on the Protection of Precious Species of Plants] (promulgated by the Standing Comm. Yunnan Province, Sept. 27, 1995, effective Dec. 1, 1995, amended and effective Jan. 21, 2002) (China).

56. *Id.* art. 6.

57. Yunnan Sheng Senlin Tiaoli (云南省森林条例) [Yunnan Provincial Regulations on Forests] (promulgated by the Standing Comm. Yunnan Province, Nov. 29, 2002, effective Feb. 1, 2003, amended and effective Mar. 31, 2012) (China).

58. *Id.* art. 1.

59. *See, e.g.*, Xishuanbanna Yueding (西双版纳约定) [Xishuanbanna Agreement], Lijiang Xuanyan (丽江宣言) [Lijiang Declaration], and Tengchong Gangling (腾冲纲领) [Tengchong Guidelines] (China).

Biodiversity Conservation Strategy and Action Plan (2012–2030) since 2012. Part of the Plan aims to expand protected areas, better regulate buffer areas around reserves while promoting better management and environmental outcomes in national and regional protected areas throughout the province.⁶⁰ As there has yet to be national biodiversity legislation, Yunnan initiated preparation for local biodiversity legislation on biodiversity in 2011. These efforts were finalized in September 2018, when the Yunnan Standing Committee of Provincial People’s Congress enacted the Regulations on Conservation of Biodiversity which came into effect on January 1, 2019.⁶¹ This is the first Provincial regulation in China whose sole object is the protection of biodiversity.⁶² The legislation provides for a comprehensive system to protect biodiversity in ecosystems, species and genes. The Provincial EPD is the governmental organ in charge of overall coordination of biodiversity conservation.⁶³ While the Final Report in the Biodiversity Strategy and Action Plan for Yunnan Province outlined a number of challenges and shortcoming of Yunnan’s current strategy to date, the strategy and the regulations seem to have been reasonably well implemented.⁶⁴ Forest public security for the most part strictly enforces the regulations. However, cross-regional protection has been more problematic as there is an issue of lack of trust and coordination among relevant law enforcement agencies as well as between law enforcement and local populations.⁶⁵

The programs and policies have been supported by the current leadership of the Provincial Legislative Affairs Commission which has released clear objectives for local legislation regarding biodiversity

60. Strategy and Action Plan, *supra* note 15.

61. See Ministry of Ecology and Environment of the People’s Republic of China, Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli Zhengshi Fabu (‘云南省生物多样性保护条例’ 正式发布) [The official release of the ‘Yunnan Provincial Regulations on Biodiversity Conservation’] (2018), *available at* http://www.mee.gov.cn/xxgk/gzdt/201810/t20181017_662666.shtml [https://perma.cc/Y3Z2-TQ7M] (last visited Jan. 30, 2020) (China); Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli (云南省生物多样性保护条例) [Yunnan Provincial Regulations on Biodiversity Conservation] (promulgated by the Standing Comm. Yunnan Province, Sept. 21, 2018, effective Jan. 1, 2019).

62. Xinhua, *Yunnan regulation protects biodiversity*, CHINA DAILY (Oct. 17, 2018), <http://global.chinadaily.com.cn/a/201810/17/WS5bc6fb03a310eff303282f14.html> [https://perma.cc/L8E7-7RL7].

63. Interview with Hu Jun, an official from the legal division, Yunnan EPD, Yunnan University Law School Conference Room (June 27, 2018) [hereinafter Interview with Hu Jun].

64. ASIAN DEVELOPMENT BANK, *supra* note 52.

65. Interview with Zhang Yongying, Judge, Yunnan Higher People’s Court, Yunnan University Law School Conference Room (June 27, 2018).

conservation.⁶⁶ Local legislation in biodiversity protection is particularly important and protection would not be possible without effective implementation and enforcement through local legislation.⁶⁷ In Yunnan local legislation: (i) assigns duties among relevant decisionmakers and agencies; (ii) coordinates administrative system/mechanisms; (iii) sets ecological redlines; (iv) establishes future objectives and baselines to evaluate performance;⁶⁸ (v) establishes and clarifies penalties for violating proscribed and/or regulated activities;⁶⁹ and (vi) provides financial subsidy for ecological conservation.⁷⁰ Importantly, the Commission has mandated that biodiversity conservation cannot be an ancillary objective of local legislation. To ensure that the policy remains focused, implementing legislation must identify the specific biodiversity problems it intends to resolve and specific objectives it aims to achieve.⁷¹

Legislation has also given consideration to the livelihoods of ethnic minorities who have been affected by conservation policies. For example, the Province provides monthly monetary subsidy to those ethnic minority groups whose livelihoods have been changed by conservation policies.⁷² Additionally, the Province works with the national government to compensate individuals and groups for the harm/damage caused by protected wild animals, such as with the damage caused by elephants which are present in significant numbers in the Banna region. Unfortunately, while the state will pay some

66. Its current director is Mr He and one of the associate directors is Professor Tian. Both of them have a vision about the work of the Commission.

67. "The government system is hierarchically organized from Province level down to individual villages, with plans made at prefectural level and passed down all the way to village leaders. The system works well for instructions and rules but not well for complex ideas and training. There is also weak enforcement of rules, which means that illegal village-level land use practices (e.g. clearing of forest) may not be reported back to higher levels." JIM HAMMOND ET AL., SITUATIONAL ANALYSIS REPORT: XISHUANGBANNA AUTONOMOUS DAI PREFECTURE YUNNAN, CHINA 8 (2015).

68. These are the views expressed by Professor Tian. Interview with Tian, *supra* note 38.

69. Interview with Tian, *supra* note 38. Many statutory provisions do not contain specific sanctions for violation of prohibitive provisions. As a result, some good provisions have not been enforced in practice.

70. Interview with Tian, *supra* note 38.

71. Opinions made to Professor Lin by Ms. Le. Interview with Le Rong, an official from the legal division, Forest Administration Bureau, Yunnan Province, in Yunnan University Law School Conference Room (June 27, 2018) [hereinafter Interview with Le Rong].

72. *Id.*

compensation for this type of damage, the amount generally does not completely compensate the injured individuals.⁷³

b. Their Implementation and Enforcement

China has been often criticized for the inadequate enforcement of its environmental law and regulations. Nevertheless, in an interview with Justice Tong from Yunnan Higher People's Court, she indicated that she was optimistic about juridical protection of biodiversity in Yunnan. Yunnan has been relatively effective in establishing the appropriate enforcement mechanisms.⁷⁴ After 2008, the *Advice of the Yunnan Provincial People's Government on Strengthening Biodiversity Conservation in the Northwest of Yunnan Province* was issued. The Province established an environment and natural resources tribunal in courts in 2008. There are now eighteen such tribunals in Yunnan. In 2017, there were 134 public interest litigation cases (permitted under the Environmental Protection Law since 2015) concerning the environment. These tribunals and public litigation mechanism have provided the parties concerned about environmental degradation a forum to address enforcement deficiencies. For example, in one case, a logger wrongfully cut twenty thousand cubic meters instead of approved four thousand cubic meters of wood.⁷⁵ After the judgment, the illegal logger was ordered by the court to plant more trees. As a result, more than two hundred mu (about 13.3 hectares) of public interest forest has been planted.⁷⁶

Yunnan implementation programs have included provisions which seek to address the needs of minority peoples living in conservation areas. The activities of local and ethnic minority peoples as they go about their lives often conflict with biodiversity objectives and protected area management. Where a protected area has been established, the previously legal uses and activities of the minority people in the area are prohibited, creating a situation of significant resource misuse (from the perspective of regulators) and significant hardship to the local communities. The lack of access to previously used resources can have significant effects on the economic, social, and

73. *Id.*

74. See Czarnezki & Yu, *supra* note 5.

75. Interview with Tong Xiaoning, Judge, Yunnan Higher People's Court, in Yunnan University Law School Conference Room (June 27, 2018).

76. *Id.*

cultural life of the minority communities.⁷⁷ These conflicts in Yunnan have become more salient due to population and resource pressures. The major activities which can undermine conservation and biodiversity objectives are: poaching, shifting or slash and burn agriculture, illegal commercial timber harvesting, and cutting for fuel and building materials. As such in the implementation of legislation/regulations, Yunnan has adopted an implementation plan that provides for differential treatment of various individuals and groups based on ethnic minority status or the uses they put to particular resources. It is now a requirement that normal usages and productive activities integral to the lifestyles of ethnic minorities will not be interfered with in most circumstances (outside of core conservation areas) and a financial subsidy will be provided to affected individuals and groups in the protected conservation zones.⁷⁸ While this has minimized some of the effects of conservation activities, there continues to be instances where ethnic minorities have been negatively impacted such as when redlines have been implemented for ecological and biodiversity conservation⁷⁹ and conflict has occurred due to insufficient financial compensation.⁸⁰

2. Different Conservation Zones and Biodiversity Conservation

Yunnan has established different conservation zones for the preservation of biodiversity, including natural preservation zones (*ziran baohuqu*), forest parks, including national forest parks, and wetland parks. Natural preservation zones refer to land and water zones designated for the protection of the natural environment,⁸¹ particularly for the protection of representative natural ecological system. These encompass areas where rare and/or endangered species of animals and plants are naturally concentrated; special forests, wetlands and water areas with special protection value, and natural phenomena/relics which have important science and/or cultural values.⁸² Natural

77. See Marcus Colchester, *Conservation Policy and Indigenous Peoples*, 7 ENVTL. SCI. POL'Y 145 (2004).

78. See, e.g., Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli, *supra* note 61, art. 15.

79. *Id.*

80. Interview with Hu Jun, *supra* note 63.

81. See Yunnan Sheng Ziran Baohuqu Guanli Tiaoli (云南省自然保护区管理条例) [Yunnan Provincial Regulations on Administration of Natural Preservation Zones] (promulgated by the Standing Comm. Yunnan Province, Dec. 3, 1997, effective Mar. 1, 1998), art. 2 (China).

82. *Id.* art. 9.

preservation zones can be further classified into three categories, including core zones, buffer zones, and experimental zones.⁸³ Human habitation and land uses are restricted to the experimental zone, while biodiversity conservation and preservation is given the priority in the core zones. It is prohibited to enter the core zones except for scientific research. Residents originally living in the core zones have had to move out.⁸⁴ Buffer zones serve to lessen the human impact between the core and experimental zones.⁸⁵ In buffer zones, scientific research and observation activities can be carried out but no production facilities can be constructed.⁸⁶ After obtaining approval, various activities such as tourism and the domestication of wild animal and plant species can be carried out in core zones. Logging and hunting are prohibited in entire natural preservation zones.⁸⁷ The regulations do not allow collecting or gathering for subsistence.

Following the classification of forests under the National Forest Law,⁸⁸ Yunnan's provincial legislation define "protection forests" and "special usage forests" as "ecological public interest forests" while others have been named as "commercial forests."⁸⁹ An ecological public interest forest must be strictly managed and protected and cannot be logged except under certain conditions.⁹⁰ Wetlands are classified as *internationally important, nationally important, provincially*

83. *Id.* art. 14(1).

84. *Id.* art. 14(2).

85. See N.H. Carter et al., *Coupled Human and Natural Systems Approach to Wildlife Research and Conservation*, 19 *ECOLOGY & SOC'Y* 43 (2014), <http://dx.doi.org/10.5751/ES-06881-190343> [<https://perma.cc/2ZNH-7T8S>]. Carter et al. have questioned the effectiveness of such a tripartite scheme in meeting management objectives coupled human and natural systems in reserves such as Wolong, PRC.

[T]he effectiveness of this zoning scheme is limited by unclear policies on the requirements for each zone, poor design (e.g., zones not accurately reflecting panda habitat quality), and inability to enforce the zoning designations on the ground to effectively contain human impacts effectively. For example, although the zoning scheme in Wolong may have succeeded in preventing the construction of houses and roads in the core zone, it proved less effective at eliminating more ephemeral activities such as livestock grazing and collection of forest products in such sensitive areas. *Id.*

86. Yunnan Sheng Ziran Baohuqu Guanli Tiaoli, *supra* note 81, arts. 14(3) & (4).

87. *Id.* art. 18(1).

88. Article 4 of the Forest Law classifies forests into five categories. See Senlin Fa (森林法) [Forest Law] (promulgated by the Standing Comm. Nat'l People's Cong., Sep. 20, 1984, effective Jan. 1, 1985, amended Apr. 29, 1998, effective July 1, 1998), art. 4 (China). The most recent amendment was made in Dec. 28, 2019, and it will come into effect on July 1, 2020.

89. Yunnan Sheng Senlin Tiaoli, *supra* note 57, art. 6 (China).

90. *Id.* art.7.

important, and *ordinary*.⁹¹ Some wetlands have been designated as wetland parks, a classification that allows for tourist, ancillary commercial uses and conservation usages.⁹²

Yunnan led the country in establishing national parks with the creation of Pudacuo National Park as China's first national park in 2007. There are now twenty one national parks in Yunnan Province.⁹³ Creation of national parks (*guojia gongyuan*) can be an effective means to protect wild animals and plants within the area of the parks while explicitly allowing for some level of development to co-exist in concert with conservation objectives.⁹⁴ According to the Regulations on Administration of National Parks,⁹⁵ two of the purposes of establishing national parks are to protect and utilize natural resources,⁹⁶ thus addressing the contradiction "between resource conservation and regional development."⁹⁷ The presumed advantages of this form of reserve stem from the fact that around protected areas many rural villages depend upon the reserve's natural resources for much of their livelihood.⁹⁸ Additionally, the status allows for more ecologically

91. Yunnan Sheng Shidi Baohu Tiaoli, *supra* note 54, at art. 3(2)

92. *Shidi minglu* (湿地名录) [*Namelist for wetlands*], SHIDI ZHONGGUO (湿地中国) [WETLAND CHINA] (2017), <http://www.shidi.org/unit.html> [<https://perma.cc/N3KZ-9QBZ>] (last visited Jan. 30, 2020) (China). There were already four internationally important wetlands and eighteen nationally important wetland parks in Yunnan Province in 2017.

93. *Id.* With three others provided in 2019, see National Forestry & Grassland Administration, Guojia Linye he Caoyuan Ju guanyu 2019 nian shidian guojia shidi gongyuan yanshou qingkuang de tongzhi (国家林业和草原局关于 2019 年试点国家湿地公园验收情况的通知) [Notice of the National Forestry and Grassland Administration on the examination and acceptance of pilot national wetland parks in 2019] (Dec. 28, 2019), *available at* http://www.gov.cn/xinwen/2019-12/28/content_5464741.htm [<https://perma.cc/HCB4-URCG>] (last visited Jan. 30, 2020) (China).

94. The national policy to establish national parks was officially announced by Premier Li Keqiang in his report to the 12th National People's Congress in March 2017. For details, see Xinhua She (新华社), Zhonggong Zhongyang Bangongtin Guowuyuan Bangongtin Yinfa Jianli Guojia Gongyuan Zongti Fangan (中共中央办公厅 国务院办公厅印发 '建立国家公园体制总体方案') [The General Office of the CPC Central Committee and the General Office of the State Council issuing 'The Overall Plan for the Establishment of a National Park System'] (Sept. 26, 2017), *available at* http://www.gov.cn/zhengce/2017-09/26/content_5227713.htm [<https://perma.cc/NJA4-M2KZ>] (last visited Dec. 28, 2018) (China).

95. Yunnan Sheng Guojia Gongyuan Guanli Tiaoli (云南省国家公园管理条例) [Yunnan Provincial Regulations on Administration of National Parks] (promulgated by the Standing Comm. Yunnan Province, Nov. 26, 2015, effective Jan. 1, 2016) (China).

96. *Id.* art. 1.

97. D.Q. Zhou, & R.E. Grumbine, *National Parks in China: Experiments with Protecting Nature and Human Livelihoods in Yunnan Province, Peoples' Republic of China (PRC)*, 144 BIOLOGICAL CONSERVATION 1314, 1314 & 1316 (2011).

98. *Id.* at 1315.

sensitive development controls. This can mitigate the often environmentally damaging development activities (used as a funding mechanism for the conservation activities of the reserve) that often occur with the establishment of a reserve area.⁹⁹

The different conservation zones discussed above may overlap with each other, as well as with other protected zones such as those protecting world natural heritage, drinking water, etc. The new Yunnan Provincial Regulations on Conservation of Biodiversity have not created any new categories of conservation zones, nor have they set aside additional lands specifically for biodiversity protection. Instead, the Regulations have created a new category/concept of *natural conservation land* which includes all existing categories of conservation zones.¹⁰⁰ The new Regulations also require that biodiversity should be protected in all existing conservation zones.¹⁰¹

Additional policy and regulations which impact the protection of biodiversity include the natural forest protection policy under which eighty percent of forested land (which approximately covers forty-eight percent forested) is covered.¹⁰² In 1998 governmental policy banned commercial logging and other cutting of all natural forests.¹⁰³ Because only fifty-one percent of forest in Yunnan has been classified as public interest forest, i.e. where no commercial harvesting is allowed,¹⁰⁴ some commercial forests have also been included in natural forest protection zone and therefore are impacted by this policy.¹⁰⁵

While the policy has been effective in increasing forest coverage in some areas and slowing the rate of deforestation in other areas, as well as protecting plant species and conserving habitats for animal

99. *Id.*

100. Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli, *supra* note 61, art. 13.

101. *Id.*

102. Interview with Le Rong, *supra* note 71.

103. Peng Xi (彭锡), *20 nian tianranlin baohu gongcheng, Yunnan Lijiang shixian jingji shehui ji shengtai xiaoyi tongbu fazhan (20 年天然林保护工程 云南丽江实现经济社会及生态效益同步发展) [20 years of natural forest protection project, Lijiang, Yunnan achieved synchronous development for socio-economic and ecological benefits]*, NAT. FORESTY & GRASSLAND ADMIN. OF THE PEOPLE'S REPUBLIC OF CHINA (June 8, 2018), <http://www.forestry.gov.cn/main/4569/20180608/145827378592613.html> (last visited Jan 30, 2020) [<https://perma.cc/Z5ML-L9ME>] (China). It was made in 1990, more than twenty years ago.

104. Interview with Le Rong, *supra* note 71.

105. *Id.* Le said it was 27%.

species, it also has had side effects.¹⁰⁶ As large numbers of people living in, or living adjacent to, the newly protected area often depend greatly on the natural resources in the reserves for their food, fuel wood, and medical treatment, conflicts with local communities have arisen.¹⁰⁷ Moreover, the policy severely infringed on the rights of third parties to their forestry lands, forests, allocated timber, and use rights in the newly protected forests. In Yunnan, the policy has been in direct conflict with the property rights of some privately/company held forests as well as rural households [allocated land under the Household Responsibility System], village clusters and rural collectives which constitute the majority of tenure (seventy percent) in Yunnan.¹⁰⁸ It is evident that the rather draconian prohibitory nature of the forest protection policy paid little attention to, and also failed to satisfactorily distinguish among forest tenures, types, and uses. The reason for this oversight, which has caused social conflict and affected the effectiveness of the policy, was a lack of strong awareness of property and use rights.¹⁰⁹ The problem and the hardship caused by the regulations are evident in areas such as Xishuangbanna. Xishuangbanna is a special protection zone which has been established for more than twenty years. It is a small region in which ownership of forest rights is quite complicated and there are more than thirty villages within the protection zone who are all ethnic minority (Dai) groups.¹¹⁰ The Dai people have a unique water culture that relies on forest resources for subsistence and firewood and historically they have used

106. See Haigen Xu et al., *China's Progress toward the Significant Reduction of the Rate of Biodiversity Loss*, 59 *BIOSCIENCE* 843 (2009).

107. Heran Zheng & Shixiong Cao, *Threats to China's Biodiversity by Contradictions Policy*, 44 *AMBIO* 23, 30 (2014).

108. Collective ownership is one kind of ownership of land in China. See Senlin Fa, *supra* note 88, art. 27 ("The trees planted by State-owned enterprises and institutions, government departments, public organizations and army units shall be managed by them and the proceeds therefrom shall be controlled by them in accordance with State regulations. Trees planted and managed by units under collective ownership shall be owned by them. Trees planted by rural inhabitants around their houses and on private plots of cropland and hilly land shall be owned by themselves. Trees planted by urban inhabitants and staff members and workers in the courtyard of their privately owned houses shall be owned by themselves. In cases where a collective or an individual contracts to afforest State-owned or collectively owned barren hills or wastelands that are suitable for afforestation, the trees planted pursuant to the contract shall be owned by the said collective or individual; if there are other provisions in the contract, such provisions of the contract shall be followed") (translation provided by Westlaw China). The new amendment in 2019 will come into effect in July 2020. Please see Article 20 of the new law.

109. Interview with Le Rong, *supra* note 71.

110. *Id.*

their traditional knowledge to conserve forests around their villages.¹¹¹ With the prohibition on cutting the villages' resource usage, the villages have suffered significant hardship and have lessened cultural prohibitions regarding sustainable resource use in the local areas.¹¹² This has undermined the effectiveness and public support for the policy, a situation which one official from the provincial forest administration bureau characterized as "crazy" during an interview with the first author.¹¹³

Recently, regional legislation has been changed to address the concerns of local communities regarding expropriation, expulsion, compensation, and impacts on local employment and use of the now protected forests. For example, Article 11 of the Yunnan Provincial Regulations on Administration of National Parks states that if it is a necessity to include non-state-owned natural resources within scope of national parks, the County or Prefectural governments should obtain consent from the property owners and conclude agreements with them to specify the rights and obligations of the respective parties.¹¹⁴ If it is necessary to exclude all uses and expropriate land, the regulations require that the procedure must be according to law.¹¹⁵ The result of these legislative changes has been that expropriations have been minimized and much of the land within the exterior boundaries of the national parks is now rented from the local households and collectives. As noted by Ms. Le Rong, Article 11 of the Regulations on Biodiversity Conservation is evidence that the Government has paid attention to the property rights of villagers, including ethnic minorities and further

111. See JIM HAMMOND ET AL., SITUATIONAL ANALYSIS REPORT: XISHUANGBANNA AUTONOMOUS DAI PREFECTURE YUNNAN, CHINA 17 (2015).

Xishuangbanna peoples also have long traditions of managing forest margins in agroforestry systems that integrate secondary successional vegetation with a diversity of native ecosystems. The religions of Dai and Hani ethnic groups, for example, have shaped the management of 'holy hills' – sacred forests in which ancestor spirits dwell. These various agro-ecosystems have served as valuable wildlife habitat as well as provided for ecological functions including gene flow, nutrient cycling and hydrological processes. Many of these traditional agricultural and ecological practices have given way to modern cash crops and monocrops. This transformation of the spiritual landscape has deeply affected ethnic minority cultures. As well as their intrinsic value and their potential to provide ecosystem services; traditional cultural, ecological, and agricultural practices have the potential to generate income through ethno- and eco-tourism.

112. Interview with Le Rong, *supra* note 71.

113. *Id.*

114. Yunnan Sheng Guojia Gongyuan Guanli Tiaoli, *supra* note 95, art. 11.

115. *Id.*

efforts to increase the size or change the management of non-state-owned forest land under the Regulations will necessarily entail compensation to the affected individuals.¹¹⁶ Nevertheless, while these changes can have a significant impact, the policy suffers from inadequate funding and often the proffered compensation does not enable the local residents and ethnic minorities sufficient resources to change their lifestyles. At the same time, the policy does not address other social and cultural effects (either in the funding or in the compensation criteria) that result from relocation and inability to use traditional resources.¹¹⁷ As a result, local residents, who historically have cared for and sustainably used the surrounding forest, have sacrificed much for preservation of forests due to pressures that are originating outside the area.¹¹⁸ Another example of legal change to address local and ethnic minority concerns is Article 27 of the Regulations on Administration of National Parks. Article 27 outlines an alternative approach toward human-natural systems co-existence in national parks.¹¹⁹ Under the Article, residents will be allowed to live in national parks subject to certain conditions.¹²⁰ Additionally, local residents will be given priority in employment opportunities within the park and their needs will be included in the development of surrounding areas.¹²¹ These non-forest, often tourism related, opportunities will be augmented by the encouragement of forest plantations and cultivation to generate income.¹²² One relatively effective method to provide employment opportunities has been to recruit local residents as forest protection guards (who are paid by the state).¹²³ The policy seeks to harmonize the interests of local residents to the reserve's biodiversity and conservation objectives by addressing the economic needs of the local communities. A third example of regulatory change involves the additional flexibility provided under the legislation to enable local residents to make a living in the protected area from non-timber resources. Article 25 of the Forest Regulations provides that resources located under the forest canopy or on the forest floor such as medical plants, flowery plants, edible mushrooms, bamboo shoots, etc. may be

116. Interview with Le Rong, *supra* note 71.

117. *Id.*

118. *Id.*

119. Yunnan Sheng Guojia Gongyuan Guanli Tiaoli, *supra* note 95, art. 27.

120. *Id.* arts. 20 & 22.

121. Interview with Le Rong, *supra* note 71.

122. *Id.*; Yunnan Sheng Guojia Gongyuan Guanli Tiaoli, *supra* note 95, arts. 26-27.

123. Interview with Le Rong, *supra* note 71 .

reasonably exploited and utilized according to government designed plans.

Finally, the new Regulations on Biodiversity Conservation provide that affected ethnic minorities should fairly and equitably share the economic benefits derived from the biological resources and relevant traditional knowledge in their traditional territories. Yunnan Province is currently in the process of incorporating these objectives into regional legislation.¹²⁴

3. Role of Customs, Participation, and Autonomy of Ethnic Minorities in Biodiversity Conservation

a. The Role of Customs and Customary Law

It is evident that local customary rules or law can be useful in further protecting biodiversity. Ethnic minorities in Yunnan protect and respect nature. Public officials across various levels of the Yunnan government recognize this important cultural virtue. As noted by Director Tian, the importance of customary law to protect the environment is “inherent in their [minority peoples’] genes” as part of their ethnic conscience.¹²⁵ According to an official from the provincial bureau for forest protection, ethnic minorities continue to interact with and respect the environment very much “according to their tradition.”¹²⁶ The customs of ethnic minorities are mainly reflected through village rules and regulations.¹²⁷ These rules can impact how resources are harvested and used as well as delimit territories that can be utilized by the communities. For example, under these customary

124. Interview with Le Rong, *supra* note 71; see the provisions concerning dai (傣) medicine and shihu (石斛) (a Chinese medicine) in Yunnan Provincial Regulations on Biodiversity Conservation. Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli, *supra* note 61, arts. 34-35.

125. Interview with Tian, *supra* note 38.

126. Interview with Le Rong, *supra* note 71.

127. See generally Gao Qicai (高其才), *Zhongguo Shaoshu Minzu Xiguanfa Yanjiu* (中国少数民族习惯法研究) [A Research on the Customary Law of Chinese Ethnic Minorities] (1st ed. 2003) (China); Shi Weiran (施蔚然), *Shaoshu Minzu Minshi Xiguan Sifa Yunyong Yanjiu* (少数民族民事习惯司法运用研究) [A Research on the Judicial Application of the Civil Customs of Ethnic Minorities] (1st ed. 2018) (China); Luo Chang (罗昶), *Cungui Minyue de Shishi yu Guyou Xiguanfa — Yi Guangxi Zhuangzu Zizhiqu Jinxiu Xian Liuxiang Xiang wei Kaocha Duixiang* (村规民约的实施与固有习惯法——以广西壮族自治区金秀县六巷乡为考察对象) [Enforcement of the Village Regulations and Non-governmental Agreements and Indigenous Customary Law: A Survey of Liuxiang Town, Jinxiu, Guangxi], 30 *XIANDAI FAXUE* (现代法学) [MODERN LAW SCIENCE] 19 (2008) (China).

rules, which can regulate a wide range of activities, certain mountains and trees have been identified as sacred and as such are subject to prohibitions on access or harvesting.¹²⁸ Because these prohibitions arise under customary rules and are supported by community social structures, such a designation can be more effective in protecting those areas than a legal designation.¹²⁹ The rules do not just limit access but can effectively limit unsustainable resource use. For example, in some ethnic communities if a resident enters the forest to randomly cut trees, the resident will be fined; or if a resident hunts in violation of rules, a penalty will be imposed.¹³⁰ The Hani ethnic minority has a vigorous custom concerning the protection of trees.¹³¹ If a Hani resident downs a tree in violation of local customs, the resident's village registration will be removed as a punishment. From the perspective of a local resident, such a punishment is a more serious sanction than any legal penalty.¹³²

Although the Chinese legal system is based on positive written legislation/codes, there remains room for the existence and

128. Shi Hongwen (史鸿文), Wang Ruiping (王瑞平) & Chen Chao (陈超), *Shui yu Xianggui Minyue (水与乡规民约) [The Water and Village Regulations and Non-governmental Agreements]*, in TUSHUO SHUI YU FENG SU LIYI (图说水与风俗礼仪) [EXPLAINING THE WATER AND FOLK CUSTOM & RITES WITH IMAGES] 155-72 (Shi Hongwen, Wang Ruiping, & Chen Chao eds., 2015) (China); Chen Weideng (陈维灯), *Youyang Nanyaojie Xiang Hongyan Cun Laoqing Lin 600 duo ke Gushu Yuyucongcong—Cungui Minyue Shouhu Qiannian Gushuqun (酉阳南腰界乡红岩村老箐林 600 多棵古树郁郁葱葱——村规民约守护千年古树群) [More than 600 Ancient Trees Luxuriantly Green at Laoqing Forest in Hongyan Village, Nanyaojie Township, Youyang County—Village Regulations and Non-governmental Agreements Guarding the Thousand-year-old Ancient Woods]*, CHONGQIN RIBAO (重庆日报) [CHONGQIN DAILY], Mar. 1, 2018, at 6 (China).

129. Interview with Le Rong, *supra* note 71.

130. *Id.*

131. See Jingbiao Yang et al., *Application of Traditional Knowledge of Hani People in Biodiversity Conservation*, 10 SUSTAINABILITY 4555 (2018), available at <https://www.mdpi.com/2071-1050/10/12/4555/htm> [<https://perma.cc/PB9S-Z6K8>].

The Hani are an ethnic group who have lived for centuries in the southwestern Yunnan province of China, as well as in Laos and Vietnam. They protect biodiversity through their natural religion, environmental ethics and customary laws. In believing that everything has a soul and an equal right with people, the Hani worship many natural creatures or phenomena as deities or spirits. Some families have even regarded a certain animal or plant species as their own ancestors. Each village has one or more holy forests, of which the sizes vary according to the village sizes, ranging from hundreds of square meters to several hectares. The holy forests are for holding annual sacred activities only. During non-worship days, no one is allowed to step into the forests to harvest any plants, even to collect litter. Logging and poaching are strictly prohibited.

132. Interview with Tong Xiaoning, *supra* note 75.

applicability of customary law. Along with the constitutional provisions relating to autonomous areas, Article 10 of the newly enacted General Principles of Civil Law of the PRC acknowledges the role of “good custom” in civil disputes.¹³³ According to Director Tian, there is widespread respect for the customs of ethnic minorities among officials.¹³⁴ When considering national parks for example, he noted that the policy of land resumption for the purpose of protection/conservation conflicts with the interests of ethnic minorities living in the protection zones and that strict prohibition relating to raising animals in the forest has affected their living.¹³⁵ In his view, conservation and biodiversity policy should be flexible and to require “one rule for all” ignores the reality of facts on the ground.¹³⁶ Despite this awareness by individual officials, the Yunnan Provincial legislature hardly considers, or even acknowledges, the customs of ethnic minorities when formulating legislation. Neither the legislative body nor law enforcement seriously considers the validity and usefulness of customary law.¹³⁷ The first barrier to such consideration appears to be the widespread impression among officials that despite some cultural differences from the majority Han society, indigenous groups for the most part have been assimilated or are seeking to assimilate to achieve better economic and social opportunities.¹³⁸ For example, Director Tian, who recognizes the importance of customary law nevertheless considers most ethnic minorities in Yunnan to have

133. The General Principles of Civil Law were enacted by the NPC on 15 March 2017 of which Article 10 provides “Any civil dispute shall be resolved in accordance with the law; in the absence of relevant provisions set forth in the law, usual practice may be followed, but the public order and good customs shall not be infringed upon”. See Minfa Tongze (民法通则) [The General Principles of Civil Law] (promulgated by the Nat’l People’s Cong., Apr. 12, 1986, effective Jan. 1, 1987) (China).

134. Interview with Tian, *supra* note 38.

135. *Id.*

136. *Id.*

137. *Id.*

138. This is a de facto practice but more likely to be found in political proposals, but difficult to find support in official statements by CCP/China. See Hu An’gang (胡鞍钢) & Hu Lanhe (胡联合), *Di er dai minzu zhengce: Cujin minzu jiaorong yiti he fanrong yiti (第二代民族政策: 促进民族交融一体和繁荣一体)* [The second generation of ethnic policies: Promoting ethnical fusion and prosperity as one], 32 XINJIANG SHIFAN DAXUE XUEBAO (ZHEXUE SHEHUIKEXUE BAN) (新疆师范大学学报 (哲学社会科学版)) [J. XINJIANG NORMAL UNIV. (EDITION OF PHILOSOPHY AND SOCIAL SCIENCES)] 1 (2011) (China); James A. Millward, ‘Reeducating’ Xinjiang’s Muslims, CHINA FILE (Feb. 9, 2019), <http://www.chinafile.com/library/nyrb-china-archive/reeducating-xinjiangs-muslims> [https://perma.cc/N7VH-Y47Z]. See also THOMAS HEBERER, CHINA AND ITS NATIONAL MINORITIES AUTONOMY OR ASSIMILATION 12-13 (2018).

been assimilated. Moreover, while acknowledging that many ethnic minorities have a strong desire to preserve their culture, he observed that some individuals may not even want to preserve their culture because they feel their culture is an impediment to a modern life.¹³⁹ Second, there is a general paucity of knowledge relating to minority customary law in many instances. Third, there is a reluctance to provide general rules identifying customary law as legally binding because many customary rules are unique to one area and one ethnic minority group. The policy and legal impacts of customary rules across the region are consequently hard to measure. Given the desirability and often necessity of general regulations, legislators have had difficulty incorporating customary rules which apply to a smaller area. Related to this problem is that customary rules may conflict across groups.¹⁴⁰ A fourth reason conveyed to the Authors is that local legislature and administrative organs take their policy direction from the opinions/views of senior leaders whose policy objectives and role in the implementation process often fail to include ethnic minority viewpoints.¹⁴¹

b. Participation

Most environmental regulations are set by the national government, but they must be implemented at the provincial or prefectural/local level. Within the complex of shared jurisdiction and multi-level bureaucracy, there are often few incentives for lower governments to provide opportunities for local community participation. Xu et al. has noted that engagement is occurring more often—noting that fifty-five percent of natural reserves had local co-management projects in 2012 but participation is less than in other countries.¹⁴² It is similar in Yunnan. According to the views expressed by Yunnan local and provincial officials, active participation by ethnic minorities in the provincial legislative and implementation process has been negligible.¹⁴³ This can create problems since the common practice

139. Interview with Tian, *supra* note 38.

140. Director Tian noted the difficulty that in many areas there are too many (often conflicting) customs to recognize and that there have been some broadly applicable customary rules incorporated into legislation. Interview with Tian, *supra* note 38.

141. *Id.*

142. Jiliang Xu et al., *A Review and Assessment of Nature Reserve Policy in China: Advances, Challenges and Opportunities*, 46 ORYX 554, 559 (2012) (noting that 55% of natural reserves had local co-management projects in 2012).

143. Interview with Le Rong, *supra* note 71.

is that ethnic minority groups in local areas are required to implement and follow not only national, but also regional and local legislation. Occasionally individuals from ethnic minorities express their views during the periods of public notice and opinion solicitation. When these opinions are expressed, the interviewed public officials noted that these minority views were taken into account by the government and legislature. Nevertheless, it is evident that for the most part ethnic minority groups have not actively participated in the policy-making process and/or legislative process.¹⁴⁴ In contrast, minority group participation has been high in the preparation of rules and regulations in local villages.¹⁴⁵ Whether this is due to problems with the consultation (e.g. pre-determined conclusions, lack of feedback, location of consultation sessions, etc.), a relative satisfaction with the regulations or an insufficient desire to express their views is beyond the scope of this paper. It is clearly a missed opportunity to assess the impacts of legal change on environmental objectives as well as the views of affected communities. Nationally, the lack of participation has been recognized as a problem and the new regional Regulations on Biodiversity Conservation (effective January 1, 2019) mandate improvements in the public participation process.¹⁴⁶ Whether this awareness and the legal changes will result in more participation is to be determined.

4. Motivation/Incentives for Biodiversity Conservation

Ethnic minorities have for the most been only passively involved in biodiversity conservation by following national and local conservation policies and legislation. One important issue is how to motivate the communities and minority individuals to protect/conservate biodiversity willingly, particularly for those who do not have the appropriate customary law or where the cultural norms and sanctions of custom have become less effective. One method is to provide alternative sources of income and business opportunities to ethnic minority groups whose earlier lifestyle involved utilizing the flora and fauna in the now protected area. As discussed above, despite improvements and increased awareness over past three decades, the impact such policies have had on use rights and subsistence of some

144. Xinhua, *supra* note 62; ASIAN DEVELOPMENT BANK, *supra* note 52.

145. Interview with Le Rong, *supra* note 71.

146. Yunnan Sheng Shengwu Duoyangxing Baohu Tiaoli, *supra* note 61, art. 31(2).

ethnic minority groups living in various conservation zones have been overlooked. In an effort to address these concerns, local and regional governments have had to shoulder additional costs funding alternative businesses and programs to help people transition to different lifestyles.¹⁴⁷ For example, in Chuxiong Autonomous Prefecture the autonomous prefectural government, especially its forest administration bureau, has developed the technical skills to grow different kinds of wild edible mushrooms such as *tricholoma* and other precious *matsutake*.¹⁴⁸ It has used this knowledge to teach affected communities to cultivate different kinds of fungus, a business that has turned out to be very profitable and has helped affected ethnic minority people to broaden their sources of income. As a result, there has been less incentive and need for ethnic minorities to log, gather and hunt illegally.¹⁴⁹ Another local government initiative is found in the Gongshan region. In Gongshan, the local government has provided two alternative business opportunities for affected residents of the mountain regions (who are mainly ethnic minorities): the opportunity and training of the skills to become apiarists using the honey sales to augment their incomes or the training to grow the medical plant *Tsaoko Amomum* fruit (草果) as a raw Chinese medicinal product.¹⁵⁰ It is hoped that the success of these businesses and alternative sources of revenue will reduce the need of the local communities to rely on natural resources within protection zones and provide more local support for conservation objectives. Nevertheless, despite these successes, financial constraints at the provincial and local levels have generally limited the ability to adequately fund programs designed to assist ethnic minority and local groups to transition away from lifestyles that utilize the now protected forest resources.¹⁵¹

147. There are three main sources: 1. projects funded either by international organizations such as under the GEF and other UNEP, 2. national, regional local governments, and 3. national government allocation under such programs as the Natural Forest Protection Program (“NFPP”) and the Sloping Land Conversion Program which has a PES (Payment for Environmental Services) program. Interview with Le Rong, *supra* note 71.

148. The information is obtained from the first Author’s field study trip and interview with local officials in Chuxiong in 2016.

149. *Id.*

150. Interview with Zhang Yongying, *Supra* note 65.

151. View expressed by Cai Lei. Interview with Cai Lei, Dean, Yunnan law school, Yunnan Law School Conference Room (June 27, 2018).

5. Summary

In Yunnan it is evident that regional and local public officials are aware of the impact natural resource conservation and biodiversity policies can have on local ethnic minorities. They are also aware that customary laws and norms as well as local participation by ethnic minorities would facilitate the achievement of biodiversity and environmental objectives. While legislation has played a prominent role, it has generally been poorly or slowly implemented except in more recent years where blanket prohibitions and proscriptive legal action have been moderately successful in achieving biodiversity objectives. Nevertheless, there has been no legal change based on autonomous local or prefectural authority that specifically addresses the needs and impacts on ethnic minority communities (as opposed to local communities) affected by biodiversity and environmental legislation. There has been local participation by ethnic minorities in local rules and customs, but these activities have not impacted higher decision-making authorities and processes. Rather it seems that the policy successes have been achieved from blanket prohibitions with more rigorous enforcement programs. Various policies aimed at compensating locals and providing alternative local employment have been relatively successful but have been constrained by lack of funding. In such circumstances, local policy guidance and participation is a possible solution and would be beneficial. Nevertheless, a lack of legal instruments and the failure to implement legal rules suggests that at the local level, various rule of law issues impede environmental policy.

C. Local Legislation, Policy, and Practice on Biodiversity Conservation – Case Study of Oroqens in Inner Mongolia

1. Oroqens, Oroqen Autonomous County, and its Ecological Importance

An ethnic minority group called Oroqen (also called E Lun Chun) lives in the forest of the High Xingan Ling of Oroqen Autonomous County of Hulun Beier Autonomous Prefecture of Inner Mongolia Autonomous Region. The Oroqen people have developed a hunting culture dependent upon horses.¹⁵² Oroqen Ethnic County was

152. Zhou Yong (周勇) & Maria Lundberg, *Cong Elunchun Jinlie kan Minzu Quyu Zizhi Zhidu de Shishi* (从鄂伦春禁猎看民族区域自治制度的实施) [The Implementation of Regional National Autonomy in Oroqen's Prohibition of Hunting], in MINZU ZIZHI YU FAZHAN:

established in 1951 as part of an effort to provide the Oroqens with the advantages of an ethnic autonomous system at the local level.¹⁵³ Oroqen Autonomous County covers 60,000 square kilometers of land. There are 8,659 Oroqens throughout China in the 2010 population census with around 1,941 of them living in Oroqen Autonomous County (approximately one percent of the population).¹⁵⁴ They live primarily around the High Xingan Ling Forest. Other minority groups include Mongols and Wudaers who outnumber the Oroqens. The majority of residents in the county are now Han Chinese.¹⁵⁵ Curiously, the area does not have a single governmental authority for the territory,

ZHONGGUO MINZU QUYU ZIZHI ZHIDU YANJIU (民族、自治与发展：中国民族区域自治制度研究) [MINORITIES AUTONOMY AND DEVELOPMENT: STUDIES ON REGIONAL NATIONAL AUTONOMY IN CHINA] 107-52 (Zhou Yong & Maria Lundberg eds., 2008); Bai Lan (白兰), *Jueze yu Fazhan: Xiandaihua Guocheng zhong de Elunchun Jingji he Wenhua (抉择与发展：现代化过程中的鄂伦春族经济和文化) [Choice and Development: The Economy and Culture of the Oroqens in the Process of Modernization]*, in MINZU ZIZHI YU FAZHAN: ZHONGGUO MINZU QUYU ZIZHI ZHIDU YANJIU 153-84 (Zhou Yong & Maria Lundberg eds., 2008); Yi Song (毅松), *Elunchun zu Jingji Zhuanxing yu Wenhua Baohu Yanjiu Zongshu (鄂伦春族经济转型与文化保护研究综述) [A Summary of Research on the Economic Transition and Cultural Protection of the Oroqens]*, in MINZU ZIZHI YU FAZHAN: ZHONGGUO MINZU QUYU ZIZHI ZHIDU YANJIU [MINORITIES AUTONOMY AND DEVELOPMENT: STUDIES ON REGIONAL NATIONAL AUTONOMY IN CHINA] 185-212 (Zhou Yong & Maria Lundberg eds., 2008).

153. The name was changed to Oroqen Autonomous Country in 1952. Zhou & Lundberg, *supra* note 152, at 107 n.2.

154. GUOWUYUAN RENKOU PUCHA BANGONGSHI (国务院人口普查办公室) [POPULATION CENSUS OFFICE OF THE STATE COUNCIL] & GUOJIA TONGJIJU RENKOU HE JIUYE TONGJI SI (国家统计局人口和就业统计司) [DEPARTMENT OF POPULATION AND EMPLOYMENT OF THE NATIONAL BUREAU OF STATISTICS OF CHINA], ZHONGGUO 2010 NIAN RENKOU PUCHA ZILIAO (中国 2010 年人口普查资料) [TABULATION ON THE 2010 POPULATION CENSUS OF THE PEOPLE'S REPUBLIC OF CHINA] 1-2 (2010) (China); *Elunchun Zizhiqi Renmin Zhengfu (鄂伦春自治旗人民政府) [People's Government of the Oroqen Autonomous County]*, *Elunchun Qi Renkou Fazhan Zhuangkuang jiqi Tezheng (鄂伦春旗人口发展状况及其特征) [The Development Status of the Population of the Oroqen Autonomous County and its Features]*, ELUNCHUN ZIZHIQI RENMIN ZHENGFU (鄂伦春自治旗人民政府) [PEOPLE'S GOVERNMENT OF THE OROQEN AUTONOMOUS COUNTY] (2013), <http://www.elc.gov.cn/Item/5772.aspx> [<https://perma.cc/F942-QQ5M>] (last visited Jan 16, 2020) (China).

155. *Id.* See also *supra* note 152. Though Oroqen Autonomous County is named after Oroqens, the population of Oroqens in the county is actually a minority (1,941 out of 223,751 in 2010 population census). The composition of population in Oroqen Autonomous County is diverse. Apart from the Oroqens, there are minority Mongols and Wudaers whose population is bigger than the Oroqens. Though the population of Oroqens is less than Mongols and Wudaers, it has nevertheless been named Oroqen Autonomous County. It is because there already exists another Wudaer Autonomous County. In addition, there also exists a third autonomous county in Hulumber. Oroqens have been regarded as the main ethnic group in Oroqen Autonomous County. There is not a single Mongolia autonomous county or municipality because the Region is called Inner Mongolia Autonomous Region. It is believed that there is unnecessary to have a Mongolia autonomous city or county any more. This is the official explanation.

but rather has three different administrative jurisdictional entities. Besides those individuals under the jurisdiction of Oroqen Autonomous County, another group of people are under the jurisdiction of a state-owned enterprise called Inner Mongolia Forest Enterprise Co. These individuals include administrators and employees of the Company as well as their family members. This enterprise, which has been primarily a logging and sawmill company, is run as a local government and it is essentially equivalent in authority to a municipal city.¹⁵⁶ The Enterprise has its own governmental organs, schools, hospitals, etc.¹⁵⁷ The third jurisdictional entity in Oroqen Autonomous County encompasses those individuals who farm in the area. These farms occupy a large amount of rural land in the County.¹⁵⁸ Similar to the second group, these farming communities and individual groups are organized as a local government with its own governmental organs and other institutions. The land occupied by the second and third groups amounts to ninety-seven percent of the land in the County.¹⁵⁹ As such, the Oroqen Autonomous County Government per se and people under its jurisdiction including all Oroqens only have jurisdiction over three percent of the land in the County or approximately 1,800 square kilometers.¹⁶⁰

A major change in the Oroqens' lifestyle occurred in 1958 when the PRC national government decided that all Oroqens needed to lessen the reliance upon hunting and a relatively nomadic lifestyle to supply their subsistence needs.¹⁶¹ They were encouraged to settle in villages and engage in agriculture, a situation which fundamentally changed their hunting-oriented nomadic lifestyle.¹⁶² Nevertheless, despite the dramatic lifestyle change, some Oroqens managed to hang on to their hunting tradition and continued to hunt outside of their settled areas in the neighboring forest.¹⁶³ Whether or not this government-ordered change was necessary has been subject to discussion. For example, Professor Zhou Yong has queried whether it was really necessary to

156. This information is provided by Mr. Ma. Interview with Ma, Director of Legislative Affairs Office, Hulumber Autonomous Prefecture, Oroqen Autonomous County (June 20, 2018).

157. *Id.*

158. *Id.*

159. Zhou & Lundberg, *supra* note 152, at 110–15.

160. *Id.*

161. *Id.* at 107 & 130.

162. *Id.*

163. *Id.*

prohibit Oroqens from hunting at the time (1950s).¹⁶⁴ He argues that as the Oroqens were the only ethnic minority group located in the autonomous area that actually lived by hunting, the decision to force settlement and agriculture should have been left to local officials and determined by local needs and preferences.¹⁶⁵ Of course, while the hunting resource might have been able to support a hunting lifestyle in the 1950s, by the 1980s the resource had degraded such that no Oroqen hunter would have been able to survive solely on hunting.¹⁶⁶

Another fundamental change occurred to the Oroqens in 1996 when all hunting was completely prohibited by the Central Government.¹⁶⁷ Hunters were required to surrender their guns to the government.¹⁶⁸ The main reason for this prohibition was to conserve the natural environment and flora and fauna populations which had diminished due to excessive logging and hunting.¹⁶⁹ In 2015, another major decision was made by the Central Government, i.e. to stop logging completely to preserve the natural environment in Great Xingan Ling region.¹⁷⁰ This region, according to Mr. Qiao Xin, the former first Vice Chairman of the Legislative Affairs Bureau of Inner Mongolia Autonomous Region, is the important source of water not only for the region, but also for the neighboring Russia which had been experiencing significant deforestation.¹⁷¹

164. *Id.* at 132-34.

165. *Id.* at 108.

166. *Id.*

167. *Id.* at 107.

168. *Id.* at 108 & 136-38.

169. Zhou Xiaofeng (周晓峰), *Tianranlin Baohu Gongcheng yu Kechixu Linye (天然林保护工程与可持续林业) [Natural Forest Conservation Project and Sustainable Forestry]*, 28 DONGBEI LINYE DAXUE XUEBAO (东北林业大学学报) [J. NORTHEAST FOR. UNIV.] 62-66 (2000) (China). Zhou & Lundberg, *supra* note 152, at 107.

170. Shang Wenbo, *Great Xingan Ling in Inner Mongolia: New Energy Injected into the Protection Project on Natural Forests*, FORESTRY (2018), <http://www.forestry.gov.cn/trlbh/1876/20181127/182807566226273.html> [<https://perma.cc/4C3X-LUJ2>].

171. According to Qiao Xin, Russian President Putin once said that if conservation of the High Xingan Ling region is done properly, the neighboring part of Russia won't have any worry about water supply. Interview with Qiao Xin, Deputy Director, Justice Bureau, Inner Mongolia Autonomous Region, Oroqen Autonomous County (June 20, 2018).

2. Local Legislation and Policies on Biodiversity Conservation

Although the Inner Mongolia Autonomous Region has not enacted its own regional autonomous regulations¹⁷² targeting ethnic minorities, the Oroqen Autonomous County has enacted Autonomous Regulations in addition to ten other pieces of autonomous legislation.¹⁷³ Article 6 of its Regulations on Autonomous Legislation, enacted in 2004, provides for the circumstances under which it may exercise its legislative power.¹⁷⁴ Pursuant to the 2004 Autonomous Regulations, the Oroqen County People's Congress and its Standing Committee have exercised the autonomous legislative power granted to it by the Law of the PRC on Ethnic Nationality Autonomy to adapt

172. In fact, none of the five autonomous regions has enacted its own autonomous regulations for the regions respectively.

173. They include: E'lunchun Zizhiqi Renkou Fazhan Cujin Tiaoli (鄂伦春自治旗人口发展促进条例) [Regulation on Population Development Promotion of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, Feb. 23, 2017, effective July 22, 2017) (China); E'lunchun Zizhiqi E'lunchun Minzu Minjian Chuantong Wenhua Baohu Tiaoli (鄂伦春自治旗鄂伦春民族民间传统文化保护条例) [Regulation on The Protection of The Traditional Folk Culture of The Oroqen Nationality] (promulgated by the Standing Comm. Oroqen Autonomous Banner, Mar. 26, 2014, effective July 31, 2014) (China); E'lunchun Zizhiqi Lifa Tiaoli (鄂伦春自治旗立法条例) [Regulation on Legislation of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, Mar. 26, 2004, effective May 1, 2004) (China); E'lunchun Zizhiqi Lvyou Tiaoli (鄂伦春自治旗旅游条例) [Regulation on Tourism of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, Jan. 6, 2004, effective July 31, 2004); E'lunchun Zizhiqi Minzu Jiaoyu Tiaoli (鄂伦春自治旗民族教育条例) [Regulation on Ethic Education of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, Mar. 6, 2002, effective May 25, 2002, amended and effective Jul 26, 2015) (China); E'lunchun Zizhiqi Tudi Guanli Tiaoli (鄂伦春自治旗土地管理条例) [Regulation on Land Management of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, June 3, 2001, effective June 3, 2001) (China); E'lunchun Zizhiqi Liudong Renkou Guanli Tiaoli (鄂伦春自治旗流动人口管理条例) [Regulation on Floating Population of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, June 3, 2001, effective June 3, 2001) (China); E'lunchun Zizhiqi Nongyao Guanli Tiaoli (鄂伦春自治旗农药管理条例) [Regulation on Pesticide Management of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, July 21, 2012, effective July 21, 2012) (China); E'lunchun Zizhiqi Huanjin Baohu Tiaoli (鄂伦春自治旗环境保护条例) [Regulation on Environment Protection of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, May 25, 2002, effective July 1, 2002) (China); E'lunchun Zizhiqi Senlin Fanghuo Tiaoli (鄂伦春自治旗森林防火条例) [Regulation on Prevention of Forrest Fire of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, Apr. 6, 2001, effective Apr. 6, 2001) (China); E'lunchun Zizhiqi Zizhi Tiaoli (鄂伦春自治旗自治条例) [Autonomous Regulation of Oroqen Autonomous Banner] (promulgated by the Standing Comm. Oroqen Autonomous Banner, June 1, 1996, effective June 1, 1996) (China).

174. E'lunchun Zizhiqi Zizhi Tiaoli, *supra* note 173, art. 6.

national laws and policy to their local circumstances.¹⁷⁵ For example, in the area of education, the Education Regulations provide that the County will gradually increase student allowance to all ethnic students, including Oroqens in primary and secondary schools.¹⁷⁶ Additionally, a subsidy is provided to all ethnic Oroqens who have been admitted into university degree or associate degree programs.¹⁷⁷ The Regulations provide for the appointment of ethnic Oroqens to various governmental positions.¹⁷⁸ An ethnic Oroqen should be appointed either as chairman or vice chairmen of the Standing Committee of the Autonomous People's Congress,¹⁷⁹ and the head of the Autonomous People's Government.¹⁸⁰ Oroqens and other ethnic minority people are also to be appointed into the team of leaders of the local people's courts and procuratorates.¹⁸¹ While the objective of the Regulations is to recruit local ethnic minorities, they are not mandatory because there is often a shortage of sufficiently qualified individuals.¹⁸²

According to the Chairmen of the Standing Committee of Oroqen County People's Congress, during his ten years as chairmen (2007 to 2017), he enacted local legislation for the local population in areas such as employment and education, etc. As part of this local focus, He also intended to amend the existing county's autonomous regulations and to enact a new set of rules on protection of ecological environment.¹⁸³ However, he indicated to the Authors that he had been advised by the Standing Committee of the People's Congress of Inner Mongolia Autonomous Region that the local government should wait for these types of initiatives from the Autonomous Region Government.¹⁸⁴

With regard to conservation of biodiversity, Oroqen Autonomous County has not adopted any legislative rules or policies to address its

175. Zhonghua Renmin Gongheguo Minzu Quyu Zizhifa (中华人民共和国民族区域自治法) [Law of Regional National Autonomy] (promulgated by the Standing Comm. Nat'l People's Cong., May 31, 1984, effective Oct. 1, 1984), arts. 6, 19 & 20 (China).

176. E'lunchun Zizhiqi Minzu Jiaoyu Tiaoli, *supra* note 173, art. 10.

177. *Id.*

178. E'lunchun Zizhiqi Zizhi Tiaoli, *supra* note 173.

179. *Id.*, art. 13.

180. *Id.*

181. *Id.*, art. 21.

182. *Id.* arts. 15-16. When the first author visited the County in June 2018, the Head of the People's Government and Chairman of the People's Congress were Oroqens but the President of the people's court and the chief procurator of the county were ethnic Han Chinese.

183. *See supra* note 183.

184. The main reason is, according to him, that it is not considered appropriate at the time to emphasize ethnic minority group's autonomy.

local circumstances. With regard to environmental protection and natural resource management, it has followed national and regional legislation, rules and policies. According to officials interviewed, the national conservation policies as outlined by President Xi Jinping, are deemed sufficient at this time to deal with conservation and natural resource issues in the County and the Autonomous Region. In Oroqen County, for example, a massive afforestation effort, initiated by the Central Government, has had significant impact on arresting ecosystem decline.¹⁸⁵

3. Biodiversity Conservation in Oroqen

a. Sustainable Oroqen Traditions

The ethnic Oroqens possess many sustainable practices in their traditional lifestyle. First, as a former hunting culture they had various customary rules regarding hunting. For example, Oroqen hunters neither hunted young immature animals nor did they hunt pregnant animals.¹⁸⁶ They also refrained from hunting during mating season.¹⁸⁷ These rules enabled the Oroqens to sustainably utilize the game populations across their traditional forest lands. Second, they also had customary rules to ensure that forest cover and trees were not overly exploited.¹⁸⁸ For example, there was a customary rule that mature trees were never to be cut for firewood.¹⁸⁹ Instead, the Oroqens used ground litter and fallen branches for fuel.¹⁹⁰

When the first Author visited several Oroqen villages and talked to their village leaders during his visit in June 2018, it was evident that many hunting or gathering traditions are no longer relevant to, or practiced by Oroqens currently living in Oroqen Autonomous County.¹⁹¹ The people of these villages, whose standard of living is

185. *See supra* note 183.

186 The two rules are recorded. *See* YU SHUO & ZHAO SHIQING, MOUNTAINS, OH MOUNTAINS: AN ORAL HISTORY OF THE OROCHEN HUNTERS 4-5 (2017).

187. *Id.*

188. This information is obtained during an interview conducted by the first Author with the President of the County Court of E'Lun Chun County, the former chairman of the Standing Committee of County People's Congress, Chairlady of Women's Association of the same County in June 2018.

189. *Id.*

190. *Id.*

191. The information was obtained in interviews conducted by the first Author on June 21, 2018. Interview with one village head of an Oroqen village, arranged by the President of the County Court (June 21, 2018) [hereinafter Interview with the village head].

relatively high (earning about 60,000 RMB per year, are now mainly involved in farming. A family of three will have 225 mu (approximately fifteen hectares) of land for farming. They generally grow soybeans and sugar cane. Additionally, they engage in some pastoralism, having around 100 sheep per family. They also continue to receive a financial subsidy from the government for relocation and for giving up hunting. Despite the present-day agricultural activities, the older generation spoke to the first author about the various hunting activities and rules that governed Oroqen hunting practices prior to surrendering their guns in 1996. They observed that the younger generations do not know how to hunt, but the younger generations have had the opportunity to learn how to shoot as a sport.¹⁹² The leaders did not think there was any consideration of their local historic sustainable traditions in the government's formulation or implementation of environmental and biodiversity policies.¹⁹³

As noted by Professor Zhou Yong, after settling down at the government's direction, Oroqens not only lost their hunting lifestyle, they also lost their right to use other forest resources on which they had traditionally depended.¹⁹⁴ For example, prior to settling in permanent villages, they raised deer in the forest, farmed fungus and applied their traditional skills to make handcrafted products with bark of the huashu tree.¹⁹⁵ Unfortunately, the Oroqen's traditional handicrafts, animal husbandry, and fungus raising were dependent upon access to the forest. Their access to wood, bark, and forested areas, however, has been restricted since the 1950s to facilitate non-Oroqen logging activities. According to Zhou Yong, who has done extensive research on Oroqens, the non-Oroqen used forest was industrially logged by the Greater Xingan Ling Forest Administration Bureau (later the China Inner Mongolia Forest Industrial Group) under an administrative arrangement with the Autonomous Region.¹⁹⁶ The remaining forest resource controlled by Oroqen Autonomous County is small - only 0.27%.¹⁹⁷ The Forest Administration Bureau, as mentioned above, has

192. The first Author was told by the Chairlady of the Women's Association that some Oroqens have become national famous sports shooters in various shooting competition. That is an indication that some people of younger generations still master good shooting skills. *Supra* note 188.

193. Interview with the village head. *See supra* note 191.

194. Zhou & Lundberg, *supra* note 152, at 115-16.

195. Bai Lan, *supra* note 152, at 154-69.

196. Zhou & Lundberg, *supra* note 152, at 111.

197. *Id.*

powers similar to that of the Oroqen County.¹⁹⁸ It has been granted the administrative authority over the forest and its workers are mainly Han Chinese. Some Oroqens have complained that they are prevented from owning a piece of land in the forest, even though they had lived there for hundreds of years.¹⁹⁹

b. Change of National Policy on Forest Conservation

In 2014, Chinese Central Government made a major policy decision to protect natural forests, particularly those at the headwaters and upper reaches of the Yangtze and Yellow Rivers.²⁰⁰ The first phase of the policy identified twelve provinces/autonomous regions which were required to implement natural forest protection.²⁰¹ During the second phase of the project, specific national implementation plans were formulated and lower levels of government are required to implement them.²⁰² The Great Xingan Ling region in Inner Mongolia has been identified as an area to be included in the protection policy.²⁰³ In response to the Central Government's policy initiative, the Autonomous Government in Inner Mongolia adopted local legislation to implement the national policy.²⁰⁴ Additionally, the Central Government adopted Reform Plans for State-owned Forest Farms and Guiding Opinions on Reform of State-owned Forest Land in early 2015. Inner Mongolia implemented the new policy by prohibiting all logging of natural forests in Great Xingan Ling Area by April 1,

198. Please refer to the discussion on Section III.C.1.

199. Interview with the village head. *See supra* note 191.

200. *See generally* Changjiang Xiayou Huanghe Zhongshangyou Diqu Tianranlin Baohu Gongchen Shishi Fang'an (长江上游、黄河上中游地区天然林资源保护工程实施方案) [Implementation Plan on Natural Forests Protection Project at Upper Yangtze River and Upper and Middle Yellow River] (China); Dongbei Neimenggudeng Zhongdian Guoyou Linqu Tianranlin Ziyuan Baohu Gongcheng Shishi Fang'an (东北、内蒙古等重点国有林区天然林资源保护工程实施方案) [Implementation Plan on Protection Projects of Important State-owned Natural Forests in Northeast and Inner Mongolia] (China).

201. *Id.*

202. *See* Dongbei Neimenggudeng Zhongdian Guoyou Linqu Tianranlin Ziyuan Baohu Gongcheng Er'qi Shishi Fang'an (东北内蒙古等重点国有林区天然林资源保护工程二期实施方案) [Second Phase Implementation Plan on Protection Projects of Important State-owned Natural Forests in Northeast and Inner Mongolia] (China).

203. *Id.*

204. *See* Neimenggu Zizhiqu Tianranlin Ziyuan Baohu Gongcheng Guanli Banfa (内蒙古自治区天然林资源保护工程管理办法(试行)) [Administration Methods on Natural Forests Protection Projects in Inner Mongolia (for trial)], (promulgated by the People's Government of Inner Mongolia and issued July 13, 2001) (China).

2015.²⁰⁵ This logging ban has had immediate consequences. There has been an effort to merge the administrative agencies for forest industry and collective farming with the local government administration to better tailor government to the new economic and ecological environment.²⁰⁶ Additionally, the function of the Forest Enterprises has changed fundamentally. The first author visited two forest enterprises (farms) (林场) during his field trip in June 2018. Such forest enterprises used to be logging enterprises which earned healthy returns for both the owners and employees. Since 2015 when logging was prohibited, most forest units have closed down and many employees have either retired or left.²⁰⁷ The remaining employees work to maintain forest health instead of logging or sawmilling.²⁰⁸ There are now approximately five thousand individuals employed whose main task is patrolling the forest to prevent fire and ensure that there is no illegal logging or hunting.²⁰⁹ Unfortunately, due to the lack of logging, the income of these employees has dropped significantly. Some forest enterprises have developed supplemental businesses, such as raising wild pigs, fish farming, sheep farming, fungus farming, raising bees, etc. to generate additional income for their employees.²¹⁰ For example, the Hong Xin Farm Enterprise has profitably transitioned into wild pig husbandry and fungus farming.²¹¹

c. Implications for the Oroqens

Given the dramatic changes the Oroqen minority community has undergone since the 1950s, it is evident that the allocation of land and

205. Shang Wenbo, *supra* note 170.

206. Linye Gongzuozhan Guanli Banfa (林业工作站管理办法) [Measures for Administration of Forestry Workstations] (promulgated by the National Forestry Administration, Nov. 24, 2015, effective Jan. 1, 2016) (China), art. 4; the Central Committee of the Communist Party of China & the State Council, *Zhonggong Zhongyang Guowuyuan guanyu jinyibu tuijin nongken gaige fazhan de yijian* (中共中央 国务院关于进一步推进农垦改革发展的意见) [The opinion of the Central Committee of the Communist Party of China and the State Council on the further promotion of the reform and development of agricultural reclamation] (promulgated Nov. 27, 2015), available at http://www.gov.cn/zhengce/2015-12/01/content_5018727.htm [<https://perma.cc/9X6J-XLTQ>] (last visited Jan. 31, 2020).

207. Information provided to the first Author, during the field trip in June 2018, from the interview with officials of Red Star Forest Farm (红星林场) in Oroqen Autonomous County (June 20, 2018).

208. *Id.*

209. *Id.*

210. *Id.*

211. *Id.*

use rights away from that community has been unfair. Although they no longer suffer significant hardship and economic insecurity, the community has been unable to leverage its traditional use and ownership in the forest into state recognized rights. Nevertheless, with the prohibition on logging and excessive framing in the forested area and the decline of the industrial logging enterprises, there may be an opportunity for the Oroqen community to claw back some of its ownership, management, and use rights. This process could be facilitated with the merger of the three co-existing administrative regimes in Oroqen Autonomous County. Such change may create an opportunity to revisit past practice and allow for the exercise of autonomy in environment regulation and natural resource usage by the Oroqens. The improved environment offers additional opportunities for revitalization of Oroqen cultural practices and forest uses. With the pause on cutting, forest health and cover has improved, and the quantity of wild animals has increased.²¹² Indeed, as the forest improves there is little justification not to provide Oroqens, the local ethnic minority which had sustainably used the area for centuries, some renewed right to use the forest.

IV. CONCLUSION

This Article has examined the law and policy of biodiversity protection and official attitudes toward hunting and collecting practices of some ethnic minorities in Yunnan Province and the Great Xingan Ling area in Inner Mongolia Autonomous Region. In Yunnan and the Great Xingan Ling area in Inner Mongolia, the provincial/autonomous regional governments have been swift in implementing national policies for the conservation of natural forests and biodiversity. Their regional and local policies, following national regulation have sought to protect endangered flora and fauna as well as protect habitats. These national laws (and regional/local implementations of them) remain for

212. See, e.g., Shishi Tianbao gongcheng, *Hulun Beier yesheng dongwu shu mingxian zengjia* (实施天保工程 呼伦贝尔野生动物数明显增加) [Implementing the natural forest protection project, the number of wild animals in Hulun Buir has increased significantly], NEWS.SINA.COM (Mar. 3, 2009), <https://news.sina.com.cn/c/2009-03-03/154015249529s.shtml> [https://perma.cc/9NAM-SAUY] (last visited Jan. 31, 2020) (China); Qiu Chunfeng (邱春风), *Hulun Beier, lü zai zhangda, yesheng dongwu zhonglei zengjia le* (呼伦贝尔, 绿在长大, 野生动物种类增加了) [Greenery is growing in Hulun Buir, the types of wild animals have increased], QQ NEWS (May 28, 2019), <https://new.qq.com/rain/a/20190528A0I2ES> [https://perma.cc/WW3M-9Y5Y] (China).

the most part broadly prohibitive of any resource use. The corresponding regional/local policies and regulations, such as the creation of various conservation zones and prohibition of logging of natural forests have therefore proved to be effective because they provide no exceptions or selective resource use.

From the Authors' research it is apparent that officials engaged in conservation, natural resource management, and biodiversity protection are aware of and sensitive to the impacts the prohibitory and top-down policies can have on ethnic minority peoples. They have implemented some policies to mitigate the adverse effects within their respective financial, legal and political constraints. However, these local and regional efforts to mitigate the effects of conservation and biodiversity policies have neither sought to address the particular cultural uses and practices that are important to minority lifestyles (including some continued hunting and gathering activities) nor have they sought to incorporate local customary law into state law to achieve better outcomes. Moreover, unlike practices in other states such as New Zealand, ethnic minorities and local communities are not actively involved in either policy formulation or implementation. Where provided opportunities to participate, ethnic minorities have only minimally engaged in participation forums provided by regional and local authorities. In contrast, it appears that they have actively participated in the formation of village rules which can be particularly effective in the conservation of biodiversity. While the impact of these local rules is probably limited, the difference between active participation at the local level and little participation at higher levels suggests that local, regional and national authorities should examine the approaches to soliciting public comment in the formulation and implementation of environmental legislation and rules. As such, it is apparent that the failure to mitigate impacts on the culture and local minority practices and the seeming inability to effectively consult with minority peoples amounts to a lost opportunity and increased burden on local communities.

It is also apparent from this study that the strict policies and regulations, while more easily implemented and monitored from the perspective of the regional and local governments, also have some serious side effects. Prominent adverse effects on the interests of those ethnic minority residents living in the various conservation zones include the lost ability to earn their subsistence from the surrounding natural area, poverty, forced resettlement, the undermining of validity

of customary institutions and leadership system with the concomitant disruption of customary systems of environmental management, the disruption of kinship systems, and informal social networks that are often fundamental to the local economy and loss of identity. These impacts have seemingly been addressed only through regulations requiring the payment of compensation to affected residents, employment schemes designed to enforce the regulations and alternative business incentives. Unfortunately, the information provided by local governmental officials in Yunnan and Inner Mongolia also suggests that the compensation offered has often been inadequate and financial constraints have undermined the effectiveness of programs designed to address the impacts of conservation programs. On the one hand, this problem is because the Central Government has shifted financial responsibility to regional and local governments for national environmental objectives and there are often conflicting policy directives and performance incentives given by regional and local officials. On the other hand, the inadequate compensation is related to the undervaluing of traditional activities and lifestyles which appears to be associated with the notion that minority peoples have been assimilated into mainstream Chinese society. As natural resource policies are often redistributive and in some instances are zero-sum across a local area, it is imperative that compensation mechanisms and programs designed for alternative economic opportunities for minority peoples be adequately funded by the Central Government or must be fully funded by regional and local governments prior to implementation.

Related to the economic impacts on ethnic minority and local peoples is the use by local governments of newly created protected areas to enable adjacent residents to continue to make income from the protected areas. For example, some local governments have made use of national policy which permits development of alternative businesses under trees in non-core areas within natural forests. They have provided funding to develop various alternative businesses such as wild pig farming, fungus farming, aquaculture, apiculture, and growing Chinese medicinal plants. In some places, alternative businesses have been very successful, and those ethnic minorities whose livelihood has been affected by prohibition of hunting and restriction of collecting have benefited from such alternative businesses. In these instances, they have managed to earn a better living than relying on traditional hunting and collecting.

Perhaps more significantly, it is evident from the research that local and regional officials have not availed themselves to the autonomy provisions under the Constitution and implementing law and regulations in terms of protecting the environment, natural resource management and biodiversity in light of the needs of ethnic communities. It appears that the practice has been that the regional or local governments have not modified national legislation or initiated regional or local legislation despite instances where the legislation has adversely affected local ethnic minority groups. They have appeared to only consider minority communities needs retrospectively, in terms of mitigating the effect of national, regional and local programs, and have not prospectively modified the content or implementation of a law or policy to incorporate their cultural considerations or lifestyles into the natural resource management/conservation process. Moreover, where minority considerations are involved, they are included as part of the needs of the larger local (Han and other minority) community generally. Given that ethnic minorities have autonomy under both the Constitution²¹³ and the Law of the PRC on Autonomy of Ethnic Minorities,²¹⁴ this failure to use authority in light of the acknowledged effects of various policies on ethnic minority groups is an unnecessary and damaging deficiency. It appears that a variety of local issues touching ethnic minority groups have been overlooked and the problems national legislation has caused ethnic minority groups *as ethnic minorities* are numerous. Such authority should be exercised.²¹⁵

Finally, while it remains an open question as to the long-term conservation and biodiversity success of the policies in the areas studied, it is evident that in both areas there has been some success in reversing environmental degradation. The practices in the two local governments and areas in this Article has studied have led the Authors to conclude that the strict top-down approach taken in China to conserve natural environment and biodiversity has been relatively effective in reversing environmental degradation in the areas. Nevertheless, it is clear that some of the significant costs imposed on the ethnic minorities and local communities could have been mitigated or were not justified in light of the natural resource objective. It appears that initial environmental policies ignored or gave insufficient weight to their interests. In the Authors' view, similar or improved

213. XIANFA arts. 4(3) & 4(4), § 1 (1982) (China).

214. *Id.* art. 4(4), § 1.

215. Interview with Tian, *supra* note 38.

environmental outcomes with less social, economic and cultural dislocation could have been achieved if officials would have designed the programs in a more holistic, less prohibitory manner. At the same time, it is apparent that this ignorance or policy vacuum could be remedied in the future as the officials the Authors interacted with appear to be knowledgeable of minority concerns and interested in addressing their needs and mitigating the problems caused by the creation and implementation of conservation and biodiversity policies.