

SANJIANGYUAN NATIONAL PARK PILOT

Evaluation Team Full Report





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I. INTRODUCTION

Note: This full report contains extensive detail and discussion, with some minor editing, of the individual team member's reports. These details are provided for background and do not necessarily reflect the consensus recommendations that are provided in the Executive Summary.

While China has designated thousands of “protected areas” and even some that bear the name “national park”, a new initiative for national parks in China comes directly from President Xi Jinping’s leadership as a part of China’s “eco-civilization” and “beautiful China”. President Xi has called for a complete national park system in China by 2030 and they have studied other national park systems from some countries around the world, including the United States. In addition, the **Overall Plan for Establishing a National Park System** in China was prepared by the National Development and Reform Commission (NDRC) and released by the General Office of the Communist Party of China Central Committee and the General Office of the State Council on September 26, 2017. The Plan sets forth overall principles for establishing a national park system with “Chinese characteristics”; defines the concept of national parks; describes administrative authorities and a “co-management” among various levels of government; suggests diversified funding strategies; directs development of a management system for strict protection; and suggests measures for effective implementation.

Based upon all we learned about initial principles, goals, and policies now in place for Sanjiangyuan Pilot National Park it appears as if such decision-making is consistent with the basic concepts and most of the specific proposals contained in the **Overall Plan for Establishing a National Park System in China**. There are many dozen such principles and goals set forth in this Plan, and it doesn’t seem necessary to match each with goals and actions in Sanjiangyuan Pilot National Park. However, conceptually, key matches include:

- A determination that a national park should place ecological consideration as the top priority;
- The integrity and authenticity of natural ecosystems shall be protected;



Figure 1. Team Orientation to the Park by Mr. Tian

- Convert various components of the existing system of protected areas, including nature reserves, geoparks, wetlands, etc. into a single national park;
- A single management entity, the Sanjiangyuan National Park Management Authority has been established to oversee and coordinate all aspect of management of the Pilot Park.
- There is integration among all levels of government, provincial, prefecture, County, village, etc.
- There is comprehensive effort to collaborate with and support local (mostly Tibetan) people, especially in the smaller towns and villages, to ensure that their needs are respected and achieved to the extent feasible.
- A set of Regulations (adopted by the People’s Congress of Qinghai Province) is providing a wide variety of essential guidance and consistency throughout the Pilot Park.

To begin implementation, China identified 12 pilot national parks and set up a new National Parks Bureau within the National Forestry and Grassland Administration.

Qinghai Provincial Government invited the Paulson Institute (PI) to conduct an independent international evaluation for Sanjiangyuan National

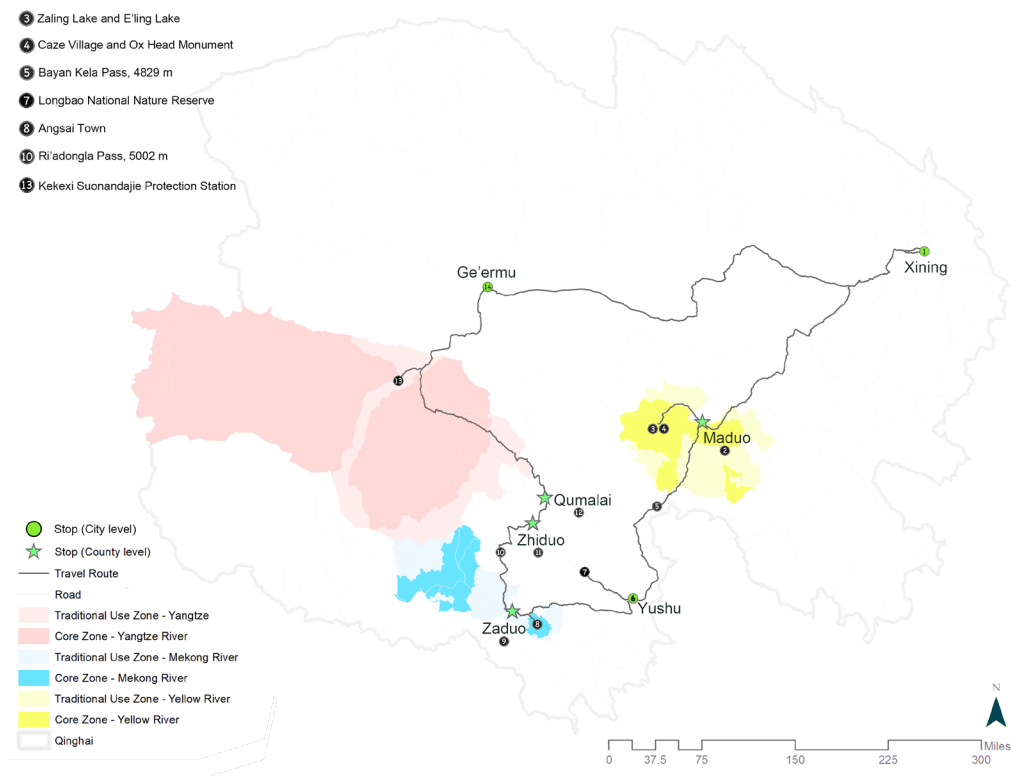


Figure 2. Travel Route

Park Pilot, one of the 12 pilot national parks. PI contracted the University of California Institute for Parks, People and Biodiversity Executive Director and former US National Park Service Director Jon Jarvis to led an interdisciplinary American expert team to China. The expert team spent two weeks in Beijing and Qinghai in early June, 2019 to conduct the field visit and stakeholder consultations. PI also provided funding and support to the evaluation project.

After a brief orientation in Beijing, the Team flew to Xining, the provincial capital of Qinghai Province. From there we traveled in four vehicles for eight days, covering over 3000 km. The 123,000-square kilometer (12 million hectares) Sanjiangyuan National Park Pilot is the headwaters of three major rivers: the Yellow, the Yangtze and the Mekong which serve at least 900 million people downstream. The area is sparsely populated, mostly nomadic Tibetan yak and sheep herders with small remote villages. Known as the “third pole” it is cold, dry, and high elevation. It is beautiful country, with most of the species of wildlife still resident.

The Team attended multiple meetings with provincial and local officials and heard both their vision for the pilot park and their concerns. The Team noted many positive efforts including the embracing of the Tibetan culture’s respect for all life in Sanjiangyuan as a part of its stewardship. We also heard and observed some things that are concerning regarding the conflict between development and conservation. The local officials had clear direction from the Central government regarding the protection of Sanjiangyuan. Making it work is the hard part, and they were all eager to hear from us on our experiences with national parks in the US and around the world. The Team closed out with a full day meeting in Beijing with over 20 officials, reporting on our findings and observations.

Throughout this report there will be references to documents that provide more details on issues such as road standards, research, policies and regulations of the US National Park System. For convenience, all of those documents and/or references will be found at the UC Berkeley Institute for Parks, People and Biodiversity website at: (<https://parks.berkeley.edu>)

II: ASSESSMENT OF SIGNIFICANCE OF NATURAL RESOURCES

The natural and cultural resources contained within existing boundaries of Sanjiangyuan are nationally and internationally significant. The Pilot Park preserves a wide range of ecosystems, including grasslands, alpine montane landscapes, high altitude wetlands, lakes, and arguably one of the most concentrated assembly of living creatures in high altitude localities anywhere in the world. Most significantly, the Park preserves the headwaters of three of the most important rivers in China and all of Asia, the Yangtze, Yellow, and Lancang/Mekong Rivers. For this reason, this place where great rivers originate is often referred to as the “water tower of Asia.”

The Tibetan Plateau is among the last wild places in the world (Venter et al. 2016) <https://paperpile.com/c/XYalTb/bgB3>. After Africa, it supports the greatest species richness of terrestrial megafauna in the world (Ripple et al. 2016). The high average elevation (~4500 m) of the region results in cold temperatures, low oxygen concentration, and high ultraviolet radiation, which has led to the evolution of cold-adapted mammalian faunas (Wang et al. 2015). These species include the snow leopard (*Panthera uncia*), gray wolf (*Canis lupus*), brown bear (*Ursus arctos*), Eurasian lynx (*Lynx lynx*), Pallas’s cat (*Otocolobus manul*), Tibetan fox (*Vulpes ferrilata*), blue sheep (*Pseudois nayaur*), argali (*Ovis ammon*), kiang (*Equus kiang*), Tibetan antelope (*Pantholops hodgsonii*), Tibetan gazelle (*Procapra picticaudata*), and wild yak

(*Bos mutus*). Nevertheless, one of the most diminutive yet important mammal species is the plateau pika (*Ochotona curzoniae*), which serves as prey for nearly all of the region’s predators and whose burrows act to increase soil disturbance leading to increased plant species richness and act as homes to birds and lizards (Smith and Foggin 1999), thus performing functions like a keystone species. In addition, the Qinghai region supports a diversity of bird species including the highly endangered Black neck Crane (*Grus nigricollis*). Moreover, Qinghai Lake and surrounding wetlands are important habitat for migratory birds, such as the Bar-headed Goose (*Anser indicus*) that can exceed 8000 m in elevation while migrating over the Himalaya ranges, and the endemic Qinghai Lake toad (*Bufo tuberculatus*).

The Team was duly impressed with the large mammal and bird fauna that we saw during our visit to Qinghai. The Team concluded that there is great opportunity to create successful ecotourism experiences in Qinghai around observing and photographing the large mammals and birds, as well as enjoying the spectacular scenery, and experiencing the unique human culture of the nomadic pastoralists inhabiting the region. Questions frequently arose, however, during the Team’s visit in relation to the long-term viability of a number of wildlife species, the ecosystems of the region, and the nomadic lifestyle of the local people.

Until recently, there had been limited human settlement in the Qinghai region (Chen et al. 2015). Now this high elevation region has become threatened by infrastructure construction, growing human activities, and a rapidly changing climate (Li et al. 2016a). As a result, 20% of mammals with geographic ranges primarily on the Tibetan plateau are listed as Threatened by IUCN (2016). Wetlands have been greatly diminished and the associated vertebrates are in decline.

Thus, the Team recognizes a great need to develop a strong science-based program of research and monitoring to understand the mechanisms behind the key changes taking place in the region. There is a nascent program in place at this time. Scientific data are currently being collected by NGO's, such as Shan Shui, and should be shared with the park management team. Occurrences of large and easily observable wildlife are also being collected by local inhabitants who serve in the park ranger program. It was not clear to the Team, however, what entity would coordinate data collation across the different participating entities, manage the data for the park for perpetuity, and conduct meaningful analysis.

The Team believes that now is a critical time to develop a well-designed monitoring program that can establish to baseline of abundance and distribution of key elements of biodiversity and ecosystem services in and around Sanjiangyuan National. The value of such a baseline will increase over the next decades as threats to biodiversity and resilience of the parks ecosystems are further manifested. Below we discuss two of the main threats that the Team frequently heard about during our visit – climate change and pastoralism.

Climate change has already impacted Qinghai and the Tibetan Plateau. Temperatures on the Tibetan Plateau have increased over the past century and possibly at a more rapid rate at higher altitudes, leading to loss of glaciers and permafrost (Liu et al. 2000, Kang et al. 2010). The Tibetan Plateau contains the largest number of glaciers out of the polar regions (Yao et al. 2012). Many glaciers are currently in retreat, but shrinkage has generally been less in the continental interior of the region including Qinghai (Yao et al. 2012). Climate change has also led to a decrease in potential evapotranspiration (Shenbin et al. 2006), which signals a decline in the net amount of water available for plants to use in respiratory activity (i.e., productivity).

Given the adaptations of many species to life in the cold, high Tibetan Plateau, climate change is likely to have a large impact on biodiversity in this region. Climate change is projected to shrink the size of geographic ranges of one-third of the 59 key rare and endangered species inhabiting the Qinghai-Tibet Plateau, and expand the range of two-thirds of the species (Li 2019). Thus, climate change is projected to reshuffle species in the region, making it extremely important to design protected areas to be as large and as well connected as possible. Perhaps the exception will be the snow leopard, which is projected to lose habitat but retain enough stable habitat to persist through 2070 (Li et al. 2016).

Climate change is also likely to influence the caterpillar fungus (*Ophiocordyceps sinensis*), which is endemic to the Tibetan Plateau, is used in traditional Chinese medicine, and is a very important contributor to the local economy. Species distribution models based on climate change projections suggest that its habitat could be reduced by 36-39% if the fungus has a low dispersal potential and 4-19% if the fungus has a high dispersal potential (Yan et al. 2017). This could result in a major reduction of the income for local people. In response, they may look to other avenues to replace the lost income, including increases in yak stock.

Nomadic pastoralists composed of Tibetan, Mongolian and other non-Han ethnic minorities have herded yak and occupied the Qinghai plateau for millennia. During the team's visit to Sanjinyuan National Park, we frequently heard questions raised by park officials about whether overstocking of yak had decreased the carrying capacity of the rangelands. A similar critique was leveled at the wild ungulate populations by local government officials. Others culprits blamed for rangeland degradation include climate change, population growth of the local people, fencing of the pastures, and damage by pikas (Harris 2010).

Determining the relative contributions of the causes of range degradation and the carrying capacity of the grasslands is an important research question and it will require significant financial investments to address. Harris (2010) conducted an extensive review of the rangeland degradation and its causes in Qinghai. He concluded that the extent and magnitude of rangeland degradation on the region remains largely unknown because monitoring programs have been subjective and poorly documented. Thus, empirical evidence for both degradation and its causes are sorely lacking.

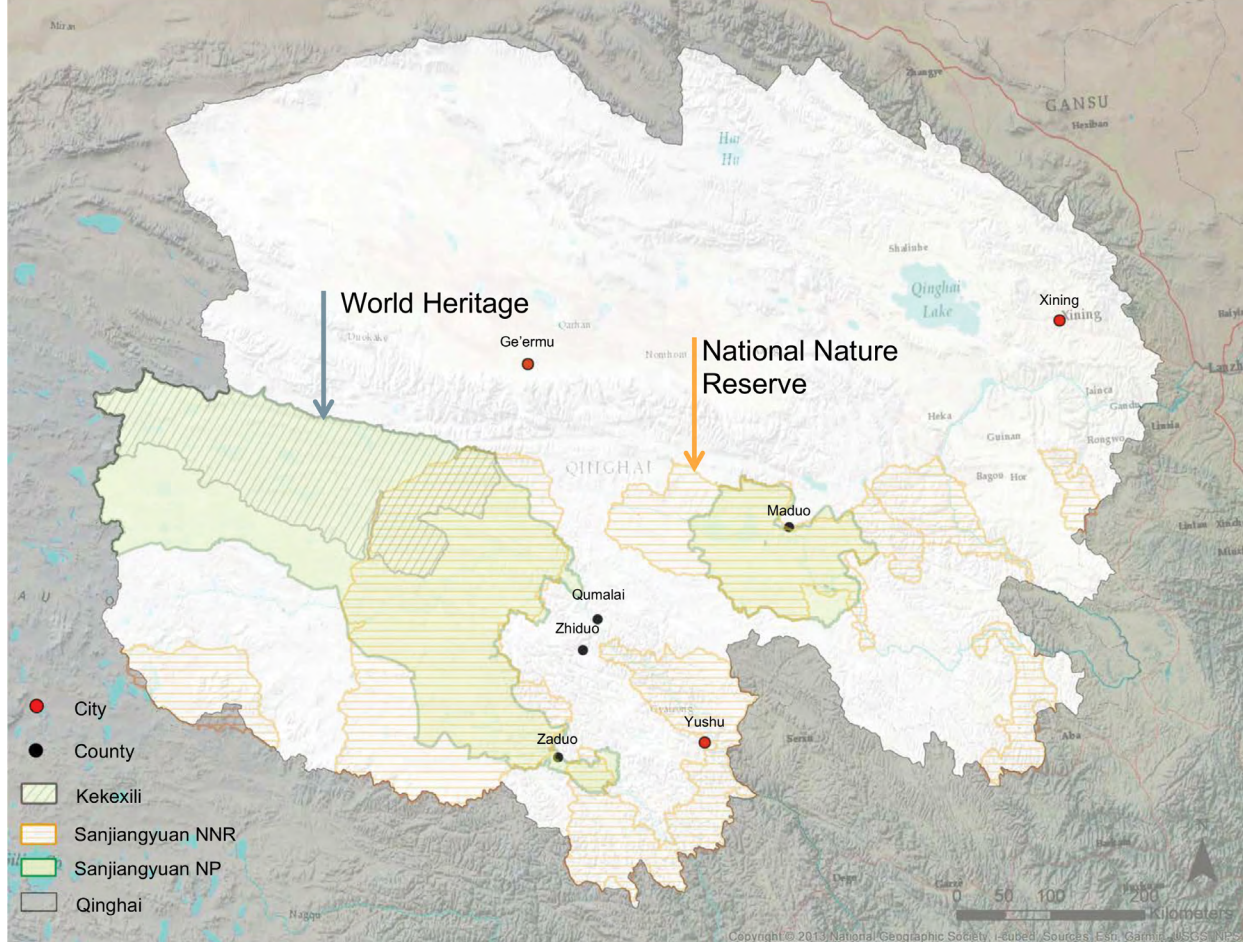


Figure 4. Sanjiangyuan NNR and Kekexili

An obvious impact of the current system of livestock management in Sanjiangyuan National Park was the erection of hundreds to thousands of kilometers of fencing as part of land tenure allotments to reduce nomadism. Fences often have both concentrate the negative effects of grazing when livestock on vegetation inside the pastures and increase intensity of grazing in surrounding pastures when livestock are excluded (Harris 2010). Moreover, fences greatly impede the movement of native wildlife across the landscape – including daily movement, dispersal of juveniles, and seasonal migrations. It is likely that this could have drastic negative effects on the populations of native wildlife. Thus, the Team believes that fences be minimized within the national park.

These ecosystems provide not only important ecosystem services to hundreds of millions of people in China and Asia, they host a great diversity of plants and animals unique to the broader Qinghai-Tibet Plateau. A portion of the pilot national park has been designated as a World Heritage Area.

By most any national and international standard, these resources are invaluable and worthy of preservation. In fact, most of the new Park was initially protected as part of the Sanjiangyuan National and Kekexili Nature Reserves, which were established nearly 20 years ago to protect against increasing harm from illegal hunting, mining, road-building, over-grazing, and other threats caused by expanding human populations. Accordingly, legal and enforcement systems were established to protect and in some cases, restore natural ecosystems, and also support perpetuation of the Tibetan way of life. Poaching of wildlife has been substantially reduced and, in some instances, endangered animal species are increasing in numbers.

In sum, this internationally significant assemblage of diverse and unique natural and culture values has long been determined as worthy of the highest levels of protection, and clearly warrants elevation to national park status and stature. Scientific information is currently being collected by NGO's such as Shan Shui and should be shared

with the park management team. The relationship with Chinese universities could be expanded to develop a more robust science program for park management. A bibliography of current research in Sanjiangyuan is on the Institute website.

While conservation efforts in the last decade have contributed to a rise in wildlife populations, the conflict between humans and wildlife that has ensued must ultimately be resolved under the umbrella of park management. Wildlife do not follow lines created by humans and are blocked by fences. These issues are primary competition for grazing between wild ungulates and domestic yak herd, food waste near homes, and some conflicts with large carnivores. The evaluation team commends the county government on the insurance system set up to compensate locals for lost livestock. However, our understanding is the level of compensation for lost livestock within the park is also lower than it used to be before park designation, and presumably different than the area outside of the park.

The officials are to be commended for efforts at several rehabilitation sites, including one mining/gravel extraction site. The team also visited an earthen dam with a defunct hydro-electric facility that is being removed. The team encourages thoughtful planning for the dam removal, sediment control from behind the dam and revegetation of the area with native species. The US National Park Service has experience in dam removal.

RECOMMENDATION

The park management authority should consider a comprehensive natural resource monitoring program designed to give the management a deeper and more sensitive understanding of the natural resources of the park. This should be developed in cooperation with one or more of the major Chinese universities such as the Chinese Academy of Sciences Sanjiangyuan National Park Research Institute.

RECOMMENDATION

That science be conducted to verify the exact causes in any changes in the carrying capacity of the grasslands and identify to what extent wildlife conflict actually exists, and also to identify historic ratios between domestic and wild ungulates.

RECOMMENDATION

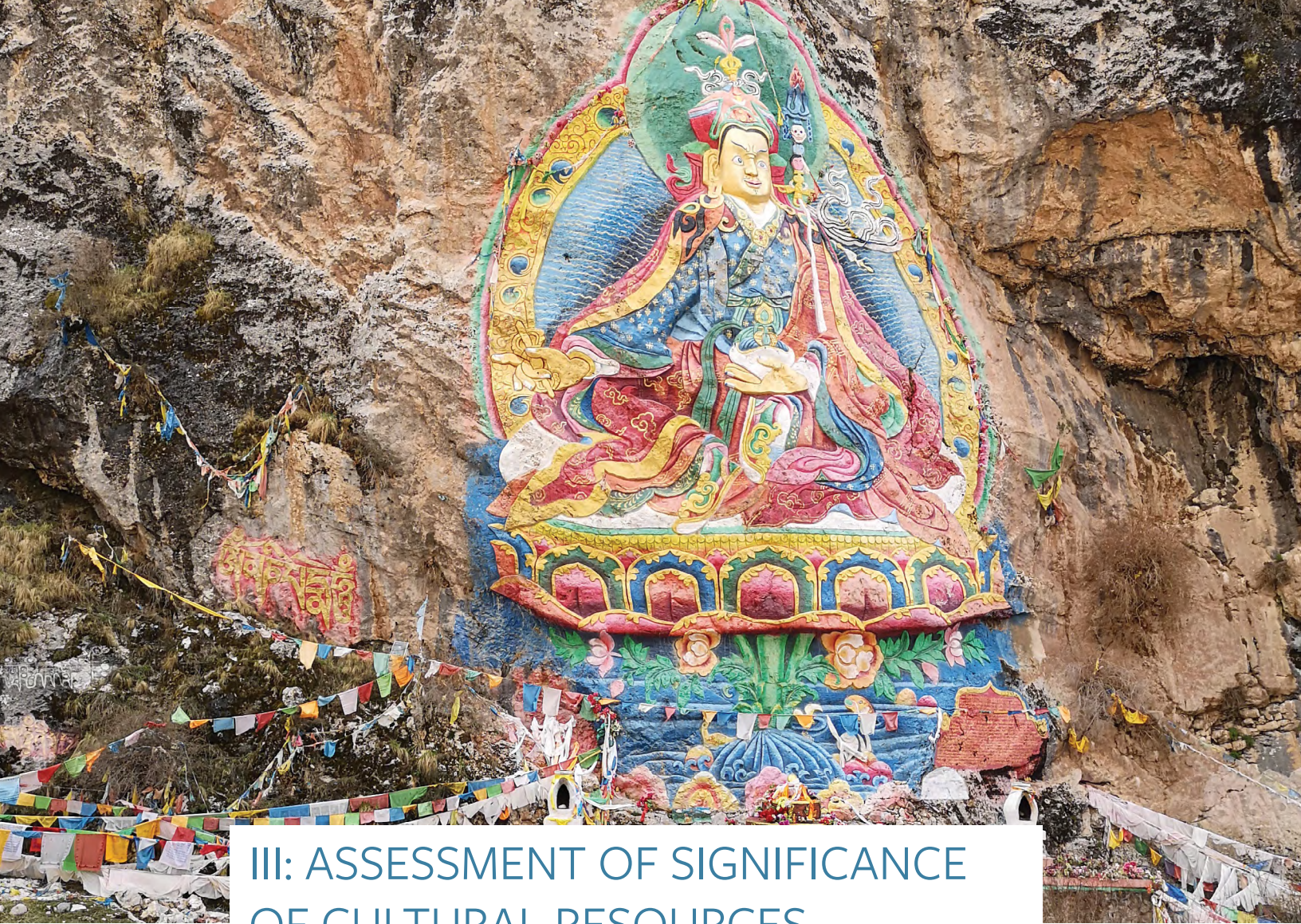
Further research and a refined management practice is needed to reduce wildlife and livestock conflict, and fairly compensate herders for domestic animals lost to wild carnivores.

RECOMMENDATION

The team recommends that only native plant species be used for rehabilitation of disturbed sites.

RECOMMENDATION

The team suggests that the park authority begin planning adaptation strategies for a warming climate that will have significant impact on high elevation, cold climates. *(Note: Resources for reference to climate adaptation can be found at the Institute website.)*



III: ASSESSMENT OF SIGNIFICANCE OF CULTURAL RESOURCES

The team noted significant cultural resources within the pilot national park, primarily in the form of Buddhist carvings, iconography, prayer flags, cairns, statues, sacred mountains, and monuments to historical figures. All of these contribute to the overall park experience and will be of high interest to international as well as domestic visitors.

In addition, the presence of humans on this landscape for thousands of years has produced important cultural landscapes that should be a part of the overall park management plan. The preservation of these cultural landscapes while accommodating visitor access and facilities will be important effort.

The Park also contains widespread towns and villages where local Tibetans continue pastoral lifestyles that reflect centuries of living in relative harmony with the landscape. The Tibetan people and their traditional lifestyles and customs are a cultural resource that is integral to the future of the pilot national park. Cultural tourism is on the rise around the world, and visitors will be interested in interacting with the local villagers, purchasing local crafts and products, and learning about the history and traditions of the Tibetan people. Commendably, park managers have recognized this value and intend to preserve that unique culture in a fashion that preserves both natural resources and the Tibetan way of life.



Figure 5. Cultural Resources. Photo by Rudy D'Alessandro

RECOMMENDATION

Oral histories be recorded of local Tibetan villagers and yak herders so as to capture and record, for historical and interpretive purposes, their beliefs, values and traditions.

RECOMMENDATION

Recognition, documentation, interpretation and preservation of cultural sites should be incorporated into the next version of the master plan.

RECOMMENDATION

Park visitation, conservation of natural resources, and economic benefits should be managed to protect the culture and lifestyles of the Tibetan people. This includes concession business training and park management employment.

RECOMMENDATION

Park branding should be consistent with cultural values and respect local place names. All concessionaires should be required to adhere to this regulation.

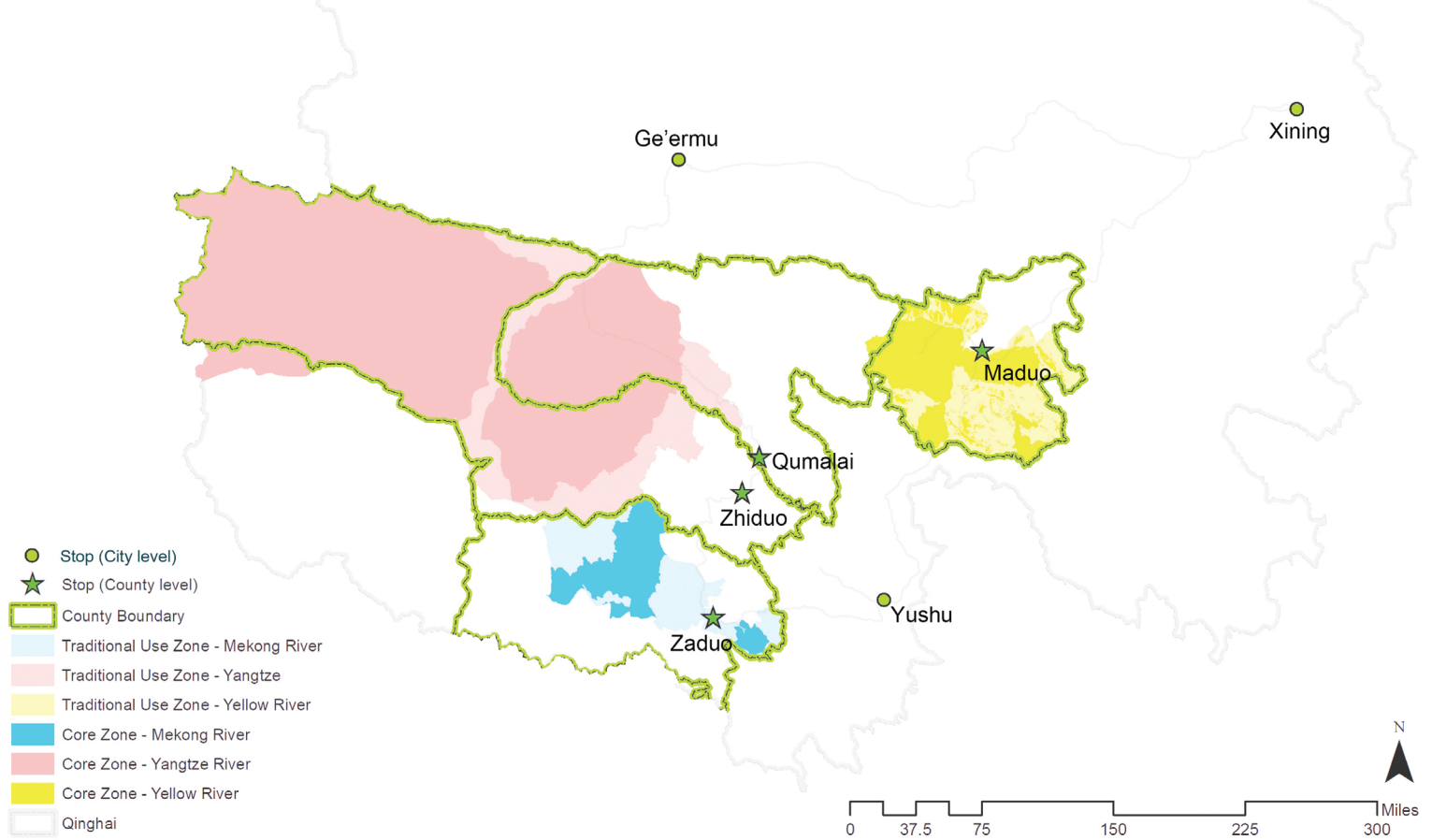


Figure 6. Park Zoning

IV: MASTER PLAN

The Master Plan for Sanjiangyuan Pilot National Park appears consistent with the basic concepts and most of the specific proposals contained in the ***Overall Plan for Establishing a National Park System in China***.

The Master Plan serves the park well in that it articulates important resource goals for the park, along with implementation strategies that will assist park management in meeting these goals over time. The Master Plan provides zoning guidance to park management in both First-class functional zones, which set the overall management goals within the park, and Second-class functional zones or sub-zones, which provide a more detailed ground-level guidance that allows for different management measures that are tailored to that specific area of the park. This approach to park zoning is appropriate to national park planning. The team also learned that at this time, Sanjiangyuan National Park Pilot is closed to visitation. We assume this is a temporary situation, in place until appropriate standards, infrastructure and planning is complete. The team views this as a wise action, but should be reconsidered in the near future as knowledge of the new national park spreads. Visitation to the park with a positive experience is an important component of public support for the park's stewardship.

We note that Sanjiangyuan National Park management has shifted from three functional management zones to two; the Core Conservation Zone and the Traditional Use Zone. These two zoning designations apply across the total 123,141.40 square kilometers of the park, and can serve the park well. Their meaningful enforcement concerning permitted uses in each zone will greatly assist park management in meeting the park's two primary goals of ecological protection of the pristine source

and watersheds of the Yellow, Lancang/ Mekong and Yangtze rivers, and the protection and commemoration of Tibetan culture and economically viable life-ways for local people.

The Master Plan and a series of sub-plans provide zoning guidance to park management in both First-class functional zones, which set the overall management goals within the park, and Second-class functional zones or sub-zones, which provide a more detailed ground-level guidance that allows for different management measures that are tailored to that specific area of the park.

The park Ecological Protection sub-plan outlines 5 key zoning principles which guide the development of the spatial management zoning scheme. They are:

1. To protect the ecosystems, endangered species and their habitat.
2. Promote ecosystem restoration where degraded
3. Achieve sustainable conservation and utilization of the park for future generations
4. Retention of educational and recreational sites
5. Manage land use within the park cognizant of different functions

In applying zoning methods across the park landscapes, the Master Plan identifies the importance of integrating different land use plans and considered the division into Second-class functional zones by various criteria including administrative districts, land use, topography, and basin and watershed boundaries.

First-Class Functional Zones

A total of 58 land regions have been included within the First-Class Functional Zones.

Core Conservation Zone

The Sanjiangyuan National Park Core Conservation Zone encompasses 90,570.25 square kilometers or 73.55% of the entire park area. Implementation of management policies within this zone provides for the strict protection of the land and water contained within the zone to sustain the protection of a healthy ecosystem.

The Core Conservation Zone includes the core zones of the Sanjiangyuan National Nature Reserve, World Heritage Sites, wetlands of both national and international significance, national level aquatic reserves, and national water scenic areas. Through this designation, the park protects vast primitive ecosystems including glaciers, mountains, river headwaters, lakes, peat lands, alpine meadows and steppe ecology, and forests and shrub vegetation. Human activities are greatly restricted, or in some specific areas, eliminated from portions of this zone.

Traditional Use Zone

This zone includes both the Traditional Use Zone and the former Ecological Restoration Zone. The zone consists of a combined 32,571.15 square kilometers. This zone involves several uses:

- For local herders “to reside in and make a living in an environmentally friendly manner”
- To accommodate residents and industries displaced from the core conservation zones
- To provide land for urban and residential purposes subject to strict management and control.

The goal of this zone is to strive for balance between traditional herding and livestock use and forage for wildlife and for local herdsman to embrace alternative industries to help mitigate human pressure on alpine

grasslands and steppe ecology. Within this zone, county settlements and can serve as hubs for visitors and facilities are to be well planned and integrated.

Functional Zones by Section/Park Unit

In order to provide further detail and more tailored management measures to be implemented with each section or unit of the park, the park sub-plans outline management prescriptions and goals for each unit. Within each park unit or section, there are also common goals that are applied park-wide and that each section plan must meet.

Yellow River Headwaters Section

Located within Maduo County, this unit of the park contains 19,083.13 square kilometers and 19 administrative villages. Zoning wise, there 8,583.85 square kilometers within the Core Conservation Zone and 10,499.28 square kilometers located within the Traditional Use Zone.

Key management zoning goals within the Yellow River Headwaters Section include:

- Protection of Yellow River Headwater Lakes including Zhaling, Er'ling and Xingxing Lakes
- Protection of unique alpine wetland and grassland ecosystems
- Protection of wildlife including Tibetan Donkey, Tibetan Antelope, Brown Bear, Snow Leopard, Wolf, Bar-Headed Goose and other species.

The Master Plan for this section calls for visitor related tourism to explore the Yellow River headwaters, to engage in nature-based education and wildlife viewing, and to encounter Tibetan culture and history through lifestyle contacts and experiences, and viewing traditional costumes.

Lancang/Mekong River Headwaters Section

This park unit includes 13,736.19 square kilometers, and is located within Zaduo County. The section includes 19 administrative villages.

Within the section, the Core Conservation Zone includes 6,343.29 square kilometers and the Traditional Use Zone, 7,392.91 square kilometers.

The park unit is dominated by a plateau valley, alpine forest, shrub and grasslands and alpine meadows. Within this section, significant wildlife populations include Wild Yak, Tibetan Antelope, Tibetan Wild Donkey, Brown Bear, Wolf, and the densest snow leopard distribution in the world.

Key management zoning goals within the Lancang/Mekong River Headwaters Section include:

- Protection of the river headwaters, glaciers, mountains, and wildlife
- Restoration of degraded ecosystems

For visitor use goals, the park Master Plan calls for this section to create a natural corridor to explore this portion of the park, “at a global level”.

Yangtze River Headwaters Section

This park unit includes 90,321.49 square kilometers and is located in both portions of Zhiduo and Qumalai Counties. This unit includes the large expanse of the Kekexili National Nature Reserve and World Heritage Site. Zoning wise, the Yangtze unit has 75,519.48 square kilometers included within the Core Conservation Zone and 14,802.01 square kilometers within the Traditional Use Zone. The Core Conservation Zone contained within the Yangtze River Headwater Section encompass. 61.33% Sanjiangyuan National Park's total land area.

Key recommended management zoning goals within the Yangtze River Headwaters Section include:

- Habitat protection
- Enhancement of degraded ecosystems
- Protection of various wildlife species including the Tibetan Antelope, Wild Yak, Tibetan Donkey, Tibetan Gazelle, Snow Leopard, Brown Bear and Wolf.

The park Master Plan calls for the provision of a “window for wildlife” observation and a natural corridor to explore the headwaters of the Yangtze section.

Second-class Functional Zones

In the Master plan, the goals of second-class functional zones were listed as:

- keep conservation targets
- inventory and monitoring status of natural resources
- redlines for ecological protection
- management of land uses in compliance with relevant master plans
- identification of conservation measures that are needed

Within the Core Conservation Zone, the Second-class functional zones further divide the zone into three sub-zone categories; Special Protected Areas, Special Habitats, and Nature Restoration Areas. No human activities are permitted within the Special Protected Areas. In Special Habitat areas exceptions are made for indigenous people who live there. Commercial grazing is excluded from Natural Restoration Areas.

Each of these sub-zones have specific management goals for wildlife and habitat protection and restoration, along with identifying implementation measures that are articulated in the sub-plans.

Sub-zone management in these Second-class functional zones provides the basis for park management to spatially control the utilization of land uses within the park and to provide for the protection and utilization of natural resources.

Plan guidance through these zoning designations should help to ensure that future park uses are carefully considered prior to implementation and that permitted uses meet overall management and resource objectives.

Within the Traditional Use or Utilization Zone, which is established to address the continuing need for both ecosystem protection and sustainable livestock farming by traditional Tibetan peoples, the Second-Class Functional Zone is divided into the Human Activity Control sub-zone and the Grazing Rotation Area sub-zone.

The Human Activity Control Area is where the indigenous Tibetan people reside. The plan is to control the construction of village development and roads, and to determine the appropriate level of human activities. The management goal of this sub-zone is to provide for continued wildlife migration through this sub-zone and to protect the resources of the area while still allowing for Tibetan lifestyles and culture and a scale of human development and activity that is appropriate.

The Grazing Rotation Area is the land area that indigenous Tibetan people use for livestock grazing. Here the health and productivity of the grasslands are measured and actions taken to ensure sustainable use. Regulations in these areas would help to promote good grassland health by paying attention to such things as the number of livestock in any one area, looking at rotational advantages to pastureland use, seasonal timing of moving livestock, and other issues.

The goal in this sub-zone is to maintain a balance between the amount of grasslands used and the number of livestock that will sustain the lifestyles of the local Tibetan people.

Within this sub-zone, these areas can accommodate a certain moderate level of park visitors consistent with eco-tourism and environmental education goals of the park.

Seemingly, one of the biggest challenges for park management will be coordinating the implementation of the overall Master Plan for the Sanjiangyuan National Park and its various zoning schemes with local jurisdictions and officials at the township, county

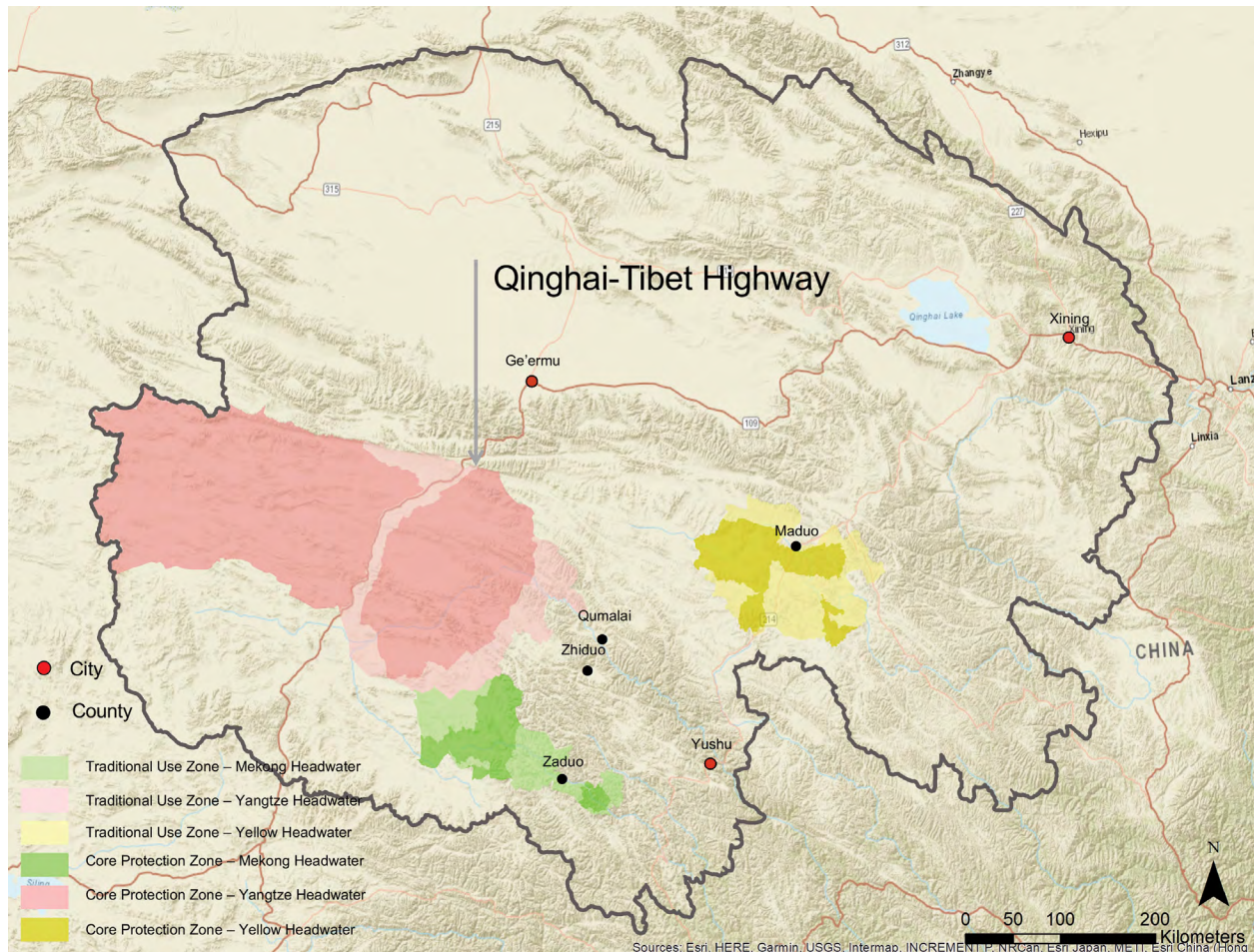


Figure 7. Qinghai-Tibet Highway

and prefecture levels. Hopefully, the newly established local committees for each of the three principal park units will assist park management in this important task.

Rural Tibetan homesteads with yak and sheep grazing and small Tibetan communities with lower density settlements fit well within the Traditional Use Zone.

Along the Qinghai-Tibet transportation corridor, one experiences heavy through truck traffic on this vital transportation link as one travels between the Kekexili Suonandajie Protection Station and Kekexili World Heritage Site and the City of Ge'ermu to the north. This corridor also includes a major railroad line for both freight and passenger travel and is elevated in certain sections.

Since this major north-south transportation corridor splits the Yangtze River Source Area, and has much different characteristics than the Traditional Use Zone elsewhere in the park, we recommend that this corridor not be included within the Traditional Use Zone, but instead be placed in a new third park zoning category; a Park Development Zone.

If these land uses and major highway and rail corridor along the Qinghai-Tibet Highway were retained in the Traditional Use Zone, these more major land use developments and infrastructure seem to greatly blur the main intent of the Traditional Use Zone, which is focused upon the retention and accommodation of key elements of Tibetan culture, lifestyles and traditions and their related settlements. It does not seem to serve park management well to try to manage to the resource conditions within that zone, if that zone also has uses in it that are not traditional Tibetan uses of the land, but are more modern-day trappings of society such as major highways and railroad lines, or higher density and larger scale

development in cities that do not evoke the character what is found elsewhere within the park; which are smaller rural settlements and villages, and traditional farmsteads out on the grassland landscapes.

Therefore, these more intense developed areas and transportation corridors argue for their own separate management zoning category that allows for commerce and contemporary use; a Park Development Zone.

This new zone, if established, could accommodate the existing and more contemporary uses within the busy Qinghai-Tibet Highway corridor, but even with this development intensity, it should be tightly confined to a well-defined transportation corridor where development is limited to that only necessary to serve commerce and the traveling public.

In addition to the Qinghai-Tibet Highway corridor, park management may also want to consider including other major linear highway corridors that are located within the park into the recommended Park Development Zone. That way, though traffic can be accommodated, and land use regulated, but in a zone that acknowledges this more intense use of the land in these limited areas.

RECOMMENDATION

The Specially Protected Area sub zone within Core Protection Zone should permit limited human permitted in certain instances, including those necessary for park law enforcement and wildlife poaching intervention, as well as for approved ecological and scientific research and resource inventory.

RECOMMENDATION

The Team suggests that a third zoning designation or category for the park; a Park Development Zone, that would include such features as the major transportation corridors.

RECOMMENDATION

That scenery could be listed or added as a park Master Plan goal to be preserved wherever high scenic value and natural beauty of a particular area are experienced.



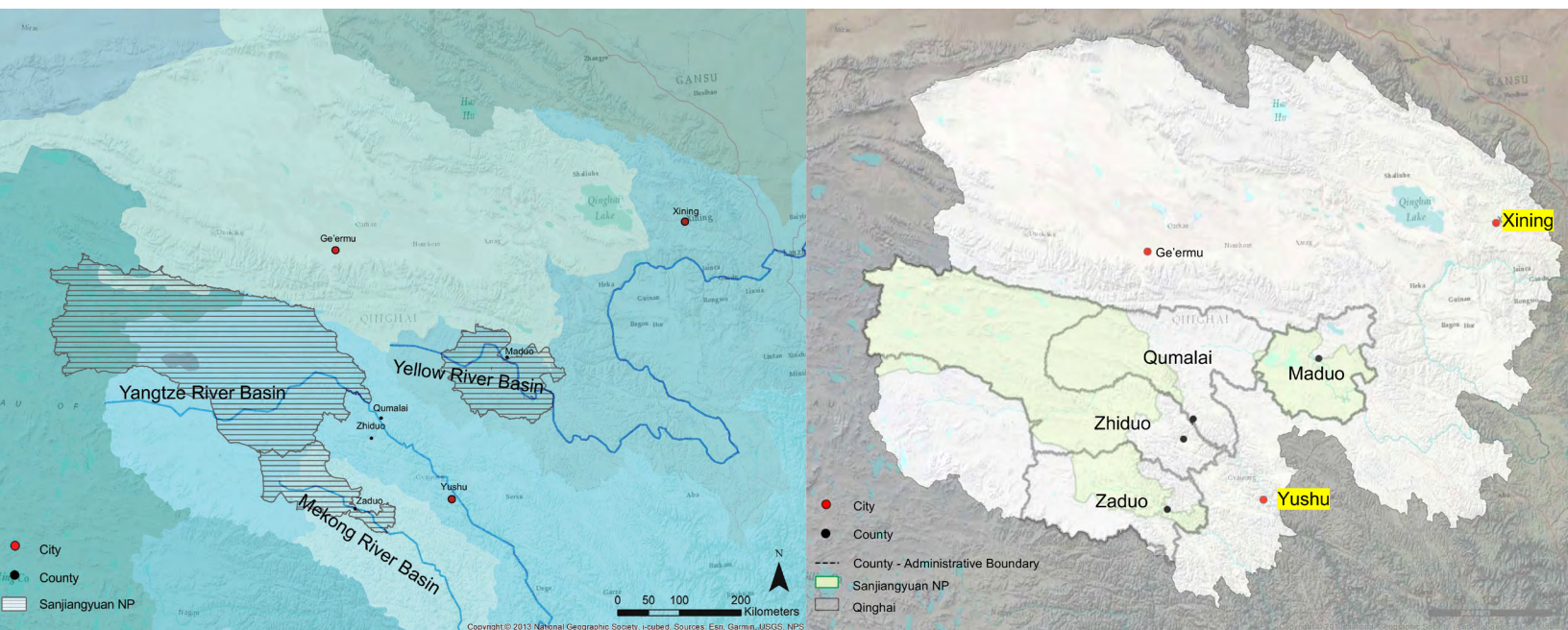


Figure 8. Watershed and Administrative Boundaries

V. PARK BOUNDARIES

For the most part, the boundaries of Sanjiangyuan National Park, involving three distinct park resource units, do appear to take in the majority of the headwaters of China's three great rivers. With the park emphasis on ecological protection, the inclusion of the upper watershed and headwaters of these three rivers in National Park status will help to ensure their perpetual preservation and will provide a long-term environmental, ecological and economic asset of priceless value to the People's Republic of China.

The evaluation team recognizes that during the pilot phase of park establishment that certain key areas of the watersheds were left out of park area boundaries to expedite the designation process, and that park boundaries will likely be adjusted in the future to include these areas. These include parts of watersheds involving the southern source of the Yangtze River and the geographic source of the Yellow River. We would applaud consideration of these potential future additions to the park boundary.

Within that understanding, there are a couple of specific observations related to future park boundary delineations that are provided to park management for future consideration:

First, it seems as if the initial pilot park boundary, in some instances, does arbitrarily stop at a county or township administrative boundary. In these cases, park management may want to consider including more of the river headwaters area, based more on drainage patterns, tributary rivers and surrounding topography, even if that means crossing over to some extent into the adjacent county or township jurisdiction. The most succinct example of this would be in Duocai Township, where an important ecological area and headwaters source was left out of the park boundaries. This action, if implemented, would afford opportunities for the park to provide additional protections to this stretch of the river from incompatible development.

The Evaluation Team was very impressed by the scenic and natural beauty of an awe-inspiring valley and impressive series of tall jagged peaks that framed the horizon in the upper reaches of the Lancang/Mekong River headwaters. This awe-inspiring view was reminiscent to some members of the evaluation team of Grand Tetons National Park in the United States.

For Sanjiangyuan National Park, and for any other applicable new park unit within the National Park System of the People's Republic



Figure 9. River Rafting
in Sanjiangyuan

Photo by Travis Winn

of China, the central government may want to consider establishing a Wild and Scenic Rivers system to augment the creation of a National Park System for China. Certain elements of the U.S. Wild and Scenic Rivers Act could be crafted for China to provide additional protection to China's valuable river systems. In the case of Sanjiangyuan, this could ensure ecological protection of all three river headwaters and river corridors along with their key tributaries, in a free-flowing condition. This could immediately be applied to the upper river and tributaries of the Yangtze and Mekong Rivers, and to the Yellow River once the scheduled dam removal is completed.

A key component of the U.S. Wild and Scenic River Act includes designation of river segment categories from Wild to Scenic to Recreational. These three categories help to define current characteristics of different river sections, but also help to guide future planning and management to help ensure that appropriate levels of development/non-development are present along various stretches of the rivers protected by wild and scenic designation.

RECOMMENDATION

Adjust the park boundaries of both upper portions of the Lancang/Mekong River Source Area and the Yangtze River Source Area and expand the boundaries downstream to the bridge at the Juela Monastery. It is recommended that a minimum of 5km on each side of the river be added to protect the scenic river corridor, view shed and water quality.

RECOMMENDATION

Adjust the park boundaries to include the impressive series of tall jagged peaks that framed the horizon in the upper reaches of the Lancang/Mekong River headwaters just before the team crossed over the pass between the Lancang/Mekong and Yangtze River watersheds in the area of Duocai Township, of Zhiduo County.



VI: FINANCING AND REVENUE SOURCES

Since 1916 with the establishment of a National Park Service in the US, Congress has appropriated funds for the operation and maintenance of each of the national parks, today approximately \$3 billion USD annually. The annual appropriations are made in a range of categories, including basic operations, conservation, facility improvements, firefighting, science, etc. The US National Park Service developed an evaluation process, known as “scorecard” as a way to determine the amount each park should receive from the federal appropriations process each year in order to achieve its primary responsibilities. At the request of the Paulson Institute, the UC Berkeley Institute for Parks, People and Biodiversity has prepared another report on sustainable finance for the entire Chinese National Park system. That analysis compared 10 US National Parks to 10 pilot national parks in China. The 10 US National parks had (FY2016) combined budget of \$140,763,000 or \$1274 USD per km² per year.

The concept of the value of ecosystem services is an emerging field in conservation. It is well documented in the research that nature provides high value services such as clean water, clean air, plants for food and medicines. The US has not figured out how to pay for ecosystem services through there is considerable attention

to this field around the world. China has the opportunity help lead the world in valuing ecosystem services at Sanjiangyuan. The Three Rivers National Park serves as China’s water tower and the head waters for three rivers that provide water to over 900 million people. The vast wetlands, streams and mountains of Sanjiangyuan collect, store, filter and supply the three rivers with water that is used for drinking, agriculture, fishing, industry and hydropower in a manner that is sustainable for the foreseeable future. Those services could be impacted, even lost, if the Sanjiangyuan region becomes over-developed or exploited for non-renewable resources. The team highly recommends that the central government allocate annual funding to the provinces at such a rate that it eliminates the economic drive for development and incentivizes ecological restoration and protection. A good example already in place is the payment to the community rangers, rewarding them for their stewardship of the land, water and wildlife. The team applauds this effort and notes that China is demonstrating world leadership in not just empowering local indigenous people to be stewards but also paying them a reasonable rate to continue their culture.

Fees: The US National Parks are authorized to collect fees, with some specific restrictions,

for entrance to the parks, camping and special uses such as commercial filming of movies or advertising. In 2017, the US NPS collected \$286 million USD in recreation fees. It was also recognized that some national parks can collect more fees than others, based upon their popularity and accessibility. Consequently, each park is allowed to retain only 80% of the fees they collect while 20% is pooled and shared among the parks, with emphasis on those that do not collect any fees or receive very low funds from fees.

Concessionaire Franchise Fees: The US National Park Service issues contracts and agreements with the private sector to provide necessary and appropriate services to the visitor. These include lodging, food, retail sales, transportation, rentals of equipment, and guide services. These are carried out by for-profit businesses and the US NPS requires each to pay a percentage of their profits back to the NPS. Depending on the type of business this can range from 4-18%. These contracts are issued competitively and run 10 to 20 years. The USNPS collected \$85 million USD in fees from these businesses in 2017.

Tourism Tax: A common practice in heavily visited areas in the US and around the world is a “bed tax”, levied on hotel rooms each night in gateway communities. This fund is then pooled and administered by the local governments to improve visitor information and facilities such as public toilets, visitor centers and marketing publications.

Search and Rescue Recovery: In that Sanjiangyuan is a wild and vast area, the potential for visitors to get lost or injured and need rescue is very high. The high elevation and long distances will make rescues more difficult and costly. The Park authority or gateway communities should not carry the burden of these costs and look to models found in other parts of the world, where there is a recovery fee for rescues and the availability of a “rescue insurance policy” that can be purchased in advance.

Local product markets: Domestic and international tourists are very interested in purchasing local crafts and local food and beverage such as the market of scotch whiskey in Scotland or the Native American jewelry of the American southwest. The team was struck with the unique

qualities of the various products from the yak, such as milk, butter and yogurt. We heard there were many items crafted from yak fur as well and saw many traditional items associated with the Tibetan culture. With obvious sensitivity to local customs, trade and sensitivity, a unique market could be created in the area that could generate jobs and additional economic benefit.

Friends of Sanjiangyuan: In the US NPS, every national park has a local “friends” group, made up of individuals who have a deep connection to the park. The connection could come from a personal experience as a visitor, from their early childhood, or their business or home in the area. These friends’ groups raise local funds, partner with the park to execute projects and recruit volunteers to engage. In the US, the combined annual philanthropy of the friend’s groups exceeds \$300 million and helps recruit and support over 300,000 volunteers. The US Congress created the National Park Foundation in 1967 to raise private funds for the entire US National Park Service and in 2016, the Foundation raised \$400 million USD. The pride China has and will develop around its national parks can be a source of philanthropic support.

RECOMMENDATION

That Sanjiangyuan National Park Pilot receive an annual appropriation that is commensurate with its primary responsibilities for ecosystem service, ecological conservation and visitor services. The precise amount is beyond the scope of the Team’s expertise; however, we suggest using a process similar to the USNPS Scorecard which can be found at the Institute website.

RECOMMENDATION

That China establish a robust fee program for Sanjiangyuan National Park, allowing fees to be collected for entrance and authorized activities, but only 60-80% be retained locally and the remainder be available for all the other parks in the National Park System. In addition, we suggest that specific limitations be placed upon the use of those fees: for ecological restoration and for improvement of visitor experience.

RECOMMENDATION

That a regulated and permitted system be established for all private/commercial businesses that are operating within all areas the park and a fair fee structure be established that allows for reasonable profit by the business and a fair return to the park. This includes businesses operating in traditional use zones, not just core zones.

RECOMMENDATION

That a “bed tax” on hotels and other accommodations based on each night’s stay in any of the gateway communities. These funds should be pooled at the provincial level and used for specific park improvements to the resources and for visitor infrastructure. A similar tax could also be local sales of visitor supplies and all tourism around gateway communities.

RECOMMENDATION

That the park authority consider a fee schedule for search and rescue of lost or injured visitors. A component of this could be the issuance of a “pre-trip” insurance policy, similar to travel insurance, available in the gateway communities.

RECOMMENDATION

That with careful consideration of local traditions and customs, some local product lines be developed and branded such as Sanjiangyuan yak yogurt, and possibly fabrics and cloths make from yak wool.

RECOMMENDATION

The establishment of a Friends of Sanjiangyuan National Park to promote volunteers and private philanthropy to support the park. The organization should draw membership nationally and regularly inform the members about the latest news and projects in Sanjiangyuan. Private funds raised by the Friends organization should be matched with government funds to leverage projects.





VII: ORGANIZATIONAL STRUCTURE AND LAW ENFORCEMENT

Figure 10. Team with the Forest Police at Kekexili Ranger Station

Generally, the staff of the Park is divided into three units, one for each of the lands and resources associated with each of the three main river sources. While there appears to be a single manager for each unit; that individual reports to the central office in Xining, in practice it is more of an integrated management system with multiple levels. Such an organizational structure appears similar to the way parks around the world organize staffs.

Law enforcement in the Park appears to be effectively organized and managed. In national parks around the world, there are generally a small number of rangers who have the training and the authority to enforce regulations, write citations and make arrests for criminal activity. In support of these rangers, there are other employees of the national park who serve to interact with the visitor and resource and report infractions or issues to the law enforcement rangers. This is the case in Sanjiangyuan. Law enforcement officers and community rangers, by virtue of patrols, education, collaboration with local people, detection of violations, and appropriate levels of deterrence, appear to be effective at reducing or eliminating poaching, illegal mining, illegal road development, over-grazing, etc.

We assume that many of the prohibitions against taking or harming natural resources carried over from similar regulations enforced throughout the Nature Reserves before conversion to the Pilot National Park.

Primary law enforcement duties are delegated to some 84 law enforcement officers who are assigned to police posts scattered around the massive park. This level of enforcement may well be an extension and expansion of the Forest Police, the organization that enforced laws and regulations established to protect the resources of the Sanjiangyuan and Kekexili National Nature Reserves that included most of the lands now established as a Pilot National Park. Under the laws governing national natures preserves, these

individuals are granted authority consistent with their duties as Forest Police to enforce regulations established to protect the Nature Reserves. Park law enforcement officers wear a uniform comparable to what is worn by State and Provincial Police and receive training consistent with police throughout the Province - they look sharp.

It doesn't appear that any additional authority has been granted by the State or Province to enforce laws and regulations on lands not previously included in the nature reserves, or to enforce new regulations that were prepared in response to establishment of the Pilot Park. Such additional authority is contemplated in the future, but not imminent.

The balance of enforcement, education, and many related services to local people is performed by "community rangers." We were told that there are now 17,000 of these rangers selected from households, villages and towns throughout the Park. Their duties vary widely. Above all, they serve as the eyes and ears of the communities throughout the park. They work to educate local people about what is permitted and what isn't; and they patrol for the purpose of detecting violations, monitoring wildlife, picking up trash, etc. Significantly, their presence often results in connections with remote villages and populations of nomadic herders, people they often know, and people who sometimes need assistance. A system has been established to reward high levels of performance with extra pay. They wear red arm-bands to signify their appointment and authority as community rangers.

Supervision of these community rangers seems informally divided between village leaders, supervisors of the law enforcement officers, and senior leaders of their local group of community rangers.

They all receive some level of training, and a certificate of training completion. Their authority to perform law enforcement actions beyond education and warnings is unclear, although not likely a major problem. Serious violations are reported to law enforcement officers with much clearer authority to take whatever law enforcement action is appropriate.

In sum, however, we believe that the law enforcement program for the Park meets, generally, international best practices for what park law enforcement should be. And, especially, the community ranger initiative is an outstanding addition to this responsibility.

When asked about the biggest challenges they mentioned park communications - walkie-talkies are problematic. The rotation work is also challenging, no more than 1-2 days at home in Xining with family before heading back out on 8-10 day circumnavigations of the park.

RECOMMENDATION

The Team noted the sharp uniforms of the law enforcement rangers and suggest the park logo be displayed on the police uniforms.

RECOMMENDATION

The Team noted and recommends that investment be made in the technology of communications for the law enforcement staff. Communicating quickly and efficiently over a vast area is key to quick response and the safety of staff and visitors.



VIII: LEGAL AND POLICY FRAMEWORKS

In our experience, the organizational structure that is established to achieve the goals of parks or protected areas in countries around the world strongly reflects the constitutional, legal foundation, political systems, and culture of the host country.

In 2017, the People's Congress of Qinghai Province adopted the Sanjiangyuan National Park Regulations, a comprehensive set of policies and guidelines that address a broad spectrum of planning and development, utilization and management, civic involvement and engagement, and legal responsibilities. The key Chapter with respect to law enforcement is entitled Resource Protection, and includes a list of activities that are prohibited in the Park, including mining, logging, hunting, fishing, land reclamation of peat-land grassland, removal of quarry materials, etc. This section, along with other prohibitions set forth elsewhere in the Regulations provides clear instruction to local people and visitors regarding what cannot be done in the Park. Equally important, it defines what law enforcement officers are obligated to enforce.

In the United States, key provisions of the U.S. Constitution, including the Property Clause, establish the supremacy of the Federal

government over lands that it owns, including most national park areas. This results in a legal framework in four tiers: federal statutes as passed by Congress, assimilated state laws applicable at the local level, regulations written specifically for the National Parks and finally management policies that govern park management actions.

Beginning with the law that established the National Park Service in 1916, the USNPS has the clear authority to manage park resources in accordance with a wide variety of Federal laws and Executive Orders as well as various Court decisions that tend to support such authority. There is, of course, a duty and often a legal/policy requirement to coordinate many aspects of park operations with State and County officials. And so, in the U.S., management of parks is generally, but not always, a top down model. States, counties, cities and towns, are all partners in this work; however, final decisions are normally reserved for the top-of-the-pyramid NPS officials working for the Federal government.

It appears that, by virtue of decisions by the State leadership in Beijing, China intends to create a unified national park system that is moving from a bottom-up approach to a top-down model, well-suited to China. Management of

Sanjiangyuan Pilot National Park appears to be in transition from bottom-up to top-down, “integrated” with collaboration required at all levels. The National Park Management Authority has clear authority to manage the Park, but appears to answer to the Provincial government. Management of Sanjiangyuan Pilot National Park appears to be in transition between these two models. More than once, Park leaders and others used the word “integrated” to describe how duties and decision-making regarding all aspects of park management are currently shared among various levels of government. One government official even declared that the Constitution of the country documented Provincial control over protected areas, including the newly formed Park.

Moreover, given the vast size of the Park and commendable determination to integrate the traditional lifestyles of the Tibetan People, governance and implementation of park goals and policies is informally delegated to local communities and towns, where local government officials, Tibetan leaders, and park managers collaborate toward decisions that work for their communities and people. In concept, decisions that are delegated to Provincial and local government should be guided by such top-down national laws and policies.

It is a work in progress. Eventually, we believe, the State, led by the single agency managing national parks throughout the country, must build their capacity to create a set of laws and policies that establish clear policies and parameters to guide park decision-making. It may not be reasonable or feasible to establish an absolute top-down structure of decision-making; however, decisions that are delegated to Provincial and local government (the current “integrated” approach) should - at least - be guided by such top-down national laws and policies.

Strong leadership and leaders have emerged who are demonstrating determination and capacity to protect the natural and cultural resources values in the Park and - equally important - restraint and caution about rushing toward any developments that would impair park resources.

RECOMMENDATION

The Team recommends that the single agency managing national parks throughout the country, must build their capacity to create a set of laws and policies that establish clear policies and parameters to guide park decision-making. In addition, systems of checks are in place to ensure consistent application to these policies and regulations to all three units of Sanjiangyuan.

REFERENCE

The US National Park Service Code of Federal Regulations specific to national parks and the NPS Management Policies, translated into Chinese can be found at the Institute website.





Figure 11. Meeting with Community Rangers
Photo by Rudy D' Alessandro

IX: LOCAL GATEWAY COMMUNITIES

On our evaluation trip, the team got to experience many different communities of different sizes, locations, and physical environments. In each case, we were greeted by dedicated and efficient park staff and supportive local government officials. According to the Sanjiangyuan National Park Master Plan, counties, cities and major towns are to serve as gateway communities to the park, providing public services and utilities for visitors including certain commercial services, visitor accommodations, transportation services, auto-camping, medical treatment and rescue.

Not all park gateway communities are created equal. Some communities such as Maduo County, are excellent park administrative headquarters for the Yellow River Source management area and can capably serve as the staging area for park staff and the meeting location for the Yellow River Source Management Committee. However, the value of communities for park administration, may not always translate to a high demand for visitor infrastructure, compared with some of the other communities and locations that we visited. Access to local resources, and their attractiveness to potential visitors will help guide park management in these situations.

A large community like Yushu is perfectly positioned in proximity to the two units of the park and could provide for a wide-range of visitor

services. Other communities such as, Zaduo, Zhinduo and Qumalai which are also outside the park boundaries, provide important infrastructure for administrative functions such as park law enforcement, maintenance, resource management, committee meetings, and interaction with local government along with certain Gateway community services that serve both residents and visitors to the area. They all have the infrastructure and services, and the potential for future growth, to support these economic activities.

Smaller communities within the park, many which are located within the Traditional Use Zone, like Angsai Township, can be attractive places to welcome a limited number of visitors, but on a much smaller scale than larger communities. Farmers markets and local crafts could be emphasized. These smaller settlements could also provide the jumping off spot for locally guided walks, river rafting and kayaking, horseback or vehicle trips to the surrounding landscape to view wildlife, Tibetan culture, outstanding scenery, or all of the above.

For gateway communities that are in or near current or future park boundaries, future urban growth boundaries for these cities could be established, and well-defined, so as to not impact adjacent park resources. An incremental approach to eco-tourism and cultural tourism would likely serve park management best.

Opportunities for local people to guide, invite home stays, engage in crafts, farmers' markets and other economic interests may be present, and could provide a source of added income for local residents, which is one of the park goals.

There is strong support for the Park among the Tibetan people who have long practiced their traditional lifestyle, often as nomadic herders, in much of the Pilot National Park. Park management and local government officials have done an excellent job communicating with these groups about what park establishment would mean for them. And, in most cases, such communication has resulted in some levels of assurance that their lifestyle and culture will continue without substantial change. Of course, hiring and salary payments to community rangers is a very direct way of helping people benefit from the Park, and contributes to both park preservation and their way of life. Long-standing programs to compensate herders for loss of domestic animals to park wildlife contribute substantially, as well, to local accommodation and acceptance of the Park.

Such support, however, is not unanimous, and we learned of concerns about relocation, insufficient compensation for loss of domestic animals, greater limits on domestic grazing, needs for better infrastructure, and inconsistent revenue to park towns and villages from the government and from tourism. Many of these challenges are similar to what park managers face in the United States, and elsewhere in the world. That said, and again, we were impressed with the efforts and determination of local government officials, and local NGO's to work with people living in the Park to find positive outcomes to these challenges.

Community Rangers: While the evaluation team had the most detailed interactions regarding the community ranger program in the Yellow River Source Area, the success and in some case challenges associated with the community ranger program came up in all park areas.

In this park wide program, rangers are compensated 1800 RMB/month for conducting patrols to monitor wildlife population, resource quality, and threats to resource quality. Rangers are given a GPS based app to report their findings. In some cases, the local park administrative authority

provides them with a motorcycle to carry out this work, in other cases community rangers provide for their own transportation.

Here the evaluation team also learned of the "Six Parts Make One" program, piloted by the Maduo County, that the county has initiated to combine community ranger responsibilities with other social service and first response responsibilities, acknowledging the potential role of community rangers as a first point of contact for these initiatives within the community.

The Team was told this has led to 100% participation in primary and secondary education in the county, which is an unprecedented education rate in Qinghai province. The success of the "Six Parts Make One" program in suggests that it could be applied to other areas within the park.

It is clear that the community ranger program has been very successful so far during the pilot phase at the community level, both in generating pride among local communities and in achieving conservation and ecosystem monitoring goals in the park. The park authority has been very successful in incorporating local cultural traditions of conservation and local knowledge of the landscape together in a program that accomplishes the dual goals of conservation and economic development, without needing to relocate people out of core areas of the park.

It is the strong belief of our Team that establishment and effective implementation of the community ranger program is one of the most innovative and significant activities developed by management of Sanjiangyuan Pilot National Park. It fulfills the promise of widespread employment; it provides all appointed rangers with an income and status that encourages protection of resources instead of inappropriate/illegal actions that take or harm resources; it provides essential patrol services that deter and detect violations; it also provides a connection between people, some living a nomadic lifestyle in remote corners of the Park, who might need assistance.

One concern expressed regarding the long-term sustainability of these programs is that in most areas within the park, community income is heavily supplemented by harvesting traditional medicines,

particularly *Ophiocordyceps sinensis* (commonly known as caterpillar fungus), which can accommodate for well over fifty percent of annual income for the average household.

Another similar concern is that many families are moving off of nomadic lands into towns and cities, in many cases to seek better educational opportunities for their children.

A final concern is that there seems to be some question about when and how ecotourism or commercialization of grazing related activities in the traditional use zone, including the sale of cultural products, will generate revenue for local communities and how many jobs these efforts will actually create.

At the prefectural and county levels and in some case extending down to the township level, there seems to be a common perspective that conservation and development are at odds with each other, and that local communities have protected the park resources in the Three Rivers Source area for generations at considerable sacrifice to their own development. It does not appear that this is the perspective held by local communities, but it is likely that views held by local authorities could influence community expectations for development.

While this perceived concern might have a certain amount of validity, it appears that this view has been and continues to be amplified and leveraged by prefectural and county level officials to apply for more investment in transportation, communications, and other infrastructure investment in the park area. This pushback against the strict conservation mission set by the central government exists in part due to the fact that local government continues to be responsible for the welfare of local people in the park areas, and because the associated political merit that determining the advancement of government officials is measured in part by the number of infrastructure development projects carried out. While we heard that ecosystem protection is the new priority, striking the balance is not clearly understood or outlined by the central government. There is an overall aura of concern surrounding whether or not the park will be developed and managed in such a manner as to improve the economic welfare of the local people.



In every county in the park, some townships are within the park and other areas are outside of the park. In places like Qumalai County this county officials note that this has created challenges with creating different standards for implementing conservation practices in different jurisdictions, where national level nature preserves, core and traditional zones of the park, and areas without any specific conservation designation all exist in close proximity. It has also created problems where subsidies from the community ranger program within the park area unavailable outside of the park area create an income gap for local communities.

Simplifying designations and making sure that there is clear justification for park boundaries may simplify public relations in this aspect, and it may be appropriate for counties to set up parallel programs to the community ranger program in areas with important ecosystems outside of park boundaries but within the greater conservation zone managed by the provincial park authority, if such funding exists.

One way to evaluate the seriousness of each of these concerns and appropriate action necessary would be via a social science program within the park that identifies major demographic trends and associated economic concerns and opportunities to aid in different kinds of scenario planning for the park. For instance, what if the caterpillar fungus market in eastern China were to collapse?

What impact would this have on the sustainability of the community ranger program? How much if at all would ranger salaries need to be increased in order to guarantee that community rangers continue to be engaged? Similarly, how many families are moving out of the park area, for what reasons, and how fast? How is this likely to impact the community ranger program? Or on a broader scale, how is this likely to impact the continuation of traditional Tibetan cultural practices, which in turn could impact both the success of any culture based concessionaire programs, and certainly the long-term success of the community ranger program?

What other social or demographic trends exist that may impact the park? And also of critical importance when addressing concerns between conservation and economic development, under what circumstances could a concessionaire program contribute a significant of revenue either for local communities or for park administration? How many potential jobs could it create? How long will it take to create them and what training is necessary? Or would the central government be content paying for ecosystem services, whereby the question then becomes what an appropriate compensation for those ecosystem services is, and an effective concessionaire program become less important? What other concerns exist? How can new concerns be identified and addressed readily? In a park area with so many local residents, a strong social science program is essential to conducting accurate mid to long term planning for park management.

RECOMMENDATION

The Community Ranger program continue and be a highlight of Sanjiangyuan National Park

RECOMMENDATION

In places such as Angsai Township, it is highly recommended that ecotourism visits can and should be more limited and regulated and could include things like small lodging places, home stays in town, or home stays in rural dwellings and farmsteads. There are good models in other park systems for developing carrying capacity for visitors.

RECOMMENDATION

The Team suggests that must be taken to avoid exploitative situations, and to resist efforts for larger corporations and business from outside the region who may seek to take advantage of local residents and tourism demands in the future by pressuring to build new lodging or commercial infrastructure or take over tour operations from local people.

RECOMMENDATION

Research should be conducted on the sustainability of harvesting traditional *Ophiocordyceps sinensis* (commonly known as caterpillar fungus), in light of climate change.

RECOMMENDATION

The team suggests a social science program within the park that identifies major demographic trends and associated economic concerns and opportunities to aid in different kinds of scenario planning for the park.



X. COMMERCIAL VISITOR SERVICES

There will always be the need for appropriate commercial operations within national parks (concessionaire) that provide for lodging, guide and outfitting, transportation, and supplies for visitors. How these commercial operations are allowed, permitted and managed will be essential to the overall conservation and visitor experience of the national park. For China to successfully develop a national park model with “Chinese characteristics”, it is essential that the mission of the park system in regards to the role of a concessionaire program be clarified and operated in a consistent manner across the entire park system.

The team learned that the current concessionaire situation is ambiguous, prompting either excessive and inappropriate use on one hand, or no use on the other, as in the case of the Yellow River Source Area and other nature reserves near the park, where all existing visitation was suspended indefinitely until a better visitor model could be developed.

The current situation seems to be a recognition that the status quo approach is not sustainable, and as of 2019 the park has initiated a pilot concessionaire program where two organizations have been issued concessionaire permits for one year, with a review process

to be held at the of 2019. These permits were approved at the provincial level and then passed off to be signed between the county government, in this case Zaduo County, and each organization, and are to be carried out in the Angsai Core Zone of the Mekong Rivers Source Area sub-unit of the park. This is particularly worthy of note because technically according to the master plan, visitation is not permitted within core areas. The reason that an exception was made here and is likely to made in the Yellow River Source Area in the future is because of the outstanding scenic and cultural resources within these core areas and concerns expressed from the county government that if visitation were not to be permitted in these areas, the county would lose its most important potential revenue source, as the county perspective is that ecotourism is the only appropriate path forward for the county and the resources within the core area are the most outstanding resources in the county and the easiest to access. The idea is that all visitors into these areas of the park would only be able to visit the area via an advance reservation with a concessionaire.

Both models focus on visitation in the park, which is also worthy of note, because it appears that in the future there will be two

kinds of concessions in the broader park area, one focused on visitation within sub-units of the park and another kind of permit that will be issued to grazing collectives within the traditional use zone of the park area. This discussion revolves around the first kind of concessionaire permit involving visitation.

The first observation is that concessionaire permits can only be issued for use within the core and traditional use zones of the park. While this may seem self-evident, the challenge in this case is that scenic areas at relatively low altitudes that are likely to attract visitation are limited, and in many cases the area most attractive for visitation also have the most productive ecosystems for key species such as snow leopard and common leopard. More critically, while currently boundaries and entrance stations where visitor numbers would be limited are currently poorly defined, it appears that planned entrance stations that would limit visitor numbers (there are other symbolic gateways that do not) are placed such that the area of the park involving permitted visitation would be very small. Since these areas are also the most iconic areas of the park, it is likely that regardless of any limits placed on numbers of visitors, this approach will create a tremendous pressure on key park resources, especially considering the seeming importance and possibly unrealistic expectation placed upon concessionaires to generate revenue for local communities within the park area, and the fact that county governments see these resources as key sources of revenue.

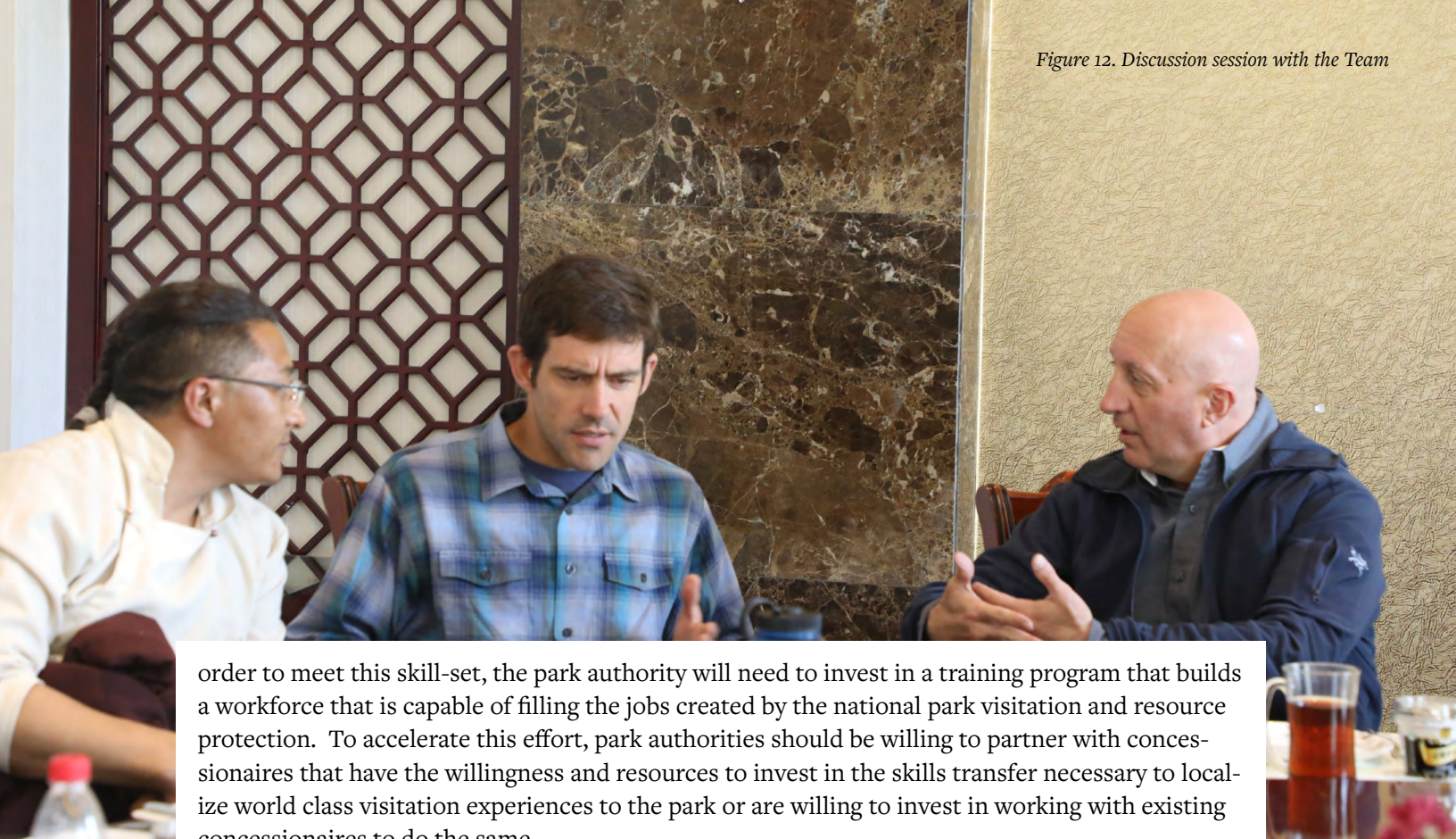
Concessionaire fees are to be worked out between the county government and the selected organizations. Under the primary condition that they minimize all negative environmental impact concessionaires will be reviewed based on the number of locals employed and their sustainability and scalability as a business model.

In the US National Park System, concessioners provide lodging, food and beverage, guide and

outfitting services, transportation and visitor convenience and souvenir sales. The US National Park Service develops a business opportunity that is both “necessary and appropriate” for the national park. These terms are very important as they define what type of business can operate in the park. Just because a business can make money in the park, does not make it necessary or appropriate, and therefore can be denied by the USNPS. To generate the opportunity, the USNPS develops a “prospectus” and offers it in an open bid process for private companies. The prospectus describes the business, its limitations, area of operation, scale, environmental components and a minimum franchise fee to be paid annually based on a percentage of the profits. This system has been in place for many decades and has been relatively free from political influence and legal challenge. Detailed information on the concessions program at the USNPS can be found at the Institute website.

The Team felt that the park authority needs to localize commercial activities so that they can be operated by village cooperatives or locally owned businesses or that a business from the outside be registered locally and required to hire a percentage of the staff from the local community. In





order to meet this skill-set, the park authority will need to invest in a training program that builds a workforce that is capable of filling the jobs created by the national park visitation and resource protection. To accelerate this effort, park authorities should be willing to partner with concessionaires that have the willingness and resources to invest in the skills transfer necessary to localize world class visitation experiences to the park or are willing to invest in working with existing concessionaires to do the same.

On a related note to protecting the resource in ways that guarantee for a high-quality visitor experience, another important question that the park authority needs to answer is what kinds of experiences do they hope visitors have and how much are they willing to invest in order to localize these activities so that they can be operated by village cooperatives or locally owned businesses. For instance, of the two organizations to be issued concessionaire permits during the pilot phase, one is a village cooperative that operates homestay based wildlife-watching tours, mostly for international clientele who wish to see a snow leopard, and the second is a business that operates multi-day wilderness river experiences for a high-end Chinese clientele. In the first case, the village cooperative works with an NGO that help to set up the program, and the NGO continues to take care of all marketing at no cost to the village cooperative or to the client. Since local residents can essentially operate the program on the ground, effectively one hundred percent of revenue goes into local homestays and the village cooperative. While it is questionable whether or not this meets the criteria of being a scalable or replicable model for other park areas due to the volunteer efforts of the NGO in this case, there is no question that this model benefits local communities much more directly than the second concessionaire, where the marketing and sales staff are based in Beijing and currently due to the high skill requirements for the activity, most of the labor force is international.

On the other hand, since the clientele is Chinese, one could argue that this latter program is more likely to generate national pride for China's park program. The second concessionaire could be "localized" where the park requires that the business is registered locally and that a certain number of staff come from within the core area of the park in a set time period (or even require that ownership eventually be transferred to the village collective) but localizing such a program takes time and financial investment that it is difficult to expect a small and specialized operator to provide solely on its own. There are also ethical questions around localizing such an operation. Is it reasonable to expect local nomads to develop an entirely different skill set simply for the sake of providing visitors an opportunity to see the park area in a unique way? If the experience

provides a unique education value for visitors from Chinese citizens without adversely impacting the environment or local culture, might it just make more sense to charge a concessionaire fee and provide adequate opportunity for training for local participation in the business without putting specific requirements on how fast this process happens? Or on the other hand, if maximizing local control over concessionaire programs is the number one priority, then it may make sense to only encourage activities that nomads are currently capable of operating themselves, and not allowing activities like river rafting at all, unless at some point they are initiated by local village cooperatives.

An overarching question here is, is generating revenue for local communities the main priority, or is providing world-class educational experiences for Chinese citizens (or international visitors) the main priority? This question becomes less relevant if park authorities are willing to partner with concessionaires that have the willingness and resources to invest in the skills transfer necessary to localize world class visitation experiences to the park or are willing to invest in working with existing concessionaires to do the same.

RECOMMENDATION

Establish the national park foundation statement and conservation goals that create a framework for increasing visitation, jobs, local economies, concessions and resource protection.

RECOMMENDATION

That the park authority invest in a training program that builds a local workforce that is capable of filling the jobs created by the national park visitation and resource protection.

RECOMMENDATION

Minimal amounts of visitation should be allowed to core areas, and emphasis should be on developing commercial visitor services near gateway communities and outside of the park, or in traditional use zones.

RECOMMENDATION

The National Park authority should closely coordinate visitation in the areas surrounding gateway communities but outside of the park with local authorities to adhere to the same or similar environmental and cultural standards that apply to concessionaires operating within the park.

RECOMMENDATION

That concessionaires be selected based on their ability to contribute to education goals around ecosystem services for the park area or ability to contribute to the preservation of local cultural practices and employ local community members.

RECOMMENDATION

That the park authority develop a consistent set of regulations for the permitting of concessionaire operations within Sanjiangyuan National Park.



XI: VISITOR INFRASTRUCTURE, INTERPRETATION AND EDUCATION

In national park systems around the world some level of visitation is appropriate, as it builds public awareness and support, can be a source of national pride and generates local jobs and income. There is extensive experience in the US National Parks and other systems around the world in managing visitation in such a manner that the resources are protected for future generations and visitors have a high-quality experience. The keys to this balance are professional visitor services both in the park and in gateway communities, excellent visitor information, a well-executed park master plan, well designed infrastructure, an impact monitoring system, and appropriate roles for the private sector in the form of concessioners.

Most all parks and protected areas in China, in the United States, and around the world, provide some forms of visitor services and interpretation/education programs. Such services are provided by a variety of entities ranging from government owned/managed to contracted privately owned management and implementation. Translated indexes of various approved and draft planning materials for the Park suggest that planning is underway or completed. The indexes indicate that these plans address a full range of principles, criteria, capacity, and on-site proposals for “Ecological

Experiences.” However, it appears that few decisions about what activities and services should be permitted and where, carrying capacity, or what infrastructure should be improved or developed, have been made. Types and levels of engagement with various levels of government and local people, etc. appear to have been made, but more probably needs to be done. Commendably, park managers seem determined to take a very restrained approach to such decision-making and development until the full range of resources protection actions, overall planning, and staff expansion, is more fully addressed. It is still essential that ecological protection remain the primary goal and China is to be commended for making this their focus.

That said, some excellent and appropriate actions have been taken. We visited an outstanding visitor center at the Kekexili Protection Station. We also visited the outstanding museum in Yushu that presents a great variety of exhibits and information about the culture and nature of the area. We were told that a new park visitor center is planned for construction in Xining; and we were told that actions are underway to prepare some form of park folder, which will be translated to appropriate languages, including Chinese, Tibetan, and English.

Should American “Experts” extend their engagement with the Park we should begin with review of translated versions of all pertinent plans, approved and in draft, that set forth principles, criteria, policies, and specific on-site proposals for development of these programs. Perhaps we can offer new or different ideas and perspectives based upon our long history of such planning in U.S. national parks, and in parks around the world.

Much of Sanjiangyuan National Park is at very high elevations. Visitors coming from other parts of China, or international visitors, and who live at lower elevations, may have some difficulty adjusting to high elevations in the park which can exceed 4000 meters (over 13,000 feet) at some gateway community locations, and even as high as some 5000 meters (16,500 feet) on mountain passes when accessing park locations.

Advance planning by visitors, including high altitude prescriptions from medical providers prior to ascent, gradually staging visitation to increasingly higher elevations, and lodging accommodations having oxygen supplies readily available in rooms,

are some of the ways to address these potential concerns for the traveling public to much of the park environs. Park literature and web based material could alert prospective visitors to this issue.

One idea worth suggesting is that allowing a higher volume of well managed visitors along a very defined existing transportation corridor to a specific destination within the park, such as the monument near the cultural source of the Yellow River, does not need to be at odds with the primary goals for ecosystem preservation set out by the park. While it would mean allowing some kind of an easement within the core zone to allow this kind of visitation, or adjusting core zone boundaries in some way, if this visitation were to be operated locally, perhaps by some kind of public bus system, it could both generate a significant amount of revenue for the county and be an important opportunity to educate visitors about the greater park mission and its unique contribution to large landscape preservation on the Tibetan Plateau. Well-managed visitation in key areas of the park can be congruent with the overall park mission.



The team also observed that past visitation (before limits were put into place) and current allowable concessions have concentrated visitation in just a few areas of scenic or cultural value. Developing a series of gateway communities and experiences leading into the park (for instance the scenic drive and associated activities from Yushu to Zaduo) that eventually culminate into park experiences (perhaps in some cases with designated park communities in each park) would improve visitor experience, diffuse and minimize visitor impact on the resource, and provide more economic opportunities for local communities.

Visitors to national parks around the world expect “authentic” experiences, not those that are fabricated, contrived or enhanced. For instance, vistas that are unobstructed by power lines and incompatible infrastructure like cell towers, or natural quiet, unbroken by loud music, or night skies unimpaired by artificial lighting. This will require China to grant the park authority the power and funding to both protect the park resources and guarantee diverse and high quality

experiences for visitors. This is consistent with China’s park program on preserving the “originality - yuanzhengxing” and “completeness - wanzhengxing” of China’s diverse ecosystems via China’s park system, it must apply to the aesthetic aspects of visitor experience.

It is important to recognize that protecting the “originality” and “completeness” of the aesthetic experience within the park for the limited number of high end visitors the park authority wants to attract goes hand in hand with protecting the ecosystems and the services that they provide.

For instance, during the application process for the concessionaire program one of the pilot concessionaires listed a number of recommendations on optimizing infrastructure that would guarantee a world class experience for visitors, including adjusting the placement of power lines, optimizing transportation infrastructure in the park to minimize impact on key resources (in this case the river corridor), and managing other visitation in ways that minimize conflict between various user groups (for instance suggesting that loud music not to be played via speakers in the core area). The response from the park authority was that they should be grateful to have access to the core area at all and shouldn’t ask for too much during the pilot phase of the program. While in some ways this may have been wise political advice for this particular operator, ultimately it will be difficult for the park to be recognized internationally as a world-class park if it is unwilling to make the investment necessary to guarantee world-class visitor experiences.

A key park goal is to protect the cultural, customs and social aspects of traditional Tibetan life and to help provide for their well-being. The Tibetan people have lived on the land for thousands of years. This culture and history will be of great interest to people from outside of this region of China, as well as for international visitors seeking a unique cultural experience. Great care is needed to strike the delicate balance of being able to expose people visiting the area to



experience Tibetan culture, without adversely impacting the very culture people might come long distances to experience. It is therefore with this understanding it is suggested that within a carefully crafted eco-tourism and cultural tourism program that measured offerings and a variety of experiences are provided to both national and international visitors. Always cognizant that certain limits need to be placed on this type of use and experience.

The park masterplan must guide the development of all infrastructure within the park. Roads must be only built if they provide appropriate access for visitors and should be designed and maintained to park road standards. USNPS road standards can be found at the Institute website. The team observed a significant number of roads that had been recently built for access to home and villages. Some of these roads were very poorly designed, maintained and were impacting the park resources from soil erosion, dust and noise.

Perhaps the most pertinent example of a poorly designed, unsafe and unnecessary road in the park is the road along the Lancang River in the Angsai Core Zone.

Park visitor centers, toilets, accommodations and other buildings should reflect local architecture and design but also be sensitive to inappropriate cultural appropriation, such as the use of Tibetan home designs for the trash collection stations. Examples of Park design guidelines for the USNPS can be found at the Institute website. A mistake made by the USNPS and to be avoided by China is to not overbuild the infrastructure, creating an expensive backlog of maintenance for future managers.

Throughout the ***Overall Plan for establishing a National Park System in China*** are statements that call for enhancing public opinion of parks and park values. This Plan calls for stepping up efforts for publicity and to improve communication impact. It urges that park leaders nurture national park culture, communicate the park

concept, and showcase national park values.

While it may be premature to respond to these proposals at the national level, there appears now to be varied and inexpensive opportunities to establish and communicate a “brand” for Sanjiangyuan National Park. Design of a logo for the Park is a key beginning, and we were pleased to see this logo displayed here and there throughout our trip. However, conversion from remote and relatively little known nature reserves and other types of protected areas spread out across a vast landscape to a unified and widely known national park remains a work in progress. There are very limited opportunities (signs and other non-personal communication) for locals, travelers simply passing through, and visitors coming to the Park for recreation purposes, to know if and where they are inside park boundaries.

We don’t know enough about existing plans and programs, cultural and government influences, feasible opportunities/strategies, etc. to offer informed and specific proposals to enhance branding and marketing in this paper.

The evaluation team experienced a wide-range of toilet infrastructure from western-style toilets to traditional Chinese rural rectangular privy pits on our journey to and through the three park units. Needless to say, there were varying levels of facilities and facility maintenance encountered throughout the evaluation trip. If international visitors are to be attracted to tour certain areas of the park in the future, some additional attention to both the quality and ongoing maintenance of toilet facilities is needed.



RECOMMENDATION

That Sanjiangyuan National Park officials investigate the U.S. National Forest Service catalog for pre-fabricated toilets.

RECOMMENDATION

Park literature and web based material could alert prospective visitors to the issue of high elevation advance planning including medical prescriptions for elevation sickness and accommodations that can supply oxygen.

RECOMMENDATION

All existing roads should be evaluated for their contribution to the park experience as well as access to homes and villages and their consistency with park zoning and resource conservation. Some roads could be closed and rehabilitated, others may be closed to all visitors and only used by locals. Others could be converted to trails for hiking or mountain biking. One example of a road that the team felt should be closed and rehabilitated is the river road below Angsai.

RECOMMENDATION

That professional expertise be assembled to prepare a branding, marketing and environmental education plan for the new Park and the entire national park system that can reach all Chinese citizens. This plan should respect local cultural values and place names.

XII: OTHER OBSERVED ISSUES

Roads

The team observed many new roads recently constructed into the pilot park for the purposes of gaining access to and from remote villages and homesteads. The roads were poorly constructed and often right through the prime resources. Noise, dust, run-off into local streams and rivers were common concerns. From research around the world roads can have direct impact on wildlife, water quality, spread of invasive plant species. For wildlife, some species will avoid roads due to disturbance from noise and the presence of humans. As a consequence, the wildlife lose access to portions of their habitat. Wildlife crossings can be subject to roadkill and are also favorite spots for poachers to kill wildlife for food or trade. Roads can also upset traditional migration corridors.

RECOMMENDATION

Sanjiangyuan National Park Pilot should adopt a set of standards for its roads. The standards apply to the type, location, purpose, maintenance and construction of all roads within the park. All existing roads in Sanjiangyuan should be evaluated against these standards and those that do not meet them should be closed, rehabilitated or restricted to local use only. Management of all roads should be done by the park authority and not local government. A link to the US National Park Service Road Standards can be found at the Institute website.

Fences

The team noted many kilometers of fence and new fence being constructed. These fences were in place to denote individual yak and sheep grazing areas and the fence designs prohibit the passage of wildlife. Such fencing interrupts seasonal migration corridors and deprives wildlife from access to their native foods and range. The presence of many kilometers of fencing is the consequence of the land lease program with individual grazing rights on specific parcels.

RECOMMENDATION

There are better fence designs in use in wildlife areas. A link for these designs can be found at the Institute website.

Over-grazing of Yak and Sheep

Within Sanjiangyuan National Park, there are 8,680,000 inventoried hectares of grassland, of which 7,430,000 hectares are grazed. To date, the park considers 3,390,000 hectares in no degradation; 1,610,000 hectares in medium-level degradation; and 2,430,000 hectares in serious degradation. One plan goal states that by 2020, grassland and livestock will be in balance and that by 2025, wildlife forage and livestock grazing will be in balance.

While part of this goal is projected to be reached by having some traditional Tibetan herders shift to other economic means of supporting their households, in discussions with park staff and some local officials, it was also stated that some traditional Tibetan use of seasonal pastures has declined, placing more pressure on summer pastureland where more permanent year-round use of livestock adversely impact grassland conditions. While this trend may help to restore higher elevation meadows and grasslands and make them more available to wildlife, reversion to more traditional methods of seasonal use of winter and summer pastureland and rotational grazing may help to take some pressure off of winter pastureland. It is our understanding that the leasing program has prevented traditional movement of yak and sheep to seasonal grazing areas, resulting in overgrazing. While this may be politically complicated, at least for the park, the administration should consider returning to a rotational and open grazing program that was the tradition for thousands of years.

RECOMMENDATION

The park authority should consider returning to the traditional communal pastoral grazing program within the park, setting a new global standard for national parks with human-natural relationships.

NGO-Government Relations

Local governments have been working with NGOs to provide various social services and experiment with different conservation models long before the pilot phase of Three Rivers Source Park begun. NGO's can have an important role in the science, conservation and management of the national park when their work is well coordinated by the park authority and the local government. However, there has also been risk in working with NGOs due to the sensitive political nature of the region. As a result, certain non-political NGOs have been selected as "safe" organizations to work with, particularly those organizations that are associated with well-known Chinese academic institutions. In the Angsai Core Area in Zaduo County, local nomads referred to the research station set up in coordination between Shanshui Conservation Center and The Center for Nature and Society at Peking University as the "National Park". To them, since they had been issued clothing with the National Park logo (and the Shanshui Conservation Center logo) from this research station, and due to the central location of the research station in the park, this was where the park existed. Local park authorities from the Lancang Park Source Area Management Committee suggested that while the environmental monitoring work and some of the visitation models being experimented with by the NGO were useful, there could be better coordination and information sharing.

RECOMMENDATION

As the capacity of park authorities increase they should establish a coordinating role between multiple NGOs and research institutions towards meeting established park research and other goals.

XIII: OVERALL CONCLUSION AND ASSESSMENT

It is the unanimous conclusion that the area of Sanjiangyuan deserves to be established as a premier national park with Chinese characteristics and that the resources are of international significance, a source of patriotic pride for all of the Chinese people and should be protected, in perpetuity, for the benefit of biodiversity and future generations.

The Team believes that the establishment of Sanjiangyuan National Pilot Park can serve as one of those essential steps in creating a complete National Park System in China by 2030. It seems that policies decided at Sanjiangyuan National Pilot Park may have significant impact as a national park system emerges in China. We are very encouraged by the priorities established for this park, especially the emphasis on resources protection, and also focus on respecting and perpetuating the culture of local Tibetans. Hopefully, and if successful, implementation of such principles and policies will become a model to be replicated as additional national parks are approved for the new system.

One of the Team members, Doug Morris, wrote the paper *“What Makes a Unified National Park System in the United States”* (Posted to the Institute website). He wrote this paper about 10 years ago for a training program in Yunnan Province where leaders there were working on developing a national park system. Since then, he has presented this message many times in many forums as the idea of establishing a national park system in China evolved. This paper should be re-written in the context of the culture, laws, and realities of China. Meanwhile, we suggest that at least some of these ideas be incorporated into the evolution of principles, policies, and practices established for Sanjiangyuan National Park.

What we experienced through our eyes and thoughts, along with the collegial and rewarding experience on this journey we shared with the very capable management and staff of Sanjiangyuan National Park, led us to focus not on our differences, but on what unites us about parks and conservation. What we found is that we share our love for the earth, for the pure waters that sustain us, for the wildlife and flora that grace the landscape, and cherishing and respecting the people and cultural traditions that have existed on the Tibetan Plateau for thousands of years. This is what unifies us around the world and is diplomacy at its best.

We all focused on our time together on how best to protect this special place; the headwaters of three great rivers. What measures and actions that were needed to help ensure the long-term conservation of the land, air, water, and wildlife of Sanjiangyuan National Park, and how to respect and honor local Tibetan traditions of the people who live there.

We came away from our experience unified in the purpose of National Parks. These are special places of natural, cultural and scenic significance that are set aside by our respective National governments to be protected and conserved in perpetuity. They are established for all the people in our Nations, and welcome visitors from around the World to cherish and enjoy.

Sanjiangyuan will find its place within a budding National Park System for China. Celebrated as one of the first of many National Park units that will be established across this broad Nation, we are confident that Sanjiangyuan will be treasured by the Chinese people, and will be a point of National pride and accomplishment. The new National Park will join a growing collection of conserved landscapes across our globe, that contribute to our collective well-being, understanding, and respect for nature and culture, and that promote a spirit of international cooperation through conserving and preserving these special places. And with the establishment of a National Park system, China will join the international family of nations that have embraced the concept and value of national parks.



XIV: TEAM MEMBERS

Representing the UC Berkeley Institute for Parks, People and Biodiversity along with former NPS Director Jon Jarvis were UC Berkeley Professor Steve Beissinger and recent UCB Master's graduate Thea Yang. Also as a part of the team were two former National Park Service employees Doug Morris and Keith Dunbar, both with distinguished careers in park management and planning, two employees of the Paulson Institute, Rose Niu and Lucy Yu, and Travis Winn, an American citizen who has been living in China for 10 years, leading river rafting trips. National Park Service International Affairs Specialist for Asia, Rudy D'Alessandro was our "official US Government" representative. We were accompanied by two important Chinese officials: Madame Du Jinmei, the Deputy Division Chief, International Cooperation Center, Ministry of Ecology and Environment, and Mr. Tian Junliang, the Deputy Director of the Sanjiangyuan Pilot National Park. We had four members of the team who were fluent in Mandarin and English.

XV: ACKNOWLEDGEMENTS

The support by the Paulson Institute was extraordinary from the moment we landed to the moment we left China. Both Rose Niu and Lucy Yu were deeply knowledgeable, flexible, thoughtful, and major contributors to our learning. Mr. Tian Junliang tirelessly answered our hundreds of questions and displayed not only patience but a deep knowledge of the resources and history of the area. Madame Du Jinmei provided valuable insights as well along the trip. Our drivers delivered us safely every day across a vast landscape. Finally, individual leaders in Beijing, Xining, Qinghai Province, and throughout the communities in and around the Pilot Park were warm and welcoming and open to our ideas and thoughts and we are deeply appreciative of their hospitality. The local Tibetan people were impressive in their stewardship of the land upon which they depend. Everyone we met demonstrated strong commitment to the first priority of resources preservation and - equally important - restraint and caution about rushing toward any developments that would impair park resources. This level of support bodes well for the future of Sanjiangyuan National Park.

All photos by are provided courtesy of Wei Xu, unless otherwise noted.

XVI: REFERENCES

All documents referenced in this report other than those listed below can be found at the Institute for Parks, People and Biodiversity website at <https://parks.berkeley.edu/>. As much as possible, they have been translated into Chinese. Two of the team member's reports are detailed accounts of the trip. The first is by Zhiquan (Thea) Yang who took notes and developed maps of the park and our travels. The second is the official trip report by National Park Service International Cooperation Specialist – Asia/Pacific/Arctic/Russia Rudy D'Alessandro. Both reports compliment this report and can be found in the Institute website.

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